

The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at ERISA 403(b) Plans, 2018

MARCH 2022

THE BRIGHTSCOPE/ICI DEFINED CONTRIBUTION PLAN PROFILE

The BrightScope/ICI Defined Contribution Plan Profile is a collaborative research effort between BrightScope and the Investment Company Institute that analyzes plan-level data gathered from audited Form 5500 filings of private-sector defined contribution (DC) plans, providing unique, new insights into private-sector DC plan design. The research draws from information collected in the BrightScope Defined Contribution Plan Database. The database is designed to shed light on DC plan design across many dimensions, including the number and types of investment options offered; the presence and design of employer contributions; features of automatic enrollment; the types of recordkeepers used by DC plans; and changes to plan design over time. ICI analysis of a random sample of DC plans with employer contributions provides detail on the structure of those contributions. In addition, industrywide fee information is matched to investments in DC plans, which allows analysis of the cost of DC plans. *The BrightScope/ICI Defined Contribution Plan Profile* supplements existing plan sponsor surveys and research based on recordkept data, and it is designed to increase public understanding in this critical area of retirement savings. This material is not intended for benchmarking the costs of specific plans to the broad averages presented here.

This report in *The BrightScope/ICI Defined Contribution Plan Profile* series focuses on ERISA 403(b) plans in 2018. It first analyzes 403(b) plans in the Department of Labor 2018 Form 5500 Research File. Focus then shifts to more than 6,200 audited 403(b) plans in the BrightScope Defined Contribution Plan Database, which typically have 100 participants or more. For analysis of private-sector 401(k) plans, see *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2018* (July 2021), available at www.ici.org/system/files/2021-07/21_ppr_dcplan_profile_401k.pdf.

In the exhibits in this report, dollars and percentages may not add to the totals because of rounding.

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Key Findings

- » **403(b) plans are tax-advantaged retirement savings plans offered by public educational institutions, nonprofit employers (e.g., research foundations, hospitals, private educational institutions), and church organizations.** The study of 403(b) plans is complicated because plan sponsors span public and private sectors; in addition, some plans are subject to the Employee Retirement Income Security Act of 1974 (ERISA) and some are not. ERISA 403(b) plan assets account for more than half of estimated total 403(b) plan assets. This report analyzes 403(b) plans covered by ERISA that also filed Form 5500 Schedule H (typically plans with 100 participants or more) in 2018 (referred to as *large plans* in this paper).
- » **ERISA 403(b) plans represent an array of nonprofits, often hospitals or educational services.** About half of ERISA 403(b) plan participants are in hospital plans, which held 37 percent of ERISA 403(b) plan assets in plan year 2018. Another 23 percent of ERISA 403(b) plan participants were in educational services, holding nearly half (46 percent) of ERISA 403(b) plan assets.
- » **Most large 403(b) plans offer employer contributions.** In 2018, more than four-fifths of large ERISA 403(b) plans covering more than three-quarters of large ERISA 403(b) plan participants had employer contributions.
- » **Simple matching formulas, where the employer matches a certain percentage of employee contributions up to a maximum percentage of employee salary, were the most common type of employer contribution.** Among large ERISA 403(b) plans with employer contributions in 2018, 31 percent had automatic employer contributions, 61 percent had simple matches, and 11 percent had both of these features. The remaining 19 percent had tiered matches and other types of employer contributions.
- » **A majority of large 403(b) plans reported participant loans outstanding.** Overall, 56 percent of large ERISA 403(b) plans had participant loans outstanding, and more than three-quarters of participants were in those plans in 2018. ERISA 403(b) plans with more participants or more assets tended to be more likely to have participant loans outstanding.
- » **Large 403(b) plans often have combinations of employer contributions, participant loans outstanding, and automatic enrollment.** In 2018, 36 percent of large ERISA 403(b) plans both offered employer contributions and had participant loans outstanding, about 32 percent offered employer contributions only, and 2 percent had automatic enrollment and outstanding loans. About 10 percent of large ERISA 403(b) plans had reported evidence of all three activities. Larger plans tended to be more likely to have evidence of all three activities, rising to about one-quarter of plans with 5,000 participants or more.
- » **Large 403(b) plans with automatic enrollment are more likely to have both employer contributions and participant loans outstanding than plans without automatic enrollment.** More than three-fifths of large ERISA 403(b) plans with automatic enrollment also had both employer contributions and participant loans outstanding, compared with more than two-fifths of plans without automatic enrollment.

- » **403(b) plans offer employees a wide variety of investment options.** The average large ERISA 403(b) plan offered 26 core investment options in 2018—of those, about 11 were equity funds, three were bond funds, and 10 were target date funds. Nearly all plans offered domestic equity, international equity, and domestic bond funds. Eighty-five percent of large ERISA 403(b) plans offered a suite of target date funds, and 83 percent offered fixed annuities. Historically, 403(b) plans had few restrictions in their lineups of providers and investment options, and if all investments (no matter how small) in ERISA 403(b) plans are counted, large ERISA 403(b) plans had an average of 42 investment options in 2018. Investment options include mutual funds, variable annuities, and fixed annuities.
- » **Mutual funds were the most common investment vehicle in large ERISA 403(b) plans, with 61 percent of large ERISA 403(b) plan assets in 2018.** Fixed annuities held 20 percent of assets, and variable annuities held 19 percent.
- » **Equity funds accounted for the largest share of assets in large ERISA 403(b) plans.** In 2018, 40 percent of large ERISA 403(b) plan assets were held in equity funds, 28 percent was held in balanced funds (with most of that being held in target date funds), and 7 percent was held in bond funds. Fixed annuities accounted for 20 percent of ERISA 403(b) plan assets.
- » **Target date funds have become more common in large ERISA 403(b) plans since 2009.** In 2009, about half of large ERISA 403(b) plans included target date funds in their core investment lineups; this had risen to 85 percent of plans by 2018. Similarly, the percentage of participants who were offered core target date funds increased from 71 percent of participants to 88 percent between 2009 and 2018, and over the same period, the percentage of assets invested in target date funds increased from 7 percent to 26 percent.
- » **Index funds are widely available in large ERISA 403(b) plans and represented 29 percent of large ERISA 403(b) plan assets in 2018.** Index funds held the greatest share of assets in the largest ERISA 403(b) plans: 37 percent of the assets of ERISA 403(b) plans with more than \$1 billion in plan assets were invested in index funds. Index funds, which tend to be equity index funds, generally have lower expense ratios than actively managed equity funds.
- » **The BrightScope measure of large ERISA 403(b) total plan costs has decreased since 2009, according to snapshots of 403(b) plan fees.** The average participant was in a lower-cost plan, with a total plan cost of 0.55 percent of assets in 2018, down from 0.68 percent in 2009, while the average dollar was invested in a plan with a total plan cost of 0.45 percent in 2018, down from 0.59 percent in 2009. BrightScope's measure of total plan cost includes administrative, advice, and other fees from Form 5500 filings, as well as asset-based investment management fees.
- » **Mutual fund expenses in large ERISA 403(b) plans tend to be lower in larger plans and have trended down over time.** For example, in 2018, the average asset-weighted expense ratio for domestic equity mutual funds (including both actively managed and index funds) was 0.63 percent for large ERISA 403(b) plans with less than \$1 million in plan assets, compared with 0.35 percent for plans with more than \$1 billion in plan assets. Mutual fund expense ratios also have tended to decrease in large ERISA 403(b) plans between 2009 and 2018. A fund's expense ratio is the fund's total annual expenses expressed as a percentage of its net assets.

Introduction

The Role of 403(b) Plans in US Retirement Planning

A 403(b) plan is an employer-sponsored defined contribution (DC) retirement plan that enables employees of public schools and universities, nonprofit employers, and church organizations to make tax-deferred contributions from their salaries to the plan.¹ Individual accounts in 403(b) plans can be set up as annuity contracts through insurance companies; custodial accounts, which can invest in mutual funds; or “retirement income accounts” set up for church employees, which can invest in annuities or mutual funds, among other things.² Employers may also make contributions into employee accounts. With \$1.2 trillion in assets at year-end 2020, 403(b) plans have grown as a part of the US retirement system (Exhibit I.1).

Section 403(b) was added to the Internal Revenue Code in 1958, and the original regulations governing the plans were issued in 1964.³ It was not until 2007 that a comprehensive revision of the regulations effectively began to transform 403(b) plans from primarily employee-controlled, individual-focused tax-deferred accounts to more formally developed plans, clarifying and expanding plan sponsors’ responsibilities. The 2007 regulations, which were generally effective after January 1, 2009, required all 403(b) plans to have a written plan for the first time.⁴ The new regulations imposed more stringent requirements for monitoring employee loans, hardship withdrawals, transfers, and other distributions.

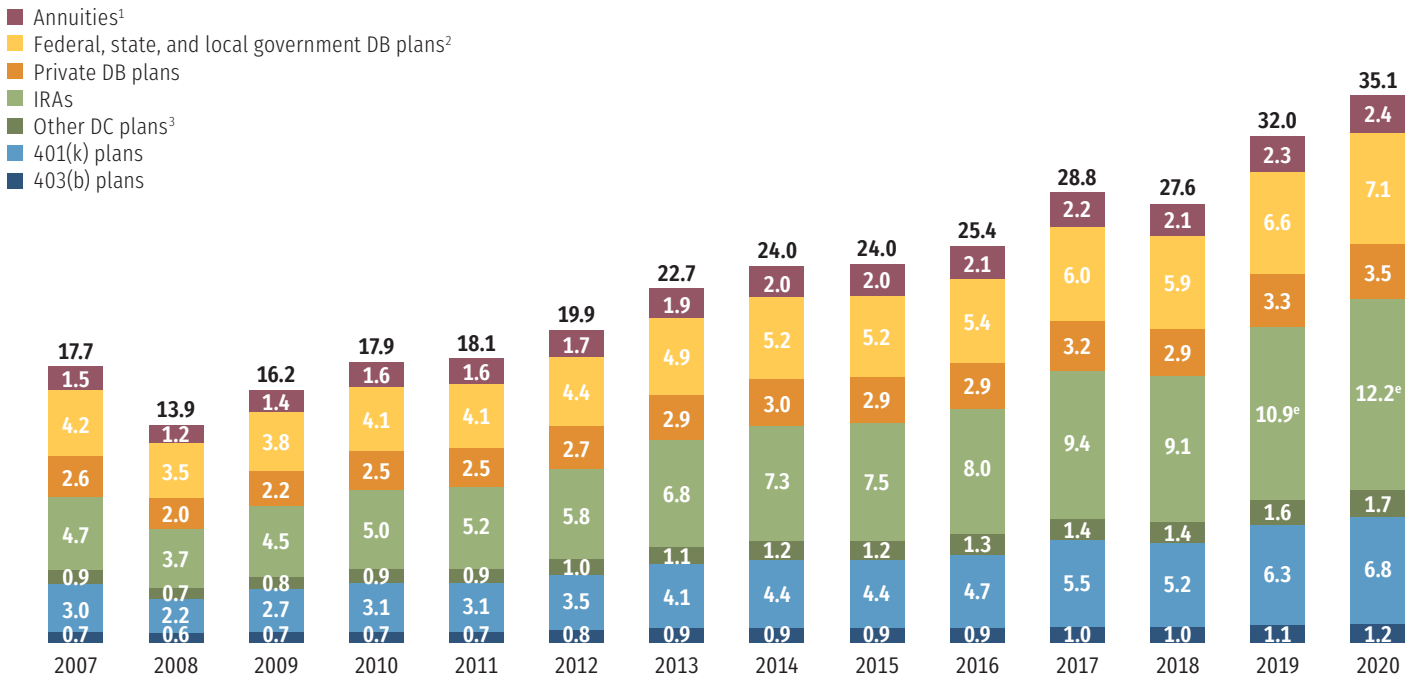
These changes have made it more difficult for employers to maintain multi-vendor plans and have resulted in some plan sponsors doing comprehensive reviews of vendors and investment lineups with the aim of streamlining and monitoring their plans more closely.⁵ The new regulations also expanded the reporting requirements of 403(b) plans covered by the Employee Retirement Income Security Act of 1974 (ERISA).⁶

Typically, 403(b) plan participants direct the investment of their accounts. In a formal plan arrangement, the employer selects service providers and investment options, and participants choose from the lineup of options offered in the plan. If the plan falls under ERISA, the plan sponsor files a Form 5500 report with the US Department of Labor (DOL), typically annually. In other cases, the employer acts more as a conduit to allowing service providers to offer their investment choices to employees, and the employee selects a service provider and the funds or annuities offered in that provider’s lineup.⁷

EXHIBIT I.1

403(b) Plans Hold \$1.2 Trillion in Assets

Trillions of dollars; year-end



¹ Annuities include all fixed and variable annuities held outside of retirement plans and IRAs.

² Federal DB plans include US Treasury security holdings of the Civil Service Retirement and Disability Fund, the Military Retirement Fund, the judicial retirement funds, the Railroad Retirement Board, and the Foreign Service Retirement and Disability Fund. These plans also include securities held in the National Railroad Retirement Investment Trust. The reported assets of federal pension plans for 2017 are adjusted for US Treasury financing activities undertaken after the legal limit on federal government borrowing was reached. These actions temporarily reduced the amount of Treasury securities reported on the balance sheet of the Civil Service Retirement and Disability Fund.

³ Other DC plans include 457 plans, private employer-sponsored DC plans without 401(k) features, and the Federal Employees Retirement System (FERS) Thrift Savings Plan (TSP).

^e Data are estimated.

Sources: Investment Company Institute, Federal Reserve Board, Department of Labor, National Association of Government Defined Contribution Administrators, American Council of Life Insurers, and Internal Revenue Service Statistics of Income Division; see Investment Company Institute 2021b

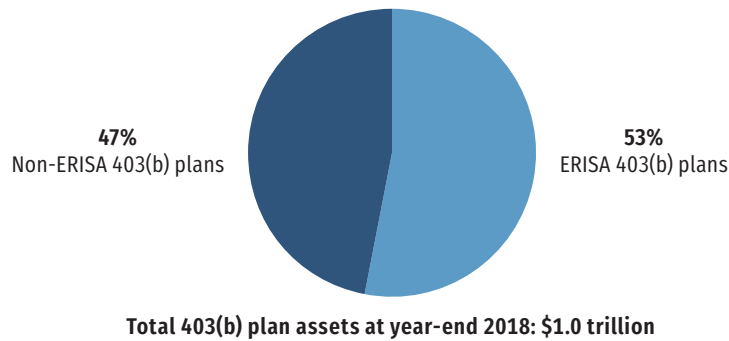
The study of 403(b) plans is complicated because there is no comprehensive reporting across the wide array of plan sponsors. Plan sponsors span public and private sectors; in addition, some plans are subject to ERISA—for which there is comprehensive

Form 5500 reporting—and some are not. ERISA 403(b) plan assets account for more than half (53 percent) of estimated total 403(b) plan assets (Exhibit I.2).⁸

EXHIBIT I.2

ERISA 403(b) Plans Hold More Than Half of Total 403(b) Plan Assets

Percentage of total, 2018



Note: ERISA 403(b) plans are those that file Form 5500 with the Department of Labor.

Sources: Investment Company Institute, Federal Reserve Board, and BrightScope Defined Contribution Plan Database

ERISA 403(b) PLAN

In this report, the term *ERISA 403(b) plan* refers to 403(b) plans filing Form 5500 with the Department of Labor (DOL). The large ERISA plans analyzed in this report are those that filed Form 5500 Schedule H (typically plans with 100 participants or more).

Generally, 403(b) plans are offered by 501(c)(3) nonprofit employers, public school systems and universities, public hospitals, and church organizations. Private-sector, nonchurch nonprofits that are covered by ERISA must file Form 5500 with the DOL.

The BrightScope Defined Contribution Plan Database contains information from the audited Form 5500 reports for these ERISA 403(b) plans, and this report presents analysis of those data. The ERISA 403(b) plan universe holds more than half of all 403(b) plan assets, and the large ERISA 403(b) plans analyzed in this report represent 95 percent of ERISA 403(b) plan universe assets.

A wide range of nonprofit business endeavors sponsor 403(b) plans. ERISA 403(b) plan sponsors hail from 501(c)(3) nonprofit organizations—educational services (e.g., private schools and private universities); hospitals; other healthcare organizations; social assistance organizations; religious, grantmaking, civic, professional, and similar organizations; arts, entertainment, and recreation; and other (e.g., research institutions) (Exhibit I.3). Educational services account for 23 percent of ERISA 403(b) plan participants and 46 percent of assets, while hospitals account for 48 percent of ERISA 403(b) plan participants and 37 percent of assets.

The Department of Labor Form 5500 Research File

ERISA 403(b) plans are required to file Form 5500 with the DOL,⁹ and those filings contain information including the number of plan participants, assets held in the plan, and other plan features. The DOL makes available not only individual Form 5500 reports but also a comprehensive database for the universe of ERISA 403(b) plans, which researchers can analyze.¹⁰ Small, medium, and large employers covering diverse workforces sponsor these plans, and they choose to design their plans to meet their unique circumstances. Chapter 1 of this report will discuss plan design with respect to automatic enrollment, employer contributions, and loan use across ERISA 403(b) plans.

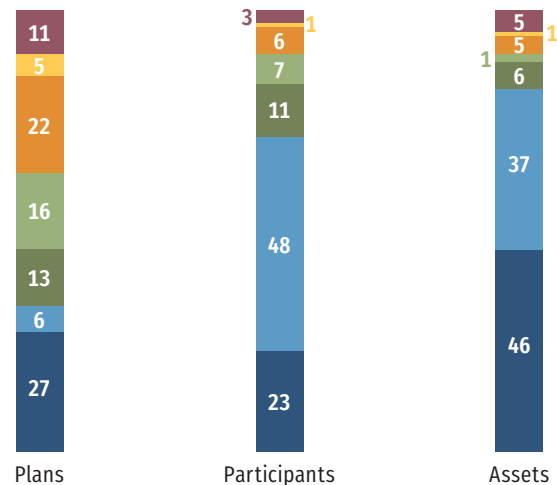
EXHIBIT I.3

ERISA 403(b) Plans Cover Many Different Nonprofits

Percentage of 403(b) plans, participants, or assets; 2018

Business activity

- Other
- Arts, entertainment, and recreation
- Religious, grantmaking, civic, professional, and similar organizations
- Social assistance
- Other healthcare
- Hospitals
- Educational services



Note: Business activity is based on Form 5500 codes for principal business activity. The exhibit includes the full Department of Labor 403(b) universe: 18,478 plans, 6.9 million participants, and \$510.2 billion in assets (see Exhibit I.4).

Source: BrightScope Defined Contribution Plan Database

The BrightScope Defined Contribution Plan Database

In order to better understand DC retirement plans, BrightScope has created the BrightScope Defined Contribution Plan Database, which is compiled by extracting information from audited reports filed annually by larger private-sector DC plans with the DOL.¹¹ Generally, plans with 100 participants or more are required to file an audited report with the DOL. These reports generally contain information on the investments offered by the plan, assets in these investments, employer contribution structures, and design of automatic enrollment features. BrightScope has also included existing information from the Form 5500, which employer-sponsored pension plans falling under ERISA are required to file with the DOL annually.¹² These filings contain important information about the plans, including the number of participants covered, total plan assets,

and total contributions to and distributions from the plan. In addition, BrightScope has combined the audited data with outside data sources to incorporate the fees associated with the investments in 403(b), 401(k), and other DC plans and paid by plan participants. For chapters 2, 3, and 4 of this report, the additional detailed data from audited Form 5500 filings for more than 6,200 ERISA 403(b) plans are analyzed (Exhibit I.4). For 2018, the BrightScope Defined Contribution Plan Database contains audited information on about 34 percent of ERISA 403(b) plans, covering about 92 percent of ERISA 403(b) plan participants and 95 percent of ERISA 403(b) plan assets (Exhibit I.5). In addition, ICI analyzed employer contribution structures for a randomly selected sample of 1,642 large ERISA 403(b) plans for plan year 2018. This information was drawn from audited reports filed with the DOL, and the results are included in chapter 1.

EXHIBIT I.4

Audited ERISA 403(b) Plans and the Universe of ERISA 403(b) Plans by Plan Assets

Distribution of 403(b) plans, participants, and assets by plan assets; 2018

Plan assets	BrightScope audited 403(b) filings			Department of Labor 403(b) universe		
	Plans	Participants Thousands	Assets Billions of dollars	Plans	Participants Thousands	Assets Billions of dollars
Less than \$1M	259	60.3	\$0.2	7,720	238.5	\$2.7
\$1M to \$10M	2,699	706.1	12.3	7,255	993.3	25.1
>\$10M to \$50M	1,994	918.9	46.2	2,211	957.0	49.7
>\$50M to \$100M	491	437.9	34.0	506	452.1	35.1
>\$100M to \$250M	413	861.8	63.9	422	883.9	65.3
>\$250M to \$500M	171	759.3	60.2	175	781.8	61.6
>\$500M to \$1B	104	872.1	73.5	107	886.7	75.6
More than \$1B	82	1,657.7	195.1	82	1,657.7	195.1
All plans	6,213	6,274.1	485.5	18,478	6,850.9	510.2

Note: Audited 403(b) filings generally include plans with 100 participants or more. Assets are fair market value at the year-end of the plan and include loans.

