

401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2019

By Sarah Holden, ICI; Steven Bass, ICI; and Craig Copeland, EBRI

AT A GLANCE

Key Findings:

- **The bulk of 401(k) assets were invested in stocks.** On average, at year-end 2019, 70 percent of 401(k) participants' assets were invested in equity securities through equity funds, the equity portion of balanced funds, and company stock. Twenty-seven percent of assets were in fixed-income securities such as stable value investments, bond funds, money funds, and the fixed-income portion of balanced funds.
- **More 401(k) plan participants held equities at year-end 2019 than before the financial market crisis (year-end 2007), and most had the majority of their accounts invested in equities.** For example, about four-fifths of participants in their twenties had more than 80 percent of their 401(k) plan accounts invested in equities at year-end 2019, up from less than half of participants in their twenties at year-end 2007. Overall, nearly 95 percent of 401(k) participants had at least some investment in equities at year-end 2019.
- **At year-end 2019, 87 percent of 401(k) plans, covering 87 percent of 401(k) plan participants, included target date funds in their investment lineup.** At year-end 2019, 31 percent of the assets in the EBRI/ICI 401(k) database were invested in target date funds and 60 percent of 401(k) participants in the database held target date funds. Also known as lifecycle funds, these funds are designed to offer a diversified portfolio that automatically rebalances to be more focused on income over time.
- **401(k) participants' investment in company stock continued at historically low levels.** Five percent of 401(k) assets were invested in company stock at year-end 2019, in line with recent years. This share has fallen by 73 percent since 1999 when company stock accounted for 19 percent of assets.
- **A minority of 401(k) participants had loans outstanding.** At year-end 2019, 18 percent of all 401(k) participants who were eligible for loans had loans outstanding against their 401(k) plan accounts, down slightly from year-end 2018. Loans outstanding amounted to 8 percent of the remaining account balance, on average, at year-end 2019, down 2 percentage points from year-end 2018, and well below their historical average. Loan amounts, on average, also decreased in 2019.
- **The year-end 2019 average 401(k) plan account balance in the database was 10.1 percent higher than the year before, but this may not accurately reflect the experience of typical 401(k) participants.** Changes in a participant's account balance are primarily due to the combination of contributions, investment returns, and withdrawal and loan activity. To understand changes in 401(k) participants' average account balances, it is important to analyze a sample of consistent participants. As with previous EBRI/ICI updates, analysis of a sample of consistent 401(k) plan participants is expected to be published later this year.
- **The average 401(k) plan account balance tends to increase with participant age and tenure.** For example, at year-end 2019, participants in their forties with more than two to five years of tenure had an average 401(k) plan account balance of about \$42,000, compared with an average 401(k) plan account balance of more than \$320,000 among participants in their sixties with more than 30 years of tenure.

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401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2019

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Introduction

Over the past four decades, 401(k) plans have become the most widespread private-sector employer-sponsored retirement plan in the United States.¹ In 2019, an estimated 60 million American workers were active 401(k) plan participants.² By year-end 2019, 401(k) plan assets had grown to \$6.3 trillion, representing about one-fifth of all retirement assets.³ In an ongoing collaborative effort, the Employee Benefit Research Institute (EBRI)⁴ and the Investment Company Institute (ICI)⁵ collect annual data on millions of 401(k) plan participants as a means to examine how these participants manage their 401(k) plan accounts. This report is an update of EBRI and ICI's ongoing research into 401(k) plan participants' activity through year-end 2019.⁶ The report is divided into four sections: the first describes the EBRI/ICI 401(k) database; the second presents a snapshot of participant account balances at year-end 2019; the third looks at participants' asset allocations, including analysis of 401(k) participants' use of target date, or lifecycle, funds; and the fourth focuses on participants' 401(k) loan activity.

EBRI/ICI 401(k) Database

Sources and Types of Data

Several recordkeeping organizations provided records on active participants in 401(k) plans at year-end 2019. These plan recordkeepers include mutual fund companies, banks, insurance companies, and consulting firms. Although the EBRI/ICI project has collected data from 1996 through 2019, the universe of data providers may vary from year to year. In addition, the plans with any given provider may change from year to year, which changes the plans provided. Thus, aggregate figures in this report generally should not be used to estimate time trends. Records were encrypted before inclusion in the database to conceal the identity of employers and employees, but were coded so that both could be tracked by researchers over multiple years.⁷ Data provided for each participant included date of birth, from which an age group is assigned; date of hire, from which a tenure range is assigned; outstanding loan balance; funds in the participant's investment portfolios; and asset values attributed to those funds. An account balance for each participant is the sum of the participant's assets in all funds.⁸ Plan balances are constructed as the sum of all participant balances in the plan. Plan size is estimated as the sum of active participants in the plan and, as such, does not necessarily represent the total number of employees at the sponsoring firm. Within the year-end 2019 EBRI/ICI database, it is possible to link individuals across plans across a majority of the recordkeepers. This improves the identification of active participants and resulted in the reclassification of 0.4 million participant accounts that were multiple accounts owned by single individuals. This procedure allows EBRI and ICI to begin to consolidate account balances for individuals across data providers to provide a more accurate estimate of average account balances per individual.⁹

Investment Options

Investment options are grouped into eight broad categories.¹⁰

- Equity funds consist of pooled investments primarily invested in stocks, including equity mutual funds, bank collective trusts, life insurance separate accounts, and other pooled investments.
- Bond funds are pooled accounts primarily invested in bonds.
- Balanced funds are pooled accounts invested in both stocks and bonds. They are classified into two subcategories: target date funds and non-target date balanced funds.
- A target date fund pursues a long-term investment strategy, using a mix of asset classes, or asset allocation, that the fund provider adjusts to become less focused on growth and more focused on income as the fund approaches and passes its target date.¹¹
- Non-target date balanced funds include asset allocation, or hybrid, funds and lifestyle funds.¹²
- Company stock is equity in the plan's sponsor (the employer).

