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For a complete set of data files for each figure in this report, see www.ici.org/info/per23-04_data.xls.

The Economics of Providing 401(k) Plans: Services, Fees, and Expenses, 2016

KEY FINDINGS

- » **401(k) plan participants investing in mutual funds tend to hold lower-cost funds.** At year-end 2016, 401(k) plan assets totaled \$4.8 trillion, with nearly 37 percent invested in equity mutual funds. In 2016, the average expense ratio for equity mutual funds offered in the United States was 1.28 percent. 401(k) plan participants who invested in equity mutual funds, however, paid less than half that amount, 0.48 percent, on average.
- » **The expense ratios that 401(k) plan participants incur for investing in mutual funds have declined substantially since 2000.** In 2000, 401(k) plan participants incurred an average expense ratio of 0.77 percent for investing in equity mutual funds. By 2016, that figure had fallen to 0.48 percent, a 38 percent decline. The expenses that 401(k) plan participants incurred for investing in hybrid and bond mutual funds also fell from 2000 to 2016, by 26 percent and 43 percent, respectively.
- » **The downward trend in the expense ratios that 401(k) plan participants incur for investing in mutual funds continued in 2016.** The average expense ratio that 401(k) plan participants incurred for investing in equity mutual funds fell from 0.51 percent in 2015 to 0.48 percent in 2016. The average expense ratio that 401(k) plan participants incurred for investing in hybrid mutual funds fell from 0.54 percent in 2015 to 0.53 percent in 2016. And the average expense ratio that 401(k) plan participants incurred for investing in bond mutual funds fell from 0.38 percent in 2015 to 0.35 percent in 2016.
- » **401(k) plans are a complex employee benefit to maintain and administer, and they are subject to an array of rules and regulations.** Employers offering 401(k) plans typically hire service providers to operate these plans, and these providers charge fees for their services.
- » **Employers and employees generally share the costs of operating 401(k) plans.** As with any employee benefit, the employer typically determines how the costs will be shared.

Why Employers Offer 401(k) Plans

During the past three decades, 401(k) plans have become a popular workplace benefit. 401(k) plans allow workers to defer income tax on the portion of their compensation that is set aside for retirement;¹ in addition, they are flexible, allowing employees to make elective deferrals and typically providing a choice of investments. Indeed, 401(k) plans have become the most common defined contribution (DC) plan, holding \$4.8 trillion in assets at year-end 2016 (Figure 1).² Over the past two and a half decades, mutual funds have become the primary vehicle for 401(k) plan investments, with the share of employer-sponsored 401(k) plan assets held in mutual funds rising from 9 percent at year-end 1990 to 63 percent at year-end 2016.

Employers that offer 401(k) plans, an optional employee benefit, face conflicting economic pressures: the need to attract and retain qualified workers with competitive compensation packages, and the need to keep their products and services competitively priced. As a firm increases overall compensation to its employees, it increases its ability to hire and retain workers but also increases the costs of producing its products and services.

To provide and maintain 401(k) plans, employers are required to obtain a variety of administrative, participant-focused, regulatory, and compliance services. All of these services involve costs; generally, the plan sponsor and the plan participants share these costs.

Paying for 401(k) Plan Services

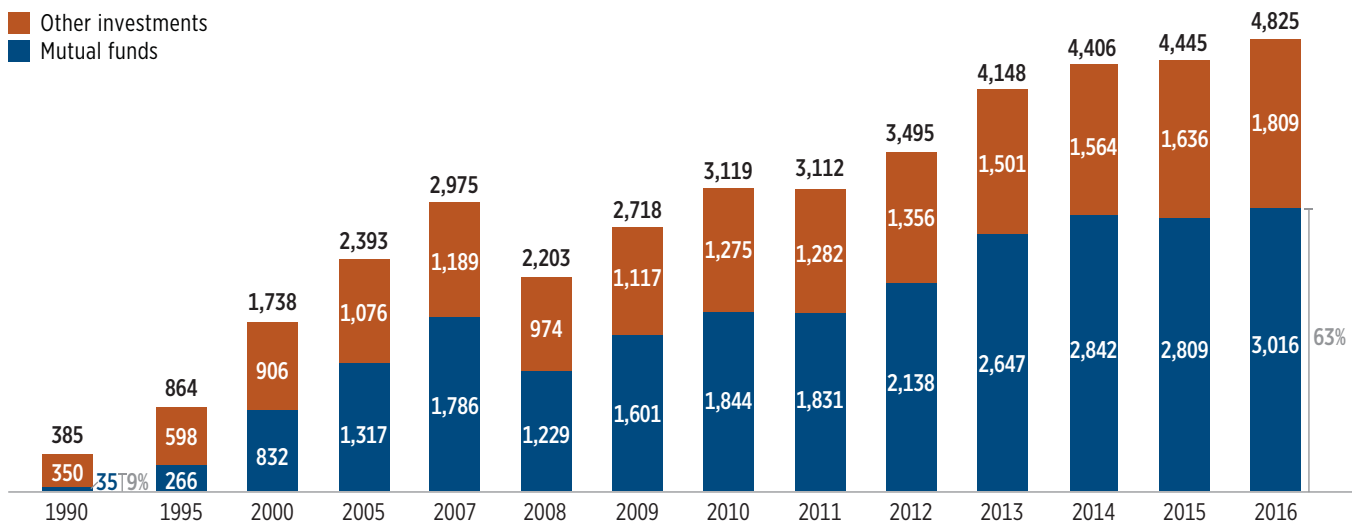
401(k) Plan Services Are Strictly Regulated

401(k) plans are complex to maintain and administer, and they are subject to an array of rules and regulations that govern all qualified tax-deferred employee benefit plans, including Section 401(a) of the Internal Revenue Code (IRC), which stipulates the requirements that employee benefit plans must meet to qualify for the deferral of federal income tax.³ The Department of the Treasury and Internal Revenue Service (IRS) have issued numerous regulations to implement these tax code provisions and enforce the requirements that plans must satisfy to qualify for favorable tax treatment.⁴ Further, the plans must meet many statutory and regulatory requirements under the Employee Retirement Income Security Act of 1974 (ERISA), enforced by the Department of Labor (DOL).

FIGURE 1

401(k) Plan Assets

Billions of dollars, selected years



Note: Components may not add to the total because of rounding.

Sources: Investment Company Institute, Federal Reserve Board, and US Department of Labor

401(k) Plan Sponsors Provide a Variety of Services

When an employer offers a 401(k) plan to its employees, it selects an individual or group of individuals, known as plan fiduciaries,⁵ to oversee the administration of the 401(k) plan for the exclusive benefit of plan participants, consistent with ERISA and the terms of the plan. The plan fiduciaries must arrange for the provision of the many services required to create and maintain a 401(k) plan.

Administrative services maintain the framework of a 401(k) plan and include recordkeeping functions, such as maintaining plan and participant records and creating and delivering participant account statements (Figure 2). DOL regulations generally require plans to allow participants to change their investment elections at least quarterly,⁶ but

most 401(k) plan participants are permitted to make daily transactions in their plans.⁷ Administrative service providers process all participant transactions. In addition, plan fiduciaries must arrange for administrative services relating to setting up, converting, and terminating plans, as well as trustee services.⁸

Participant-focused services help employees fully achieve the benefits of their 401(k) plans. Plan sponsors provide a wide array of communications, educational resources, and advice services to help participants invest and plan for retirement (Figure 2).⁹ Plan fiduciaries select a lineup of professionally managed investment options that typically covers a range of risk and return,¹⁰ sometimes including a brokerage window through which participants may select

FIGURE 2

Services Provided to 401(k) Plans

Administrative services

Recordkeeping, including maintaining plan records; processing employee enrollment; processing participants' investment elections, contributions, and distributions; and issuing account statements to participants

Transaction processing, including purchases and sales of participants' assets

Plan creation/conversion/termination, including associated administrative services

Trustee services, providing the safe holding of the plan's assets in a trust, as required by ERISA

Participant-focused services

Participant communication, including employee meetings, call centers, voice-response systems, web access, and preparation of summary plan description and other participant materials

Participant education and advice, including online calculators and face-to-face investment advice

Investment management, typically offered through a variety of professionally managed investment options

Brokerage window, if offered, allowing direct purchase of individual securities by plan participants

Maintenance of an employer stock fund, if offered, to facilitate the purchase of employer securities within the plan

Loan processing, if a loan feature is offered

Insurance and annuity services, if offered, including offering annuities as distribution options

Regulatory and compliance services

Plan document services, including off-the-rack "prototype" plans

Consulting, including assistance in selecting the investments offered to participants

Accounting and audit services, including preparation of annual report (Form 5500)

Legal advice, including advice regarding interpretation of plan terms, compliance with legal requirements, plan amendments, and resolution of benefit claims

Plan testing, to comply with Internal Revenue Code nondiscrimination rules

Processing of domestic relations orders, ensuring that the split of accounts pursuant to divorce orders complies with ERISA

Sources: Investment Company Institute, US Department of Labor, and Internal Revenue Service

securities not in the plan's lineup.¹¹ If a plan sponsor permits loans, the plan fiduciaries must arrange for loan processing services.¹² In addition, plans may opt to provide participants with access to annuity purchasing services at the time of retirement.

Regulatory and compliance services ensure that a plan fulfills legal requirements imposed by statute, DOL and IRS regulations, and other guidance (Figure 2). Plans are subject to complicated restrictions on contributions,¹³ lengthy audited annual reports to the DOL,¹⁴ and tax reporting to the IRS. Plans may have additional compliance burdens under federal securities or state laws.¹⁵ Further, each investment option used in a plan has its own compliance requirements. For example, mutual funds must comply with the Investment Company Act of 1940 and other securities laws,¹⁶ bank collective trusts with banking regulations, and group annuity contracts with state insurance rules.

Plan Sponsors Must Ensure That Service Costs Are Reasonable

Federal law requires that plan sponsors “ensure that the services provided to their plan are necessary and the cost of those services is reasonable.”¹⁷ In February 2012, the DOL released regulations concerning the fee and compensation information that plan sponsors must collect—and that service providers must disclose—to ensure that a contract or arrangement for services is considered “reasonable” under ERISA.¹⁸ With these regulations, which became effective in July 2012, the DOL aims to help ensure that plan sponsors can make informed decisions about plan services and their costs and to reveal any potential conflicts that a service provider might have.¹⁹ Fees are only one factor that a plan sponsor must consider. Other factors include the extent and quality of service and the characteristics of the investment options chosen.²⁰

The DOL also released a regulation in October 2010 that requires plans to give participants, when they become eligible for the plan and annually thereafter, key information about the plan's investments and fees.²¹ The

goal of this regulation is to ensure that 401(k) participants have the information they need to make plan-related decisions, such as whether to participate and how to allocate the assets in their accounts among the investments available.

Plan Sponsors Select Service Providers and Investment Arrangements

Plan sponsors select the service providers for their 401(k) plans and choose the investment options offered in them.²² The costs of running a 401(k) plan generally are shared by the plan sponsor and participants, and the arrangements vary across plans. The fees may be assessed at a plan level, a participant-account level, as a percentage of assets, or as a combination of arrangements.

Figure 3 shows possible fee and service arrangements in 401(k) plans. The boxes on the left highlight employers, plans, and participants, all of which use services in 401(k) plans. The boxes on the right highlight recordkeepers, other retirement service providers, and investment providers that deliver investment products, investment management services, or both.