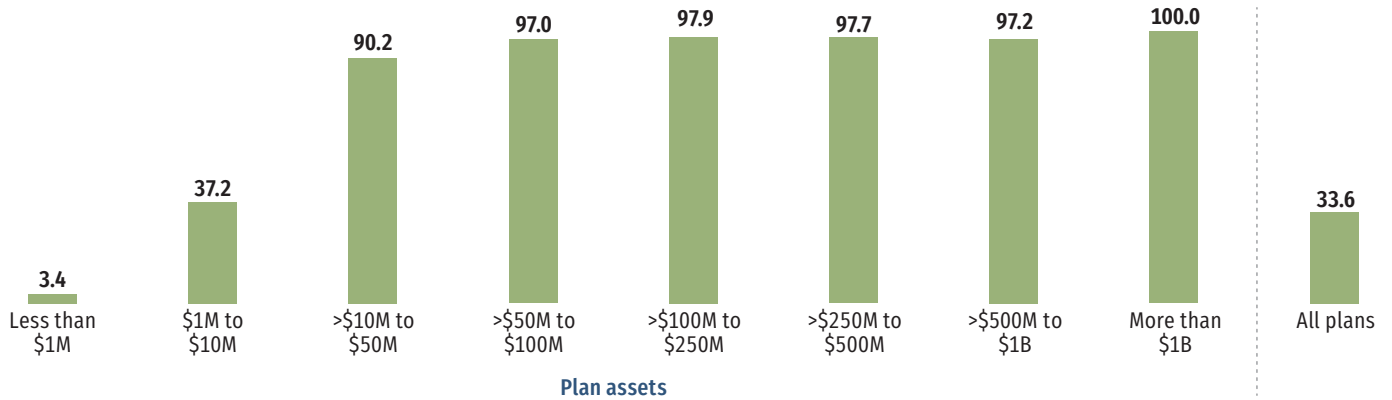
Source: BrightScope Defined Contribution Plan Database

EXHIBIT I.5

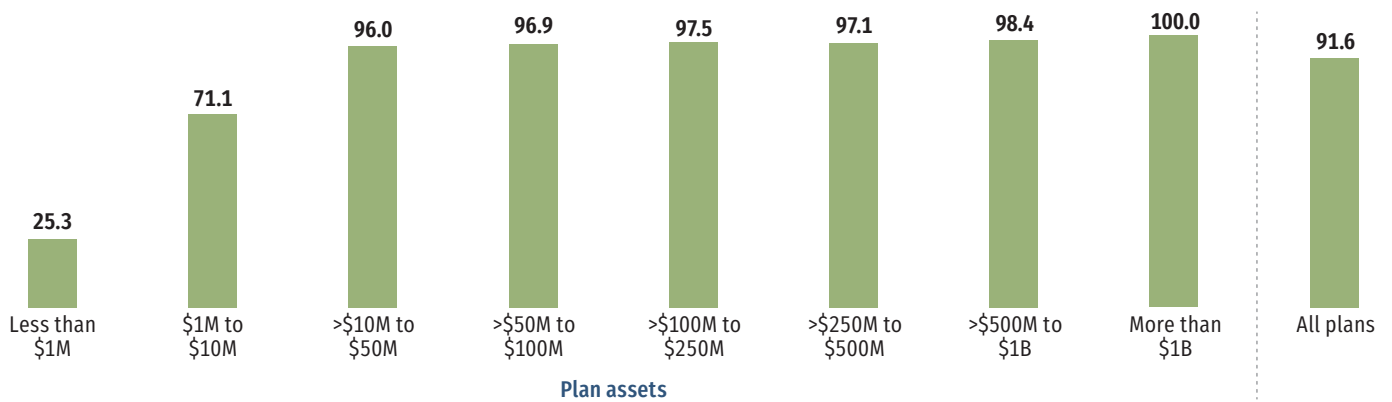
Audited ERISA 403(b) Plans' Share of the ERISA 403(b) Universe by Plan Assets

Share of Department of Labor 403(b) universe in audited 403(b) filings in the BrightScope database by plan assets, 2018

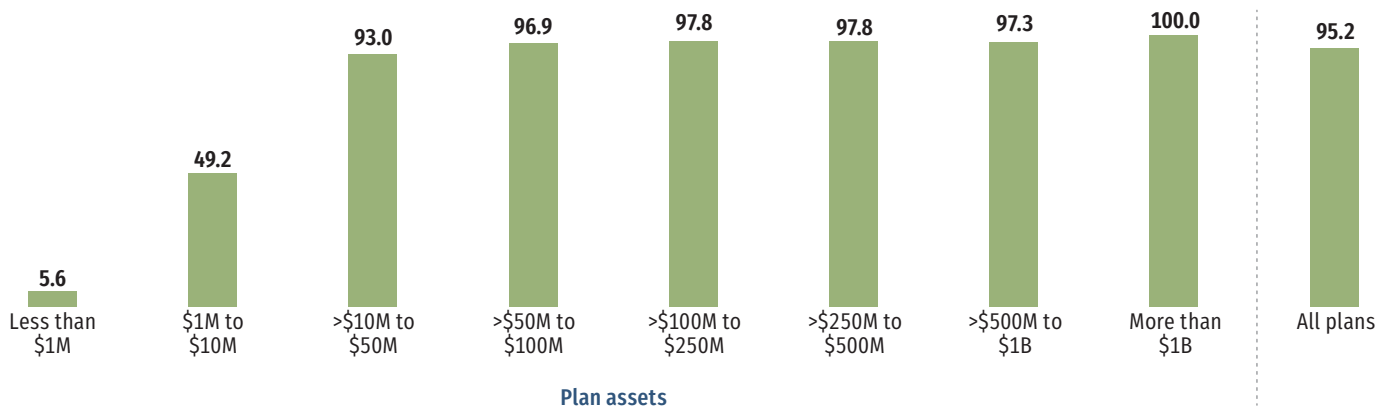
Percentage of plans



Percentage of participants



Percentage of assets



Note: The sample is 6,213 plans with \$485.5 billion in assets. Audited 403(b) filings generally include plans with 100 participants or more.

Source: BrightScope Defined Contribution Plan Database

Because 403(b) plans with fewer than 100 participants are generally not required to file the audited reports required of larger plans, the BrightScope Defined Contribution Plan Database does not contain many small plans. Though most ERISA 403(b) plans are small plans, most participants and assets are in larger plans. For example, although the sample analyzed contains information on more than 6,200, or 34 percent, of the nearly 18,500 plans in the DOL 403(b) universe, it contains \$485.5 billion, or 95 percent, of the \$510.2 billion in ERISA 403(b) plan assets (Exhibit I.4). Coverage rates in the database are higher for larger plans. Though the database contains audited information on only 3.4 percent of plans with less than \$1 million in plan assets, more than 90 percent of plans with more than \$10 million are included (Exhibit I.5). Coverage rates of ERISA 403(b) plans in the database grouped by number of plan participants tell a similar story, with larger plans much more likely to be included than smaller plans (Exhibit I.6).

Other detailed research on 403(b) plans has tended to focus on one provider¹³ or a particular specific group of plans,¹⁴ but the BrightScope database provides detailed insight into the wide cross section of ERISA 403(b) plans filing audited Form 5500 reports with the DOL. The BrightScope database also allows for analysis of the variation in mutual fund expense ratios across different 403(b) plan sizes. In addition, by combining mutual fund expense data with expenses on other assets as well as other fees and expenses paid for the operation of 403(b) plans, BrightScope builds a total plan cost measure for many plans (see About BrightScope's Total Plan Cost Measure on page 37). This provides a comprehensive description of the range of fees and expenses incurred in 403(b) plans.

Research Agenda for This Report

This report focuses primarily on plan year 2018 from the DOL Form 5500 Research File and from the BrightScope Defined Contribution Plan Database, which contains details from audited Form 5500 reports, for plans that filed Schedule H (typically plans with 100 participants or more) (referred to as *large plans* in this paper). This report presents data on how these large ERISA 403(b) plans are structured and the fees and expenses paid by 403(b) participants for these services. Chapter 1 reports information about automatic enrollment, employer contributions, and plan loans outstanding, primarily relying on the DOL 2018 Form 5500 Research File, although also including detailed analysis of a sample of large ERISA 403(b) plans' employer contribution

structures in plan year 2018. In designing their 403(b) plans, employers may choose to automatically enroll participants. Employers decide whether and how much they will contribute to participants' 403(b) accounts. In addition, they may include a loan feature in the 403(b) plan. This chapter explores the combinations of these activities and how they vary across large ERISA 403(b) plans.

Chapter 2 focuses on the structure of large ERISA 403(b) plans, analyzing the number and types of investment options that participants have to choose from, as well as the investment options the participants do choose. The design of 403(b) plans has been trending toward selecting a "core" investment lineup—reducing redundancies by limiting the number of providers and streamlining investment offerings. This core investment lineup also improves plan sponsors' ability to monitor the plans. Thus, the main focus of this chapter is on core investments, which likely reflect current plan design—although plan participants may still be holding investments that were offered in the plan in the past. Because target date funds have continued to become more prevalent in large ERISA 403(b) plans over the past several years, this chapter explores how often they are offered in plans, what portion of plan assets are dedicated to these funds, and how these measures have changed in recent years. This chapter also explores the role of index funds in large ERISA 403(b) plan investing.

Chapter 3 analyzes fees paid to operate large ERISA 403(b) plans. BrightScope has built a total plan cost measure for plans with sufficient information. Because participants and assets tend to be concentrated in larger plans, BrightScope's total plan cost measure is analyzed for the average participant and the average dollar, as well as for the average plan. Then, because investment fees tend to be a significant portion of plan expenses and extensive information on mutual fund fees is available, the expense ratios of mutual funds in large ERISA 403(b) plans are presented, with a special focus on the variation in mutual fund expense ratios across plan size and different broad investment objectives, often including index and active styles (e.g., equity funds, balanced funds, bond funds, money market funds, and other funds). This material is intended to provide general information on fees paid by participants in a wide variety of plans in order to provide insight into average fees across the marketplace. It is not intended for benchmarking the costs of specific plans to the broad averages presented here.

EXHIBIT I.6

Audited ERISA 403(b) Plans and the Universe of ERISA 403(b) Plans by Number of Plan Participants

Distribution of 403(b) plans, participants, and assets by number of plan participants, 2018

Number of plan participants	BrightScope audited 403(b) filings		
	Plans	Participants Thousands	Assets Billions of dollars
Fewer than 100	598	41.3	\$5.4
100 to 499	3,859	900.0	62.1
500 to 999	794	553.5	43.0
1,000 to 4,999	725	1,515.6	122.3
5,000 to 9,999	125	898.8	70.0
10,000 or more	112	2,364.9	182.7
All plans	6,213	6,274.1	485.5

Number of plan participants	Department of Labor 403(b) universe		
	Plans	Participants Thousands	Assets Billions of dollars
Fewer than 100	11,887	395.0	\$19.4
100 to 499	4,787	1,023.2	67.2
500 to 999	817	569.2	43.8
1,000 to 4,999	746	1,563.0	125.8
5,000 to 9,999	128	923.1	71.0
10,000 or more	113	2,377.2	183.0
All plans	18,478	6,850.9	510.2

Number of plan participants	Share of Department of Labor 403(b) universe in BrightScope audited 403(b) filings		
	Plans	Participants	Assets
Fewer than 100	5.0%	10.4%	27.9%
100 to 499	80.6	88.0	92.4
500 to 999	97.2	97.2	98.1
1,000 to 4,999	97.2	97.0	97.2
5,000 to 9,999	97.7	97.4	98.6
10,000 or more	99.1	99.5	99.8
All plans	33.6	91.6	95.2

Note: Audited 403(b) filings generally include plans with 100 participants or more. Assets are fair market value at the year-end of the plan and include loans.

Source: BrightScope Defined Contribution Plan Database

CHAPTER 1

ERISA 403(b) Plan Enrollment, Employer Contributions, and Use of Loans

When designing their 403(b) plans, employers make decisions regarding elements of plan design, including these key features:

- » automatic enrollment of employees into the plan at a given contribution rate to encourage participation;
- » provision of employer contributions (perhaps designing those contributions to encourage contribution of at least a certain percentage of salary from participants), eligibility for employer contributions, and vesting time frame; and
- » access to plan assets through participant loans.¹⁵

These plan design features have an impact on employee experience with 403(b) plans, and the thinking on plan design has evolved. In addition to these plan design features, plan sponsors also select the lineup of investment options¹⁶ offered in the plan (which will be discussed in chapter 2).

Employer Plan Design Choices

Although participants generally choose whether and how much to contribute to 403(b) plans and what assets to invest in, employers are responsible for the plan architecture in which those decisions are made. For example, employers pick the investment choices to offer in the plan, whether to automatically enroll employees in the plan, whether to encourage participant contributions through an employer match, and whether to allow access to account assets before retirement. This chapter focuses on three such plan design features: automatic enrollment, employer contributions, and loans. Prior work has tended to focus on the availability of individual plan design features in isolation.¹⁷ However, plans are designed by selecting a package of features in order to attract and retain qualified workers. In order to understand the choices that employers make, this chapter extends earlier research by using data primarily from the DOL Form 5500 Research File to focus on the plan feature combinations that employers choose when designing their ERISA 403(b) plans.¹⁸

DATA ON AUTOMATIC ENROLLMENT, EMPLOYER CONTRIBUTIONS, AND USE OF LOANS

This chapter's analysis relies primarily on data from the Department of Labor 2018 Form 5500 Research File focusing on large plans (ones that filed Schedule H, which typically includes plans with 100 participants or more). Determining the presence and amount of employer contributions relies on Form 5500 reports of the income statement of the ERISA 403(b) plans. The availability of a loan feature is not reported, but it is possible to determine whether any participants have loans by using the balance sheet item on the Form 5500 for participant loans outstanding. Although technically the loan analysis captures loan use rather than loan offering, because the analysis was narrowed to larger plans, it is likely that at least one participant in such plans offering loans would have a loan outstanding.

The Role of Automatic Enrollment

The adoption of automatic enrollment by many plan sponsors marks a significant innovation and change to ERISA 403(b) plan design. Employers can choose to automatically enroll employees in ERISA 403(b) plans, choosing a default initial contribution rate and a default investment, unless the employee indicates otherwise. The employee can then choose to opt out of the plan entirely, adjust the contribution rate or investment allocation, or leave the default options unchanged. Larger plans are more

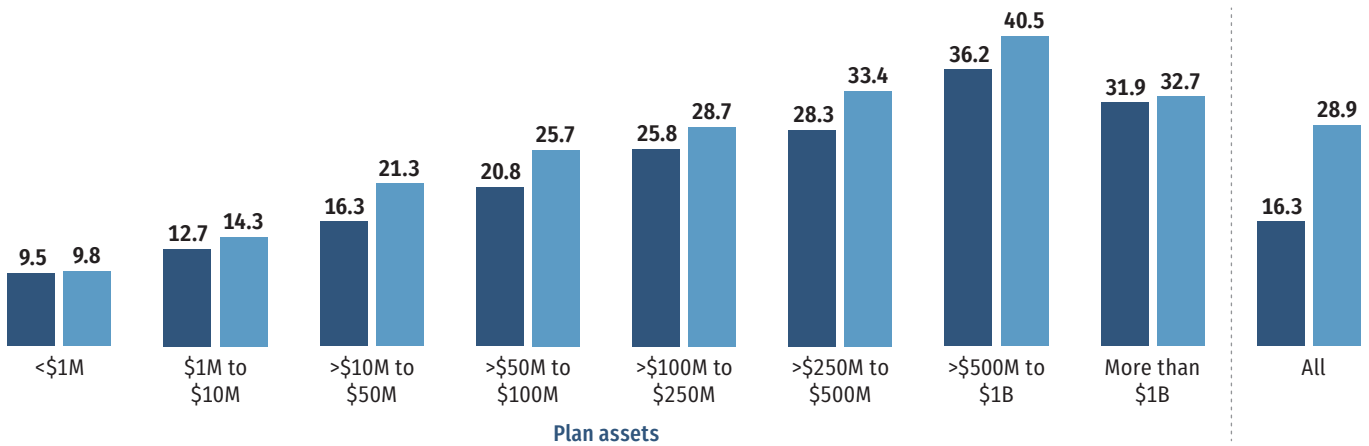
likely to report an automatic enrollment feature. In 2018, more than one-quarter of large ERISA 403(b) plans with more than \$100 million in plan assets had automatic enrollment (Exhibit 1.1). Overall, 16 percent of large ERISA 403(b) plans reported that they automatically enrolled participants. Because larger plans are more likely to have automatic enrollment, overall, 29 percent of large ERISA 403(b) plan participants were in plans with an automatic enrollment feature.

EXHIBIT 1.1

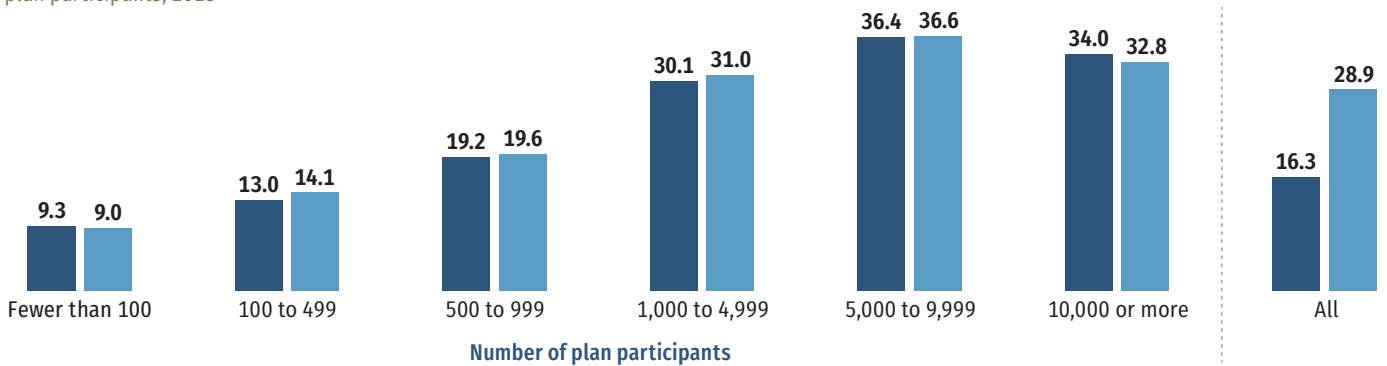
Larger ERISA 403(b) Plans Are More Likely to Automatically Enroll Participants

■ Plans
■ Participants

Percentage of large ERISA 403(b) plans and percentage of participants in large ERISA 403(b) plans with automatic enrollment by plan assets, 2018



Percentage of large ERISA 403(b) plans and percentage of participants in large ERISA 403(b) plans with automatic enrollment by number of plan participants, 2018



Note: The sample is 5,859 large ERISA 403(b) plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more).

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

The Role of Employer Contributions

Employers choose whether, how, and how much to contribute to their employees' 403(b) accounts. How they choose to contribute may be based on matching employee contributions or may be

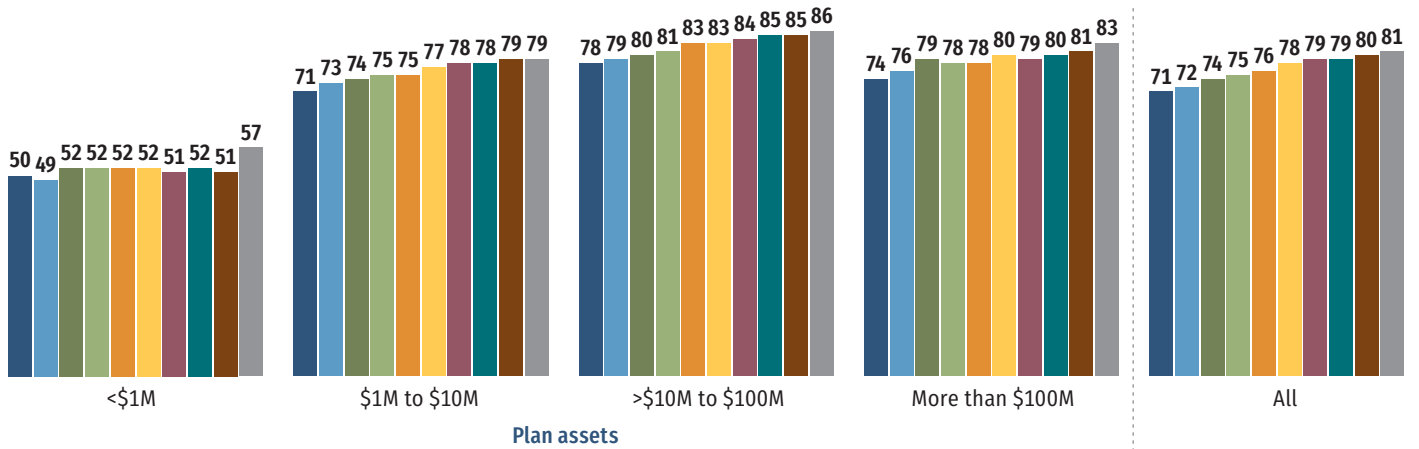
decided without regard to employee contribution behavior. The DOL Form 5500 Research File data for large ERISA 403(b) plans indicate that employers made contributions in 81 percent of these plans in 2018,¹⁹ an increase from 71 percent in 2009 (Exhibit 1.2).

EXHIBIT 1.2

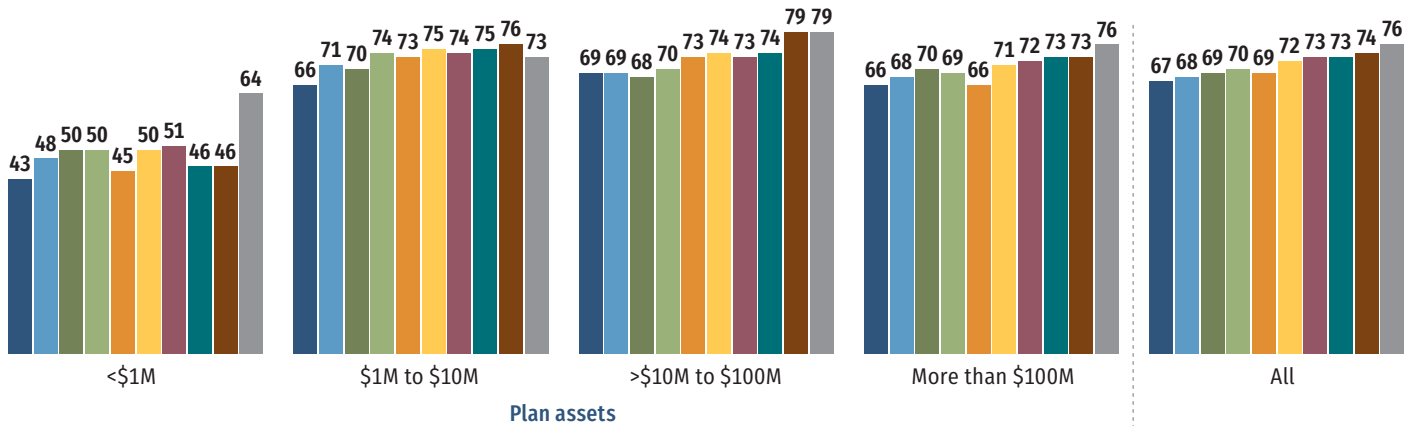
Employers Make Contributions in a Majority of Large ERISA 403(b) Plans



Percentage of large ERISA 403(b) plans with employer contributions by plan assets, plan year



Percentage of participants in large ERISA 403(b) plans with employer contributions by plan assets, plan year



Note: See Exhibit A.3 in the appendix for additional detail. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). In plan year 2018, the sample is 5,859 large ERISA 403(b) plans.