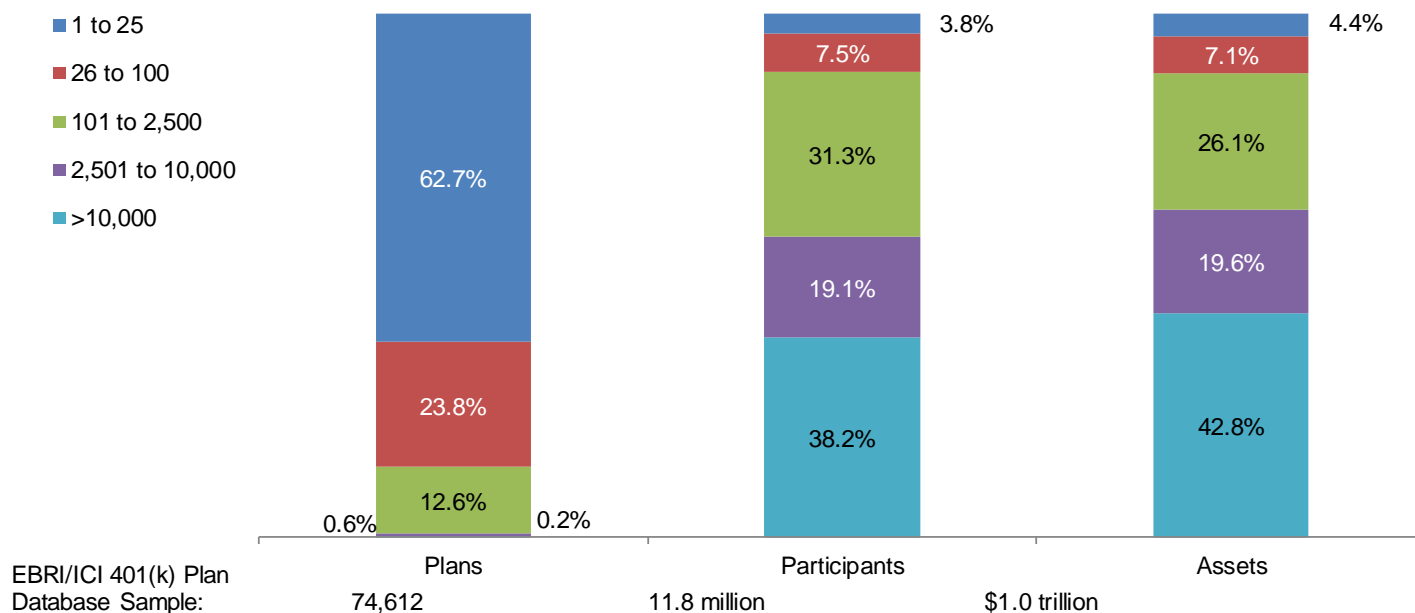
- Money funds consist of those funds designed to maintain a stable share price.
- Stable value products, such as guaranteed investment contracts (GICs)¹³ and other stable value funds,¹⁴ are reported as one category.
- Other is the residual for other investments, such as real estate funds.
- Unknown, which is the final category, consists of assets that could not be identified.¹⁵

Distribution of Plans, Participants, and Assets by Plan Size

The 2019 EBRI/ICI 401(k) database contains information on 74,612 401(k) plans with \$1.0 trillion in assets and 11.8 million participants (Figure 1).¹⁶ As in the 401(k) universe at large, most of the plans in the database are small: 63 percent of the plans have 25 or fewer participants, and 24 percent have 26 to 100 participants. In contrast, less than 1 percent of the plans have more than 2,500 participants. However, participants and assets are concentrated in large plans. For example, 57 percent of participants are in plans with more than 2,500 participants, and these same plans account for 62 percent of all plan assets. Because most of the plans have a small number of participants, the asset size for many plans is modest. Twenty-four percent of the plans have assets of \$250,000 or less, and another 30 percent have plan assets between \$250,001 and \$1,250,000.¹⁷

Figure 1
EBRI/ICI 401(k) Plan Database Covers a Wide Range of Plan Sizes
 Percentage of plans, participants, and assets by number of plan participants, 2019

Number of Plan Participants



Note: See Figure A1 in the appendix for additional detail.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

About the EBRI/ICI Database

The EBRI/ICI Participant-Directed Retirement Plan Data Collection Project gathers information about individual 401(k) plan participant accounts. As of December 31, 2019, the EBRI/ICI database included statistical information about:

- 11.8 million 401(k) plan participants, in
- 74,612 employer-sponsored 401(k) plans, holding
- \$1.0 trillion in assets.

The 2019 EBRI/ICI database covers 20 percent of the universe of 401(k) plan participants, 12 percent of plans, and 15 percent of 401(k) plan assets. The project is unique because it includes data provided by a wide variety of plan recordkeepers and, therefore, represents the activity of participants in 401(k) plans of varying sizes—from very large corporations to small businesses—with a variety of investment options.

About Changes in Account Balances

In order to analyze the change in participant account balances over time, it is important to have a consistent sample of participants. Comparing average account balances across different year-end snapshots can lead to false conclusions. For example, adding a large number of new plans with smaller balances to the database would tend to pull down the average account balance. This could then be mistakenly described as an indication that balances are declining, but it would tell us nothing about consistently participating workers. Similarly, the aggregate average account balance would tend to be pulled down if a large number of older participants retired. In addition, changes in the sample of recordkeepers and changes in the set of plans for which they keep records can also influence the change in aggregate average account balance. Thus, to ascertain what is happening to 401(k) participants' account balances, a set of consistent participants must be analyzed. Future research will examine linked data to analyze the consistent sample of participants in the EBRI/ICI data collection effort.