The dashed arrows illustrate the services provided. For example, the investment provider offers investment products and asset management to participants, while the recordkeeper provides services to the plan and the participants. The solid arrows illustrate the payment of fees for products and services. Participants—or the plan or employer—may pay directly for recordkeeping services.

In addition to paying for plan-level recordkeeping services directly from participant accounts, such services can be paid by participants indirectly (solid arrow from participants to investment providers) through the investment expenses they pay for investments held in their 401(k) accounts. In this respect, mutual funds, which are often used as investment options in 401(k) plans, also provide services for their shareholders, including keeping shareholder-level records and sending out prospectuses, shareholder reports, and other shareholder information (shareholder services).

Because the recordkeeping vendor hired by the plan is already engaged in plan recordkeeping, the fund often finds it efficient to pay the vendor (solid arrow at the far right) for carrying out some of the fund's shareholder services (many of which overlap with the vendor's own recordkeeping function). The fees the fund pays to recordkeepers and other intermediaries for taking care of the fund's shareholder services are identified in the fund prospectus and are included in the fund's expense ratio.

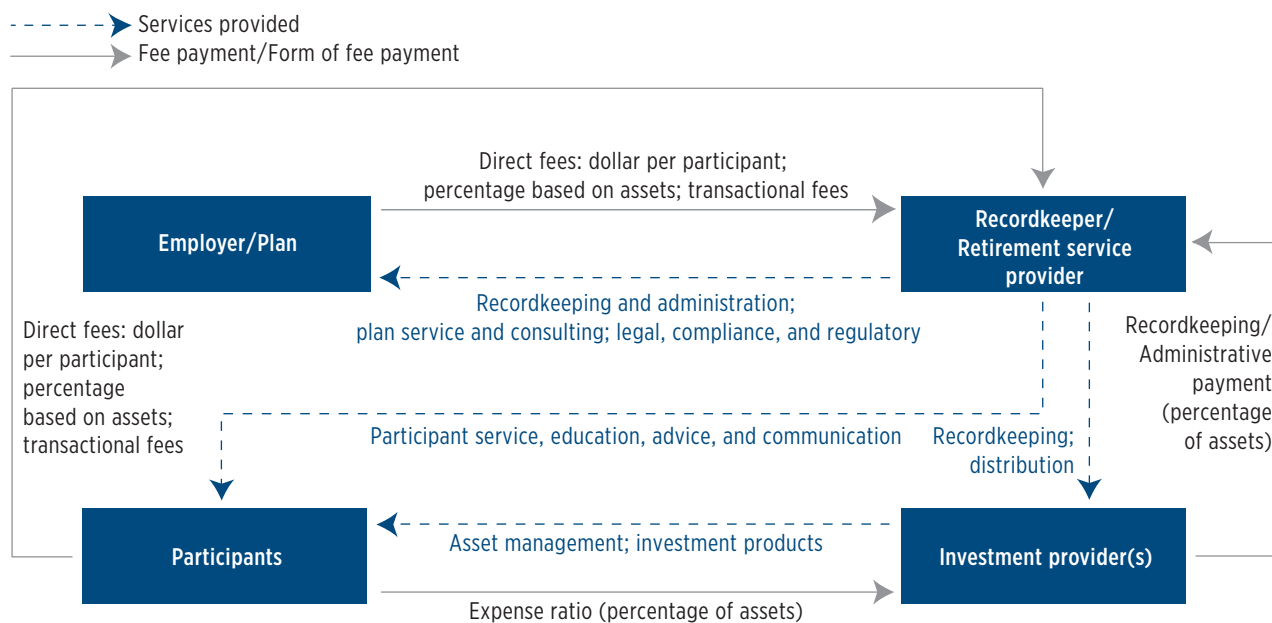
The fees that the fund has paid the vendor for fund shareholder services provided to the fund are often used by the vendor to offset the cost of recordkeeping for the plan (dashed arrow between recordkeeper and investment provider). The amount of offset can vary, depending on the size of the plan and the investment options provided, even to the point of covering the vendor's fees charged to the plan for plan-level recordkeeping.

Importantly, not all plan-related expenses can be paid for by plan participants. For example, the DOL requires that the plan sponsor pay the costs associated with the initial design of the plan, as well as any design changes.²³

Beyond these design services, employers can share the costs of the plan services with their employees. However, many employers choose to cover some or all plan-related costs that legally could be shouldered by the plan participants. Any costs not paid by the employer, which may include administrative, investment, legal, and compliance costs, effectively are paid by plan participants.²⁴

FIGURE 3

A Variety of Arrangements May Be Used to Compensate 401(k) Service Providers



Note: In selecting the service provider(s) and deciding the cost sharing for the 401(k) plan, the employer/plan sponsor will determine which combinations of these fee arrangements will be used in the plan.

Source: Investment Company Institute

Looking at Fees and Expenses of Mutual Funds Held in 401(k) Accounts

Virtually all participant-directed 401(k) plans offer a variety of pooled investment options (such as a selection of mutual funds, collective trusts, and/or separately managed accounts), and some also include guaranteed investment contracts (GICs),²⁵ company stock,²⁶ or a brokerage window that gives participants access to direct investment in stocks, bonds, and other securities.²⁷ All told, at year-end 2016, 63 percent of the \$4.8 trillion in 401(k) plan assets were invested in mutual funds (Figure 4).²⁸ Mutual funds are required by law to disclose their fees and expenses, and ICI studies trends in those fees and expenses.²⁹ In addition, ICI separately tracks 401(k) plan account holdings of mutual funds.³⁰ This report combines the results of these analyses

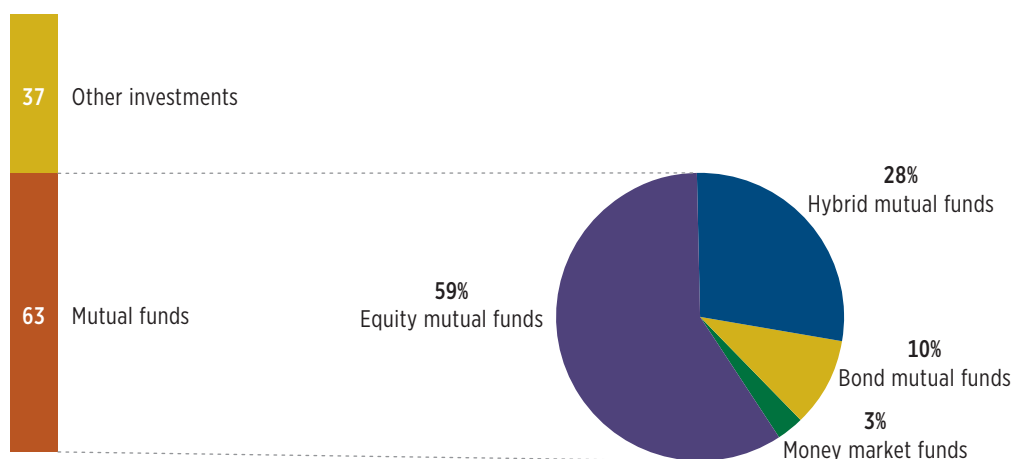
in order to examine the fees and expenses that investors incur on mutual funds held in 401(k) accounts.³¹ This analysis finds that:

- » 401(k) plan participants tend to be invested in lower-cost mutual funds.
- » The mutual fund expense ratios that 401(k) plan participants incur have declined substantially since 2000, and the downward trend continued in 2016.
- » At year-end 2016, 90 percent of mutual fund assets in 401(k) plans were held in institutional and retail no-load share classes, while the remaining assets were held in load share classes, predominantly in share classes that do not charge retirement plan participants a front-end load.

FIGURE 4

63 Percent of 401(k) Plan Assets Are Invested in Mutual Funds

Percentage of assets, 2016



Total 401(k) assets: \$4.8 trillion

Total mutual fund 401(k) assets: \$3.0 trillion

Sources: Investment Company Institute, Federal Reserve Board, and US Department of Labor

Given the recent regulatory developments surrounding the DOL's fiduciary rule, one might ask if the 2016 decline in mutual fund expense ratios (and therefore the expense ratios that 401(k) plan participants incur) is connected; any correlation, however, appears to be entirely coincidental.³²

Investors Pay Two Types of Mutual Fund Fees and Expenses

Investors in mutual funds can incur two primary types of fees and expenses when purchasing and holding mutual fund shares: sales loads and mutual fund expenses. Sales loads are one-time fees paid either at the time of purchase (front-end loads) or when shares held for less than a specified number of years are redeemed (back-end loads, also known as contingent deferred sales loads, or CDSLs). Mutual fund expenses include ongoing charges for portfolio management, fund administration, and shareholder services, as well as fund distribution charges (known as 12b-1 fees).³³

Sales loads often are waived for mutual funds purchased through 401(k) plans, but 401(k) investors do incur the fund expenses of the mutual funds in their 401(k) accounts. Ongoing expenses are paid from fund assets, so investors pay these expenses indirectly. The total expense ratio, which reflects both the operating expense ratio—including portfolio management, fund administration and compliance, shareholder services, and other miscellaneous costs—and 12b-1 fees, is measured in this report as an asset-weighted average. Using the asset-weighted average to measure costs provides an aggregate estimate of what 401(k) participants actually pay to invest in mutual funds through their 401(k) plans. Mutual funds with larger shares of assets in 401(k) plans contribute proportionately more to the asset-weighted average than do less widely held funds.

Trends in Funds and Share Classes Used in 401(k) Plans

No-load shares. Altogether, 90 percent of 401(k) plan mutual fund assets were invested in no-load shares at year-end 2016, about evenly split between retail and institutional no-load shares (Figure 5).³⁴ Retail no-load shares held 46 percent of total 401(k) mutual fund assets, and institutional no-load shares held 44 percent. Over the past decade, institutional no-load shares have grown as a segment of 401(k) mutual fund assets, while the roles of retail no-load shares and load shares have fallen.

Load shares. Load shares accounted for the remainder of 401(k) mutual fund assets at year-end 2016 (Figure 5). Six percent of 401(k) mutual fund investments were held through front-end load shares.³⁵ Most funds waive front-end loads for retirement plans, so 401(k) plan participants generally are not charged a front-end load on shares purchased through their plans.³⁶ The remaining 4 percent of 401(k) mutual fund assets were invested in back-end load share classes,³⁷ level load share classes,³⁸ and other load share classes.³⁹

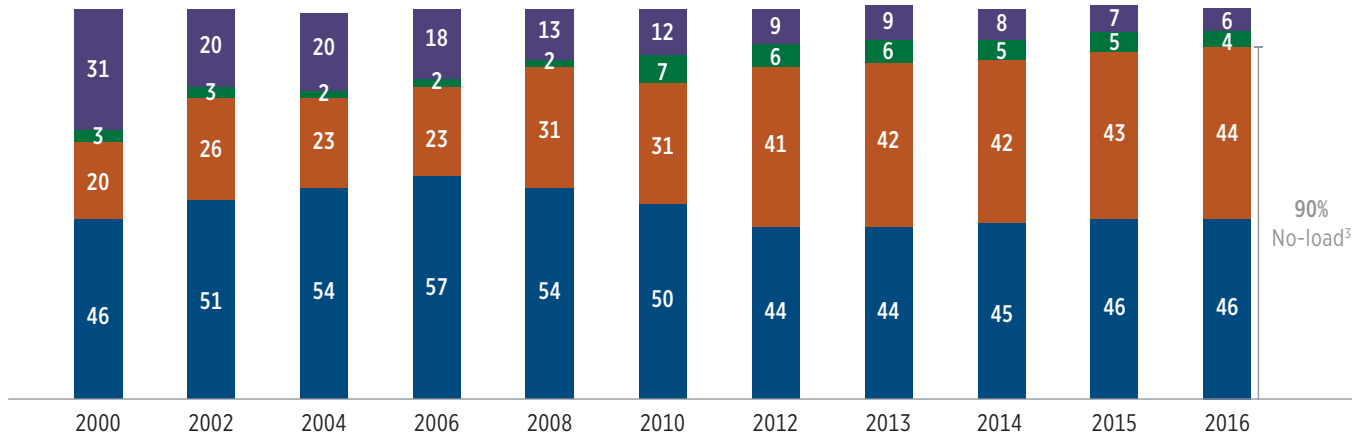
Over the past decade and a half, some mutual fund companies have created fund shares specifically for sale in the retirement market. These “retirement share classes,” or “R” shares, include no-load and load structures and are sold predominantly to employer-sponsored retirement plans. At year-end 2016, “R” shares were 18 percent of mutual fund assets held in 401(k) plans (see Figures A2 and A3 in the appendix).