Source: Investment Company Institute tabulations of US Department of Labor Form 5500 Research File

Larger ERISA 403(b) plans in the sample—in terms of number of participants—were slightly less likely than smaller plans to provide employer contributions. For example, in 2018, more than 80 percent of large ERISA 403(b) plans with 100 to 999 participants had employer contributions, compared with about

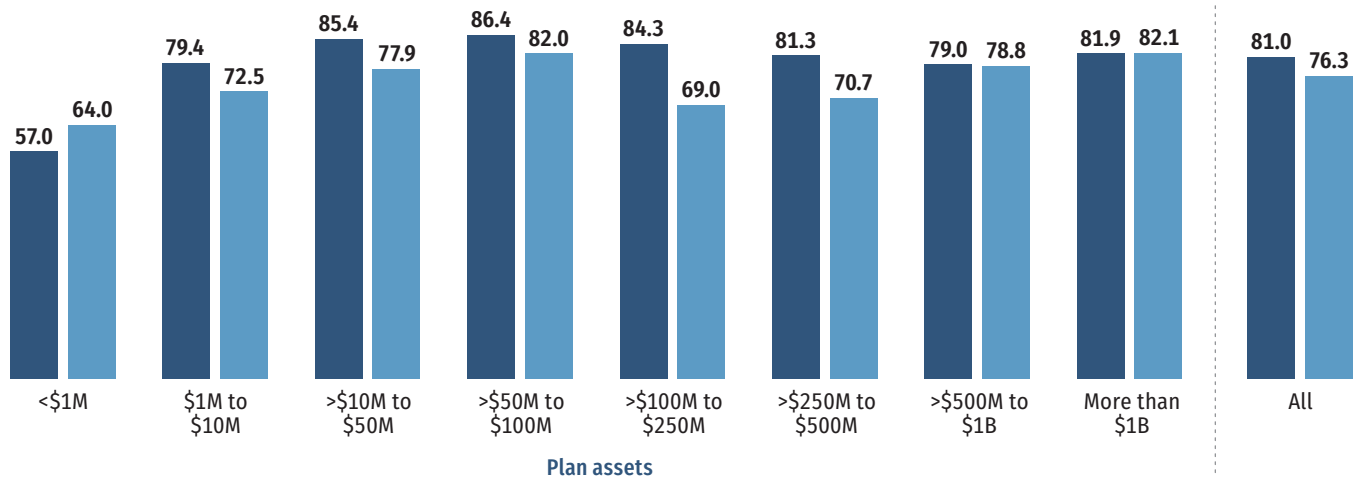
72 percent of large ERISA 403(b) plans with 10,000 participants or more (Exhibit 1.3, lower panel). Contribution activity varies less across large ERISA 403(b) plans analyzed by plan assets for plans with \$1 million or more in plan assets (Exhibit 1.3, upper panel).

EXHIBIT 1.3

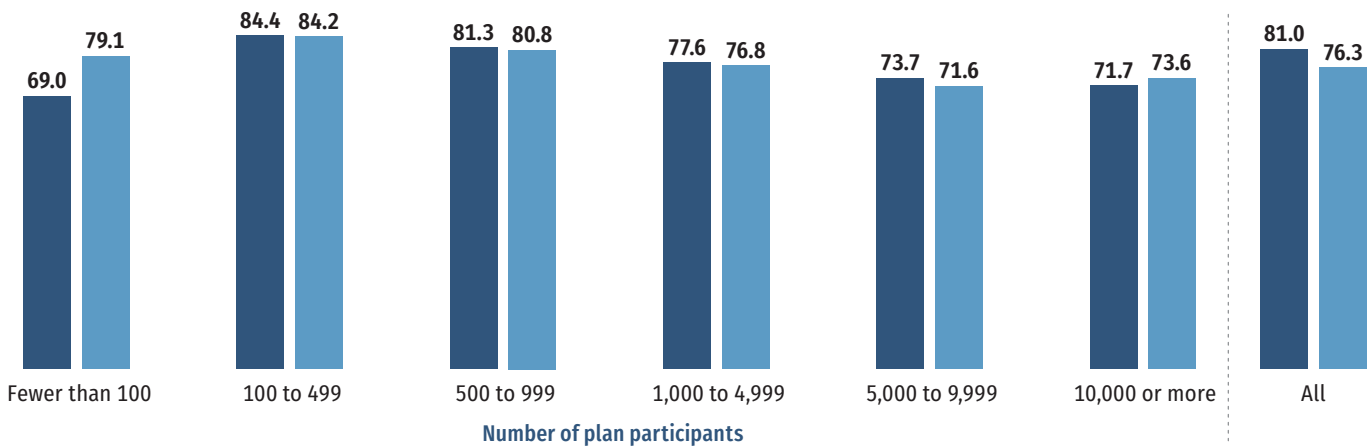
Many Large ERISA 403(b) Plans Offer Employer Contributions

■ Plans
■ Participants

Percentage of large ERISA 403(b) plans and percentage of participants in large ERISA 403(b) plans with employer contributions by plan assets, 2018



Percentage of large ERISA 403(b) plans and percentage of participants in large ERISA 403(b) plans with employer contributions by number of plan participants, 2018



Note: The sample is 5,859 large ERISA 403(b) plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more).

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

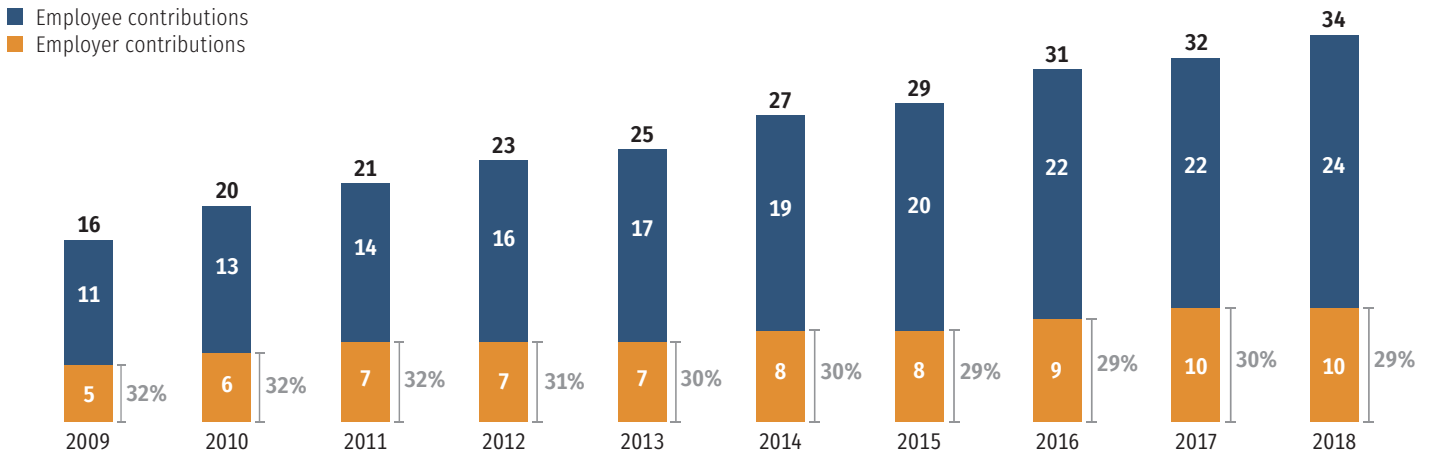
Employer contributions represent a significant portion of contributions flowing into large ERISA 403(b) plans. In 2018, \$10 billion, or 29 percent of total contributions into large ERISA 403(b) plans, were employer contributions (Exhibit 1.4). Employer

contributions have represented a relatively steady share of contributions over the past decade; in 2009, 32 percent of contributions were employer contributions.

EXHIBIT 1.4

Employers Make Significant Contributions to Large ERISA 403(b) Plans

Billions of dollars, plan year



Note: The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). In plan year 2018, the sample is 5,859 large ERISA 403(b) plans. Employee contributions contain contributions from others, which include rollovers into 403(b) plans. Employer contributions include de minimis noncash contributions.

Source: Investment Company Institute tabulations of US Department of Labor Form 5500 Research File

There is only slight variation in the share of employer contributions in total plan contributions by ERISA 403(b) plan size for plans with \$1 million or more in plan assets. Among large ERISA 403(b) plans with \$1 million or more in plan assets, the share of employer contributions in total plan contributions

ranged from 26 percent for plans with more than \$250 million to \$500 million in plan assets to 34 percent for plans with more than \$50 million to \$100 million (Exhibit 1.5). Thirteen percent of contributions to plans in the sample with less than \$1 million in plan assets were from employers.

EXHIBIT 1.5

Employer Contributions' Share of Total Contributions in Large ERISA 403(b) Plans Varies Little Across Plan Size

Percentage of total large ERISA 403(b) plan contributions by plan assets, 2018



Note: The sample is 5,859 large ERISA 403(b) plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). Employee contributions contain contributions from others, which include rollovers into 403(b) plans. Employer contributions include de minimis noncash contributions.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

TIMING OF EMPLOYER CONTRIBUTIONS

If employers offer contributions to employees, they can choose to impose a minimum service requirement before employees are eligible to receive the contributions. Employers can also choose to implement a vesting schedule, where employees forfeit some or all of the employer contributions in their accounts if they leave the employer before a specified length of time. (Employees are always 100 percent vested in their own contributions.)

The most common combination of contribution eligibility and vesting for plans with employer contributions—31 percent of large ERISA 403(b) plans in the sample—was for employees to receive employer contributions after a year of eligibility but to be immediately vested in those contributions (Exhibit 1.6). Overall, 56 percent of large ERISA 403(b) plans had immediate vesting, and 61 percent of plans made employees eligible for employer contributions after one year.

EXHIBIT 1.6

Eligibility and Vesting in Large ERISA 403(b) Plans

Years until fully vested by months until eligible for employer contribution among plans with audited 403(b) filings in the BrightScope database, percentage of plans; 2018

Months until eligible for employer contribution	Years until fully vested							Total
	Zero	One	Two	Three	Four	Five	Six	
Immediate	6.5	0.3	0.7	1.8	0.4	1.0	0.6	11.3
>0 to <12	7.9	0.2	0.4	3.1	0.8	2.5	1.5	16.5
12	31.0	0.7	0.8	9.9	2.0	9.9	6.9	61.1
More than 12	10.6	(*)	0.3	0.1	0.0	0.1	0.0	11.1
Total	56.0	1.2	2.2	14.8	3.3	13.4	9.0	100.0

(*) = less than 0.05 percent

Note: The sample is 2,543 large ERISA 403(b) plans with information on eligibility and vesting. Audited 403(b) filings generally include plans with 100 participants or more.

Source: BrightScope Defined Contribution Plan Database

TYPES OF EMPLOYER CONTRIBUTIONS

Employers choosing to make contributions to their employees' 403(b) plan accounts can choose either to match contributions made by the employees or to make contributions regardless of employee contributions. If the employer chooses to match employee contributions, the options include a simple match formula, a tiered match formula, or a maximum dollar match formula. With a simple match formula, employee contributions are matched up to a fixed percentage of salary (for example, the employer matches 50 percent of employee contributions for the first 6 percent of the employee's salary for a maximum employer contribution of 3 percent of the employee's salary). With a tiered match formula, different levels of employee contributions are matched at different rates (for example, the employer matches 100 percent of the first 4 percent of salary contributed and 50 percent of the next 2 percent for a maximum employer contribution of 5 percent of the employee's salary). With a maximum dollar match formula, employee

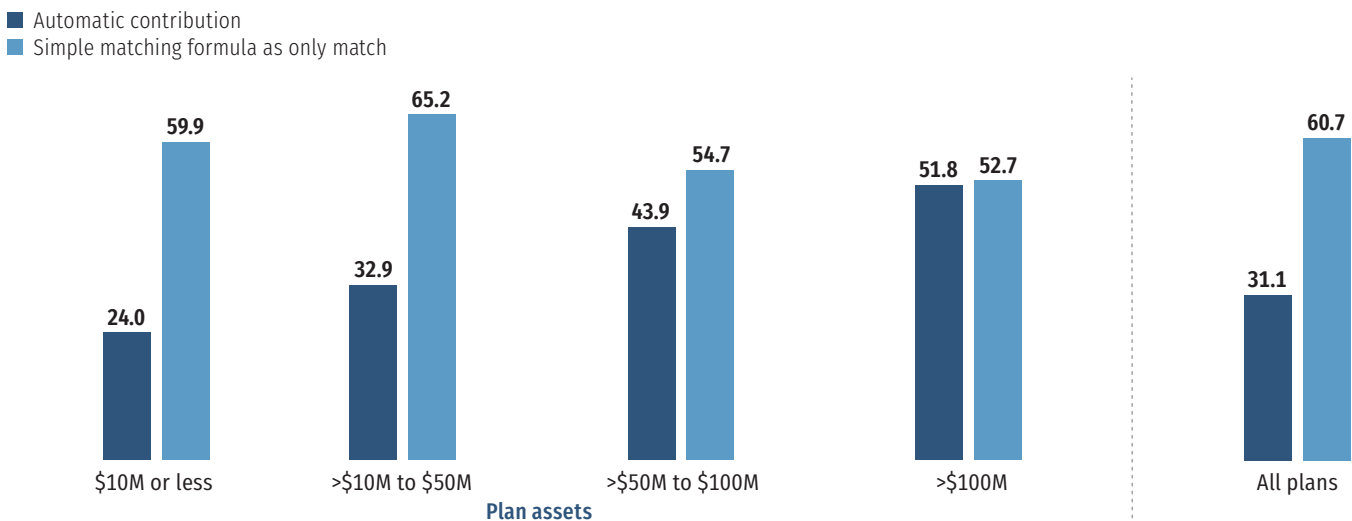
contributions are matched up to a given dollar threshold (for example, the employer matches 50 percent of the first \$2,000 in contributions for a maximum employer contribution of \$1,000). Analysis of the types of employer contributions is based on a sample of 1,642 large ERISA 403(b) plans in 2018, drawn from the sample of large ERISA plans with employer contributions.²⁰

In 2018, 61 percent of the large ERISA 403(b) plans analyzed (a random sample of those that filed Form 5500 Schedule H and had employer contributions) had a simple match formula, 31 percent made automatic contributions without respect to employee contributions, and 11 percent had both a simple match formula and automatic contributions (Exhibits 1.7 and 1.8). In addition, 6 percent of large ERISA 403(b) plans with employer contributions had a tiered match formula, and 1 percent of 403(b) plans matched employee contributions up to a maximum dollar amount (Exhibit 1.8).²¹

EXHIBIT 1.7

Many Large ERISA 403(b) Plans Make Automatic Employer Contributions

Percentage of large ERISA 403(b) plans with employer contributions by plan assets, 2018



Note: The sample is 1,642 large ERISA 403(b) plans, drawn from the 81.0 percent of large ERISA 403(b) plans with employer contributions in 2018. See Exhibit 1.8 for additional detail.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 audited reports

EXHIBIT 1.8

Employer Contribution Matching Formulas

Percentage of large ERISA 403(b) plans with employer contributions by plan assets, 2018

	Plan assets				All plans
	\$10M or less	>\$10M to \$50M	>\$50M to \$100M	>\$100M	
No match data ¹	15.4	11.5	10.1	8.9	13.0
No match data ¹ + automatic contribution ²	16.2	17.7	30.4	31.3	19.2
Maximum dollar match ³ only	2.0	0.4	0.0	0.0	1.1
Maximum dollar match ³ + automatic contribution ²	0.3	0.2	0.0	0.0	0.2
Tiered match ⁴ only	5.7	3.9	3.4	4.5	4.8
Tiered match ⁴ + automatic contribution ²	0.5	1.1	1.4	2.7	1.0
Simple match ⁵ only	52.9	51.3	42.6	34.8	50.0
Simple match ⁵ + automatic contribution ²	7.1	13.9	12.2	17.9	10.7

¹ Plans with missing match data may be included in this category.

² Automatic contributions include nonelective employer contributions and lump-sum employer contributions.

³ Maximum dollar match formulas are employer contributions of some percentage of employee contributions up to a fixed dollar amount (for example, matching 50 percent of the first \$2,000 of employee contributions).

⁴ Tiered match formulas match employee contributions at different rates for different levels of employee contributions (for example, matching 100 percent of the first 4 percent of salary contributed and 50 percent of the next 2 percent).

⁵ Simple match formulas are employer contributions of a specified percentage of employee contributions up to a fixed percentage of employee salary (for example, matching 50 percent of employee contributions up to 6 percent of the employee's salary).

Note: The sample is 1,642 large ERISA 403(b) plans, drawn from the 81.0 percent of large ERISA 403(b) plans with employer contributions in 2018.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 audited reports

SIMPLE MATCH FORMULAS

For simple match formulas, the employer chooses the percentage of employee contributions to match, as well as the maximum contribution percentage to match. Among the 61 percent of large ERISA 403(b) plans with employer contributions that had a simple match structure, the most common formulas matched 100 percent of contributions up to some percentage of employee salary, with 60 percent of large ERISA 403(b) plans with simple matches using this structure in 2018 (Exhibit 1.9, upper panel). Fifteen percent of plans matched 100 percent of employee contributions up to 3 percent of employee salary, while 13 percent matched 100 percent of employee contributions up to 5 percent of employee salary. Another common simple match formula was

a 50 percent match of contributions up to 6 percent of employee salary; 9 percent of the large ERISA 403(b) plans with simple match formulas used this approach. Altogether, 25 percent of large ERISA 403(b) plans with simple match formulas matched 50 percent of employee contributions up to some percentage of employee salary. However, participants in large ERISA 403(b) plans with simple match formulas were about equally likely to be in plans matching 100 percent of employee contributions (42 percent of participants) than in those matching 50 percent of employee contributions (42 percent of participants) (Exhibit 1.9, lower panel). In 2018, 21 percent of participants in large ERISA 403(b) plans with simple matches had a matching formula of 50 percent up to 6 percent of salary.

EXHIBIT 1.9

Employers with Simple Matches Use a Variety of Matching Formulas

Percentage of plans or participants among plans with simple matches, 2018

	Percentage of plans								Total
	Maximum deferral percentage matched								
	<3%	3%	4%	5%	6%	7%, 8%, or 9%	10% or more	Other*	
Percentage of deferral matched									
25%	0.4	0.5	1.4	0.0	0.4	0.0	0.5	0.0	3.2
50%	2.8	2.2	7.0	1.4	9.4	1.9	0.5	0.1	25.4
75%	0.1	0.1	0.3	0.2	0.3	0.0	0.1	0.1	1.2
100%	9.8	14.7	9.0	12.5	6.2	4.1	0.8	3.0	60.2
Other	2.3	1.4	1.1	3.3	0.7	0.1	0.8	0.3	10.0
Total	15.4	18.9	18.8	17.4	17.0	6.1	2.7	3.5	100.0
	Percentage of participants								Total
	Maximum deferral percentage matched								
	<3%	3%	4%	5%	6%	7%, 8%, or 9%	10% or more	Other*	
Percentage of deferral matched									
25%	0.2	0.1	1.2	0.0	0.3	0.0	1.1	0.0	2.8
50%	1.9	3.2	12.9	1.8	20.7	1.0	0.3	(*)	41.8
75%	(*)	(*)	1.2	(*)	0.1	0.0	(*)	0.8	2.2
100%	6.5	11.2	6.9	10.6	3.4	1.9	0.3	1.4	42.1
Other	6.1	0.5	0.5	3.1	0.2	(*)	0.6	0.1	11.1
Total	14.7	15.0	22.7	15.5	24.6	2.9	2.3	2.3	100.0

* Other includes plans with matched deferral percentages in between the categories listed (for example, 3.5 percent).

(*) = less than 0.05 percent

Note: Plans with no employer contribution, maximum dollar contributions, tiered match formulas, or only a nonmatching contribution were excluded. The sample is the 61 percent of plans with employer contributions that had simple match formulas (see Exhibit 1.7). The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). For plans with multiple match formulas, the formula determined to be the most representative was used for this analysis.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 audited reports

EMPLOYER MATCHES CAN VARY WITHIN A PLAN

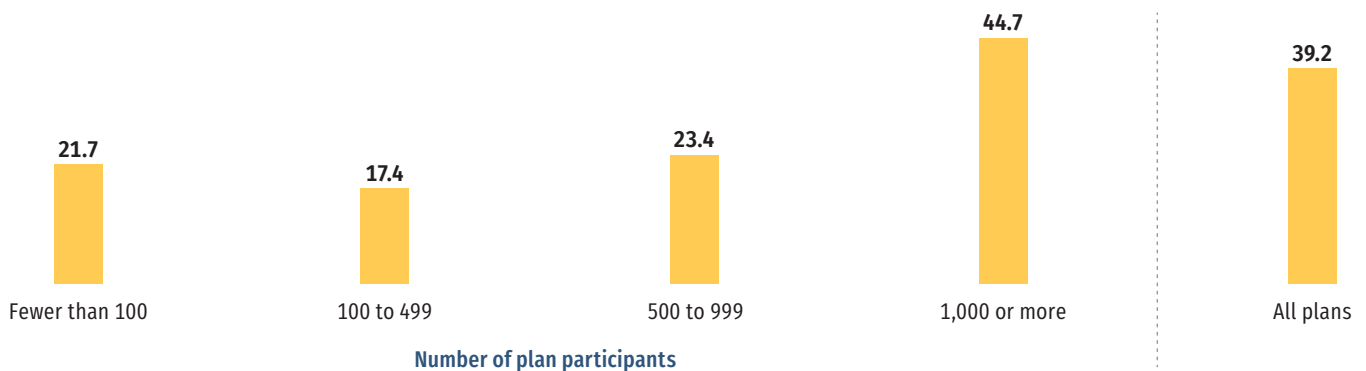
Employers can choose to make different plan contributions to different employees based on factors other than the employee's own contributions. For example, contributions can differ by employee tenure (including employees hired before or after a set date), employee age, employee group (for example, employees under or not under a collective bargaining agreement or in different units or geographic locations), or employee income (including plans that are integrated with Social Security).²² In 2018, 39 percent of large ERISA 403(b) plan participants in plans with employer contributions were in plans that provided different levels of employer contributions based on individual employee characteristics (Exhibit 1.10). This included 26 percent of

participants in plans with employer contributions that varied their employer contributions by employee tenure, 10 percent of participants in plans that varied contributions by employee group, 11 percent of participants in plans that varied contributions by employee income, and 6 percent of participants in plans that varied contributions by employee age. Participants in the largest plans were more likely to be in plans that varied employer contributions based on individual employee characteristics. For example, nearly 45 percent of participants in plans with employer contributions and 1,000 participants or more were in plans that varied their employer contributions, compared with about 20 percent of participants in plans with fewer than 1,000 participants.