Relationship of EBRI/ICI 401(k) Database Plans to the Universe of All 401(k) Plans

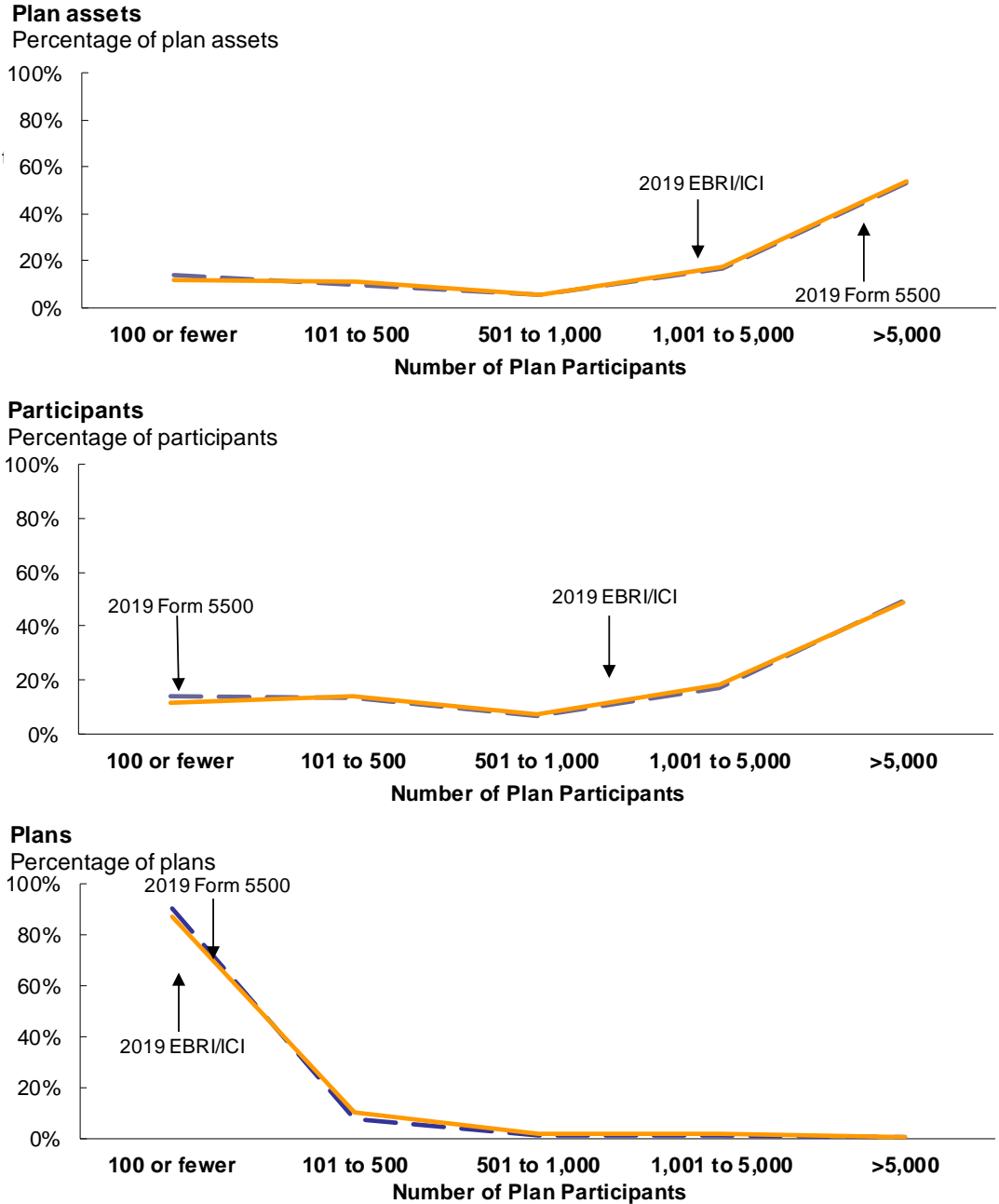
The 2019 EBRI/ICI 401(k) database is a representative sample of the estimated universe of 401(k) plans. At year-end 2019, all 401(k) plans held a total of \$6.3 trillion in assets, and the database represents about 15 percent of that total.¹⁸ The database also covers 20 percent of the universe of active 401(k) plan participants and 12 percent of all 401(k) plans.¹⁹ The distribution of assets, participants, and plans in the database for 2019 is similar to the universe of plans as reported by the US Department of Labor (Figure 2).

Age and Tenure of 401(k) Plan Participants

The database includes 401(k) participants across a wide range of age and tenure groups. At year-end 2019, 48 percent of participants were in their thirties or forties, while 14 percent of participants were in their twenties, 25 percent were in their fifties, and 13 percent were in their sixties (Figure 3, upper panel). The median age of the participants in the 2019 database is 45 years, similar to prior years. Because older participants tend to have larger account balances, assets in the database are more heavily concentrated among the older 401(k) participant groups. At year-end 2019, 63 percent of 401(k) plan assets were held by participants in their fifties or sixties, while 13 percent of 401(k) plan assets were held by participants in their twenties or thirties (Figure 3, lower panel). Participants in 401(k) plans represent a wide range of job tenure experiences. In 2019, 44 percent of the participants in the database had five or fewer years of tenure, and 4 percent had more than 30 years of tenure (Figure 4). The median tenure at the current employer was seven years in 2019, up from six years in 2018.

Figure 2
**EBRI/ICI 401(k) Database Represents a Wide
 Cross Section of the 401(k) Universe**

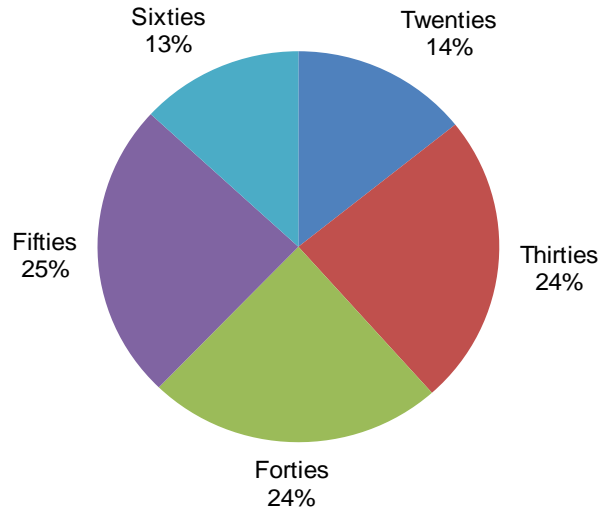
401(k) plan characteristics by number of participants: EBRI/ICI 401(k) database in 2019 vs. 2019 DOL Form 5500 for all 401(k) plans



Sources: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project and US Department of Labor