FIGURE 5

401(k) Mutual Fund Assets by Share Class

Percentage of assets, selected years

- Front-end load¹
- Back-end load, level load, other load, and unclassified load²
- Institutional no-load³
- Retail no-load³



¹Front-end load > 1 percent. Primarily includes Class A shares; includes assets where front-end loads are waived.

²See Figure A2 in the appendix for more detail.

³No-load shares have front-end load = 0 percent, contingent deferred sales load = 0 percent, and 12b-1 fee ≤ 0.25 percent.

Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds. Components may not add to 100 percent because of rounding.

Sources: Investment Company Institute, Lipper, and Morningstar

Understanding Fund Share Class Categories

Many mutual funds offer several different share classes, all of which invest in the same portfolio (fund) while offering different services tailored to the needs of different investors or, in the case of 401(k) plans, the group of participants in the plan. The combination of sales loads and 12b-1 fees that an individual investor might pay depends on the share class. ICI categorizes funds or fund share classes as either load or no-load, and also identifies “R” shares.

Load Share Classes

Load share classes include a sales load, a 12b-1 fee of more than 0.25 percent, or both. Sales loads and 12b-1 fees are used to compensate brokers and other financial professionals for their services. Load share classes can be further classified as either *front-end load*, *back-end load*, *level load*, or *other load*. Front-end load shares carry an up-front sales charge and may have a 12b-1 fee, typically between 0.25 percent and 0.35 percent of the fund’s net assets. Front-end load shares are used in employer-sponsored retirement plans sometimes, but fund sponsors typically waive the sales load for purchases made through such retirement plans. Back-end load shares and other load shares are offered for sale at net asset value without a front-end load, but use combinations of 12b-1 fees and contingent deferred sales loads (CDSLs). Level load shares typically have an annual 12b-1 fee of 1.0 percent to compensate financial professionals for assisting investors. The figures on load funds in this report include load funds that waive sales loads for retirement plan investors (see Figure 5, as well as Figures A2 and A3 in the appendix).

No-Load Share Classes

No-load share classes have no front-end load or CDSL, and have a 12b-1 fee of 0.25 percent or less. Originally, no-load share classes were sold directly by mutual fund sponsors to investors. Now, investors can purchase no-load shares through employer-sponsored retirement plans, mutual fund supermarkets, discount brokerage firms, and bank trust departments, as well as directly from mutual fund sponsors. No-load share classes are further classified as either *institutional* or *retail*. The figures in this report classify a no-load share class as institutional if the fund’s prospectus states that the fund or fund share class is designed to be sold primarily to institutional investors or institutional accounts. This classification includes investments by individuals in 401(k) accounts that are purchased by or through an institution such as an employer, trustee, or fiduciary on behalf of its employees, owners, or clients. The figures label the remaining no-load shares as retail.

“R” Shares

“R” shares are any share class that ICI designates as a “retirement share class.” These share classes are sold predominantly to employer-sponsored retirement plans. However, other share classes—including retail and institutional share classes—also contain investments made through 401(k) plans or individual retirement accounts (IRAs). “R” shares can be load or no-load (see Figures A2 and A3 in the appendix).

Similar designations have long been used in the mutual fund industry. But as the industry has evolved, their original connotations have become less meaningful, including when applied to 401(k) plans. Participant-directed 401(k) plans have characteristics associated with both retail investors (because plans often have many individual accounts that must be maintained and investors that must be served) and institutional investors (when the plan brings larger total investments). Nevertheless, these definitions are useful for research purposes such as illustrating trends in 401(k) plan assets held in mutual funds—for example, highlighting the fact that 401(k) plans may purchase shares through a range of funds and fund share classes.

401(k) Participants Hold Lower-Cost Mutual Funds

Equity mutual funds. Fifty-nine percent of 401(k) plan assets invested in mutual funds were invested in equity mutual funds at year-end 2016 (Figure 4). Consistent with the general industry trend, average equity mutual fund expense ratios incurred by 401(k) investors declined for the seventh straight year in 2016, falling to 0.48 percent (Figure 6).⁴⁰ In 2016, 401(k) investors continued to concentrate their equity mutual fund assets in lower-cost funds. In 2016, the simple average expense ratio for equity mutual funds was 1.28 percent. However, taking into account both the funds offered in 401(k) plans and the distribution of assets in those funds, 401(k) plan participants who invested in equity mutual funds paid less than half that amount, 0.48 percent on average, and lower than the industrywide asset-weighted average of 0.63 percent. 401(k) mutual fund investors incur lower average expense ratios not only for equity mutual funds overall but also when disaggregated into domestic equity mutual funds and world equity mutual funds (Figure 7).

Several factors contribute to the relatively low average expense ratios incurred by 401(k) plan participants investing in mutual funds. Both inside and outside the 401(k) plan market, mutual funds compete among themselves and with other financial products to offer shareholders service and performance.⁴¹ In addition, shareholders are sensitive to the fees and expenses that funds charge.⁴² Indeed, new sales and assets tend to be concentrated in lower-cost funds, providing a market incentive for funds to offer their services at competitive prices.⁴³ In the 401(k) plan market, performance- and cost-conscious plan sponsors also impose market discipline. Plan sponsors regularly evaluate the performance of the plans' investments,⁴⁴ and performance reflects fees. In a survey conducted in 2015, 52 percent of plan sponsors indicated that they had replaced a fund in the last year because of poor performance.⁴⁵

The lower average expense ratios incurred by 401(k) participants also reflect other factors. Some plan sponsors choose to cover a portion of 401(k) plan administrative costs or pay such costs directly from participant accounts. This allows them to select funds or fund share classes with

lower expense ratios because the fund or fund share class pays little or no shareholder servicing fees to recordkeepers or other intermediaries. Further, many 401(k) plans have large average account balances, and economies of scale help reduce the fees and expenses of the funds offered in these plans.⁴⁶ Finally, in contrast with investments made outside of 401(k) plans, where shareholders typically pay for the assistance of a financial adviser when investing in mutual funds,⁴⁷ there is a more limited role for financial adviser services inside these plans.

Expense ratios vary among the mutual funds that 401(k) participants hold. At year-end 2016, 90 percent of 401(k) plan equity mutual fund assets were invested in mutual funds with expense ratios of less than 1.00 percent, with 49 percent invested in equity mutual funds with expense ratios of less than 0.50 percent (Figure 8).⁴⁸

Hybrid mutual funds. Twenty-eight percent of 401(k) mutual fund assets were invested in hybrid mutual funds, which invest in a mix of equities and bonds, at year-end 2016 (Figure 4). At year-end 2016, 401(k) hybrid mutual fund investors paid an asset-weighted average expense ratio of 0.53 percent, less than half the industrywide simple average (1.29 percent) and 28 percent less than the industrywide asset-weighted average of 0.74 percent (Figure 6).⁴⁹

Bond mutual funds. Ten percent of 401(k) mutual fund assets were invested in bond mutual funds at year-end 2016 (Figure 4). The asset-weighted average expense ratio paid by 401(k) investors on bond mutual funds fell in 2016 (Figure 6). As with investors in equity and hybrid mutual funds, 401(k) bond mutual fund investors have concentrated their assets in lower-cost bond mutual funds. At year-end 2016, 401(k) bond mutual fund investors paid an asset-weighted average expense ratio of 0.35 percent, about one-third of the industrywide simple average (0.96 percent) and 30 percent less than the industrywide asset-weighted average of 0.50 percent. The average expense ratio paid by 401(k) investors in bond mutual funds also is lower than the industry average when disaggregated into domestic and world bond mutual funds (Figure 7).⁵⁰

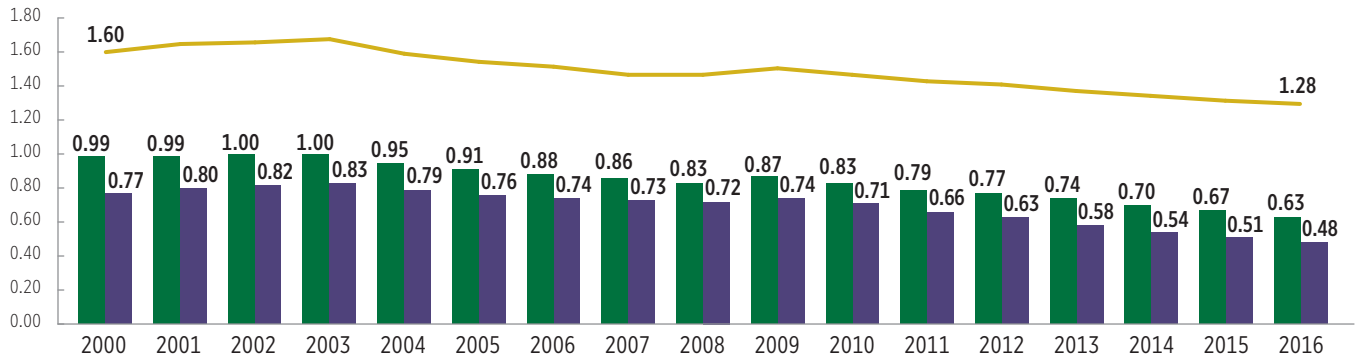
FIGURE 6

401(k) Mutual Fund Investors Tend to Pay Lower-Than-Average Expense Ratios

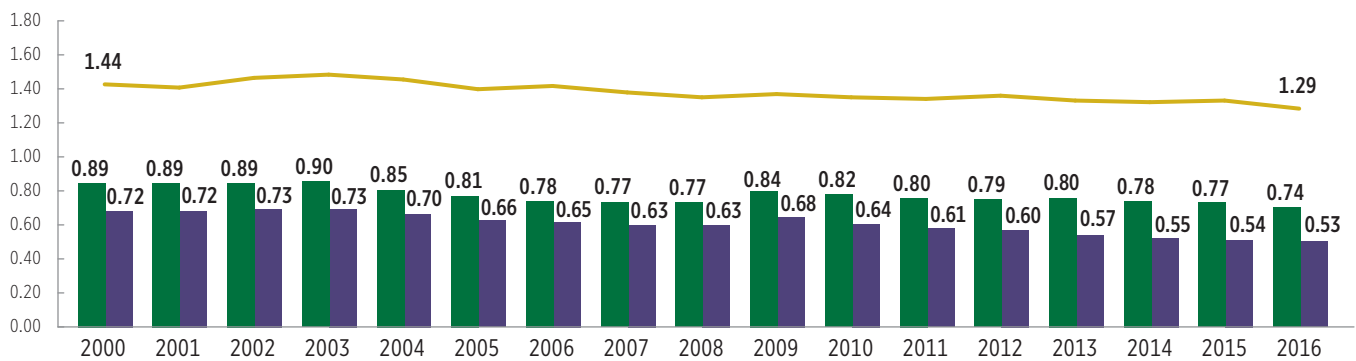
Percent, 2000–2016

- Industry simple average expense ratio
- Industry average expense ratio¹
- 401(k) average expense ratio²