EXHIBIT 1.10

Smaller Plans Are Less Likely to Vary Employer Contributions by Employee Characteristics

Percentage of participants in large ERISA 403(b) plans with employer contributions that vary employer contributions by employee characteristics by plan assets, 2018



Note: The sample is 1,642 large ERISA 403(b) plans, drawn from the 81.0 percent of large ERISA 403(b) plans with employer contributions in 2018. See Exhibit 1.8 for additional detail.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 audited reports

The Use of Participant Loans

Employers may also consider whether to allow access to 403(b) account assets before retirement through a loan feature.²³ In plans that offer loans, participants can take a loan from their own accounts, subject to plan limits. Participants must then repay their loans, plus interest, into their accounts within a set period of time.²⁴ Although participants typically must pay any loans back shortly after leaving their employers, which can lead to defaults,²⁵ the existence of a loan feature may encourage workers to sign up for the plan in the first place or to defer more of their salary into the plan.²⁶ It is possible to determine whether a participant has taken out a loan by gathering data on participant loans outstanding, which are part of the balance sheet reporting on the Form 5500. Because it is more likely that at least one participant has a loan outstanding in larger plans than in smaller plans, the

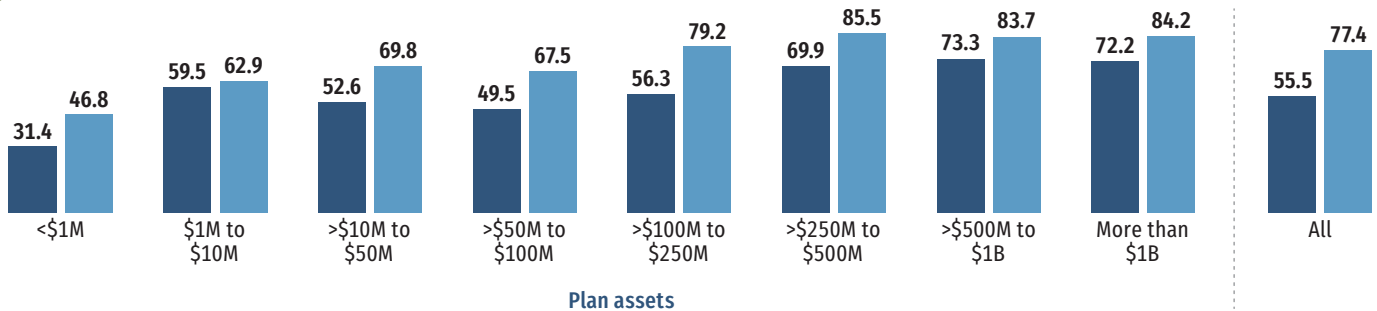
loan use analysis is limited to large ERISA 403(b) plans.²⁷ In 2018, 56 percent of large ERISA 403(b) plans had participant loans outstanding (Exhibit 1.11). Larger ERISA 403(b) plans, as measured by the number of plan participants, tend to be more likely to have loans outstanding than smaller ERISA 403(b) plans. Ninety percent of large ERISA 403(b) plans with 10,000 participants or more had participant loans outstanding, compared with 33 percent of large ERISA 403(b) plans with fewer than 100 participants. Because larger ERISA 403(b) plans in the sample were more likely to have participant loans outstanding, 77 percent of ERISA 403(b) plan participants in the sample were in plans that had loans outstanding.²⁸ Even though loans are widely available, the amounts borrowed represent less than 1 percent of large ERISA 403(b) plan assets.²⁹

EXHIBIT 1.11

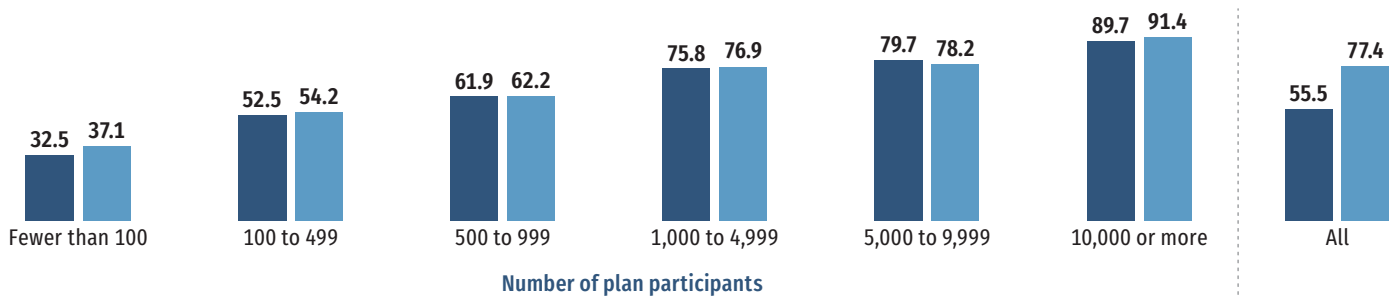
Many Large ERISA 403(b) Plans Have Participant Loans Outstanding

■ Plans
■ Participants

Percentage of large ERISA 403(b) plans and percentage of participants in large ERISA 403(b) plans with participant loans outstanding by plan assets, 2018



Percentage of large ERISA 403(b) plans and percentage of participants in large ERISA 403(b) plans with participant loans outstanding by number of plan participants, 2018



Note: The sample is 1,642 large ERISA 403(b) plans, drawn from the 81.0 percent of large ERISA 403(b) plans with employer contributions in 2018. See Exhibit 1.8 for additional detail.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

ERISA 403(b) Plan Activity Combinations

When designing their compensation structures, employers choose a combination of wages and benefits to attract qualified workers. Similarly, employers design 403(b) plans by selecting a combination of features that their employees are likely to value. Most of the sample of nearly 5,900 large ERISA 403(b) plans included at least one of the three activities explored in this research. Across the sample of ERISA 403(b) plans in 2018, only 9 percent did not offer employer contributions, did not automatically enroll employees, and did not have participant loans outstanding (Exhibit 1.12). The most prevalent configuration of plan activities was employer contributions and outstanding loans, which was observed in 36 percent of ERISA 403(b) plans

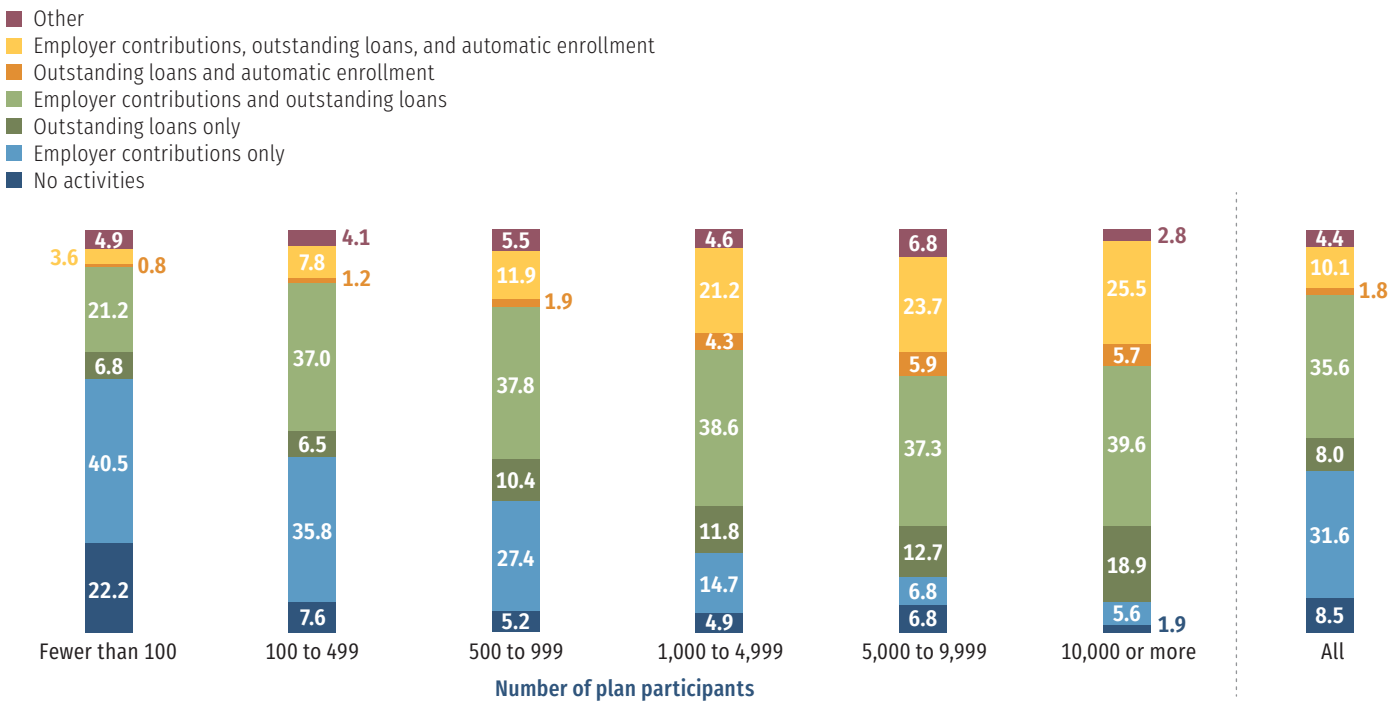
in the sample. Another 32 percent of ERISA 403(b) plans had employer contributions only, and 8 percent had outstanding loans only. The remaining ERISA 403(b) plans in the sample had other configurations of the three features.

Larger ERISA 403(b) plans tend to be more likely to have employer contributions, participant loans outstanding, and automatic enrollment. About one-quarter of large ERISA 403(b) plans with 5,000 participants or more had employer contributions, participant loans outstanding, and automatic enrollment, compared with 4 percent of plans with fewer than 100 participants (Exhibit 1.12). Overall, 10 percent of large ERISA 403(b) plans reported evidence of all three activities.

EXHIBIT 1.12

Large ERISA 403(b) Plans with Selected Plan Activity Combinations

Percentage of large ERISA 403(b) plans with selected plan activity combinations by number of plan participants, 2018



Note: The sample is 5,859 plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). Plan design features include employer contributions, automatic enrollment, and participant loans. A plan was determined to allow participant loans if any participant had a loan outstanding at the end of plan year 2018. For additional detail and analysis by plan assets, see Exhibit A.1 in the appendix.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

ERISA 403(b) Plan Activities by Presence of Automatic Enrollment

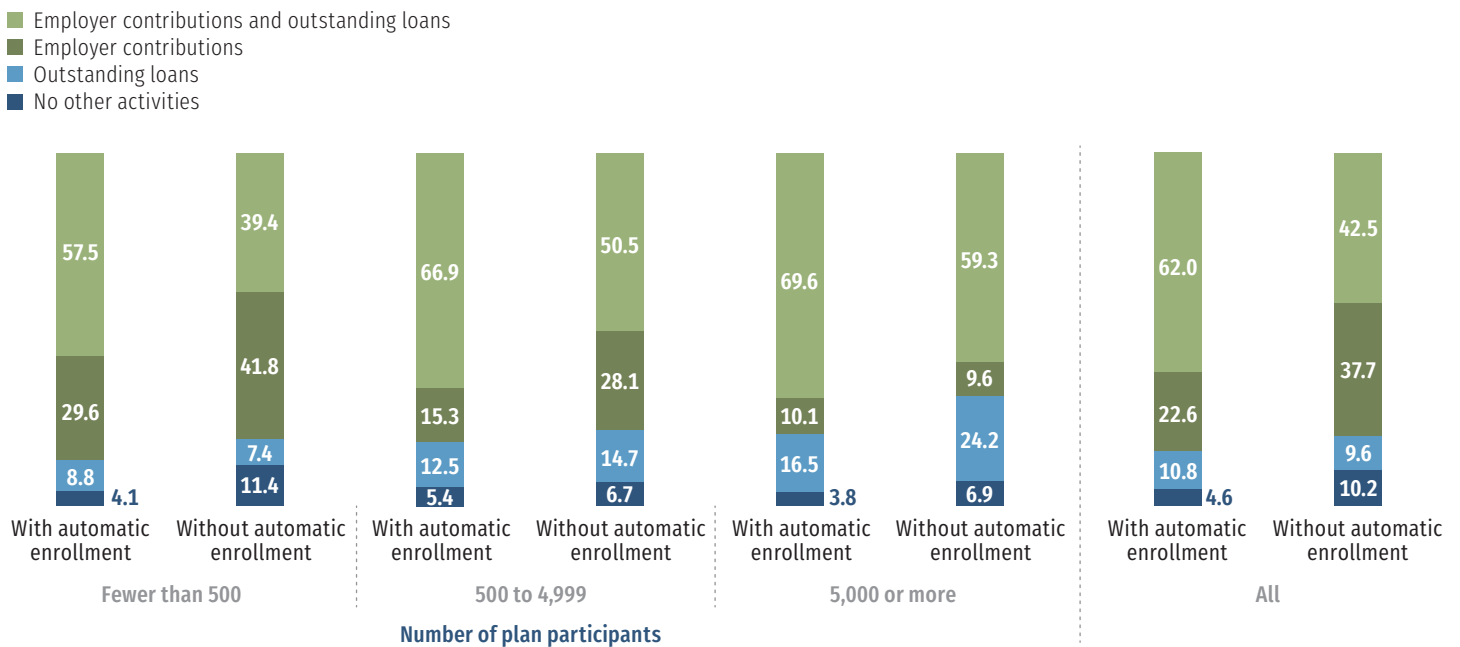
Another way to analyze the plan design combinations that employers choose is to look at how remaining plan design features vary while controlling for one feature. This section discusses employer contributions and outstanding participant loans, comparing their incidence in large ERISA 403(b) plans with and without automatic enrollment. The data are explored this way because, for example, the participation results achieved with automatic enrollment may also reflect the influence of other plan features.

Plans with automatic enrollment are more likely to have both employer contributions and participant loans outstanding than plans without automatic enrollment. In 2018, 62 percent of large ERISA 403(b) plans with automatic enrollment had employer contributions and outstanding participant loans, compared with 43 percent of plans without automatic enrollment (Exhibit 1.13). Nevertheless, employer contributions are similarly likely in large ERISA 403(b) plans with and without automatic enrollment: in 2018, 85 percent of large ERISA 403(b) plans with automatic enrollment had employer contributions, compared with 80 percent of plans without automatic enrollment. A similar pattern is observed across plan sizes, although plans with 500 participants or more tend to be more likely to have employer contributions and outstanding participant loans whether or not they also automatically enroll participants.

EXHIBIT 1.13

Large ERISA 403(b) Plans with Automatic Enrollment Are More Likely to Have Outstanding Loans

Percentage of large ERISA 403(b) plans with selected plan activity combinations by automatic enrollment and number of plan participants, 2018



Note: The sample is 5,859 plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). Plan design features include employer contributions, automatic enrollment, and participant loans. A plan was determined to allow participant loans if any participant had a loan outstanding at the end of plan year 2018.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

CHAPTER 2

ERISA 403(b) Plan Investment Menu Design

Employers in the nonprofit sector choose whether or not to offer 403(b) plans to their employees, and if they do offer them, how to design the plans to attract and retain qualified workers.³⁰ These design choices include the number and types of investment options in the plan, whether to contribute to the plan and whether to incentivize employees to contribute by matching their contributions, and whether and how to automatically enroll new employees into the plan. This chapter explores the investment menus that employers have chosen for 403(b) plans and how investments vary by plan size in the BrightScope Defined Contribution Plan Database. The database contains detailed information from audited Form 5500 reports for large ERISA 403(b) plans that filed Schedule H (typically plans with 100 participants or more).

Number and Types of Investment Options

Historically, the investment menus of 403(b) plans have included multiple providers, each offering their full complements of mutual funds or annuity products. As regulations have changed to impose a stronger plan structure and to encourage plan sponsors to take more responsibility in selecting an appropriate investment lineup,³¹ the number of investment options on the core menu has declined. Brokerage windows providing access to mutual funds and annuity products may still be offered—in some cases to keep legacy investment options available while providing a simpler choice structure for participants. To reflect this evolution, this chapter will primarily focus on what appear to be core offerings in ERISA 403(b) plans.

Analysis of all investments held in large ERISA 403(b) plans in the BrightScope Defined Contribution Plan Database finds that participants had 42 investment options, on average, in 2018 (Exhibit 2.1). Larger ERISA 403(b) plans tended to offer more investment options, on average, than smaller plans. For example, among plans with less than \$1 million in plan assets, the average number of investments offered was 24; that rose to 78 investment options for plans with more than \$1 billion in plan assets. Because plans may offer suites of target date funds with options

tailored to multiple anticipated retirement dates, this report also includes an adjusted number that counts a suite of target date funds as one investment option. On average, large ERISA 403(b) plans offered 33 options according to this target date fund-adjusted number, ranging from 18 investment options for plans with less than \$1 million in plan assets to 62 investment options for plans with more than \$1 billion in plan assets. Many of these investment options in large ERISA 403(b) plans hold a small share of total plan assets.

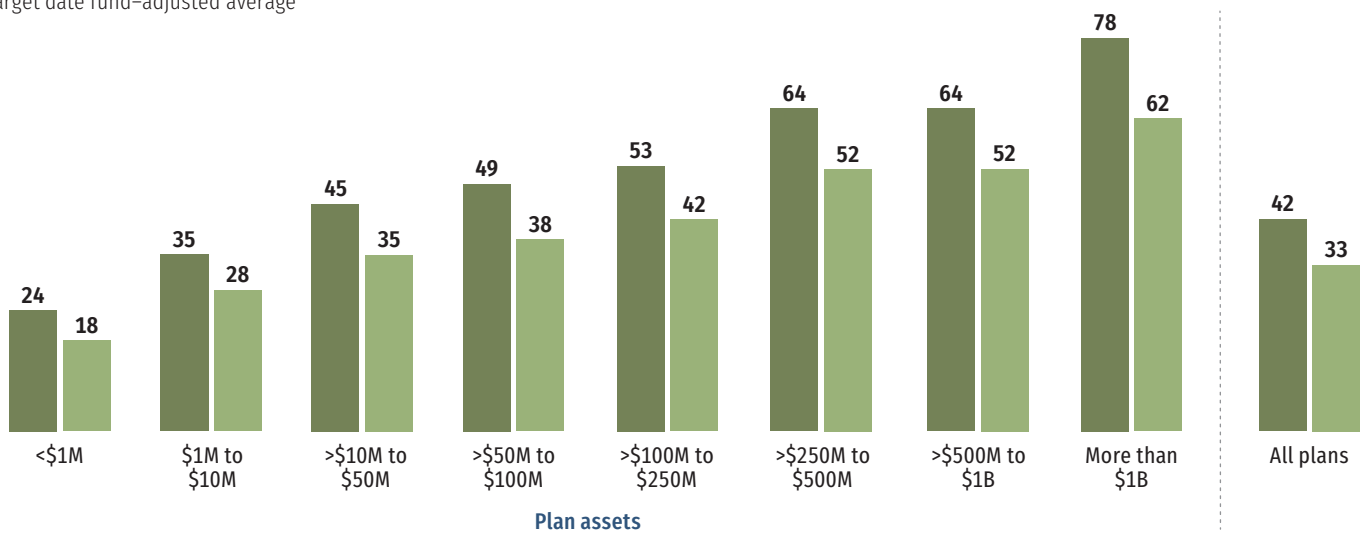
EXHIBIT 2.1

Number of Investment Options in Large ERISA 403(b) Plans

Average number of investment options among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018

Number of investment options

- Average
- Target date fund-adjusted average*



* This measure counts an entire suite of target date funds as one investment option for plans offering target date funds. A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name. A suite will cover a range of anticipated retirement dates.

Note: The sample is 6,213 plans with \$485.5 billion in assets. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. In this exhibit, all investments held in a plan are counted.

Source: BrightScope Defined Contribution Plan Database

Because legacy investment options may present a skewed picture of the investment options that participants have to choose from, this report primarily focuses on core investment options—those that hold at least 0.5 percent of total plan assets. The average number of core investment options was 26 among large ERISA 403(b) plans in 2018 (Exhibit 2.2). Just as with all investment options, larger ERISA 403(b) plans tended to offer more core

investment options. For example, the average number of core investment options offered by plans with less than \$1 million in plan assets was 17, compared with 38 core investment options among plans with more than \$1 billion. Counting a suite of core target date funds as one investment option, large ERISA 403(b) plans offered 17 core investment options, on average, in 2018.

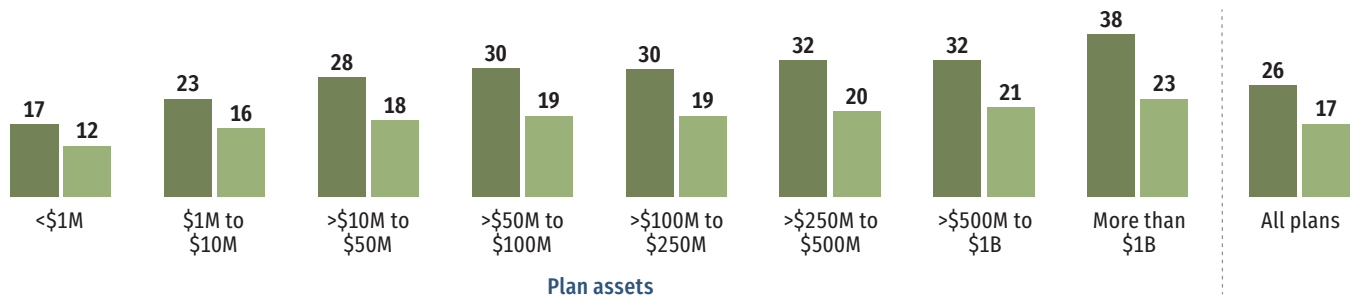
EXHIBIT 2.2

Number of Core Investment Options in Large ERISA 403(b) Plans

Average number of core investment options among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018

Number of core investment options

■ Average
 ■ Target date fund-adjusted average*



* This measure counts an entire suite of target date funds as one investment option for plans offering target date funds. A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name. A suite will cover a range of anticipated retirement dates.

Note: The sample is 6,213 plans with \$485.5 billion in assets. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. Core investment options are those that have at least 0.5 percent of plan assets. The funds in a target date fund suite are included if at least 0.5 percent of plan assets are invested in that suite.