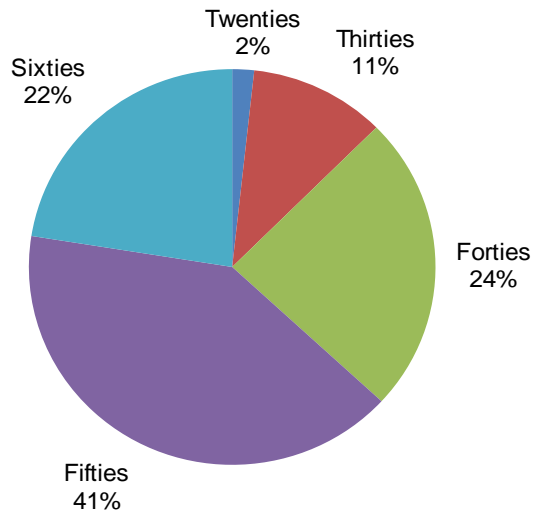
Figure 3
401(k) Participants Represent a Range of Ages
 Percentage of active 401(k) plan participants and
 401(k) plan assets by participant age, 2019

Active 401(k) Plan Participants



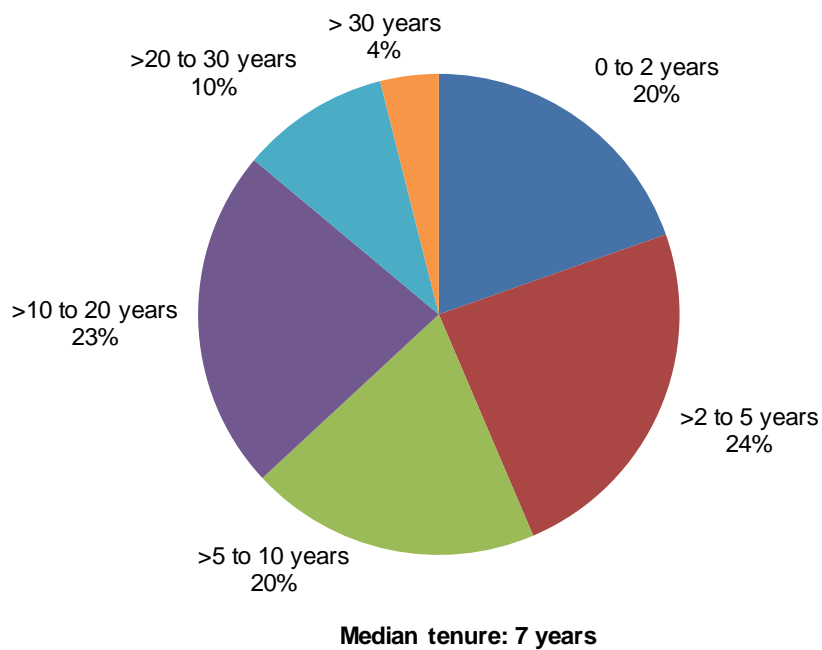
Median age: 45 years

401(k) Plan Assets



Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 4
401(k) Participants Represent a Range of Job Tenures
 Percentage of active 401(k) plan participants by years of tenure, 2019



Note: The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Year-End 2019 Snapshot of 401(k) Participants' Account Balances

Factors That Affect 401(k) Participants' Account Balances

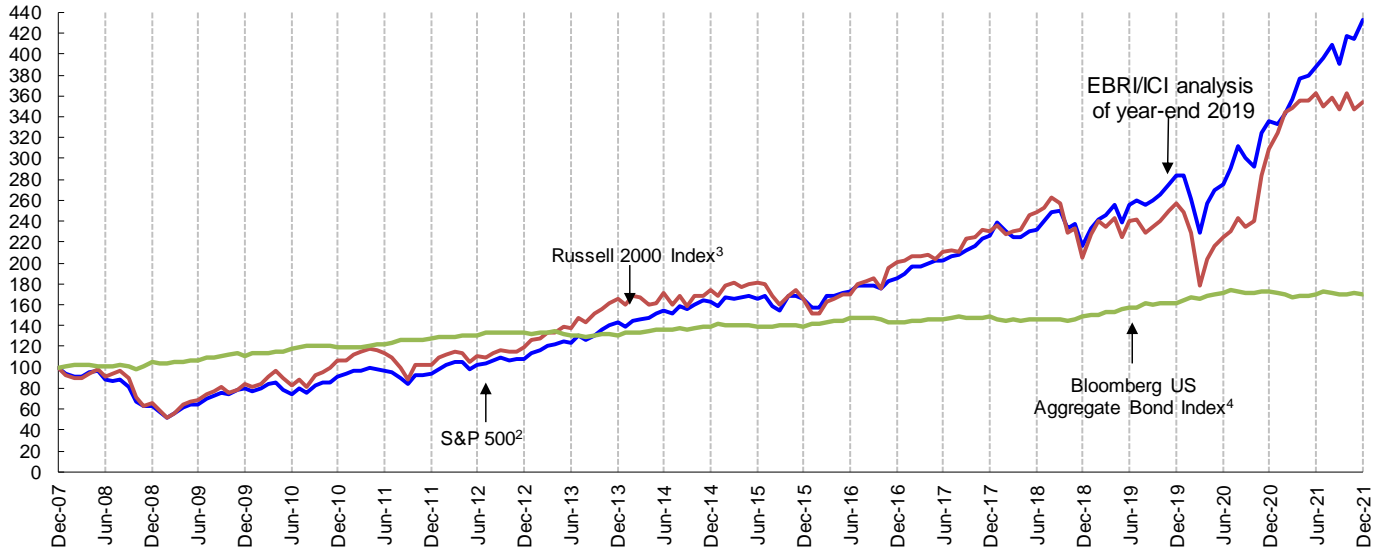
In any given year, the change in a participant's account balance in the database is the sum of three factors:

- New contributions by the participant (+), the employer (+), or both;
- Total investment return on account balances (\pm), which depends on the performance of financial markets and on the allocation of assets in an individual's account; and
- Withdrawals (-), borrowing (-), and loan repayments (+).

The change in any individual participant's account balance in the database is influenced by the magnitude of these three factors relative to the starting account balance.²⁰ For example, a contribution of a given dollar amount produces a larger growth rate when added to a smaller account. On the other hand, investment returns of a given percentage produce larger dollar increases (or decreases) when compounded on a larger asset base. Asset allocation also influences investment returns and changes in assets. For example, stocks (as measured by the S&P 500 total return index) increased by 31.5 percent during 2019, while bonds (as measured by the Bloomberg US Aggregate Bond Index) increased by 8.7 percent (Figures 5 and 6).