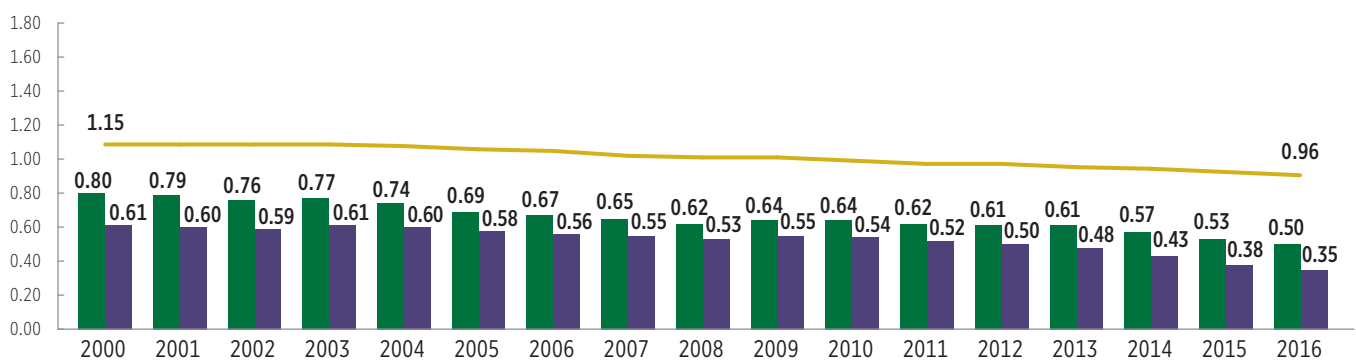
Equity mutual funds



Hybrid mutual funds



Bond mutual funds



¹ The industry average expense ratio is measured as an asset-weighted average.

² The 401(k) average expense ratio is measured as a 401(k) asset-weighted average.

Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE 7

Average Total Mutual Fund Expense Ratios

Percent, 2014–2016

	2014		2015		2016	
	Industry ¹	401(k) ²	Industry ¹	401(k) ²	Industry ¹	401(k) ²
Equity mutual funds	0.70	0.54	0.67	0.51	0.63	0.48
Domestic	0.64	0.50	0.62	0.48	0.58	0.45
World	0.86	0.67	0.82	0.62	0.78	0.58
Hybrid mutual funds	0.78	0.55	0.77	0.54	0.74	0.53
Bond mutual funds	0.57	0.43	0.53	0.38	0.50	0.35
Investment grade	0.43	0.38	0.40	0.32	0.37	0.29
World	0.77	0.61	0.71	0.49	0.65	0.42
Other taxable	0.70	0.58	0.67	0.55	0.65	0.54
Money market funds	0.13	0.16	0.14	0.16	0.19	0.22

¹ The industry average expense ratio is measured as an asset-weighted average.

² The 401(k) average expense ratio is measured as a 401(k) asset-weighted average.

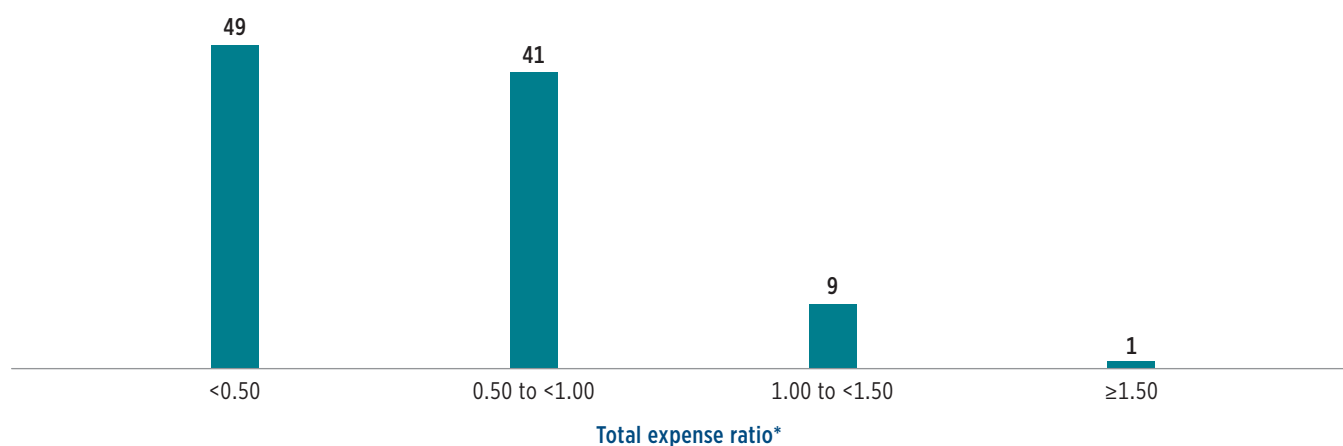
Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE 8

401(k) Equity Mutual Fund Assets Are Concentrated in Lower-Cost Funds

Percentage of 401(k) equity mutual fund assets, 2016



* The total expense ratio includes fund operating expenses and any 12b-1 fees.

Note: Data exclude mutual funds available as investment choices in variable annuities.

Sources: Investment Company Institute and Morningstar

Money market funds. Only 3 percent of 401(k) mutual fund assets were invested in money market funds at year-end 2016 (Figure 4). 401(k) participants holding money market funds had an asset-weighted average expense ratio of 0.22 percent in 2016, higher than in 2015 (Figure 7). Industrywide, the average expense ratio investors incurred on money market funds also rose in 2016. The increase in money market fund expense ratios in 2016 is largely reflective of a change in the current interest rate environment. Recent Federal Reserve decisions to increase interest rates led to the paring back of expense waivers⁵¹ that money market funds had adopted to ensure that net yields did not fall below zero. This caused the expense ratios of money market funds to rise somewhat.⁵²

Mutual Fund Fees Vary Across 401(k) Plans

In addition to the impact of the range and quality of services provided, many factors affect the fees of 401(k) plans. Further, as with any other employee benefit, the

costs associated with 401(k) plans are typically shared between the employer and plan participants.

Participants who work for employers that do not heavily subsidize their plans will incur higher fees on average. Plans that charge account level fees will tend to have lower-cost investment options than plans without direct account level charges. Because of the relatively fixed costs that all plans incur, participants in plans with a small amount of assets tend to pay higher fees per dollar invested than plans with a larger amount.⁵³ Participants in plans that have many small accounts typically pay higher fees per dollar invested than plans with larger accounts. Plans with more service features tend to be more costly than plans with fewer service features. All of these factors affect the costs of the plan and the plan's investment options. They must all be considered when evaluating the reasonableness of a plan's costs.

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 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 type 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. In addition, industrywide fee information is matched to investments in DC plans allowing analysis of the cost of DC plans.

The analysis of 2014 401(k) mutual fund holdings in the database combined with mutual fund fee information from Lipper finds that asset-weighted average mutual fund expense ratios paid by 401(k) plan participants tend to fall as 401(k) plan assets increase. For example, the asset-weighted average expense ratio for domestic equity mutual funds held in 401(k) plans in 2014 ranged from 0.82 percent in plans with between \$1 and \$10 million in plan assets to 0.39 percent in plans with more than \$1 billion (Figure 9).

FIGURE 9

Domestic Equity Mutual Fund Fees Paid Tend to Fall as 401(k) Plan Size Increases

Asset-weighted average expense ratio as a percentage of plan assets in domestic equity mutual funds, 2014



Note: The sample is 22,584 401(k) plans with audited Form 5500 reports, which generally include plans with 100 participants or more and at least \$1 million in plan assets. Across all plan sizes, the asset-weighted average expense ratio in the BrightScope analysis was 0.49 percent for domestic equity mutual funds.

Sources: BrightScope Defined Contribution Plan Database and Lipper. See Exhibit 4.5 in BrightScope and Investment Company Institute, *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014*.

The 2014 401(k) mutual fund fee analysis results are reported in *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014*, available at www.ici.org/pdf/ppr_16_dcplan_profile_401k.pdf.

Other Costs Incurred by Mutual Fund Investors

Mutual funds also incur costs when buying and selling securities. These costs are not included in the fund's total expense ratio but are reflected in the calculation of net return to the investor. To help shareholders evaluate the trading activity of a mutual fund, the Securities and Exchange Commission (SEC) requires each mutual fund to report its turnover rate in its annual shareholder report and its prospectus.⁵⁴

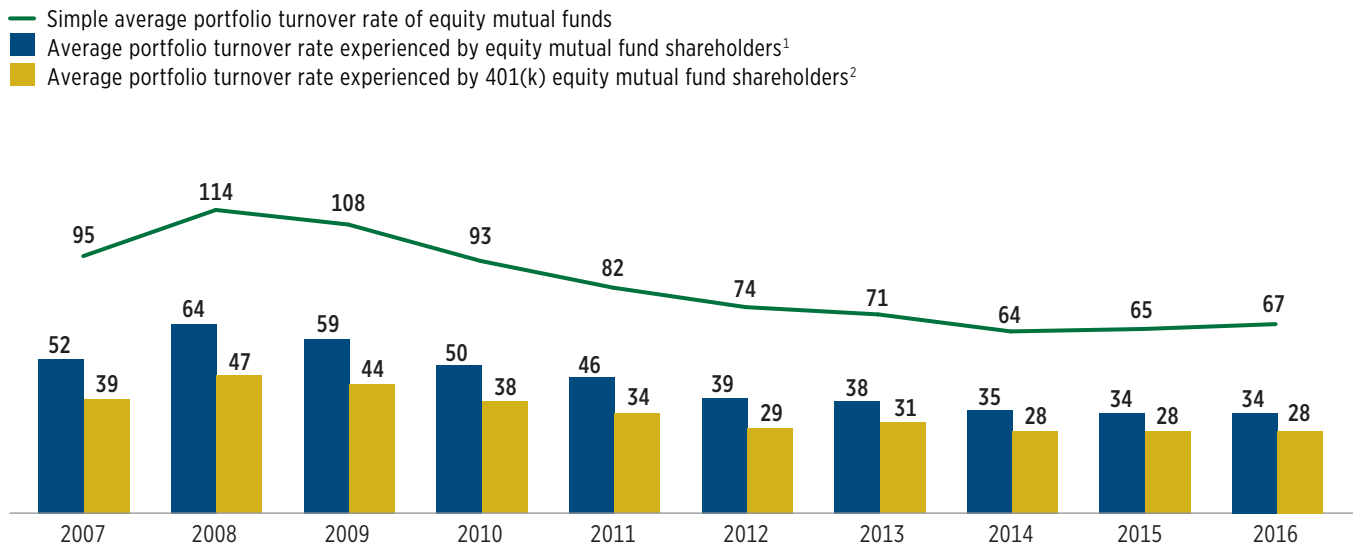
Broadly speaking, the turnover rate is a measure of how rapidly a fund is trading the securities in its portfolio relative to total fund assets.⁵⁵ All pooled investments incur trading costs while managing their portfolios.