Source: BrightScope Defined Contribution Plan Database

In addition to the variation in number of core investments offered by plan size, there is considerable variation between plans. For example, 10 percent of large ERISA 403(b) plans offer 15 or fewer core investment options, and plans at the 90th percentile offer

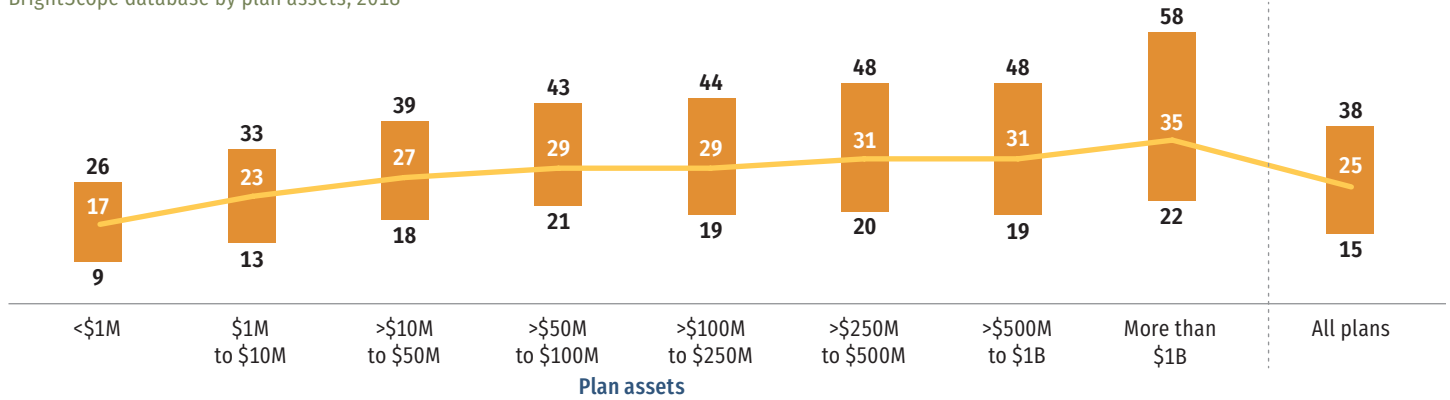
38 core options (Exhibit 2.3, upper panel). Plans show considerable variability even with a target date fund-adjusted measure, ranging from 10 core options to 26 core options at the 10th and 90th percentiles (Exhibit 2.3, lower panel).

EXHIBIT 2.3

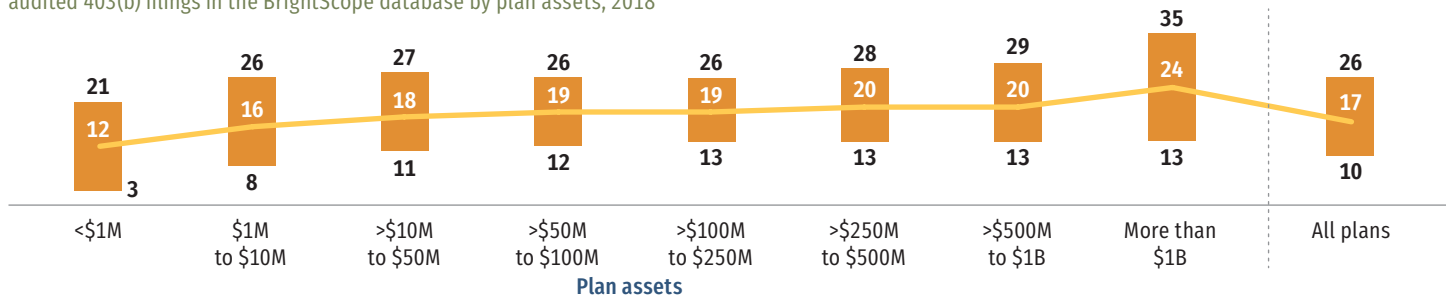
Distribution of Core Investment Options in Large ERISA 403(b) Plans

— Median
 ■ 10th to 90th percentile range

10th percentile, median, and 90th percentile number of core investment options among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018



10th percentile, median, and 90th percentile number of target date fund-adjusted* core investment options among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018



* This measure counts an entire suite of target date funds as one investment option for plans offering target date funds. A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name. A suite will cover a range of anticipated retirement dates.

Note: The sample is 6,213 plans with \$485.5 billion in assets. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. Core investment options are those that have at least 0.5 percent of plan assets. The funds in a target date suite are included if at least 0.5 percent of plan assets are invested in that suite.

Source: BrightScope Defined Contribution Plan Database

Domestic equity funds, international equity funds, and domestic bond funds—including both index and active investment styles—were the most likely core investment options to be offered in large ERISA 403(b) plans in 2018. Nearly all plans offered these types of funds, which can be mutual funds or variable annuities (Exhibit 2.4). In addition, 53 percent of plans offered money funds in their core investment lineups. Forty-five percent of plans offered non-target date balanced funds, and 85 percent of plans offered target date funds in their core investment lineups. Eighty-three percent of plans offered fixed annuities, and 59 percent of large ERISA 403(b) plans had other core investments. Seven percent of large ERISA 403(b) plans had international bond funds in their core investment lineups.

Most core investment types showed little variation in their availability by plan size, although plans with less than \$1 million in plan assets were generally less likely to offer a given type of option, with the exception of non-target date balanced funds and international bond funds (Exhibit 2.4). Additionally, larger ERISA 403(b) plans were more likely to offer money funds, other investments, or target date funds in their core investment lineups. For example, 28 percent of large ERISA 403(b) plans with less than \$1 million in plan assets offered other investments in their core investment lineups, compared with 88 percent of plans with more than \$1 billion. Similarly, 30 percent of plans with less than \$1 million in plan assets offered money funds in their core investment lineups, compared with 88 percent of plans with more than \$1 billion.

EXHIBIT 2.4

Equity and Bond Funds Are the Most Common Core Investment Options in Large ERISA 403(b) Plans

Percentage of plans with audited 403(b) filings in the BrightScope database offering the specified core investment option by plan assets, 2018

Plan assets	Equity funds		Balanced funds		Bond funds					Memo: index funds
	Domestic	International	Target date funds ¹	Non-target date balanced funds	Domestic	International	Money funds	Fixed annuities	Other ²	
<\$1M	90.0	76.4	76.4	51.7	69.1	8.9	30.1	53.7	28.2	72.2
\$1M to \$10M	97.6	88.5	81.8	55.2	85.8	9.3	40.2	76.3	41.6	88.7
>\$10M to \$50M	99.3	97.4	87.9	37.3	96.3	6.1	64.1	89.3	71.6	97.3
>\$50M to \$100M	99.6	99.0	90.2	32.4	99.0	3.7	68.4	94.1	81.7	99.4
>\$100M to \$250M	99.3	97.6	89.3	30.8	97.3	5.6	66.8	96.1	81.1	98.1
>\$250M to \$500M	98.8	95.3	91.2	35.7	97.7	4.7	69.0	90.1	83.0	97.7
>\$500M to \$1B	99.0	99.0	90.4	34.6	98.1	5.8	67.3	91.3	84.6	99.0
More than \$1B	100.0	98.8	96.3	43.9	97.6	2.4	87.8	89.0	87.8	98.8
All plans	98.2	92.8	85.3	44.8	91.0	7.3	53.3	83.0	58.9	92.8

¹ A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

² Other includes commodity funds, real estate funds, and brokerage accounts.

Note: The sample is 6,213 plans with \$485.5 billion in assets. Participant loans are excluded. Funds include mutual funds and variable annuities. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. Core investment options are those that have at least 0.5 percent of plan assets. The funds in a target date fund suite are included if at least 0.5 percent of plan assets are invested in that suite.

Source: BrightScope Defined Contribution Plan Database

Equity funds (including both index and active investment styles) were the most common core investment option in 2018, with large ERISA 403(b) plans offering 11 funds on average, of which most (eight funds) were domestic equity funds (Exhibit 2.5). Larger plans tended to offer more core equity funds—plans with less than \$1 million in plan assets offered seven core equity funds compared with 14 offered by plans with more than \$1 billion in plan assets. Bond funds were equally common in large ERISA 403(b) core investment lineups in 2018, with 11 funds offered on average, most of which (10 funds) were target date funds. Larger ERISA 403(b) plans tended to have more core target date funds for two reasons. First, larger plans tended to be more likely to offer core target date funds (Exhibit 2.4). Second, larger plans offered more funds as part of their core target date fund suites on average. For example, among large ERISA 403(b) plans with more than \$1 billion in plan assets, the average core target date fund suite included around 12 funds (16.6 target date funds divided by 1.4 target date fund suites) (Exhibit 2.5). For plans with

less than \$1 million in plan assets, the average core target date fund suite included around eight funds (6.0 target date funds divided by 0.8 target date fund suites). On average, there were about 10 target date funds (9.6 target date funds divided by 1.0 target date fund suites) in a core suite across all plans in the sample.

In 2018, large ERISA 403(b) plans included about three bond funds (mostly domestic, including both index and active styles) in their core investment lineups on average (Exhibit 2.5). Plans also offered core money funds, fixed annuities, and other options. These investments were often included as the single choice in that investment type. Larger plans tended to be somewhat more likely to offer these options in their core lineups (Exhibit 2.4).

It is important to consider how often a given investment category is offered, as well as the number of core investment options offered in that category contingent on that investment category being offered

EXHIBIT 2.5

Average Number of Core Investment Options by Type of Investment in Large ERISA 403(b) Plans

Average number of investment options among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018

Plan assets	Average number of investment options										Memo:	
	Equity funds		Balanced funds		Bond funds							
	Domestic	International	Target date funds ¹	Non-target date balanced funds	Domestic	International	Money funds	Fixed annuities	Other ²	Index funds	Adjusted target date fund ³	
<\$1M	5.5	1.8	6.0	1.1	1.5	0.1	0.3	0.6	0.3	3.5	0.8	
\$1M to \$10M	7.8	2.2	7.8	1.3	2.0	0.1	0.4	1.0	0.5	5.3	0.9	
>\$10M to \$50M	8.6	2.4	10.8	0.7	2.6	0.1	0.7	1.3	0.9	7.1	1.1	
>\$50M to \$100M	9.0	2.7	11.9	0.5	2.9	(*)	0.8	1.3	1.1	7.8	1.1	
>\$100M to \$250M	9.1	2.7	12.0	0.4	2.9	0.1	0.8	1.3	1.1	7.8	1.1	
>\$250M to \$500M	9.2	2.8	13.2	0.5	3.2	(*)	0.9	1.4	1.2	9.0	1.2	
>\$500M to \$1B	9.4	3.0	12.6	0.5	3.1	0.1	1.0	1.3	1.3	12.1	1.1	
More than \$1B	10.5	3.1	16.6	0.7	3.2	(*)	1.4	1.3	1.5	16.4	1.4	
All plans	8.2	2.4	9.6	0.9	2.4	0.1	0.6	1.1	0.8	6.5	1.0	

¹ A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

² Other includes commodity funds, real estate funds, and brokerage accounts, but each separate option is counted as a unique investment option.

³ This measure counts an entire suite of target date funds as one investment option for plans offering target date funds.

(*) = less than 0.05 percent

Note: The sample is 6,213 plans with \$485.5 billion in assets. Participant loans are excluded. Funds include mutual funds and variable annuities. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. Core investment options are those that have at least 0.5 percent of plan assets. The funds in a target date fund suite are included if at least 0.5 percent of plan assets are invested in that suite. Exhibit A.4 in the appendix shows the average number of a given core investment option offered by plans that have at least one of that investment option.

Source: BrightScope Defined Contribution Plan Database

in the 403(b) plan's core lineup. For example, domestic equity funds (including index and active styles) are not only widely available, with nearly all large ERISA 403(b) plans including them in their core investment lineups in 2018 (Exhibit 2.6, upper panel), but also, when they are an option, multiple domestic equity funds—eight on average—are offered (Exhibit 2.6, lower panel).

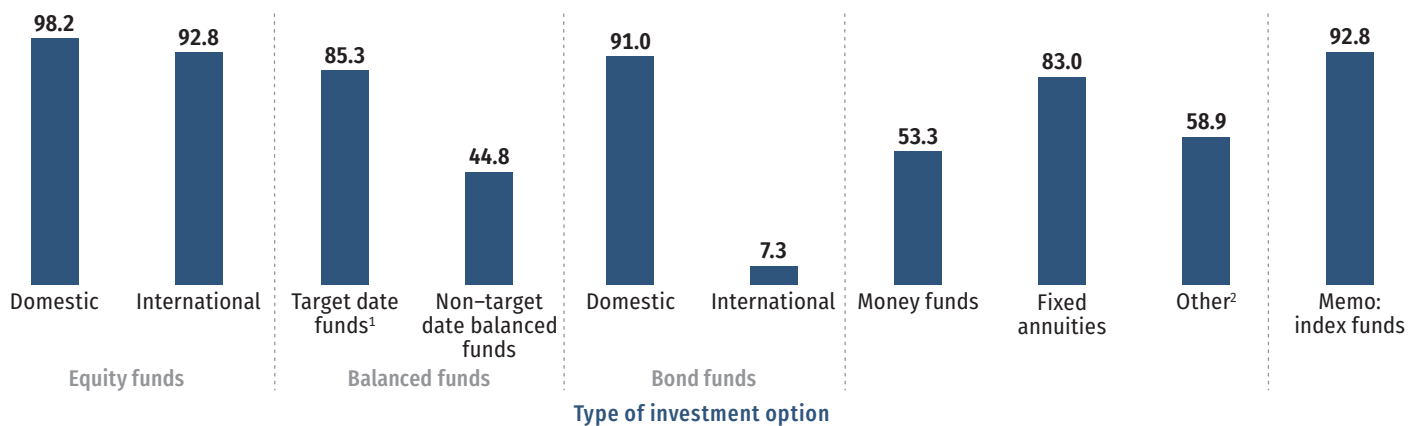
International equity funds and domestic bond funds (including index and active styles) are also widely available—each are offered in more than 90 percent of large ERISA 403(b) plan core

lineups in 2018; however, fewer of these options are offered than domestic equity funds. For example, on average, three international equity funds and three domestic bond funds are offered in large ERISA 403(b) plans including those investment types (Exhibit 2.6). Fifty-three percent of large ERISA 403(b) plans offer one core money fund on average, and 83 percent of large ERISA 403(b) plans offer one core fixed annuity on average. Ninety-three percent of large ERISA 403(b) plans in 2018 had index funds in their core investment lineups, offering seven funds on average.

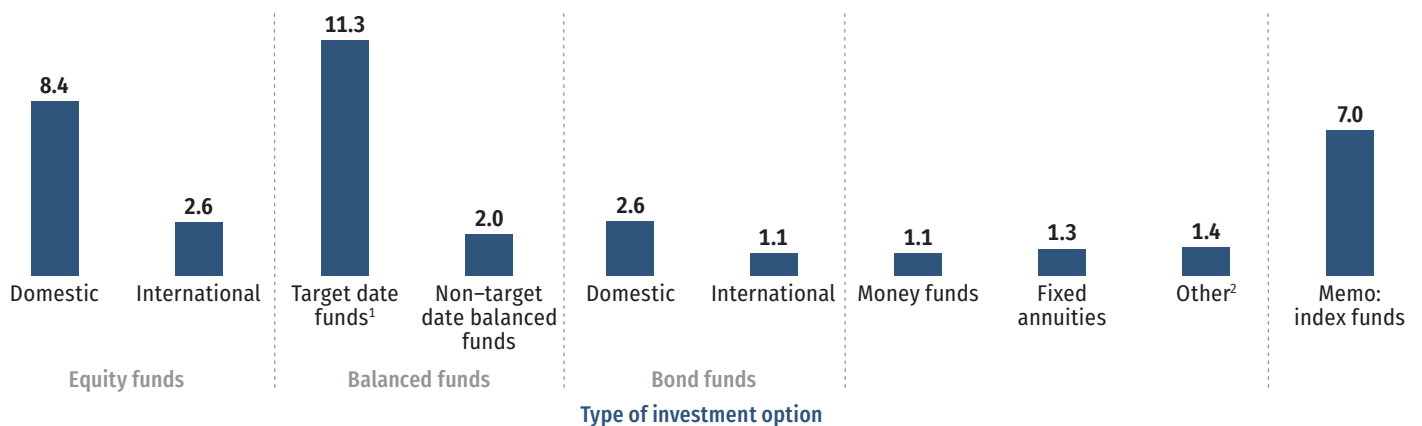
EXHIBIT 2.6

Incidence and Number of Core Investment Options Offered by Type of Investment in Large ERISA 403(b) Plans

Percentage of plans with audited 403(b) filings in the BrightScope database offering the specified core investment option, 2018



Average number of core investment options among plans with audited 403(b) filings in the BrightScope database offering the specified core investment option, 2018



¹ A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

² Other includes commodity funds, real estate funds, and brokerage accounts, but each separate option is counted as a unique investment option.

Note: The sample is 6,213 plans with \$485.5 billion in assets. Participant loans are excluded. Funds include mutual funds and variable annuities. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. Core investment options are those that have at least 0.5 percent of plan assets. The funds in a target date fund suite are included if at least 0.5 percent of plan assets are invested in that suite. Exhibit A.4 in the appendix shows the average number of a given core investment option offered by plans that have at least one of that investment option.

Source: BrightScope Defined Contribution Plan Database

Investment Vehicles

When choosing which investment options to offer, employers also choose the investment vehicles (for example, mutual funds, variable annuities, or fixed annuities) for these options. Mutual

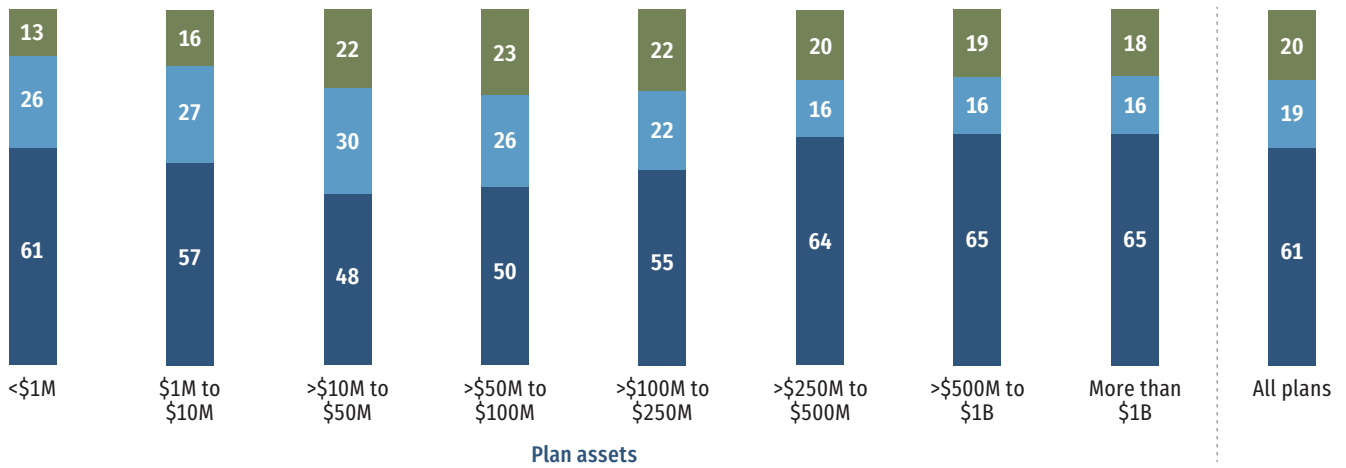
funds were the most common investment vehicle in large ERISA 403(b) plans in the BrightScope database, representing 61 percent of assets in 2018 (Exhibit 2.7). Fixed annuities held an additional 20 percent of assets, and variable annuities held 19 percent.

EXHIBIT 2.7

Types of Investment Vehicles in Large ERISA 403(b) Plans

Percentage of total assets among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018

- Fixed annuities
- Variable annuities
- Mutual funds



Note: The sample is 6,213 plans with \$485.5 billion in assets. Participant loans are excluded. Audited 403(b) filings generally include plans with 100 participants or more. Variable annuities include variable annuity mutual funds.

Source: BrightScope Defined Contribution Plan Database

Aggregate Asset Allocation

Although employers choose the investment options offered in 403(b) plans, participants generally choose where to allocate the money in their accounts among such options. In 2018, equity funds (including both index and actively managed funds) held the largest share (40 percent) of large ERISA 403(b) assets in the BrightScope database, with the bulk invested in domestic equity funds (Exhibit 2.8). Balanced funds held the next largest share with 28 percent of assets—which were divided between target date funds (26 percent of assets) and non-target date balanced funds (2 percent of assets). Fixed

annuities held 20 percent of ERISA 403(b) plan assets. Bond funds (mostly domestic) held 7 percent of assets, and money funds held 2 percent. Participants in larger plans (as measured by plan assets) tended to have less of their assets invested in non-target date balanced funds. For example, participants in large ERISA 403(b) plans with less than \$1 million in plan assets had 9 percent of their assets invested in non-target date balanced funds, compared with about 2 percent for participants in plans with more than \$10 million in plan assets. Average asset allocation tended not to vary much by plan size for other asset classes.

EXHIBIT 2.8

Equity Funds Make Up a Sizable Share of Large ERISA 403(b) Assets

Percentage of total assets among plans with audited 403(b) filings in the BrightScope database by plan assets or number of plan participants, 2018

Plan assets	Equity funds		Balanced funds		Bond funds			Money funds	Fixed annuities	Other ²	Memo: index funds
	Domestic	International	Target date funds ¹	Non-target date balanced funds	Domestic	International	Other ²				
<\$1M	22.4	6.4	38.8	8.9	6.3	0.3	2.1	12.6	2.2	19.9	
\$1M to \$10M	30.8	6.5	29.3	6.1	6.8	0.2	2.1	15.8	2.3	22.2	
>\$10M to \$50M	34.8	6.8	22.5	2.4	6.9	0.1	2.0	21.5	2.9	21.6	
>\$50M to \$100M	34.3	6.8	21.7	1.7	7.0	0.1	1.6	23.1	3.7	21.1	
>\$100M to \$250M	34.4	6.6	21.9	1.5	6.9	0.1	1.4	23.1	3.9	21.6	
>\$250M to \$500M	33.8	6.4	26.0	1.2	7.5	0.1	1.8	19.5	3.8	23.3	
>\$500M to \$1B	33.5	6.2	26.5	1.6	6.9	0.1	1.7	18.8	4.7	29.8	
More than \$1B	33.7	5.5	27.9	2.0	5.7	0.1	2.4	17.5	5.2	37.0	
All plans	33.8	6.1	25.8	1.9	6.5	0.1	2.0	19.5	4.4	29.2	

Number of plan participants	Equity funds		Balanced funds		Bond funds			Money funds	Fixed annuities	Other ²	Memo: index funds
	Domestic	International	Target date funds ¹	Non-target date balanced funds	Domestic	International	Other ²				
Fewer than 100	37.1	6.7	16.6	2.0	5.9	0.1	2.5	24.8	4.4	18.6	
100 to 499	35.9	6.8	18.9	2.0	6.5	0.1	2.0	24.2	3.6	18.6	
500 to 999	34.4	6.5	19.5	1.5	7.0	0.1	1.5	25.8	3.7	20.0	
1,000 to 4,999	34.4	6.2	21.9	1.8	6.9	0.1	1.8	23.1	3.8	24.5	
5,000 to 9,999	32.5	6.4	26.7	1.8	6.7	0.1	2.1	17.7	5.9	28.8	
10,000 or more	33.0	5.6	32.1	2.0	6.1	0.1	2.3	14.2	4.7	38.8	
All plans	33.8	6.1	25.8	1.9	6.5	0.1	2.0	19.5	4.4	29.2	

¹ A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

² Other includes commodity funds, real estate funds, and brokerage accounts.