Figure 5
Domestic Stock and Bond Market Indexes

Month-end level,¹ December 2007 to December 2021



¹All indexes are set to 100 in December 2007.

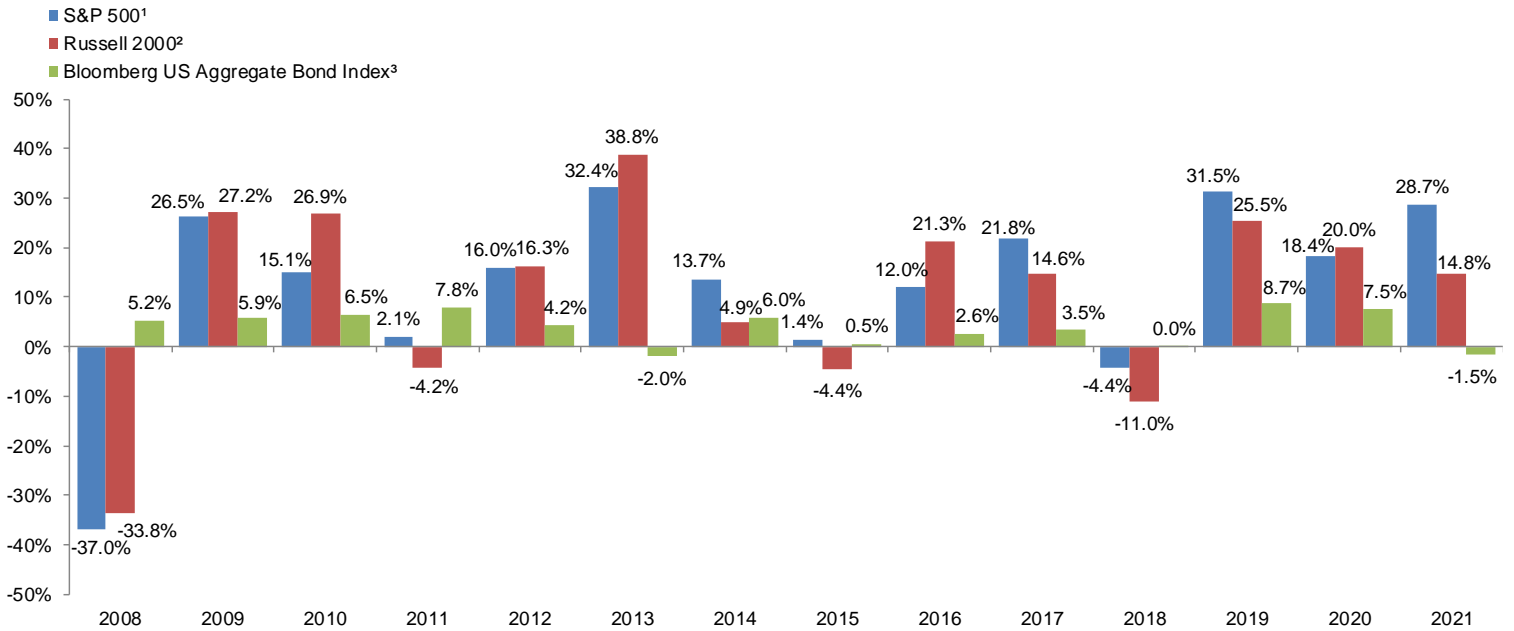
²The S&P 500 is an index of 500 stocks chosen for market size, liquidity, and industry group representation.

³The Russell 2000 Index measures the performance of the 2,000 smallest US companies (based on total market capitalization) included in the Russell 3000 Index (which tracks the 3,000 largest US companies).

⁴The Bloomberg US Aggregate Bond Index is composed of securities covering government and corporate bonds, mortgage-backed securities, and asset-backed securities (rebalanced monthly by market capitalization). The index's total return consists of price appreciation/depreciation plus income as a percentage of the original investment.

Sources: Bloomberg, Frank Russell Company, and Standard & Poor's

Figure 6
Percent Change in Total Return Indexes



¹The S&P 500 is an index of 500 stocks chosen for market size, liquidity, and industry group representation.

²The Russell 2000 Index measures the performance of the 2,000 smallest US companies (based on total market capitalization) included in the Russell 3000 Index (which tracks

³The Bloomberg US Aggregate Bond Index is composed of securities covering government and corporate bonds, mortgage-backed securities, and asset-backed securities (rebalanced monthly by market capitalization). The index's total return consists of price appreciation/depreciation plus income as a percentage of the original investment.