Equity mutual fund turnover rates. Participants in 401(k) plans tend to own equity mutual funds with lower-than-average turnover rates. The industrywide simple average turnover rate in equity mutual funds was 67 percent in 2016 (Figure 10).⁵⁶ However, mutual fund shareholders tend to invest in equity mutual funds with much lower turnover rates, as reflected in the lower industrywide asset-weighted average turnover rate of 34 percent. The average turnover rate for equity mutual funds selected by 401(k) plan participants in 2016 was lower still: 28 percent on an asset-weighted basis.

FIGURE 10

Average Portfolio Turnover Rates for Equity Mutual Funds

Percentage of assets, 2007–2016



¹ The average portfolio turnover rate experienced by equity mutual fund shareholders is measured as an asset-weighted average (reported as a percentage of fund assets).

² The average portfolio turnover rate experienced by 401(k) equity mutual fund shareholders is measured as a 401(k) asset-weighted average (reported as a percentage of 401(k) fund assets).

Note: The portfolio turnover rate is the lesser of a fund's purchases or sales of portfolio securities for the year divided by the fund's average total net assets for the year.

Source: Investment Company Institute

Conclusion

401(k) plans are now the most common private-sector employer-sponsored retirement plan in the United States, holding \$4.8 trillion in assets at year-end 2016. Employers choose whether to offer these plans to employees as part of their total compensation packages; if a plan is offered, employees choose whether to participate. Maintaining a 401(k) plan involves a variety of services, and the costs of these services are generally shared by the plan sponsor and the plan participants.

401(k) plans provide many American workers with the opportunity for cost-effective investment in mutual funds. Plan participants invest primarily in equity mutual funds,

and the bulk of these equity mutual fund assets is held in lower-cost mutual funds with lower-than-average portfolio turnover. Numerous factors contribute to the relatively low expense ratios incurred by 401(k) plan participants investing in mutual funds. Among them are: (1) competition among mutual funds and other investment products to offer shareholders service and performance; (2) plan sponsor decisions to cover a portion of 401(k) plan costs, which allow them to select lower-cost funds or fund share classes; (3) economies of scale, which large investors such as 401(k) plans can achieve; (4) cost- and performance-conscious decisionmaking by plan sponsors and plan participants; and (5) the limited role of professional financial advisers in these plans.

Additional Reading

- » **Trends in the Expenses and Fees of Funds, 2016**
www.ici.org/pdf/per23-03.pdf
- » **ICI Resources on 401(k) Plans**
www.ici.org/401k
- » **ICI Resources on 12b-1 Fees**
www.ici.org/rule12b1fees
- » ***The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014***
www.ici.org/pdf/ppr_16_dcplan_profile_401k.pdf
- » **The US Retirement Market, Fourth Quarter 2016**
www.ici.org/info/ret_16_q4_data.xls
- » **Fund Expenses and Fees**
www.icifactbook.org/ch5/17_fb_ch5
- » **Retirement and Education Savings**
www.icifactbook.org/ch7/17_fb_ch7
- » ***Inside the Structure of Defined Contribution/401(k) Plan Fees, 2013: A Study Assessing the Mechanics of the “All-In” Fee***
www.ici.org/pdf/rpt_14_dc_401k_fee_study.pdf

Notes

- ¹ Tax-deferred contributions to a plan are not included in a worker's taxable income, but distributions from the plan are included in income and subject to tax. Since 2006, employers have been allowed to offer employees the option to make Roth 401(k) contributions. Like a Roth IRA, contributions to a Roth 401(k) are included in income and subject to tax, but qualified distributions are not included in taxable income. Utkus and Young 2016, analyzing the DC plans in the Vanguard Group's recordkeeping system, reports that 60 percent of plans covering 67 percent of participants have a Roth option. In plans with a Roth option, 15 percent of participants have used it.
- ² See Investment Company Institute 2017a.
- ³ Section 401(a) of the IRC contains rules that govern qualified pension plans, profit-sharing plans, stock bonus plans, and other employee benefit plans. Section 401(k) of the IRC stipulates that a profit-sharing or stock bonus plan, a pre-ERISA money purchase plan, or a rural cooperative would not be considered to be in violation of the qualification rules simply because it included a qualified cash or deferred arrangement. A qualified cash or deferred arrangement provides employees the option to defer a portion of their compensation or to receive the compensation in cash. Plans with a qualified cash or deferred arrangement must meet the requirements of Section 401(a) and other sections of the IRC that pertain to their plan type, as well as the additional requirements included in Section 401(k) of the IRC. Congress added Section 401(k) of the IRC in 1978, to become effective in 1980 (see Revenue Act of 1978, Public Law 95-600). However, companies generally did not begin to adopt 401(k) plans until the Department of the Treasury and the IRS issued proposed regulations clarifying the scope of Section 401(k) on November 10, 1981 (see 46 Fed. Reg. 55544, November 10, 1981; and Holden, Brady, and Hadley 2006a).
- ⁴ All tax-deferred compensation provides the same tax benefits to employees, whether it is provided as part of a defined benefit (DB) plan or a DC plan and whether it is in the form of an employer contribution or an employee contribution. (For a detailed explanation of the tax benefits of deferral, see Brady 2012.) Unless part of a tax-qualified employee benefit plan, all compensation would be included in a worker's taxable wages and would be subject to tax in the year it is earned, and all income generated by investments would be taxable in the year it was received. In contrast, compensation deferred through a tax-qualified employee benefit plan is not subject to income tax in the year it is earned, and investment income earned by the plan is not subject to income tax in the year it is received. Instead, employees defer taxation on both compensation and investment income until distributions are taken from the plan. These plans generally provide no direct tax benefit to employers, who are allowed to deduct both cash compensation expenses and retirement plan contribution expenses from revenue when calculating taxable business income. Instead, the benefits to employers generally are indirect, allowing employers to offer more valuable compensation packages to their employees. An employee benefit plan must meet many requirements to be tax qualified, including nondiscrimination rules, which are designed to ensure that the plan benefits do not disproportionately accrue to highly compensated employees. This is accomplished by linking the benefits received by high-paid workers to the benefits received by low-paid workers within a given plan. For a further discussion of nondiscrimination rules, see pages 11–14 of Holden, Brady, and Hadley 2006a and Holden, Brady and Hadley 2006b.
- ⁵ ERISA requires that the plan sponsor appoint a "named" fiduciary or fiduciaries to administer the plan (see ERISA Section 402). A plan sponsor may, and often does, name itself as the plan administrator. In its role as plan administrator, the employer assumes fiduciary responsibility to select and monitor service providers and investment options for the plan. Most employers appoint a retirement committee consisting of senior human resource or other employees to oversee the administration of the plan. In their role acting for the employer as plan administrator, the members of the committee assume fiduciary responsibility to administer the plan solely in the interest of plan participants and beneficiaries. For convenience, this report often refers to "employer" and "plan sponsor" to mean the fiduciary or fiduciaries appointed to administer the plan.
- ⁶ Department of Labor Reg. Section 2550.404c-1. For an explanation of this regulation, see note 10.
- ⁷ Plan Sponsor Council of America 2015 reports that 96.0 percent of the 592 profit-sharing and 401(k) plans in its survey allow participants to initiate daily fund transfers.
- ⁸ To protect 401(k) plan assets, ERISA Section 403 requires that pension plan assets be held in a trust or invested in insurance contracts.
- ⁹ Plan sponsors use an array of educational resources, including enrollment kits, newsletters, fund performance sheets, intranet sites, webinars, seminars, workshops, paycheck stuffers, retirement gap calculators, posters, and individually targeted communication (see Plan Sponsor Council of America 2016). The most commonly cited primary purpose for plan education is increasing participation (25.7 percent of plans).

- ¹⁰ Where participants are given control of the investments in their accounts, which is common in 401(k) plans, the selection of investment options available is usually designed to meet the requirements of ERISA Section 404(c). This section provides liability relief for plan sponsors and other plan fiduciaries from losses resulting from employees' exercise of investment control. The DOL regulations under ERISA Section 404(c) are designed to ensure that participants have control over their assets and have adequate opportunity to diversify their holdings. Plans must offer at least three diversified investment options with materially different risk and return characteristics. (Although 401(k) plans can offer company stock or any individual stock, neither would qualify as one of the three core options.) Plans generally must allow transfers among the diversified investment options at least quarterly. Plan Sponsor Council of America 2016 indicates that in 2015, the average number of investment fund options available for participant contributions was 19 among the 614 plans surveyed. Deloitte Consulting LLP, International Foundation of Employee Benefit Plans, and the International Society of Certified Employee Benefit Specialists 2015 reports that the average number of funds offered by the nearly 400 401(k) plan sponsors surveyed was 22 in 2015. BrightScope and Investment Company Institute 2016b reports an average of 28 investment options in 2014, and an average of 22 investment options when a target date fund suite is counted as a single investment option (in 401(k) plans with 100 participants or more and at least \$1 million in plan assets).
- ¹¹ Plan Sponsor Council of America 2016 reports that 21.6 percent of plans in its survey offered a self-directed brokerage window. These windows hold a very small amount of assets, with just 0.8 percent of plan assets invested through the brokerage window. Utkus and Young 2016 similarly reports limited use of brokerage windows: in 2015, 16 percent of DC plans recordkept by Vanguard offered brokerage windows, covering 29 percent of participants. In plans offering a self-directed brokerage window, only 1 percent of those plan participants used it, and less than 0.5 percent of those plan assets were invested through the window.
- ¹² The EBRI/ICI 401(k) database indicates that 54 percent of plans offered a loan feature at year-end 2014, covering 87 percent of 401(k) plan participants. Also at year-end 2014, 20 percent of 401(k) plan participants had loans outstanding. See Holden et al. 2016.
- ¹³ The IRC includes a number of flat annual dollar contribution limits. In addition, several sections of the IRC provide a framework for nondiscrimination testing, which limits contributions to 401(k) plans to ensure that employees in all income ranges benefit from the plan. For example, the actual deferral percentage (ADP) nondiscrimination test essentially requires that the before-tax contributions of highly compensated employees (as a percentage of their eligible compensation) do not exceed those of non-highly compensated employees (as a percentage of their eligible compensation) by more than a specified amount.
- ¹⁴ Plans file their annual reports on Form 5500, a form issued jointly by the DOL, the IRS, and the Pension Benefit Guaranty Corporation (PBGC). The DOL publishes summary annual reports tabulating the Form 5500 data (see US Department of Labor, Employee Benefits Security Administration 2016a and 2016b). In addition, private-sector plans, typically those with 100 participants or more, file an audited Form 5500 report. Those data are analyzed in BrightScope and Investment Company Institute 2016a and 2016b.
- ¹⁵ For example, plans can incur costs responding to requests for information pursuant to SEC Rule 22c-2, under which mutual funds may obtain trading information necessary to ensure compliance with the fund's short-term trading policies. In addition, 401(k) plans that allow participants to invest in the employer's stock must register with the SEC on Form S-8. ERISA preempts most state laws that relate to employee benefit plans, but plans might still need to comply with state tax laws relating to withholding and information filing. The Consumer Financial Protection Bureau, created by the Wall Street Reform and Consumer Protection Act of 2010, potentially has the ability to regulate service providers to 401(k) plans, but only with respect to specific regulatory areas approved by the DOL and the Department of the Treasury.
- ¹⁶ For a discussion of regulations governing mutual funds, see Investment Company Institute 2017b.
- ¹⁷ See US Department of the Treasury and US Department of Labor 2012. See also US Department of Labor, Employee Benefits Security Administration, "A Look at 401(k) Plan Fees," "Understanding Retirement Plan Fees and Expenses," "Selecting and Monitoring Pension Consultants—Tips for Plan Fiduciaries," and "Tips for Selecting and Monitoring Service Providers for Your Employee Benefit Plan." Some commentators have argued that the core standard under ERISA that governs plan fiduciaries—the duty of prudence—requires that fiduciaries engage in a prudent process in evaluating a plan's investments and services and does not require a particular result. See Vine 2010.