Note: The sample is 6,213 plans with \$485.5 billion in assets. Participant loans are excluded. Funds include mutual funds and variable annuities. Audited 403(b) filings generally include plans with 100 participants or more.

Source: BrightScope Defined Contribution Plan Database

Large ERISA 403(b) plans have become increasingly likely to offer target date funds. In 2018, 85 percent of large ERISA 403(b) plans offered target date funds in their core investment lineups, compared with 51 percent in 2009 (Exhibit 2.9, upper panel). The share of participants who were offered core target date funds increased to 88 percent in 2018, from 71 percent in 2009 (Exhibit 2.9, middle panel). The share of plan assets invested in target date funds also increased, rising to 26 percent in 2018 from 7 percent in 2009 (Exhibit 2.9, lower panel).

Index Funds

Index funds are an investment style typically offered within the broad equity and bond investment types discussed above, which generally track a market index (e.g., S&P 500 funds). They generally claimed a greater share of assets in larger ERISA 403(b) plans than

in smaller plans. On average, 29 percent of large ERISA 403(b) assets were invested in index funds in 2018, but this fraction ranged from about 20 percent of assets in plans with \$250 million or less in plan assets to 37 percent in plans with more than \$1 billion (Exhibit 2.8, upper panel). Similarly, 19 percent of assets in large ERISA 403(b) plans with fewer than 500 participants were invested in index funds, compared with 39 percent of assets in plans with 10,000 participants or more (Exhibit 2.8, lower panel).

The share of large ERISA 403(b) plan assets invested in index funds has risen since 2009, when 10 percent of assets were invested in index funds (Exhibit 2.10, lower panel). This rose to 29 percent in 2018. Index funds were offered nearly universally in large ERISA 403(b) plans with more than \$10 million in assets in 2018 (Exhibit 2.10, upper panel).

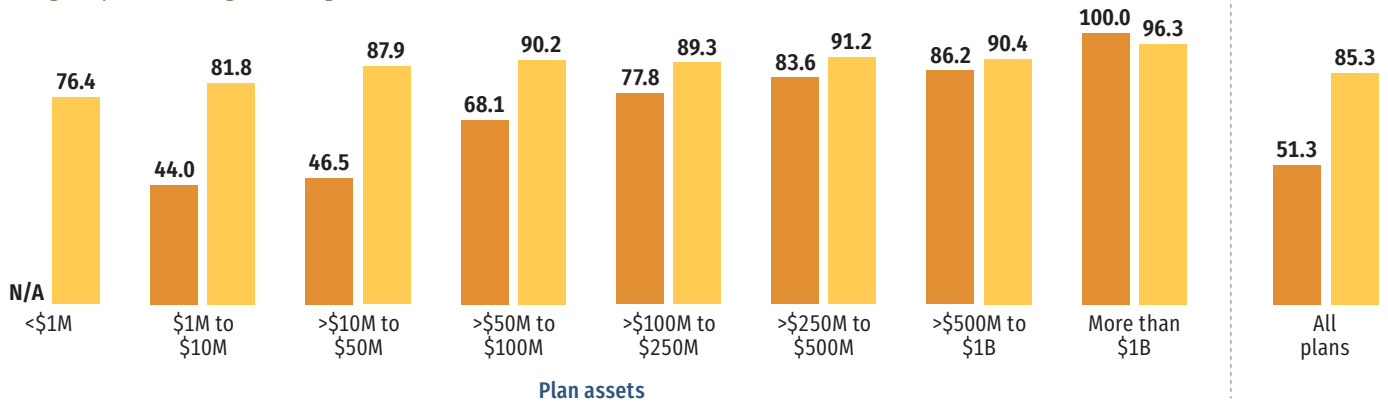
EXHIBIT 2.9

Core Target Date Fund Use Generally Has Risen over Time in Large ERISA 403(b) Plans

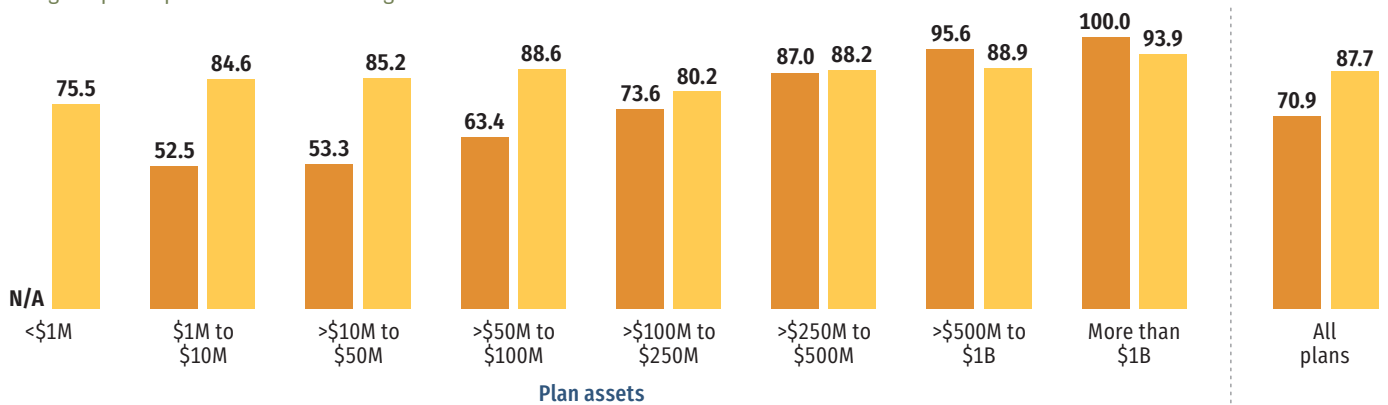
Percentage of plans offering, participants offered, and plan assets in target date funds among plans with audited 403(b) filings in the BrightScope database by plan assets, 2009 and 2018

■ 2009
■ 2018

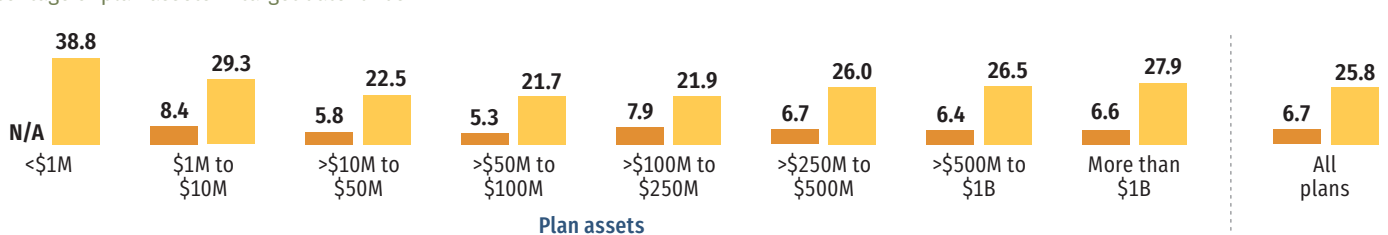
Percentage of plans offering core¹ target date funds



Percentage of participants offered core¹ target date funds



Percentage of plan assets in target date funds²



¹ Core target date funds are target date funds included in a suite of funds that holds at least 0.5 percent of plan assets.

² In the calculation of target date fund assets, all target date funds in the plan are counted.

Note: Samples are 3,697 plans in 2009 and 6,213 in 2018. Audited 403(b) filings generally include plans with 100 participants or more. A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name. Funds include mutual funds and variable annuities.

Source: BrightScope Defined Contribution Plan Database

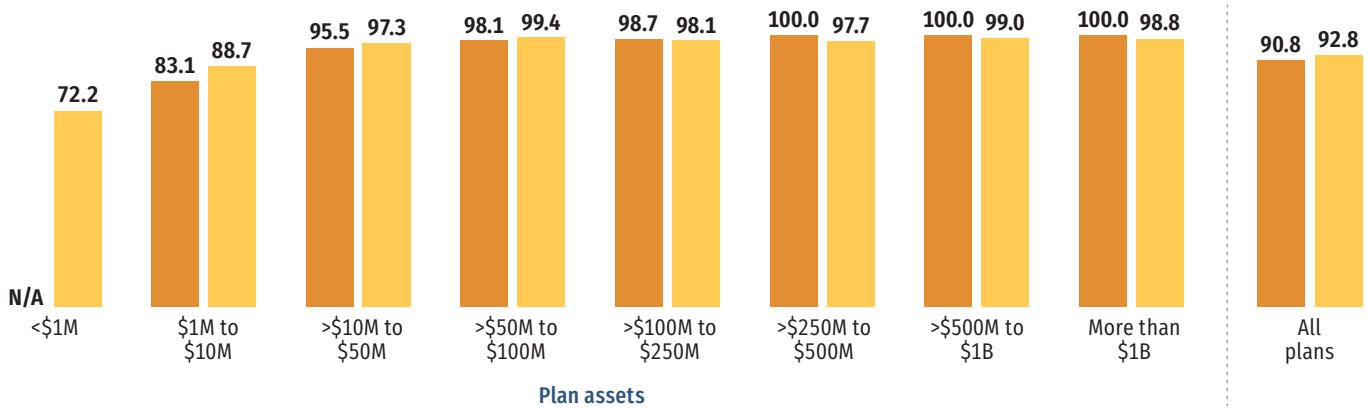
EXHIBIT 2.10

Core Index Fund Use Is Nearly Universal in Large ERISA 403(b) Plans

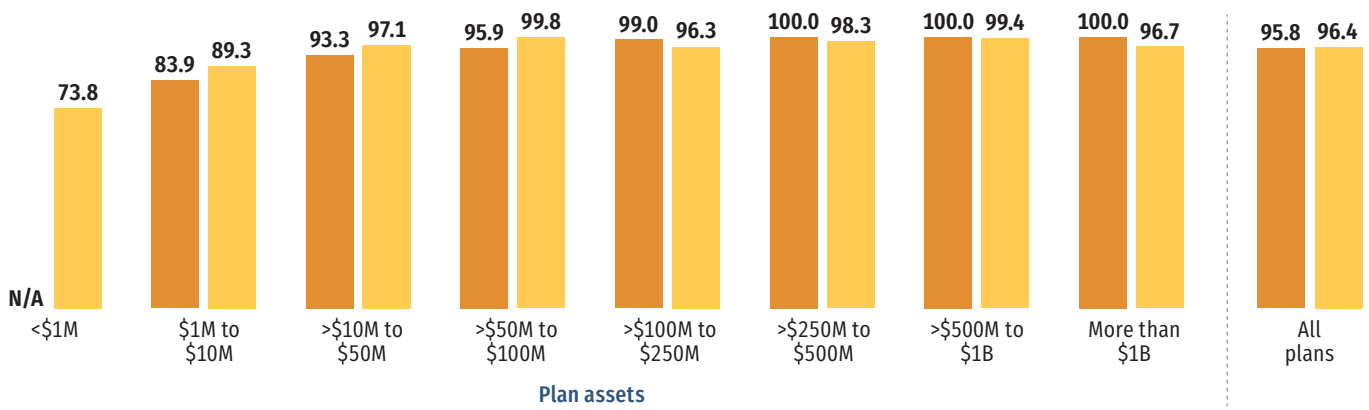
Percentage of plans offering, participants offered, and plan assets in index funds among plans with audited 403(b) filings in the BrightScope database by plan assets, 2009 and 2018

■ 2009
■ 2018

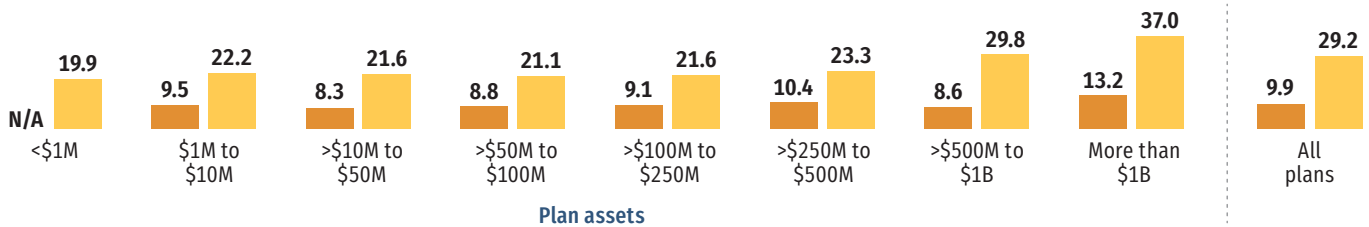
Percentage of plans offering core¹ index funds



Percentage of participants offered core¹ index funds



Percentage of plan assets in index funds²



¹ Core index funds are index funds that have at least 0.5 percent of plan assets.

² In the calculation of index fund assets, all index funds in the plan are counted.

Note: Samples are 3,697 plans in 2009 and 6,213 plans in 2018. Audited 403(b) filings generally include plans with 100 participants or more. An index fund is designed to track the performance of a market index. The fund's portfolio of securities is either a replicate or a representative sample of the designated market index. Funds include mutual funds and variable annuities.

Source: BrightScope Defined Contribution Plan Database

CHAPTER 3

Large ERISA 403(b) Plan Fees

Employers offering 403(b) plans typically hire service providers to assist in operating the plans, and those service providers charge fees for their services. Many types of services are required to operate a 403(b) plan, including administrative services (e.g., recordkeeping and transaction processing), participant-focused services (e.g., participant communication, education, or advice), regulatory and compliance services (e.g., plan document services; consulting, accounting, and audit services; or legal advice), annuity processing, and investment management. As with any other employee benefit, the employer typically decides how the costs will be shared. In order to cover the expenses of providing a 403(b) plan, fees are paid by the plan itself, the employer, and/or the plan participants. These fees can be levied based on the number of participants, the amount of assets, or as a fixed dollar amount for the plan as a whole.³² In order to better understand fees on average across the marketplace, BrightScope has developed a total plan cost measure that includes all fees on the audited Form 5500 reports as well as fees paid through investment expense ratios (see the box below for more details).

Total Plan Cost

In the review of overall 403(b) plan fees, it is important to consider the sample to be analyzed. Fees can be calculated at the plan level (where each plan is treated equally), at the participant level (where each participant is treated equally), or at the asset level (where each dollar is treated equally). Because the average plan tends to be small and the average participant and average dollar are in larger plans, the particular focus of the fee analysis can produce different answers. For this reason, total plan cost is presented on a plan-weighted, participant-weighted, and asset-weighted basis.

In 2018, the average large ERISA 403(b) plan in the BrightScope sample had a total plan cost of 0.82 percent of assets, while the average participant was in a plan with a total plan cost of 0.55 percent of assets, and the average dollar was in a plan with a total plan cost of 0.45 percent of assets (Exhibit 3.1). This pattern occurs for a couple of reasons. First, participants and assets tend to be concentrated in larger plans. For example, although only 1 percent of audited large ERISA 403(b) plans in the BrightScope Defined Contribution Plan Database have more than \$1 billion in plan assets, more than one-quarter of participants are in these plans, and they hold 40 percent of assets (see Exhibit 1.4). A similar pattern occurs in the DOL 403(b) universe.

ABOUT BRIGHTSCOPE'S TOTAL PLAN COST MEASURE

Total plan cost includes asset-based investment management fees, asset-based administrative and advice fees, and other fees (including insurance charges) from the Form 5500 and audited financial statements of 403(b) plans covered by ERISA. When plans use products registered under the Investment Company Act of 1940—such as mutual funds—expense data from Lipper are used to calculate fees.

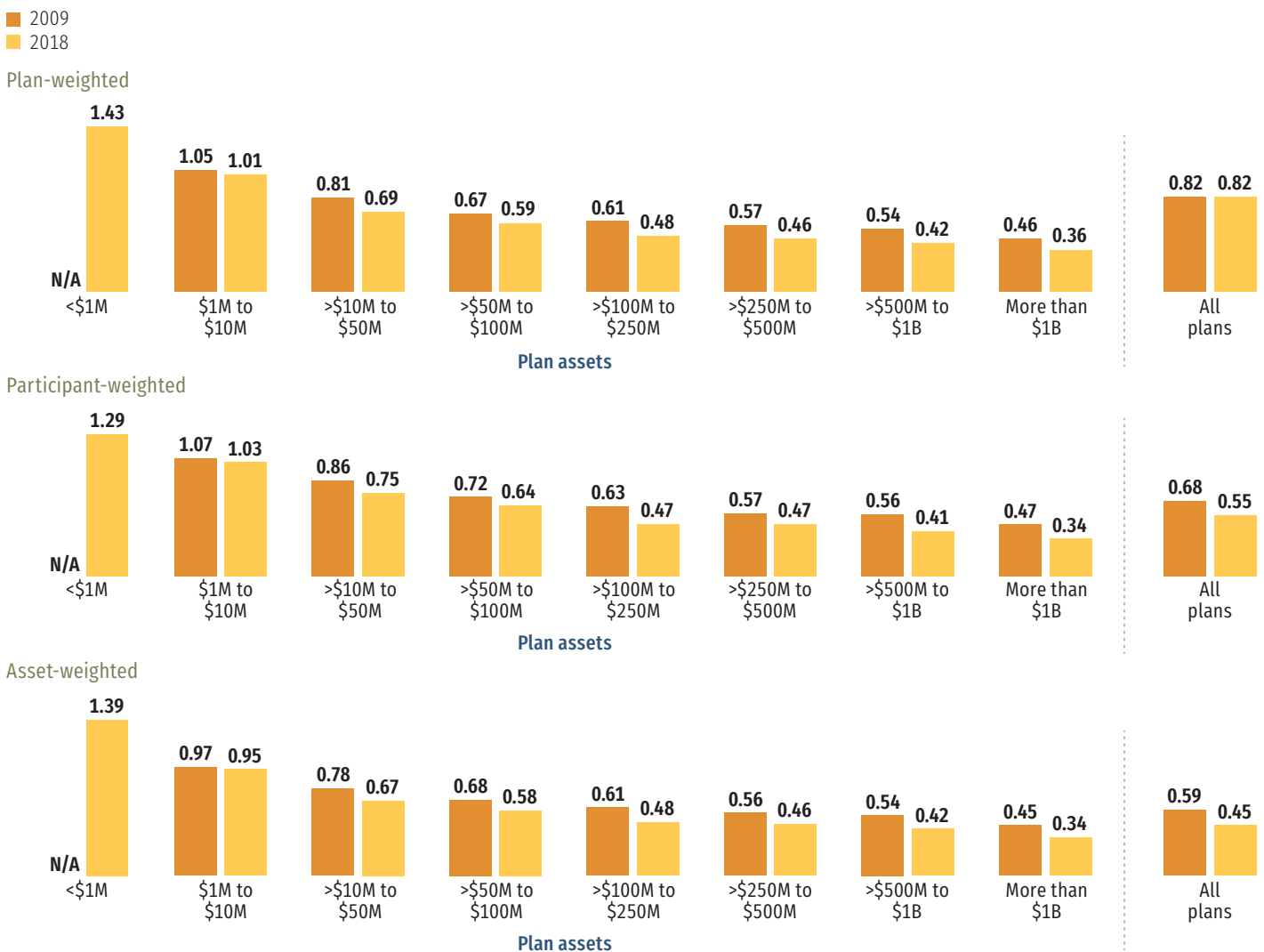
Another reason that participant-weighted and asset-weighted total plan costs are lower than plan-weighted total plan cost is because larger plans tend to have a lower total plan cost when measured as a percentage of plan assets. For example, large ERISA 403(b) plans with less than \$1 million in plan assets had an average total plan cost of 1.43 percent of plan assets in 2018, compared with 0.48 percent of plan assets for plans with more than \$100 million to \$250 million and 0.36 percent of plan assets for plans with more than \$1 billion (Exhibit 3.1, upper

panel). Similar patterns occur for both the participant-weighted and asset-weighted numbers. One reason that larger plans tend to have lower fees is related to the greater share of their assets invested in index funds (Exhibit 2.10), which tend to have lower expenses than other types of investments (Exhibit 3.3). In addition, there are fixed costs associated with offering a 403(b) plan. As a plan grows in size, those fixed costs can be spread over more participants and a larger asset base, lowering the total plan cost as a percentage of assets.

EXHIBIT 3.1

Large ERISA 403(b) Total Plan Cost by Plan Assets

Total plan cost* as a percentage of assets by plan assets among plans with audited 403(b) filings in the BrightScope database



* Total plan cost is BrightScope's measure of the total cost of operating the 403(b) plan and includes asset-based investment management fees, asset-based administrative and advice fees, and other fees (including insurance charges) from the Form 5500 and audited financial statements of ERISA-compliant 403(b) plans. Total plan cost is computed only for plans with sufficient information.

N/A = not available

Note: The samples are 1,587 plans with \$146.6 billion in assets in 2009 and 5,985 plans with \$474.5 billion in assets in 2018. Audited 403(b) filings generally include plans with 100 participants or more.

Sources: BrightScope Defined Contribution Plan Database and Lipper

Since 2009, large ERISA 403(b) total plan cost has decreased on average, whether measured on a participant- or asset-weighted basis (Exhibit 3.1).³³ For example, total plan cost decreased from 0.68 percent to 0.55 percent on a participant-weighted basis and from 0.59 percent to 0.45 percent on an asset-weighted basis. On a plan-weighted basis, total plan cost was 0.82 percent in both 2009 and 2018, reflecting the change in samples to include plans with less than \$1 million in assets in 2018.³⁴ All plan size groups saw declines in total plan cost between 2009 and 2018.