Sources: Bloomberg, Frank Russell Company, and Standard & Poor's

Definition of 401(k) Plan Account Balance

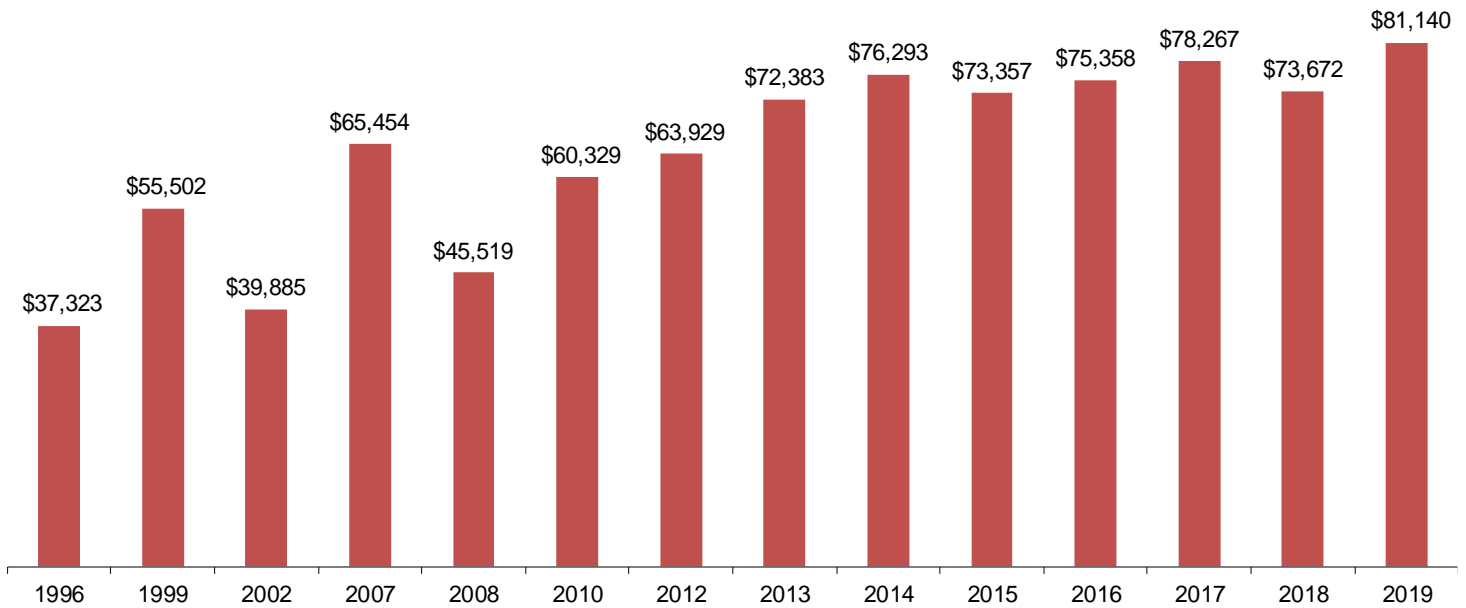
As a cross section, or snapshot, of the entire population of 401(k) plan participants, the database includes 401(k) participants who are young and those who are new to their jobs, as well as older participants and those who have been with their current employers for many years. These annual updates of the database provide snapshots of 401(k) plan account balances, asset allocation, and loan activity across wide cross sections of participants. However, the cross-sectional analysis is not well suited to addressing the question of the impact of participation in 401(k) plans over time. Cross sections change in composition from year to year because the selection of data providers and sample of plans using a given provider vary and because 401(k) participants join or leave plans.²¹ In addition, the database contains only the account balances held in the 401(k) plans at participants' current employers. Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included in the analysis.²² Furthermore, account balances are net of unpaid loan balances. Because of all these factors, it is not correct to presume that the change in the average or median account balance for the database as a whole reflects the experience of "typical" 401(k) plan participants. (See About Changes in Account Balances on page 6.)

Size of 401(k) Plan Account Balances

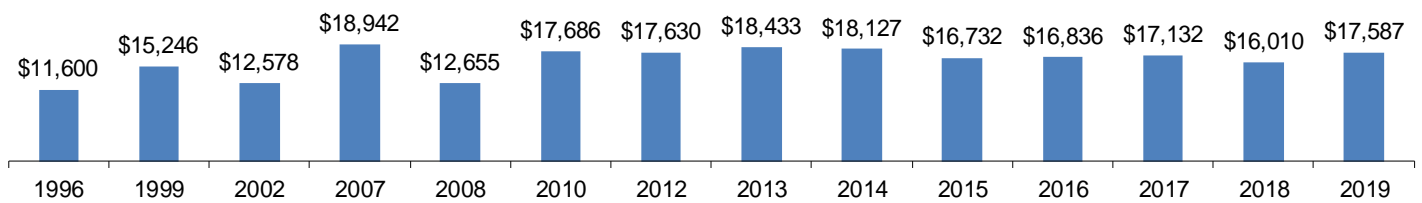
At year-end 2019, the average account balance was \$81,140 and the median account balance was \$17,587 (Figure 7), but balances varied widely. For example, more than three-quarters of the participants in the 2019 EBRI/ICI 401(k) database had account balances that were lower than \$81,140, the size of the average account balance. In fact, 40.1 percent of participants had account balances of less than \$10,000, while 19.7 percent of participants had account balances greater than \$100,000 (Figure 8). The variation in account balances partly reflects the effects of participant age, tenure, salary, contribution behavior, rollovers from other plans, asset allocation, withdrawals, loan activity, and employer contribution rates. This paper examines the relationship between account balances and participants' age and tenure.

Figure 7
Snapshot of Year-End 401(k) Plan Account Balances
 401(k) plan participant account balances,¹ selected years²

Average



Median

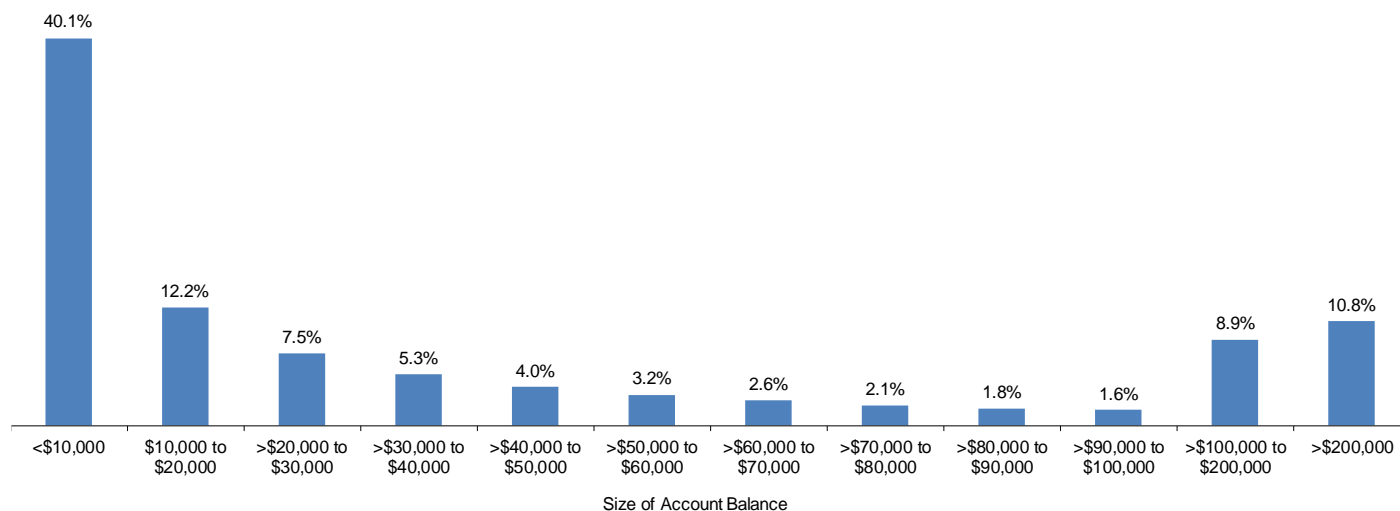


¹Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

²The sample of participants changes over time.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 8
Distribution of 401(k) Plan Account Balances by Size of Account Balance
 Percentage of participants with account balances in specified ranges, 2019