¹⁸ See 77 Fed. Reg. 5632 (February 3, 2012).

¹⁹ See US Department of the Treasury and US Department of Labor 2012.

²⁰ See US Department of Labor, Employee Benefits Security Administration, “Understanding Retirement Plan Fees and Expenses” and “A Look at 401(k) Plan Fees.” See also US Securities and Exchange Commission, “Calculating Mutual Fund Fees and Expenses,” and “Mutual Fund Fees and Expenses.”

²¹ See 75 Fed. Reg. 64910 (October 20, 2010). Under this regulation, participants must receive general plan information and investment-related information before making an initial investment decision, and annually thereafter. This includes information on how to give investment instructions and what, if any, account fees or fees for individual services (e.g., loans, investment advice) participants pay. The regulation requires that participants be given a chart comparing each investment in the plan’s investment lineup; the investment’s name and type; sales charges and any restrictions on withdrawal; the expense ratio; the annual dollar cost of the expense ratio for each \$1,000 invested (assuming no returns); 1-, 5-, and 10-year performance; and performance of a benchmark index over the same periods. Participants are referred to a website for more information on the investment’s objectives, principal strategies and risks, portfolio turnover rate, and quarterly performance data. Although there are some differences, the information required under this regulation is similar to the information that mutual fund investors receive as part of a fund’s prospectus. The DOL provides information to help employees learn about fees associated with their 401(k) plans. See US Department of Labor, Employee Benefits Security Administration, “A Look at 401(k) Plan Fees.” The SEC also provides investor education at www.sec.gov/investor.shtml.

²² Plan sponsors use a variety of arrangements to obtain services for their 401(k) plans. When multiple service providers are used (an “unbundled” arrangement), the expenses of each provider (e.g., trustee, recordkeeper, communications firm, investment manager) are charged separately to the plan. When one provider is used to perform a number of services (a “bundled” arrangement), the single provider interacts with the plan and then pays for the other bundled services out of the fees it collects from the plan. Some plans use a combination of these approaches—for example, by selecting a single provider for administrative participant services and one or more providers for investment options. In this case, the costs of administering the plan may be defrayed through fees paid by the investment product, which are reflected in the investment product’s

expense ratio rather than through a direct charge paid by plan participants or the plan sponsor. For mutual funds, service provider fees can be paid from fund assets. The 2012 DOL regulations cited in note 18 require service providers that provide recordkeeping as part of a bundle to give the plan a reasonable and good faith estimate of how much the recordkeeping services will cost the plan. BrightScope and Investment Company Institute 2016b, analyzing 2014 Form 5500 audited reports, finds that 401(k) plans use a variety of recordkeepers and that the types of recordkeepers used varied with plan size. Overall, in 2014, 45.6 percent of 401(k) plans in the BrightScope Defined Contribution Plan Database used insurance companies for recordkeeping; 29.4 percent of plans used asset managers, 12.7 percent used pure recordkeepers, 6.7 percent used banks, and 5.6 percent used brokerage firms.

²³ US Department of Labor Opinion Letters 97-03A (January 23, 1997) and 2001-01A (January 18, 2001).

²⁴ For the most part, 401(k) plan assets are held in individual accounts established for each participant. However, the costs of running a 401(k) plan also may be partly defrayed through employee “forfeitures.” Employees who terminate employment without fully vesting (that is, earning full ownership of account assets) forfeit matching or other employer contributions. (Participants always are fully vested in their own contributions.) These forfeitures typically are used to offset fees or pay for additional employer contributions. Deloitte Consulting LLP, the International Foundation of Employee Benefit Plans, and the International Society of Certified Employee Benefit Specialists 2014 reports that 75 percent of DC plans that had matching contributions used matching contribution forfeitures to reduce employer contributions; 32 percent used the forfeitures to offset fees; 9 percent reallocated the forfeitures to participants; and 4 percent did something else. (Plans can indicate more than one use of these funds; data are for 2013 and early 2014.) Plan Sponsor Council of America 2016 reports that 54.8 percent of 401(k) plans with forfeitures allocate forfeitures to reduce company contributions; 26.3 percent allocate the forfeitures among participants (based on account balances, 6.5 percent; based on participant contributions, 11.3 percent; or based on the participant’s share of company contributions, 8.5 percent); and 41.9 percent used the forfeitures to reduce plan expenses (data are for 2015). The IRC and ERISA determine the maximum vesting schedule for 401(k) plans and require that employer contributions made to the 401(k) plan not be removed from the plan. In addition, plans may charge fees for some transactions, such as taking a loan or making a withdrawal, and participants typically pay those fees in full when making the transaction.

- ²⁵ Guaranteed investment contracts (GICs) are insurance company products that promise a specific rate of return on invested capital over the life of a contract. A similar investment option is a synthetic GIC, which consists of a portfolio of fixed-income securities “wrapped” with a guarantee (typically by an insurance company or bank) to provide benefit payments according to the terms of the plan. For additional discussion of these investment options and 401(k) plan participants’ asset allocations, see Holden et al. 2016.
- ²⁶ Company stock is the stock of the plan sponsor (employer). See Holden et al. 2016 for additional discussion of 401(k) participant investment in company stock in 401(k) plans.
- ²⁷ See discussion of availability and use of self-directed brokerage windows in note 11.
- ²⁸ For additional information on mutual funds and the US retirement market, see Investment Company Institute 2017a.
- ²⁹ See Reid and Rea 2003; Investment Company Institute 2004, 2005, and 2017b; and Collins and Duvall 2017.
- ³⁰ See Investment Company Institute 2017a.
- ³¹ Additional servicing fees not reflected in mutual fund total expense ratios are not captured in this analysis, nor is the cost of holding other types of investments in 401(k) plans.
- ³² For more information, see discussion on page 26 of Collins and Duvall 2017.
- ³³ Financial advisers, retirement plan recordkeepers, discount brokerages, and other financial intermediaries provide an array of important and valuable services to mutual fund shareholders. For 401(k) plans, these services can include recordkeeping, transaction processing, participant communication, education and advice, and regulatory and compliance services (see Figure 2). Mutual funds and their investment advisers use a variety of arrangements to compensate plan service providers for these services. Under one arrangement, a mutual fund’s board of directors may adopt a plan pursuant to Rule 12b-1 under the Investment Company Act of 1940. As explained in US Securities and Exchange Commission, “Mutual Fund Fees and Expenses,” Rule 12b-1 allows mutual funds to use fund assets to cover distribution expenses and shareholder service expenses. “Distribution” fees include fees paid for marketing and selling fund shares, such as compensating brokers and others who sell fund shares as well as paying for advertising, printing and mailing prospectuses to new investors, and printing and mailing sales literature. Under Financial Industry Regulatory Authority (FINRA, formerly the National Association of Securities Dealers [NASD]) rules, 12b-1 fees (also referred to as fees for subaccounting services or administrative services) used to pay marketing and distribution expenses (as opposed to shareholder services) cannot exceed 75 basis points (NASD Conduct Rule 2830(d)). “Shareholder service” fees are paid to respond to investor inquiries and provide investors with information on their investments. A mutual fund also may pay shareholder service fees without adopting a 12b-1 plan. This is reflected in the fund’s prospectus in the “other expenses” category of the fee table. FINRA imposes an annual cap of 25 basis points on shareholder service fees (regardless of whether these fees are authorized as part of a 12b-1 plan). For further discussion of 12b-1 fees and how funds use them, see Investment Company Institute 2005 and “ICI Resources on 12b-1 Fees,” available at www.ici.org/rule12b1fees. At year-end 2016, 86 percent of equity mutual fund assets held in 401(k) plans were invested in mutual funds that had no 12b-1 fee, and another 9 percent were invested in mutual funds with 12b-1 fees of 25 basis points or less (see Figure A6 in the appendix). The fund’s adviser (or a related entity) also may compensate the service provider(s) out of the profits earned from the advisory fee collected from the fund.
- ³⁴ See Figure A2 in the appendix for further historical data. In addition, see Figure A3 in the appendix for mutual fund assets by share class and type of mutual fund (equity mutual funds, hybrid mutual funds, and bond mutual funds).
- ³⁵ Front-end load shares, which are primarily Class A shares, have a front-end load of greater than 1 percent. Analysis for front-end load shares include data where front-end loads are waived. For additional details, see Investment Company Institute 2017b and Collins and Duvall 2017.
- ³⁶ See Reid and Rea 2003.
- ³⁷ Back-end load shares, which are primarily Class B shares, typically have an annual 12b-1 fee of 1 percent and a CDSL set at 5 percent in the first year the shares are held. Then, the CDSL falls 1 percentage point per year, reaching 0 percent in the sixth or seventh year that the shares are held. Back-end load shares that are transferred or exchanged within a fund family are not subject to the CDSL. Generally, after six to eight years, Class B shares convert to Class A shares, which lowers the 12b-1 fee from 1 percent to that of Class A shares. For additional details, see Investment Company Institute 2017b, Collins and Duvall 2017, and Reid and Rea 2003.
- ³⁸ Level load shares, which include Class C shares, typically have an annual 12b-1 fee of 1 percent and a CDSL set at 1 percent in the first year that the shares are held. After the first year, no CDSL is charged on redemptions. These shares usually do not convert to Class A shares. For additional details, see Investment Company Institute 2017b, Collins and Duvall 2017, and Reid and Rea 2003.
- ³⁹ See Figure A2 in the appendix for additional data.
- ⁴⁰ This analysis does not include expense information for mutual funds held as investment choices in variable annuities (often referred to as VA mutual funds). For additional discussion of industrywide mutual fund fee trends, see Investment Company Institute 2017b and Collins and Duvall 2017.