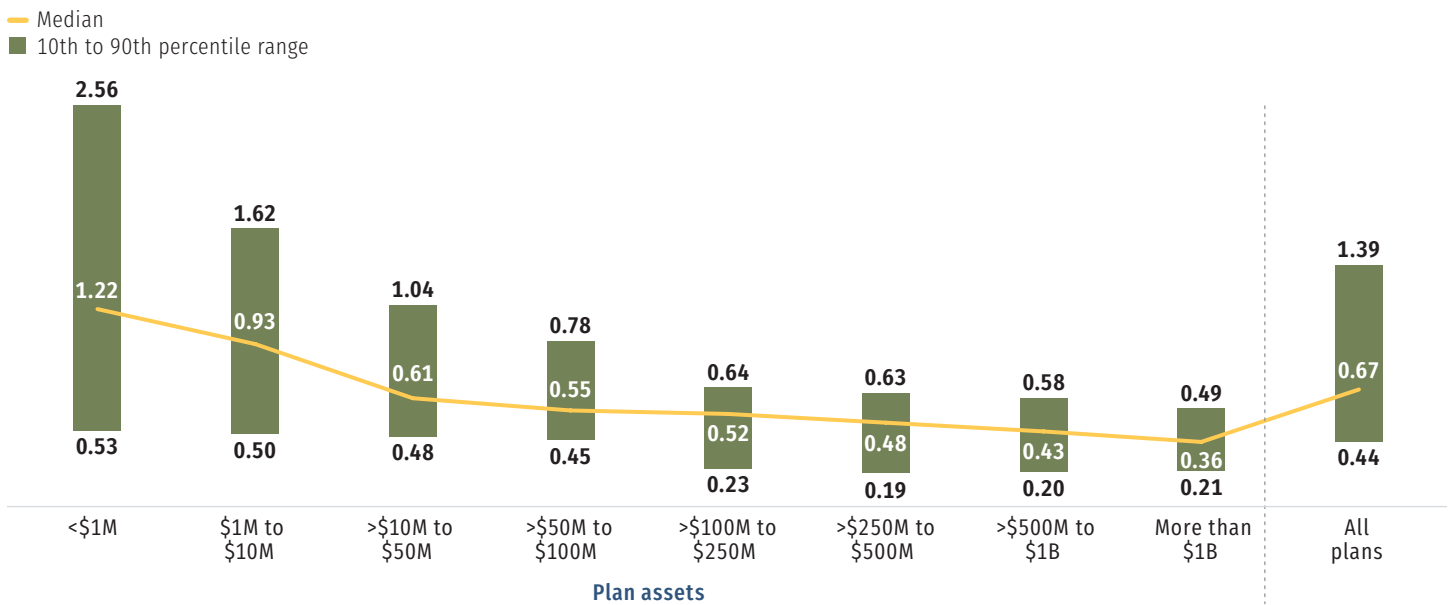
Large ERISA 403(b) total plan costs varied around the plan-weighted average of 0.82 percent in 2018. For example,

10 percent of plans had a total plan cost of 0.44 percent or less, while another 10 percent had a total plan cost of 1.39 percent or more (Exhibit 3.2). Although there is significant diversity in total plan cost, the difference between the 10th percentile and 90th percentile plans tends to decrease as plan size increases. For example, in large ERISA 403(b) plans with less than \$1 million in plan assets, total plan cost for 80 percent of plans ranged between 0.53 percent and 2.56 percent of assets. For plans with more than \$1 billion in plan assets, that range was significantly narrower, varying from 0.21 percent of assets to 0.49 percent.

EXHIBIT 3.2

Distribution of Large ERISA 403(b) Total Plan Cost by Plan Assets

10th percentile, median, and 90th percentile plan-weighted total plan cost* as a percentage of assets among plans with audited 403(b) filings in the BrightScope database by plan assets, 2018



* Total plan cost is BrightScope's measure of the total cost of operating the 403(b) plan and includes asset-based investment management fees, asset-based administrative and advice fees, and other fees (including insurance charges) from the Form 5500 and audited financial statements of ERISA-compliant 403(b) plans. Total plan cost is computed only for plans with sufficient information.

Note: The sample is 5,985 plans with \$474.5 billion in assets. Audited 403(b) filings generally include plans with 100 participants or more.

Sources: BrightScope Defined Contribution Plan Database and Lipper

Mutual Fund Expenses in Large ERISA 403(b) Plans

Some of the costs of a 403(b) plan are the expenses associated with the investments in the plan. Therefore, it is important to understand factors associated with these expenses (such as plan size or investment objective).

Mutual Fund Expenses by 403(b) Plan Size

In 2018, the asset-weighted average expense ratios of mutual funds in large ERISA 403(b) plans in the BrightScope Defined Contribution Plan Database varied both with the size of the plan (with larger plans, measured by assets, tending to have concentrated assets in mutual funds with lower expense ratios) and the type of investment (with domestic mutual funds tending to have lower expense ratios than international mutual funds, and money market mutual funds tending to have lower expense ratios than equity or bond mutual funds) (Exhibit 3.3).

The asset-weighted average expense ratio for domestic equity mutual funds—which include both index and active investment styles—held in large ERISA 403(b) plans in 2018 was 0.38 percent of assets, ranging from 0.63 percent in 403(b) plans with less than \$1 million in plan assets to 0.35 percent in plans with more

than \$1 billion (Exhibit 3.3, upper panel).³⁵ Expense ratios for international equity mutual funds—which include both index and active investment styles—held in large ERISA 403(b) plans were higher than those for domestic equity mutual funds, with an asset-weighted average of 0.46 percent of assets, ranging from 0.87 percent of assets in 403(b) plans with less than \$1 million in plan assets to 0.38 percent in plans with more than \$1 billion. Expense ratios for mutual funds tended not to vary as much for plans with different numbers of participants (Exhibit 3.3, lower panel).

In large ERISA 403(b) plans, the average expense ratios for domestic bond mutual funds—which include both index and active investment styles—were lower than domestic equity mutual fund expense ratios (0.33 percent of assets and 0.38 percent of assets, respectively, in 2018), but expense ratios for international bond mutual funds were higher than for international equity mutual funds (0.57 percent of assets and 0.46 percent of assets, respectively, in 2018) (Exhibit 3.3). Money market mutual funds in large ERISA 403(b) plans had the lowest expense ratio of any of the asset classes, with an asset-weighted average expense ratio of 0.24 percent of assets in 2018.

FEES PAID ON MUTUAL FUNDS HELD IN 403(b) PLANS

BrightScope's database of ERISA 403(b) audited Form 5500 filings contains reporting of mutual fund holdings by share class in DC plans for about 80 percent of the plans in the database. In the remaining cases where the mutual fund is known but not the specific share class, BrightScope assigns a share class to the mutual fund holdings in a given plan based on the size of the plan's investment in the mutual fund. If the plan has less than \$1 million invested in the mutual fund, a retail-type share class is assigned to the holding. If the plan has \$1 million or more invested in the mutual fund, then an institutional-type share class is assigned. Lipper and Morningstar fee data were used for the total expense ratios of mutual funds. Because BrightScope has plan-level information, it is possible to report how mutual fund fees vary across plan size and in aggregate.

The fund investment categories used in this report are broad and encompass diverse investment styles within the investment types (e.g., active and index); a range of general investment types (such as the domestic equity funds category, which aggregates growth, sector, alternative strategies, value, and blend); and a variety of arrangements for shareholder services, recordkeeping, or distribution charges (known as 12b-1 fees). This material is intended to provide general information on fees paid by participants in a wide variety of plans to provide insight into average fees across the marketplace. The fees of a particular plan will depend on factors specific to the plan, such as the exact investment options the plan offers and whether administrative and recordkeeping fees are included in the expense ratios or charged outside of them. Consequently, this material is not intended for benchmarking the costs of specific plans to the broad averages presented here.

Index mutual funds, which tend to be domestic equity index mutual funds,³⁶ tended to have lower expense ratios than other fund types. For example, the asset-weighted average expense ratio for index mutual funds in ERISA 403(b) plans was 0.11 percent of assets in 2018, compared with 0.38 percent of assets for domestic equity mutual funds (including both index and actively managed funds) (Exhibit 3.3). Like other mutual fund types, index mutual funds also tend to have lower expense

ratios in larger plans. For example, index mutual funds in large ERISA 403(b) plans with less than \$1 million in plan assets had an average expense ratio of 0.32 percent of assets, compared with 0.10 percent in plans with more than \$1 billion in plan assets. Similarly, index mutual funds in large ERISA 403(b) plans with fewer than 100 participants had an asset-weighted average expense ratio of 0.20 percent of assets, compared with 0.09 percent in plans with 10,000 participants or more.

EXHIBIT 3.3

Average Expense Ratios of Mutual Funds in Large ERISA 403(b) Plans, 2018

Asset-weighted average expense ratio as a percentage of mutual fund assets among plans with audited 403(b) filings in the BrightScope database by mutual fund investment objective, percent

Plan assets	Equity mutual funds		Balanced mutual funds		Bond mutual funds				Memo: index mutual funds
	Domestic	International	Target date mutual funds*	Non-target date balanced mutual funds	Domestic	International	Money market mutual funds	Other mutual funds	
<\$1M	0.63	0.87	0.73	0.85	0.62	0.79	0.39	0.76	0.32
\$1M to \$10M	0.51	0.72	0.55	0.61	0.52	0.67	0.34	0.67	0.20
>\$10M to \$50M	0.43	0.56	0.45	0.49	0.43	0.65	0.33	0.66	0.18
>\$50M to \$100M	0.41	0.51	0.42	0.47	0.37	0.58	0.29	0.66	0.15
>\$100M to \$250M	0.40	0.50	0.40	0.46	0.38	0.56	0.29	0.66	0.13
>\$250M to \$500M	0.39	0.51	0.44	0.39	0.36	0.62	0.28	0.67	0.11
>\$500M to \$1B	0.38	0.47	0.32	0.33	0.35	0.53	0.24	0.66	0.10
More than \$1B	0.35	0.38	0.22	0.25	0.25	0.52	0.20	0.63	0.10
All plans	0.38	0.46	0.32	0.35	0.33	0.57	0.24	0.65	0.11

Number of plan participants	Equity mutual funds		Balanced mutual funds		Bond mutual funds				Memo: index mutual funds
	Domestic	International	Target date mutual funds*	Non-target date balanced mutual funds	Domestic	International	Money market mutual funds	Other mutual funds	
Fewer than 100	0.42	0.50	0.41	0.50	0.39	0.57	0.32	0.65	0.20
100 to 499	0.42	0.53	0.47	0.54	0.42	0.61	0.33	0.66	0.20
500 to 999	0.40	0.49	0.42	0.52	0.37	0.62	0.29	0.65	0.16
1,000 to 4,999	0.39	0.48	0.37	0.39	0.35	0.55	0.27	0.65	0.12
5,000 to 9,999	0.36	0.46	0.36	0.31	0.32	0.57	0.23	0.65	0.10
10,000 or more	0.36	0.42	0.24	0.28	0.29	0.56	0.20	0.64	0.09
All plans	0.38	0.46	0.32	0.35	0.33	0.57	0.24	0.65	0.11

* A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

Note: The sample is 4,759 plans with \$357.2 billion in mutual fund assets. Audited 403(b) filings generally include plans with 100 participants or more. See Fees Paid on Mutual Funds Held in 403(b) Plans on page 40 for a description of the fee analysis. The underlying expense ratios of variable annuity mutual funds are included.

Sources: BrightScope Defined Contribution Plan Database and Morningstar

Mutual fund expenses decreased between 2009 and 2018 in large ERISA 403(b) plans across all asset classes, according to the cross-sectional data.³⁷ For example, domestic equity mutual funds—which include both index and active investment styles—had an asset-weighted average expense ratio of 0.38 percent

in 2018, down from 0.56 percent in 2009 (Exhibits 3.3 and 3.4). Similarly, domestic bond mutual fund expense ratios—which include both index and active investment styles—declined by 15 basis points (from 0.47 percent of assets to 0.32 percent) between 2009 and 2018.

EXHIBIT 3.4

Average Expense Ratios of Mutual Funds in Large ERISA 403(b) Plans, 2009

Asset-weighted average expense ratio as a percentage of mutual fund assets among plans with audited 403(b) filings in the BrightScope database by mutual fund investment objective, percent

Plan assets	Equity mutual funds		Balanced mutual funds		Bond mutual funds			Other mutual funds	Memo: index mutual funds
	Domestic	International	Target date mutual funds*	Non-target date balanced mutual funds	Domestic	International	Money market mutual funds		
<\$1M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
\$1M to \$10M	0.67	0.85	0.86	0.82	0.62	0.88	0.43	0.85	0.35
>\$10M to \$50M	0.60	0.75	0.81	0.79	0.55	0.89	0.41	0.88	0.35
>\$50M to \$100M	0.57	0.71	0.62	0.75	0.50	0.80	0.39	0.88	0.30
>\$100M to \$250M	0.59	0.74	0.69	0.65	0.49	0.80	0.38	0.84	0.27
>\$250M to \$500M	0.56	0.69	0.62	0.61	0.45	0.91	0.39	0.79	0.24
>\$500M to \$1B	0.52	0.67	0.72	0.50	0.42	0.91	0.36	0.79	0.24
More than \$1B	0.50	0.63	0.45	0.39	0.37	0.91	0.35	0.68	0.20
All plans	0.56	0.70	0.65	0.61	0.47	0.88	0.38	0.82	0.26

Number of plan participants	Equity mutual funds		Balanced mutual funds		Bond mutual funds			Other mutual funds	Memo: index mutual funds
	Domestic	International	Target date mutual funds*	Non-target date balanced mutual funds	Domestic	International	Money market mutual funds		
Fewer than 100	0.62	0.79	0.77	0.80	0.56	0.92	0.42	0.82	0.32
100 to 499	0.54	0.69	0.79	0.77	0.51	0.86	0.41	0.80	0.36
500 to 999	0.56	0.70	0.81	0.78	0.51	0.97	0.41	0.89	0.37
1,000 to 4,999	0.57	0.72	0.70	0.68	0.50	0.87	0.38	0.83	0.30
5,000 to 9,999	0.58	0.74	0.70	0.59	0.45	0.83	0.38	0.88	0.25
10,000 or more	0.53	0.66	0.54	0.46	0.40	0.91	0.35	0.74	0.18
All plans	0.56	0.70	0.65	0.61	0.47	0.88	0.38	0.82	0.26

* A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

N/A = not available

Note: The sample is 2,816 plans with \$98.9 billion in mutual fund assets. Audited 403(b) filings generally include plans with 100 participants or more. Plans with less than \$1 million in plan assets are excluded from this analysis. See Fees Paid on Mutual Funds Held in 403(b) Plans on page 40 for a description of the fee analysis. The underlying expense ratios of variable annuity mutual funds are included.

Sources: BrightScope Defined Contribution Plan Database and Lipper

Variation in Mutual Fund Expenses

In addition to the average expense ratio, it is important to examine different points in the distribution of expenses to understand the range of mutual fund expenses paid in large ERISA 403(b) plans. For example, while the asset-weighted average expense ratio on domestic equity mutual funds held in large ERISA 403(b) plans was 0.38 percent in 2018 (Exhibit 3.3), 10 percent of assets were invested in funds with expense ratios of 0.04 percent or less, and 10 percent of assets were invested in funds with expense ratios of 0.76 percent or more (see Exhibits 3.5 and A.5). Similar patterns were observed for international equity mutual funds. These investment categories include both index and active investment styles.

Although 403(b) equity mutual fund expenses tend to decrease as total assets in a 403(b) plan increase, mutual fund expenses vary in plans of all sizes. For example, expenses for equity mutual funds—which include both index and active investment styles—ranged from 0.05 percent at the asset-weighted 10th percentile to 1.39 percent at the asset-weighted 90th percentile in large ERISA 403(b) plans with less than \$1 million in plan assets (see Exhibits 3.5 and A.5). Similarly, equity mutual fund

expenses in large ERISA 403(b) plans with more than \$1 billion in plan assets ranged between 0.02 percent of assets at the asset-weighted 10th percentile to 0.72 percent at the asset-weighted 90th percentile.

The range in expenses is at least partly attributable to differences in the portion of the expense ratio that is used for shareholder services. For example, though some or all costs associated with plan recordkeeping can be paid by fees associated with the mutual fund investment, other costs may be paid as a per-participant charge by participants or the employer. Expenses also may be paid through a combination of these methods. In addition, the expense ratios applicable to funds vary within a given investment category.³⁸ For example, actively managed mutual funds can offer investors the chance to earn superior returns, access specialized sectors, or take advantage of alternative investment strategies, all of which can make a fund more expensive to manage. Similarly, equity mutual funds may be priced differently depending on the extent to which they invest in small-cap, mid-cap, or emerging market stocks (which tend to be more expensive to manage) instead of large-cap or developed market stocks (which tend to be less expensive to manage).

MUTUAL FUND INVESTMENT OBJECTIVES

ICI classifies mutual funds into categories based on their investment type (or objective). The broad categories analyzed in this report include a range of fund investment types and include both active and index fund investment styles. For instance, while all domestic equity funds invest primarily in the shares of US corporations, this category includes both index funds replicating the S&P 500 index and actively managed funds focused on small-cap companies or certain sectors, which are generally acknowledged to be more expensive to manage than portfolios of US large-cap stocks. Similarly, domestic bond funds (which can be actively managed or index) pursue a wide variety of investment strategies, including investing in government bonds (which are relatively inexpensive to manage) and high-yield bonds (which generally require more research and can be costlier to manage).

For more details on ICI's classifications, see "Mutual Fund Investment Objective Definitions" at www.ici.org/research/stats/iob_update/classification/iob_definitions.

For additional discussion of the variation of mutual fund fees across different investment types and styles, see "Trends in the Expenses and Fees of Funds, 2020," *ICI Research Perspective*, at www.ici.org/system/files/private/2021-04/per27-03.pdf.

EXHIBIT 3.5

Distribution of Mutual Fund Expense Ratios Paid by Large ERISA 403(b) Plan Participants

10th percentile, median, and 90th percentile asset-weighted mutual fund expense ratios as a percentage of plan assets among plans with audited 403(b) filings in the BrightScope database by investment objective and plan assets, percent, 2018



Note: The sample is 4,759 plans with \$357.2 billion in mutual fund assets. Audited 403(b) filings generally include plans with 100 participants or more. For detailed expense information, see Exhibit A.5 in the appendix. See Fees Paid on Mutual Funds Held in 403(b) Plans on page 40 for a description of the fee analysis. The underlying expense ratios of variable annuity mutual funds are included.

Sources: BrightScope Defined Contribution Plan Database and Morningstar

Appendix

EXHIBIT A.1

Large ERISA 403(b) Plan Activity Combinations

Percentage of plans with selected plan activity combinations by plan assets and number of plan participants, 2018

Plan assets	No activities	Employer contributions only	Outstanding loans only	Automatic enrollment only	Employer contributions and outstanding loans	Employer contributions and automatic enrollment	Outstanding loans and automatic enrollment	Employer contributions, outstanding loans, and automatic enrollment
<\$1M	29.9	31.4	9.8	2.7	19.5	4.6	0.6	1.5
\$1M to \$10M	9.8	27.3	8.8	0.5	41.4	2.9	1.5	7.8
>\$10M to \$50M	6.0	37.8	6.6	0.3	33.3	3.4	1.7	11.0
>\$50M to \$100M	4.4	38.8	5.9	1.7	30.2	5.7	1.7	11.7
>\$100M to \$250M	3.3	34.3	8.3	1.0	28.5	5.3	3.3	16.3
>\$250M to \$500M	3.6	21.1	10.2	0.0	36.7	5.4	4.8	18.1
>\$500M to \$1B	4.8	12.4	11.4	3.8	35.2	5.7	1.0	25.7
More than \$1B	2.8	18.1	9.7	1.4	37.5	5.5	4.2	20.8
All	8.5	31.6	8.0	0.7	35.6	3.7	1.8	10.1

Number of plan participants	No activities	Employer contributions only	Outstanding loans only	Automatic enrollment only	Employer contributions and outstanding loans	Employer contributions and automatic enrollment	Outstanding loans and automatic enrollment	Employer contributions, outstanding loans, and automatic enrollment
Fewer than 100	22.2	40.5	6.8	1.2	21.2	3.6	0.8	3.6
100 to 499	7.6	35.8	6.5	0.4	37.0	3.7	1.2	7.8
500 to 999	5.2	27.4	10.4	1.2	37.8	4.3	1.9	11.9
1,000 to 4,999	4.9	14.7	11.8	1.4	38.6	3.2	4.3	21.2
5,000 to 9,999	6.8	6.8	12.7	0.8	37.3	5.9	5.9	23.7
10,000 or more	1.9	5.6	18.9	1.9	39.6	0.9	5.7	25.5
All	8.5	31.6	8.0	0.7	35.6	3.7	1.8	10.1

Note: The sample is 5,859 plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). Plan design features include employer contributions, automatic enrollment, and participant loans. A plan was determined to allow participant loans if any participant had a loan outstanding at the end of plan year 2018.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

EXHIBIT A.2

Distribution of Participants by Large ERISA 403(b) Plan Activity Combinations

Percentage of participants in plans with selected plan activity combinations by plan assets and number of plan participants, 2018

Plan assets	No activities	Employer contributions only	Outstanding loans only	Automatic enrollment only	Employer contributions and outstanding loans	Employer contributions and automatic enrollment	Outstanding loans and automatic enrollment	Employer contributions, outstanding loans, and automatic enrollment
<\$1M	18.3	31.2	12.2	0.9	28.5	2.7	4.5	1.7
\$1M to \$10M	11.9	21.5	12.5	1.0	40.0	2.8	2.2	8.3
>\$10M to \$50M	4.6	22.4	14.0	0.4	37.7	2.8	3.1	15.0
>\$50M to \$100M	4.9	23.0	8.0	1.7	38.4	2.9	3.4	17.7
>\$100M to \$250M	4.2	13.6	20.0	0.9	33.6	2.2	6.0	19.6
>\$250M to \$500M	2.0	9.5	18.9	0.0	36.3	3.1	8.4	21.9
>\$500M to \$1B	3.1	5.6	12.4	3.1	38.4	4.3	2.6	30.4
More than \$1B	2.8	9.4	10.0	1.6	45.2	2.0	3.5	25.6
All	4.6	13.9	13.7	1.3	38.9	2.8	4.1	20.7

Number of plan participants	No activities	Employer contributions only	Outstanding loans only	Automatic enrollment only	Employer contributions and outstanding loans	Employer contributions and automatic enrollment	Outstanding loans and automatic enrollment	Employer contributions, outstanding loans, and automatic enrollment
Fewer than 100	14.3	45.3	5.4	0.3	26.0	3.0	0.9	4.8
100 to 499	7.2	34.3	7.0	0.4	37.4	3.9	1.2	8.6
500 to 999	5.4	26.8	10.3	1.3	37.8	4.3	2.1	12.0
1,000 to 4,999	4.7	14.3	12.3	1.4	37.8	2.7	4.8	22.0
5,000 to 9,999	7.5	7.1	13.9	0.9	34.9	6.4	6.1	23.3
10,000 or more	1.8	4.5	18.2	1.7	42.6	0.6	4.6	25.9
All	4.6	13.9	13.7	1.3	38.9	2.8	4.1	20.7

Note: The sample is 5,859 plans with 5.8 million participants and \$454.9 billion in assets. The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). Plan design features include employer contributions, automatic enrollment, and participant loans. A plan was determined to allow participant loans if any participant had a loan outstanding at the end of plan year 2018.

Source: Investment Company Institute tabulations of US Department of Labor 2018 Form 5500 Research File

EXHIBIT A.3

Employer Contribution Activity in Large ERISA 403(b) Plans

Percentage of large ERISA 403(b) plans with employer contributions by plan assets, plan year

Plan assets	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<\$1M	50	49	52	52	52	52	51	52	51	57
\$1M to \$10M	71	73	74	75	75	77	78	78	79	79
>\$10M to \$50M	78	79	80	81	81	83	84	85	85	85
>\$50M to \$100M	78	79	81	83	87	85	85	84	86	86
>\$100M to \$250M	74	75	80	78	79	80	80	82	82	84
>\$250M to \$500M	72	76	80	80	79	82	79	76	80	81
>\$500M to \$1B	75	69	73	70	74	76	73	74	79	79
More than \$1B	91	87	84	83	75	79	82	81	81	82
All	71	72	74	75	76	78	79	79	80	81

Note: The results include plans that filed Form 5500 Schedule H (typically plans with 100 participants or more). In plan year 2018, the sample is 5,859 large ERISA 403(b) plans.