Note: At year-end 2019, the average account balance among all 11.8 million 401(k) participants was \$81,140; the median account balance was \$17,587. Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

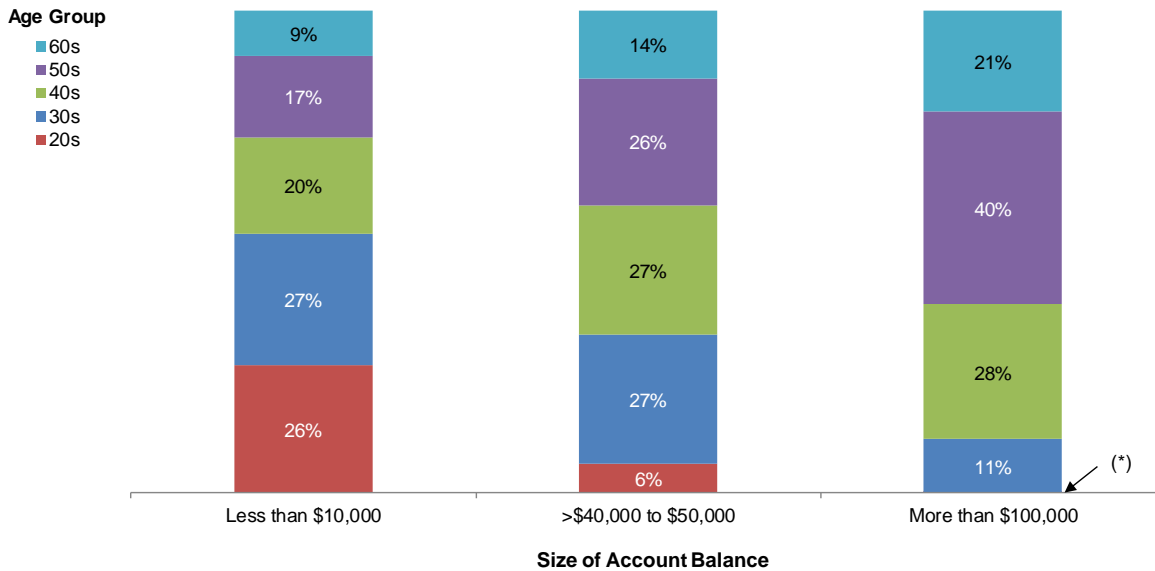
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Relationship of Age and Tenure to 401(k) Plan Account Balances

Age and account balance are positively correlated among participants covered by the 2019 database.²³ Examination of the age composition of account balances finds that 53 percent of participants with account balances of less than \$10,000 were in their twenties or thirties (Figure 9). Similarly, 61 percent of participants with account balances greater than \$100,000 were in their fifties or sixties. The positive correlation between age and account balance is expected because younger workers are likely to have lower incomes and to have had less time to accumulate a balance with their current employer. In addition, they are less likely to have rollovers from a previous employer's plan in their current plan accounts. Account balance and tenure are also positively correlated among participants in the 2019 database. A participant's tenure with an employer serves as a proxy for the length of time a worker has participated in the 401(k) plan.²⁴ Indeed, 69 percent of participants with account balances of less than \$10,000 had five or fewer years of tenure, while 71 percent of participants with account balances greater than \$100,000 had more than 10 years of tenure (Figure 10).²⁵

Examining the interaction of both age and tenure with account balances reveals that, for a given age group, average account balances tend to increase with tenure. For example, the average account balance of participants in their sixties with up to two years of tenure was \$53,363, compared with \$323,327 for participants in their sixties with more than 30 years of tenure (Figure 11).²⁶ Similarly, the average account balance of participants in their forties with up to two years of tenure was \$22,854, compared with \$190,667 for participants in their forties with more than 20 years of tenure.

Figure 9
Age Composition of Selected 401(k) Plan Account Balance Categories
 Percentage of participants with account balances in specified ranges, 2019