- ⁴¹ For a more-detailed discussion of competition in the mutual fund industry, see Coates and Hubbard 2007, Reid 2006, Stevens 2006, and Investment Company Institute 2017b.
- ⁴² In February 2006, ICI conducted an in-home survey of 737 randomly selected fund owners who had purchased shares of stock, bond, or hybrid mutual funds outside workplace retirement plans in the preceding five years (see Investment Company Institute 2006). On average, these fund owners considered nine distinct items of information about a fund before purchasing shares, five of which they considered “very important” to making the final decision to invest. Seventy-four percent of these fund owners wanted to know about a fund’s fees and expenses before purchasing shares; 69 percent reviewed or asked questions about the fund’s past performance.
- ⁴³ For example, see Investment Company Institute 2017b, Collins and Duvall 2017, and Collins 2005.
- ⁴⁴ Deloitte Consulting LLP, the International Foundation of Employee Benefit Plans, and the International Society of Certified Employee Benefit Specialists 2015 reports that 66 percent of the plans in its survey evaluated and benchmarked the performance of plan investments on a quarterly basis; 13 percent did so semiannually; 13 percent annually; and 8 percent at some other frequency (data are for 2015).
- ⁴⁵ Deloitte Consulting LLP, the International Foundation of Employee Benefit Plans, and the International Society of Certified Employee Benefit Specialists 2015 finds that 52 percent of plans had replaced a fund due to poor performance within the last year; 19 percent had replaced a fund one year to less than two years ago; 16 percent had replaced a fund two years to less than five years ago; 6 percent had last replaced a fund five or more years ago; and 7 percent had never replaced a fund (data are for 2015).
- ⁴⁶ The size of the plan—in terms of assets, participants, and average account balance—is key in pricing services. However, many factors influence plan fees, and they all must be considered when evaluating the reasonableness of a plan’s cost. In addition, the reasonableness of fees paid by a plan is different from the question of whether a plan fiduciary engaged in a prudent process under ERISA in selecting and monitoring plan services and investments (see note 17).
- ⁴⁷ Holden, Schrass, and Bogdan 2016 reports that among mutual fund shareholders owning funds outside employer-sponsored retirement plans in 2016, 80 percent owned fund shares through investment professionals. Schrass 2013 found that owning a DC account decreased the probability of a mutual fund-owning household having an ongoing advisory relationship and that owning an IRA increased the probability. In the regression analysis, these variables were highly significant, and their interaction with ongoing advisory relationships makes sense: financial advice is more readily available outside employer-sponsored retirement plans, and rollover activity, which is common throughout people’s working lives, generates traditional IRAs, which are considered to be outside employer-sponsored plans. Financial advisers provide a range of services to investors: they help investors identify financial goals and recommend funds to meet those goals, conduct transactions, maintain financial records, and coordinate the distribution of prospectuses, financial reports, and proxy statements (see Leonard-Chambers and Bogdan 2007).
- ⁴⁸ For the distribution of expense ratios of mutual funds held in 401(k) plans disaggregated by more-detailed investment objectives, see Figure A4 in the appendix.
- ⁴⁹ For more information, see Collins and Duvall 2017.
- ⁵⁰ For more information, see Collins and Duvall 2017.
- ⁵¹ See Figure 6 in Collins and Duvall 2017.
- ⁵² For a discussion of expense waivers and their impact on the average expense ratios of money market funds industrywide, see Collins and Duvall 2017.
- ⁵³ For variation in the “all-in” fee in 401(k) plans across plan size, see Deloitte Consulting LLP and Investment Company Institute 2014. For analysis of the variation in mutual fund fees across 401(k) plans by plan size, see the box on page 14 and BrightScope and Investment Company Institute 2016b. For an analysis of the variation in mutual fund fees across ERISA 403(b) plans, see BrightScope and Investment Company Institute 2016a.
- ⁵⁴ The SEC has modified its prospectus rules to make the turnover rate more prominent—by moving it to the summary section at the beginning of the prospectus. See 74 Fed. Reg. 4546 (January 26, 2009). The 2010 DOL rules described in note 21 require that participants have access to a website showing, among other information, the portfolio turnover rate for each investment in the plan’s lineup.
- ⁵⁵ The SEC requires that a fund’s turnover rate be calculated by dividing the lesser of its purchases or sales of portfolio securities for a reporting period by the monthly average of the value of its portfolio securities during the same reporting period.
- ⁵⁶ For a more-detailed discussion of portfolio turnover, see Reid and Millar 2004.

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Appendix

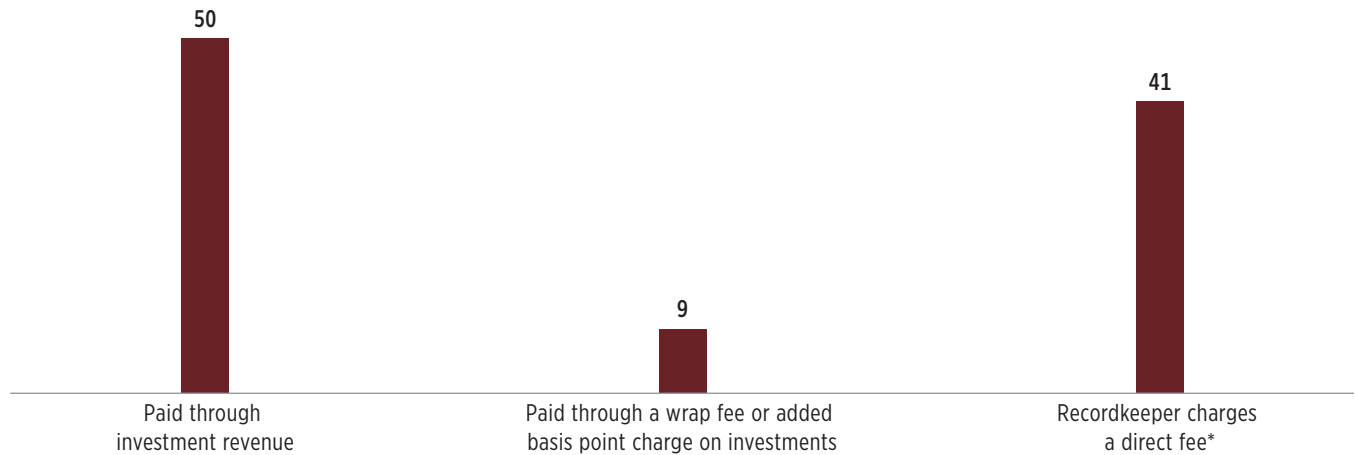
This appendix contains additional detail on fees paid in 401(k) plans. Figure A1 focuses on how annual 401(k) recordkeeping/administrative fees are paid. Figures A2 and A3 report 401(k) mutual fund assets by share class, first across all 401(k) mutual funds (Figure A2) and then

within equity mutual funds, hybrid mutual funds, and bond mutual funds separately (Figure A3). Figure A4 reports the distribution of 401(k) mutual fund assets by investment objective and total expense ratio. Finally, Figures A5 through A7 show information on 12b-1 fees paid by 401(k) investors in mutual funds.

FIGURE A1

How Are Plan Recordkeeping and Administrative Fees Paid?

Percentage of 401(k)/403(b) plans surveyed, 2015



* Among plans with a direct recordkeeping fee, 36 percent report that the plan sponsor pays the fee, 18 percent report that both the plan sponsor and the participants pay the fee, 31 percent allocate the fee to participants as an equal flat dollar amount, and 15 percent allocate the fee to participants pro rata based on account balances.

Source: Deloitte Consulting LLP, International Foundation of Employee Benefit Plans, and International Society of Certified Employee Benefit Specialists 2015

FIGURE A2

401(k) Mutual Fund Assets by Share Class*Percentage of assets, selected years*

	2000	2002	2004	2006	2008	2010	2012	2013	2014	2015	2016
Load	34	23	23	20	16	19	15	14	13	11	10
Front-end ¹	31	20	20	18	13	12	9	9	8	7	6
Back-end, ² level, ³ other, ⁴ and unclassified ⁵	3	3	2	2	2	7	6	6	5	5	4
No-load⁶	66	77	77	80	84	81	85	86	87	89	90
Institutional	20	26	23	23	31	31	41	42	43	43	44
Retail	46	51	54	57	54	50	44	44	45	46	46
Memo: "R" share classes⁷	1	1	4	9	13	19	19	20	20	19	18
Load ⁸	(*)	(*)	(*)	1	1	6	5	5	4	4	4
No-load ⁹	(*)	1	4	8	13	13	14	16	15	15	15

¹ Front-end load > 1 percent. Primarily includes Class A shares; includes assets where front-end loads are waived.

² Front-end load = 0 percent and contingent deferred sales load (CDSL) > 2 percent. Primarily includes Class B shares.

³ Front-end load ≤ 1 percent, CDSL ≤ 2 percent, and 12b-1 fee > 0.25 percent. Primarily includes Class C shares; excludes institutional share classes.

⁴ This category contains all other load share classes not classified as front-end load, back-end load, or level load.

⁵ This category contains load share classes with missing load fee data.

⁶ Front-end load = 0 percent, CDSL = 0 percent, and 12b-1 fee ≤ 0.25 percent.

⁷ "R" shares include assets in any share class that ICI designates as a "retirement share class." These share classes are sold predominantly to employer-sponsored retirement plans. However, other share classes—including retail and institutional share classes—also contain investments made through 401(k) plans or IRAs. "R" shares include both load and no-load funds.

⁸ Load "R" shares are included in level load fund shares above.

⁹ No-load "R" shares are included in retail no-load fund shares above.

(*) = less than 0.5 percent

Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds. Components may not add to the total because of rounding. Data for every year in the 2000–2016 period are available at www.ici.org/info/per23-04_data.xls.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE A3

401(k) Mutual Fund Assets by Share Class and Type of Mutual Fund*Percentage of assets, selected years*

Equity mutual funds	2000	2002	2004	2006	2008	2010	2012	2013	2014	2015	2016
Load	39	27	25	22	19	21	17	15	13	12	10
Front-end ¹	37	24	23	20	16	13	10	9	8	7	6
Back-end, ² level, ³ other, ⁴ and unclassified ⁵	3	2	2	2	2	8	7	6	6	5	4
No-load⁶	61	73	75	78	81	79	83	85	87	88	90
Institutional	16	16	16	17	20	23	33	37	39	41	44
Retail	45	57	59	61	61	56	50	48	48	47	46
Memo: "R" share classes⁷	(*)	1	5	10	17	23	24	23	21	21	21
Load ⁸	(*)	(*)	(*)	1	1	7	6	5	5	5	4
No-load ⁹	(*)	(*)	4	9	16	16	18	18	17	16	16
Hybrid mutual funds	2000	2002	2004	2006	2008	2010	2012	2013	2014	2015	2016
Load	25	25	24	21	18	20	18	16	15	15	14
Front-end ¹	22	22	22	18	15	13	10	10	8	8	8
Back-end, ² level, ³ other, ⁴ and unclassified ⁵	3	3	3	3	3	7	7	7	7	6	6
No-load⁶	75	75	76	79	82	80	82	84	85	85	86
Institutional	10	11	9	10	14	21	25	18	16	17	17
Retail	66	64	66	69	68	59	58	66	69	69	69
Memo: "R" share classes⁷	1	1	5	9	15	19	23	32	34	34	34
Load ⁸	(*)	(*)	(*)	(*)	1	5	6	5	5	5	5
No-load ⁹	1	1	5	9	14	14	17	27	29	30	28

Continued on next page

FIGURE A3

401(k) Mutual Fund Assets by Share Class and Type of Mutual Fund*Percentage of assets, selected years*

Bond mutual funds	2000	2002	2004	2006	2008	2010	2012	2013	2014	2015	2016
Load	20	19	18	15	13	14	13	12	12	10	9
Front-end ¹	17	16	16	13	12	11	10	10	9	8	6
Back-end, ² level, ³ other, ⁴ and unclassified ⁵	4	3	2	2	2	3	3	3	3	3	2
No-load⁶	80	81	82	85	87	86	87	88	88	90	91
Institutional	51	53	54	56	58	58	64	67	65	64	64
Retail	29	29	28	29	29	28	23	21	24	26	27
Memo: "R" share classes⁷	1	1	2	3	4	5	5	5	5	6	5
Load ⁸	(*)	(*)	(*)	(*)	(*)	2	2	2	2	2	2
No-load ⁹	1	1	1	3	4	3	3	3	3	4	4

¹ Front-end load > 1 percent. Primarily includes Class A shares; includes assets where front-end loads are waived.