Source: Investment Company Institute tabulations of US Department of Labor Form 5500 Research File

EXHIBIT A.4

Conditional Average Number of Core Investment Options by Type of Investment in Large ERISA 403(b) Plans

Average number of core investment options among plans with audited 403(b) filings in the BrightScope database offering a given core investment option by plan assets, 2018

Plan assets	Equity funds		Balanced funds		Bond funds		Money market mutual funds	Fixed annuities	Other ²	Memo: index funds
	Domestic	International	Target date funds ¹	Non-target date balanced funds	Domestic	International				
<\$1M	6.1	2.4	7.9	2.1	2.2	1.1	1.0	1.1	1.1	4.8
\$1M to \$10M	8.0	2.5	9.5	2.4	2.3	1.1	1.0	1.3	1.2	6.0
>\$10M to \$50M	8.7	2.5	12.3	1.9	2.7	1.6	1.1	1.5	1.3	7.3
>\$50M to \$100M	9.0	2.7	13.2	1.5	2.9	(*)	1.2	1.4	1.3	7.8
>\$100M to \$250M	9.2	2.8	13.4	1.3	3.0	1.8	1.2	1.4	1.4	8.0
>\$250M to \$500M	9.3	2.9	14.5	1.4	3.3	(*)	1.3	1.6	1.4	9.2
>\$500M to \$1B	9.5	3.0	13.9	1.4	3.2	1.0	1.5	1.4	1.5	12.2
More than \$1B	10.5	3.1	17.2	1.6	3.3	(*)	1.6	1.5	1.7	16.6
All plans	8.4	2.6	11.3	2.0	2.6	1.1	1.1	1.3	1.4	7.0

¹ A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

² Other includes commodity funds, real estate funds, and brokerage accounts, but each separate option is counted as a unique investment option.

(*) = less than 0.05 percent

Note: The sample is 6,213 plans with \$485.5 billion in assets. Participant loans are excluded. Funds include mutual funds and variable annuities. Audited 403(b) filings generally include plans with 100 participants or more. Investment options include mutual fund, variable annuity, and fixed annuity options. Core investment options are those that have at least 0.5 percent of plan assets. The funds in a target date fund suite are included if at least 0.5 percent of plan assets are invested in that suite.

Source: BrightScope Defined Contribution Plan Database

EXHIBIT A.5

Detailed Distribution of Mutual Fund Expense Ratios in Large ERISA 403(b) Plans

10th percentile, median, and 90th percentile asset-weighted mutual fund expense ratios as a percentage of plan assets among plans with audited 403(b) filings in the BrightScope database by investment objective and plan assets, percent, 2018

10th percentile	Equity mutual funds			Balanced mutual funds			Bond mutual funds			Money market mutual funds	Other	Memo: index mutual funds
	All	Domestic	International	All	Target date mutual funds*	Non-target date balanced mutual funds	All	Domestic	International			
<\$1M	0.05	0.04	0.29	0.14	0.13	0.18	0.07	0.07	0.20	0.15	0.18	0.04
\$1M to \$10M	0.05	0.05	0.17	0.13	0.13	0.13	0.11	0.11	0.17	0.11	0.24	0.04
>\$10M to \$50M	0.05	0.05	0.14	0.13	0.13	0.13	0.10	0.10	0.11	0.11	0.66	0.04
>\$50M to \$100M	0.04	0.04	0.11	0.13	0.13	0.14	0.05	0.05	0.11	0.11	0.66	0.04
>\$100M to \$250M	0.04	0.04	0.08	0.09	0.09	0.17	0.05	0.04	0.07	0.11	0.66	0.04
>\$250M to \$500M	0.04	0.04	0.08	0.09	0.09	0.14	0.04	0.04	0.52	0.11	0.66	0.04
>\$500M to \$1B	0.04	0.04	0.08	0.09	0.09	0.17	0.04	0.04	0.11	0.11	0.66	0.04
More than \$1B	0.02	0.02	0.06	0.09	0.09	0.13	0.03	0.03	0.07	0.10	0.66	0.02
All plans	0.04	0.04	0.07	0.09	0.09	0.13	0.04	0.04	0.11	0.10	0.66	0.03

Median	Equity mutual funds			Balanced mutual funds			Bond mutual funds			Money market mutual funds	Other	Memo: index mutual funds
	All	Domestic	International	All	Target date mutual funds*	Non-target date balanced mutual funds	All	Domestic	International			
<\$1M	0.66	0.62	0.82	0.73	0.72	0.86	0.60	0.60	0.94	0.34	0.66	0.14
\$1M to \$10M	0.44	0.43	0.69	0.53	0.49	0.57	0.45	0.44	0.72	0.34	0.66	0.14
>\$10M to \$50M	0.43	0.43	0.44	0.42	0.42	0.52	0.40	0.40	0.69	0.34	0.66	0.13
>\$50M to \$100M	0.43	0.43	0.44	0.42	0.42	0.48	0.40	0.40	0.60	0.34	0.66	0.13
>\$100M to \$250M	0.43	0.43	0.44	0.42	0.42	0.44	0.40	0.40	0.59	0.34	0.66	0.09
>\$250M to \$500M	0.43	0.43	0.49	0.48	0.49	0.28	0.40	0.40	0.67	0.34	0.66	0.09
>\$500M to \$1B	0.43	0.41	0.48	0.17	0.15	0.28	0.40	0.40	0.59	0.32	0.66	0.09
More than \$1B	0.38	0.38	0.44	0.10	0.09	0.17	0.26	0.26	0.65	0.11	0.66	0.09
All plans	0.43	0.40	0.44	0.15	0.15	0.28	0.40	0.40	0.59	0.32	0.66	0.09

Continued on next page

EXHIBIT A.5 CONTINUED

Detailed Distribution of Mutual Fund Expense Ratios in Large ERISA 403(b) Plans

10th percentile, median, and 90th percentile asset-weighted mutual fund expense ratios as a percentage of plan assets among plans with audited 403(b) filings in the BrightScope database by investment objective and plan assets, percent, 2018

90th percentile	Equity mutual funds			Balanced mutual funds			Bond mutual funds			Money market mutual funds	Other	Memo: index mutual funds
	All	Domestic	International	All	Target date mutual funds*	Non-target date balanced mutual funds	All	Domestic	International			
<\$1M	1.39	1.24	1.54	1.26	1.26	1.52	1.10	1.10	1.01	0.53	1.69	0.94
\$1M to \$10M	1.09	1.03	1.25	1.12	1.11	1.15	0.97	0.96	1.01	0.45	1.02	0.39
>\$10M to \$50M	0.85	0.81	1.07	0.88	0.86	0.93	0.78	0.78	1.01	0.40	0.66	0.38
>\$50M to \$100M	0.80	0.76	0.89	0.72	0.72	0.82	0.67	0.67	0.92	0.39	0.66	0.35
>\$100M to \$250M	0.78	0.76	0.87	0.72	0.72	0.78	0.67	0.67	0.86	0.39	0.66	0.34
>\$250M to \$500M	0.81	0.77	0.87	0.72	0.72	0.71	0.65	0.64	0.84	0.42	0.78	0.34
>\$500M to \$1B	0.79	0.76	0.82	0.66	0.66	0.57	0.69	0.69	0.66	0.42	0.66	0.18
More than \$1B	0.72	0.72	0.79	0.57	0.57	0.52	0.46	0.46	0.83	0.34	0.66	0.15
All plans	0.77	0.76	0.87	0.70	0.70	0.70	0.64	0.61	0.86	0.39	0.66	0.29

* A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

Note: The sample is 4,759 plans with \$357.2 billion in mutual fund assets. Audited 403(b) filings generally include plans with 100 participants or more. See Fees Paid on Mutual Funds Held in 403(b) Plans on page 40 for a description of the fee analysis. The underlying expense ratios of variable annuity mutual funds are included.

Sources: BrightScope Defined Contribution Plan Database and Morningstar

EXHIBIT A.6

Sample Sizes

Plan year 2018

	Plans Number	Participants Millions	Assets Billions of dollars	Exhibits
US Department of Labor ERISA universe	18,478	6.9	\$510.2	1.2-1.6
Schedule H	5,859	5.8	454.9	1.1-1.5, 1.11-1.13, A.1-A.3
Employer contribution information	1,642	1.5	158.3	1.7-1.8, 1.10
With simple match	998	1.1	90.6	1.9
BrightScope audited ERISA 403(b) filings	6,213	6.3	485.5	1.4-1.6, 2.1-2.10, A.4
With vesting information	2,543	2.1	153.4	1.6
With total plan cost	5,985	6.1	474.5	3.1-3.2
<i>BrightScope audited ERISA 403(b) filings with mutual funds*</i>	4,759	5.9	357.2	3.3, 3.5, A.5

* Assets reported are assets held in mutual funds.

Sources: BrightScope Defined Contribution Plan Database, Investment Company Institute, and US Department of Labor 2018 Form 5500 Research File

Notes

- ¹ See Internal Revenue Service 2021, Giller 2009, and Hallsten and Architect 1994.
- ² See Internal Revenue Service 2021.
- ³ See Giller 2009 and Richardson and Gallagher 2010.
- ⁴ See Giller 2009 and Richardson and Gallagher 2010.
- ⁵ See Richardson and Gallagher 2010. Keim and Mitchell 2016, studying the defined contribution plan at a large nonprofit institution, explores the benefits of streamlining defined contribution plan investment lineups.
- ⁶ As of 2009, 403(b) plans falling under ERISA were required to file participation and financial information. This new reporting requirement led to an increase in the number of 403(b) plan participants and assets reported. ERISA 403(b) plan assets jumped from \$1.5 billion in 2008 to \$203.2 billion in 2009 (see US Department of Labor, Employee Benefits Security Administration 2012a and 2015).
- ⁷ For example, see Clark and Richardson 2010, Yakoboski and Conley 2013, and Clark and Hanson 2013.
- ⁸ This exhibit reports total 403(b) plan assets estimated by ICI (see Investment Company Institute 2021b) and total ERISA 403(b) plan assets estimated from the BrightScope Defined Contribution Plan Database in 2018 (see Exhibit I.4). The total ERISA 403(b) plan estimates from the BrightScope Defined Contribution Plan Database are different from the totals published by the DOL (see US Department of Labor, Employee Benefits Security Administration 2021a) because of late filers and other data amendments that may have occurred since the publication of the DOL results.
- ⁹ Though the Form 5500 is a joint form with the Pension Benefit Guaranty Corporation (PBGC) and Internal Revenue Service (IRS), the DOL gathers and processes the information from the regulatory reports. See US Department of Labor, Employee Benefits Security Administration, “Forms and Filing Instructions.”
- ¹⁰ The US Department of Labor Form 5500 Research Files are available at www.dol.gov/agencies/ebsa/researchers/data/private-pension-plan-data.
- ¹¹ For more information on filing requirements, see US Department of Labor, Employee Benefits Security Administration 2012b.
- ¹² See US Department of Labor, Employee Benefits Security Administration 2021a.
- ¹³ For example, see Richardson and Bissette 2014 and Goodman and Richardson 2014.
- ¹⁴ For example, see Clark and Richardson 2010.
- ¹⁵ Participants in 403(b) plans may also have access to account assets through withdrawals. The Form 5500 filings do not have information on the plan design features surrounding withdrawal activity. There are two possible types of in-service withdrawals from DC plans: nonhardship and hardship. Generally, participant withdrawals after age 59½ are categorized as nonhardship withdrawals. A participant seeking a hardship withdrawal must demonstrate financial hardship and generally faces a 10 percent penalty on the taxable portion of the withdrawal. Prior to 2019, if a plan allowed loans, participants were generally required to take a loan before they were permitted to take a hardship withdrawal. For a discussion of the rule change and DC plan participants’ withdrawal activity, see Holden, Schress, and Chism 2021.

- ¹⁶ The plan sponsor also usually selects the default investment option. Plan Sponsor Council of America 2020 reports the different default investment options selected among its member plans with automatic enrollment.
- ¹⁷ For example, see Plan Sponsor Council of America 2020. For similar analysis of 401(k) plans, see Deloitte Consulting LLP 2019a and 2019b and Holden, VanDerhei, and Bass 2021. The Vanguard Group also releases an annual report focusing on defined contribution plans in its recordkeeping system. For the most recent report, focusing on 2020 plan data, see Alling and Clark 2021.
- ¹⁸ The Form 5500 is an annual disclosure submitted to the DOL by ERISA-covered employer-sponsored retirement plans, including ERISA 403(b) plans. The filings include information on plan assets, covered employees, contributions, withdrawals, loans, and automatic enrollment. For tabulations from the most recent release of Form 5500 data, see US Department of Labor, Employee Benefits Security Administration 2021b.
- ¹⁹ Plan Sponsor Council of America 2020 reports that 96.6 percent of 403(b) plans in its survey offered employer contributions in 2019.
- ²⁰ For this analysis, ICI gathered employer contribution structures from a random sample of 1,642 large ERISA 403(b) plans with employer contributions for plan year 2018. In plan year 2018, 81.0 percent of large ERISA 403(b) plans had employer contributions.
- ²¹ In cases where a plan has multiple employer contribution formulas for different employees, the classifications in this report are based on the contribution formula that was judged to apply to the typical participant.
- ²² Since the enactment of Social Security, Congress has allowed private-sector employers to account for Social Security in their pension plans. This process—known as integration—permits a higher benefit formula or a higher employer contribution rate on earnings not covered by Social Security. Permitted disparity—the provision in the tax code that allows Social Security integration—is defined in Section 401(l) of the Internal Revenue Code. See US Department of the Treasury, Internal Revenue Service 2010 and Perun 2002 for a discussion of Social Security integration. Perun 2002 finds that, as of 1997, more than one in four private-sector defined benefit (DB) plans were integrated and about one in four private-sector DC plans were integrated. Because integrated private-sector DB plans tend to be larger than average, about 42 percent of private-sector DB participants were in an integrated plan in 1997. The study was not able to determine the exact proportion of private-sector DC participants in integrated plans, but because most integrated DC plans in the 1997 sample were very small (75 percent had fewer than 20 participants), fewer than one in four private-sector DC participants were in integrated plans.
- ²³ Plans may also allow withdrawals (see note 15).
- ²⁴ Participant loans generally must be paid back within five years; however, loans for the purchase of a principal residence may qualify for a longer repayment period. Participants who separate from employment with an outstanding loan may be required to repay the loan shortly after separation. Otherwise, the outstanding balance is deemed distributed and potentially subject to taxation and penalties. For more information, see Internal Revenue Service 2021.
- ²⁵ Although the Form 5500 data do not contain the amount of loans defaulted in any given year, in plan year 2018, outstanding participant loans made up only 0.7 percent (\$3.3 billion) of the \$500.7 billion in large ERISA 403(b) plan assets (see US Department of Labor, Employee Benefits Security Administration 2021a).
- ²⁶ Research on the impact of the availability of a loan feature on 401(k) plan participation and contributions has found either positive effects or no discernible impact, depending on the study. For example, Beshears et al. 2010 finds that adding a loan option increases 401(k) plan participation but does not find a conclusive impact on contributions. Mitchell, Utkus, and Yang 2007 finds no impact of loans on participation rates but concludes that the loan option increases the contribution rate by 10 percent among non-highly paid participants. Regression analysis in US Government Accountability Office 1997 finds that—controlling for firm size, the employer match rate, and the presence of another pension plan—a loan provision was associated with a participation rate that was about 6 percentage points higher and a 36.8 percent higher average employee deferral rate. Holden and VanDerhei 2001 and Munnell, Sundén, and Taylor 2000 find that the presence of a loan provision increases 401(k) participant contribution rates.
- ²⁷ Plans are classified as having a loan provision if any participant in the plan has an outstanding loan balance. This may understate the number of plans offering loans because some plans may have offered a loan option, but no participant had taken out a loan.
- ²⁸ Plan Sponsor Council of America 2020 reports that 77.2 percent of 403(b) plans in its survey allowed loans.
- ²⁹ Participant loan balances outstanding from large ERISA 403(b) plans in plan year 2018 totaled \$3.3 billion, which is less than 1 percent of large ERISA 403(b) plan assets (see note 25).
- ³⁰ Defined contribution retirement plans are one of many employee benefits an employer may choose to offer.
- ³¹ See Richardson and Gallagher 2010, Clark and Richardson 2010, and Yakoboski and Conley 2013.
- ³² For a discussion of the economics, services, and fees in 401(k) plans, see Holden, Duvall, and Chism 2021.
- ³³ Because no plans with less than \$1 million in assets were analyzed in 2009, the average total plan cost figures presented for 2009 and 2018 are not directly comparable. However, since total plan cost tends to decrease as plan assets increase, the differences presented likely underestimate the decline in the total plan cost for 403(b) plans over this period.
- ³⁴ If plans with less than \$1 million in plan assets were excluded from the sample in 2018, total plan cost would have decreased from 0.82 percent in 2009 to 0.80 percent in 2018 on a plan-weighted basis (see note 33).

³⁵ Funds for which fee data were not available have been excluded. In addition, the audited Form 5500 reports contain share class data for approximately 80 percent of the 403(b) plans in the BrightScope database. For the remainder, if a plan's investment in a fund was less than \$1 million in assets, it was assumed that the plan was invested in retail-type shares (A shares or their equivalents), while a plan's investment of \$1 million or more in a fund was assumed to be invested in institutional-type shares (institutional shares or their equivalents). The impact of this assumption was tested by assigning to each fund the simple average expense ratio of all of its share classes. This tends to increase the average expense ratios presented but does not significantly alter the remaining analysis (whether the comparison is across asset categories or across number of plan participants). Additionally, the fund investment categories used in this report are broad and encompass diverse investment styles within the investment types (e.g., active and index); a range of general investment types (such as the domestic equity funds category, which aggregates growth, sector, alternative strategies, value, and blend); and a variety of arrangements for shareholder services, recordkeeping, or distribution charges (known as 12b-1 fees). This material is intended to provide general information on fees paid by participants in a wide variety of plans to provide insight into average fees across the marketplace. The fees of a particular plan will depend on factors specific to the plan, such as the exact investment options the plan offers and whether administrative and recordkeeping fees are included in the expense ratios or charged outside of them. Consequently, this material is not intended for benchmarking the costs of specific plans to the broad averages presented here.

³⁶ At year-end 2020, 67 percent of index mutual fund assets were invested in domestic equity indexes, 13 percent were in world equity indexes, and the remaining 19 percent were in bond and hybrid indexes. See Table 42 in Investment Company Institute 2021a.

³⁷ Because no plans with less than \$1 million in assets were analyzed in 2009, the average expense ratios presented for 2009 and 2018 are not directly comparable. However, since expense ratios for mutual funds tend to decrease as plan assets increase, the differences presented likely underestimate the declines in expense ratios for mutual funds held in 403(b) plans over this period.

³⁸ For example, for a discussion of the range of services offered in S&P 500 index funds, see Collins 2005.

Glossary

automatic enrollment

The practice of enrolling eligible employees in a plan and initiating participant deferrals unless the employee opts out.

automatic increase

A provision found in some defined contribution plans in which an employee's contribution rate is automatically increased at a preestablished point in time unless the employee chooses otherwise.

defined contribution (DC) plan

An employer-sponsored retirement plan, such as a 401(k) plan or a 403(b) plan, in which contributions are made to individual participant accounts. Depending on the type of DC plan, contributions may be made by the employee, the employer, or both. The employee's benefits at retirement or termination of employment are based on the employee and employer contributions and earnings and losses on those contributions. See also **401(k) plan** and **403(b) plan**.

eligible plan participant

Any employee who is eligible to participate in and receive benefits from a plan.

employer contribution

A contribution made by the company to the account of the participant (often in the form of a company match based on a ratio to contributions made by the participant).

ERISA

The Employee Retirement Income Security Act of 1974 is a federal law governing private-sector employee benefit plans.

expense ratio

A measure of what it costs to operate a fund—disclosed in the prospectus and shareholder reports—expressed as a percentage of its assets.

fixed annuity

An investment contract sold by an insurance company. Capital is accumulated at a specified rate of interest with the option to convert to an income stream in retirement.

Form 5500

An annual disclosure submitted to the US Department of Labor by ERISA-covered employer-sponsored retirement plans, including 401(k) and certain 403(b) plans.

Form 5500 audited filing

An independently audited report generally required by federal law for ERISA-covered employer-sponsored retirement plans with 100 participants or more.

401(k) plan

An employer-sponsored retirement plan that enables employees to make tax-deferred contributions from their salaries to the plan. See also **defined contribution (DC) plan**.

403(b) plan

An employer-sponsored retirement plan that enables employees of universities, public schools, and nonprofit organizations to make tax-deferred contributions from their salaries to the plan. See also **defined contribution (DC) plan**.

fund

A pooled investment product. In this report, funds include mutual funds and variable annuities.

index fund

A fund designed to track the performance of a market index. The fund's portfolio of securities is either a replicate or a representative sample of the designated market index. Often referred to as *passively managed portfolios*.

mutual fund

An investment company registered with the Securities and Exchange Commission that buys a portfolio of securities selected by a professional investment adviser to meet a specified financial goal (investment objective). Mutual funds can have actively managed portfolios, in which a professional investment adviser creates a unique mix of investments to meet a particular investment objective, or passively managed portfolios, in which the adviser seeks to track the performance of a selected benchmark or index. One hallmark of mutual funds is that they issue redeemable securities, meaning that the fund stands ready to buy back its shares at their current net asset value (NAV).

plan assets

The total assets held among all participants within the plan.

recordkeeper

A recordkeeper maintains plan records; processes employee enrollment; processes participants' investment elections, contributions, and distributions; and issues account statements to participants.

target date fund

A balanced fund that follows a predetermined reallocation of risk over a working career and into retirement for a person expecting to retire at the target date of the fund (which is usually included in the fund's name). These funds invest in a mix of asset classes and typically rebalance their portfolios over time to become less focused on growth and more focused on income as the fund approaches and passes the target date. Also known as a lifecycle fund.

total plan cost

BrightScope's measure of the total cost of operating a DC plan, which includes asset-based investment management fees, asset-based administrative and advice fees, and other fees (including insurance charges) from the Form 5500 and audited financial statements of ERISA-covered DC plans.

variable annuity

An investment contract sold by an insurance company. Capital is accumulated, often through mutual fund investments, with the option to convert to an income stream in retirement.

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