² Front-end load = 0 percent and contingent deferred sales load (CDSL) > 2 percent. Primarily includes Class B shares.

³ Front-end load ≤ 1 percent, CDSL ≤ 2 percent, and 12b-1 fee > 0.25 percent. Primarily includes Class C shares; excludes institutional share classes.

⁴ This category contains all other load share classes not classified as front-end load, back-end load, or level load.

⁵ This category contains load share classes with missing load fee data.

⁶ Front-end load = 0 percent, CDSL = 0 percent, and 12b-1 fee ≤ 0.25 percent.

⁷ "R" shares include assets in any share class that ICI designates as a "retirement share class." These share classes are sold predominantly to employer-sponsored retirement plans. However, other share classes—including retail and institutional share classes—also contain investments made through 401(k) plans or IRAs. "R" shares include both load and no-load funds.

⁸ Load "R" shares are included in level load fund shares above.

⁹ No-load "R" shares are included in retail no-load fund shares above.

(*) = less than 0.5 percent

Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds. Components may not add to the total because of rounding. Data for every year in the 2000–2016 period are available at www.ici.org/info/per23-04_data.xls.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE A4

401(k) Mutual Fund Assets by Investment Objective and Total Expense Ratio*Percentage of assets, 2016*

	Total expense ratio			
	<0.50	0.50 to <1.00	1.00 to <1.50	≥1.50
Total	51	39	9	1
Equity mutual funds	49	41	9	1
Domestic	52	39	8	1
World	36	47	15	2
Hybrid mutual funds	50	38	10	2
Bond mutual funds	51	42	7	1
Investment grade	83	15	2	(*)
World	53	39	7	1
Other taxable	49	43	7	1
Money market funds	100	(*)	0	0

(*) = less than 0.5 percent

Note: The total expense ratio includes fund operating expenses and any 12b-1 fees. Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds. Row percentages may not add to 100 percent because of rounding.

Sources: Investment Company Institute and Morningstar

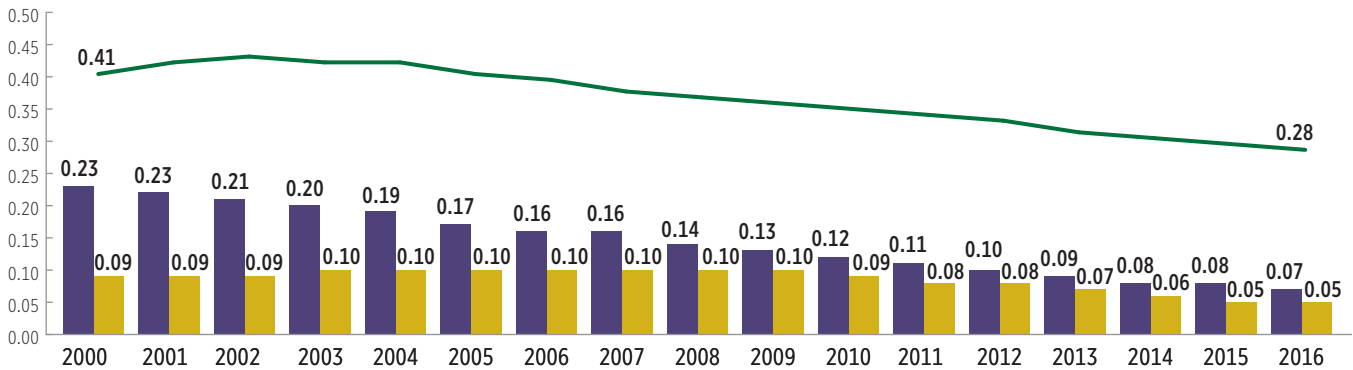
FIGURE A5

401(k) Mutual Fund Investors Tend to Pay Lower-Than-Average 12b-1 Fees

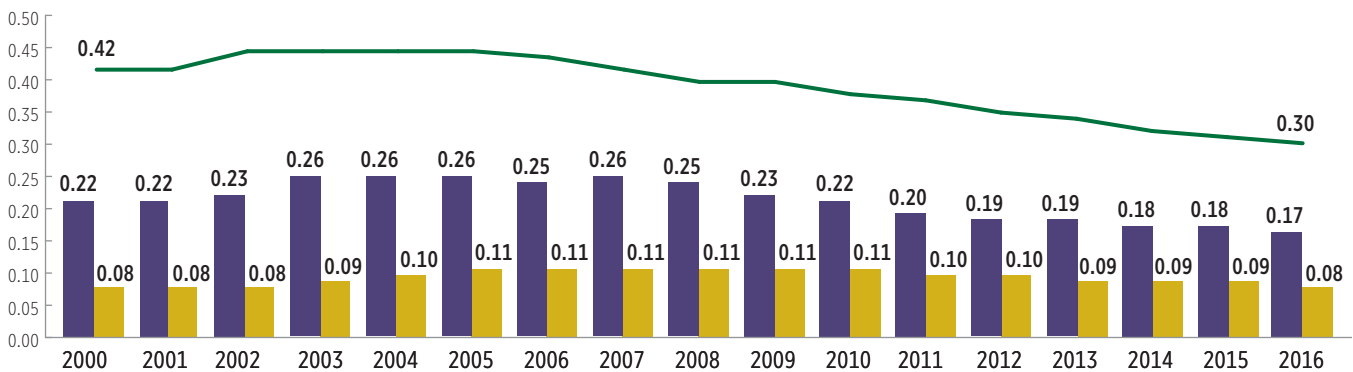
Percent, 2000–2016

- Industry simple average 12b-1 fee
- Industry average 12b-1 fee¹
- 401(k) average 12b-1 fee²

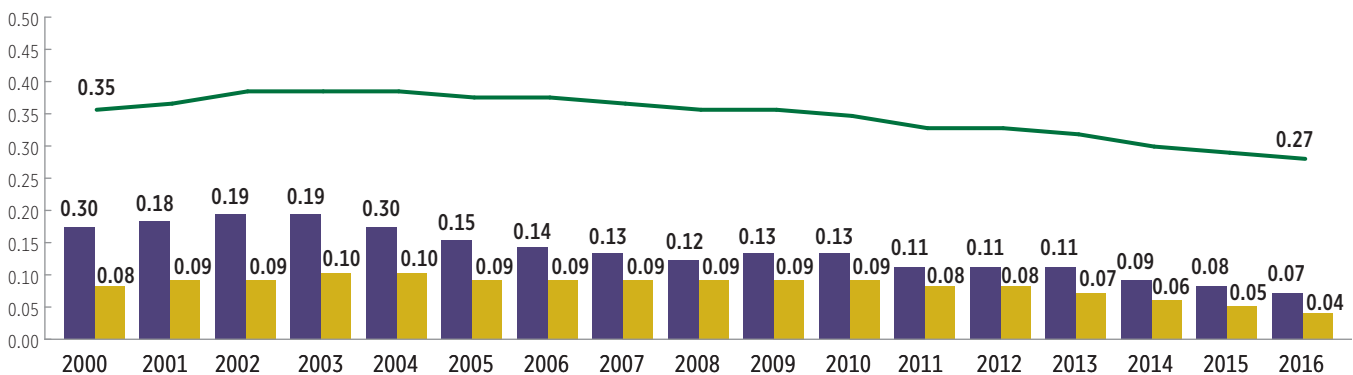
Equity mutual funds



Hybrid mutual funds



Bond mutual funds



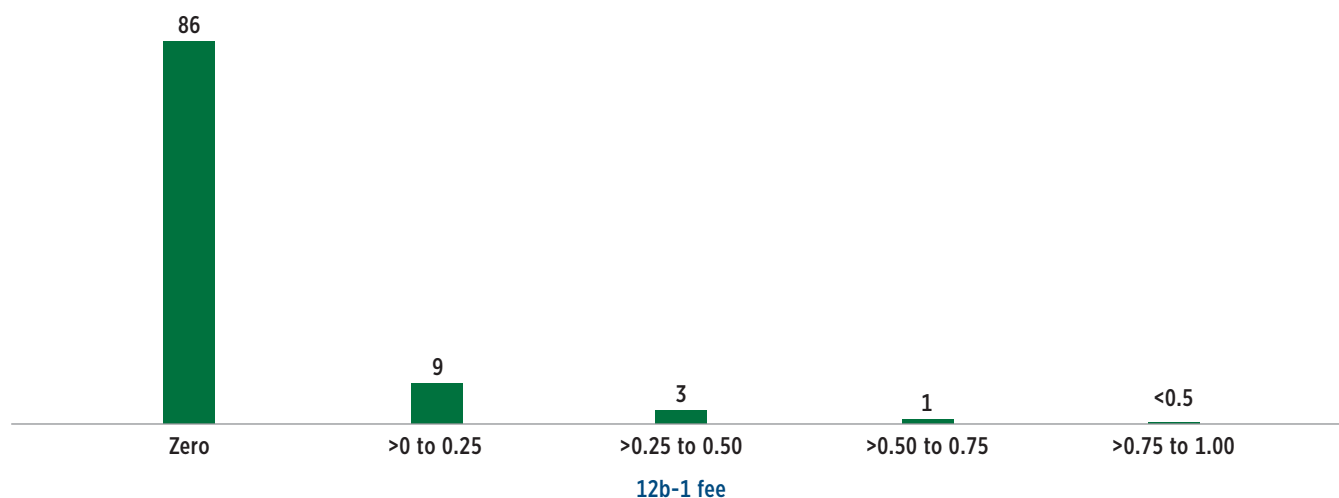
¹ The industry average 12b-1 fee is measured as an asset-weighted average.

² The 401(k) average 12b-1 fee is measured as a 401(k) asset-weighted average.

Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds but include mutual funds without 12b-1 fees.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE A6

401(k) Equity Mutual Fund Assets by 12b-1 Fee*Percentage of 401(k) equity mutual fund assets, 2016*

Note: Data exclude mutual funds available as investment choices in variable annuities. Components do not add to 100 because of rounding.

Sources: Investment Company Institute and Morningstar

FIGURE A7

401(k) Mutual Fund Assets by Investment Objective and 12b-1 Fee*Percentage of assets, 2016*

	12b-1 fee				
	Zero	>0 to 0.25	>0.25 to 0.50	>0.50 to 0.75	>0.75 to 1.00
Total	86	10	3	1	(*)
Equity mutual funds	86	9	3	1	(*)
Domestic	87	9	3	1	(*)
World	83	11	4	1	(*)
Hybrid mutual funds	79	12	6	2	1
Bond mutual funds	80	15	4	1	1
Investment grade	89	8	2	(*)	(*)
World	82	14	3	1	1
Other taxable	79	16	4	1	1
Money market funds	90	8	1	(*)	(*)

(*) = less than 0.5 percent

Note: Data exclude mutual funds available as investment choices in variable annuities and tax-exempt mutual funds. Row percentages may not add to 100 percent because of rounding.

Sources: Investment Company Institute and Morningstar

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