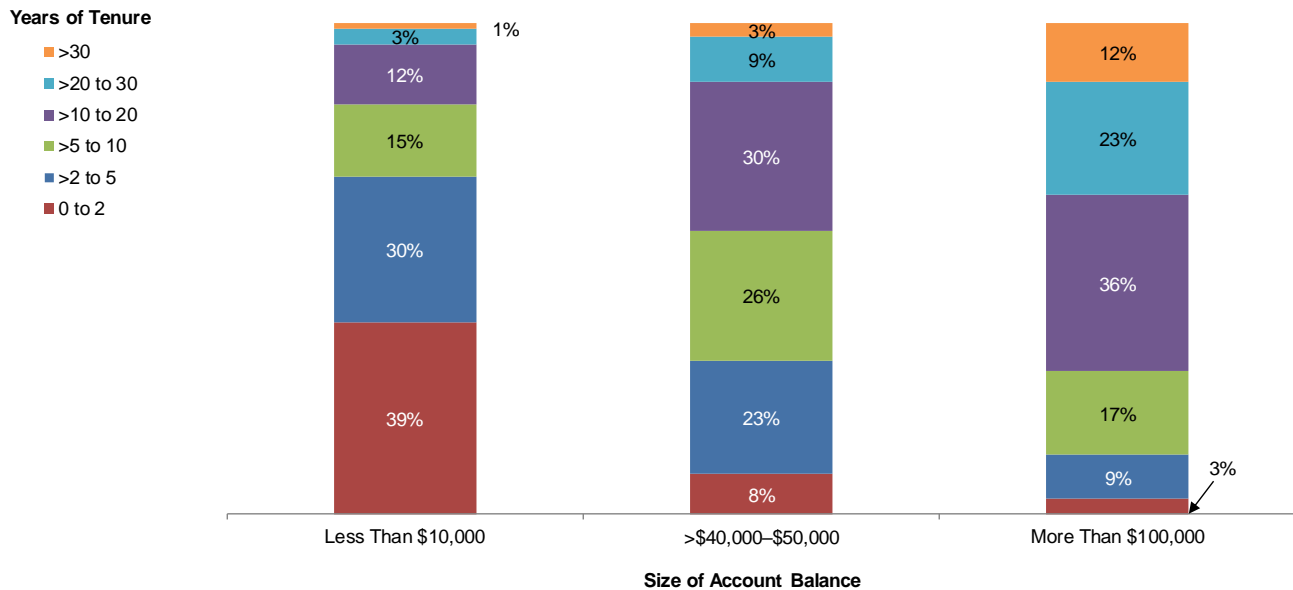


(*) = less than 0.5 percent

Note: Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 10
Tenure Composition of Selected 401(k) Plan Account Balance Categories
 Percentage of participants with account balances in specified ranges, 2019



Note: Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included. The tenure variable is generally years working at current employer and thus may

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 11

401(k) Plan Account Balances Increase With Participant Age and Tenure

Average 401(k) plan account balance by participant age and tenure, 2019

| Age Group | Years of Tenure | | | | | |
|-----------|-----------------|----------|----------|-----------|-----------|-----------|
| | 0 to 2 | >2 to 5 | >5 to 10 | >10 to 20 | >20 to 30 | >30 |
| 20s | \$4,830 | \$13,827 | \$22,442 | | | |
| 30s | 12,125 | 25,851 | 48,979 | \$75,749 | | |
| 40s | 22,854 | 41,906 | 74,576 | 130,578 | \$190,667 | |
| 50s | 35,668 | 56,807 | 91,970 | 150,251 | 264,649 | \$339,898 |
| 60s | 53,363 | 65,584 | 94,979 | 126,356 | 209,085 | 323,327 |

Note: The average account balance among all 11.8 million 401(k) plan participants was \$81,140; the median account balance was \$17,587. Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included. The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

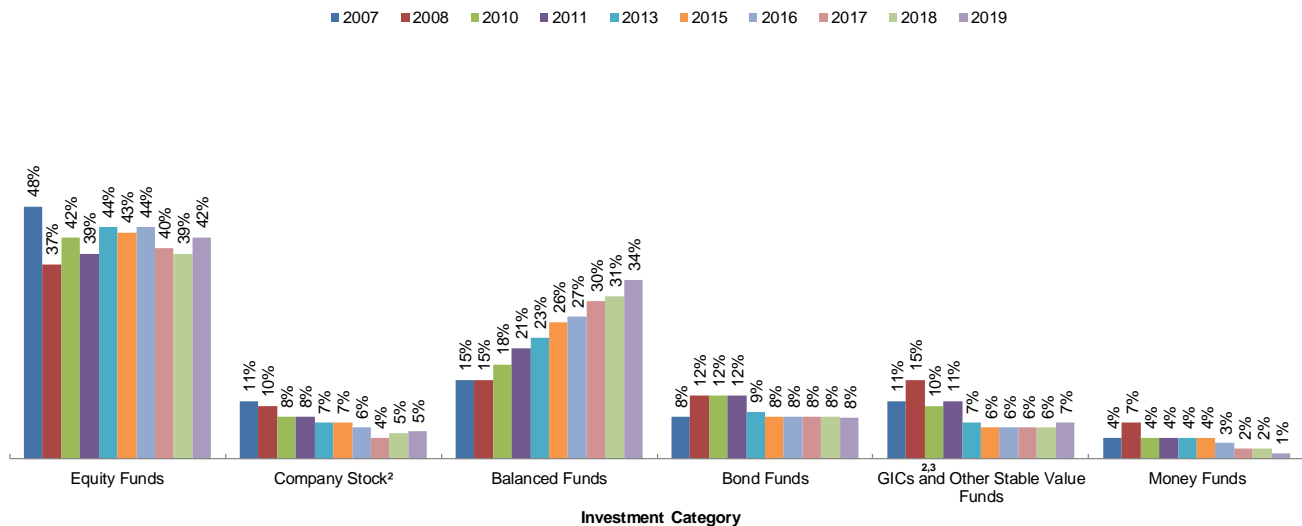
Year-End 2019 Snapshot of 401(k) Participants' Asset Allocation

At year-end 2019, 42 percent of 401(k) plan participants' account balances were invested in equity funds, on average, in line with recent years (Figure 12). Another 34 percent of 401(k) participants' account balances were invested in balanced funds, largely target date funds. 401(k) participants' investment in company stock continued at historically low levels. Five percent of 401(k) assets were invested in company stock at year-end 2019, in line with recent years. This share has fallen by 73 percent since 1999 when company stock accounted for 19 percent of assets.²⁷ Altogether, equity securities—equity funds, the equity portion of balanced funds,²⁸ and company stock—represented 70 percent of 401(k) plan participants' assets at year-end 2019 (Figure 13).

Figure 12

401(k) Plan Assets Are Concentrated in Equities

401(k) plan average asset allocation, percentage of total assets,¹ selected years



¹Minor investment options are not shown; therefore, components do not add to 100 percent. Percentages are dollar-weighted averages.

²Not all participants are offered this investment option (see Figure A2).

³GICs are guaranteed investment contracts.

Note: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Asset Allocation and Participant Age

As in previous years, the database for year-end 2019 shows that participants' asset allocation varied considerably with age.²⁹ Younger participants tended to be more invested in equity funds and balanced funds, while older participants were more likely to invest in fixed-income securities such as bond funds, GICs and other stable value funds, or money funds (Figure 13). For example, among participants in their twenties, the average allocation to equity and balanced funds was 90 percent of assets, compared with about 70 percent of assets among participants in their sixties. Younger participants had consistently higher allocations to target date funds. A target date, or lifecycle, fund pursues a long-term investment strategy, using a mix of asset classes that follow a predetermined reallocation, typically rebalancing to shift its focus from growth to income as the fund approaches and passes its target date.³⁰ At year-end 2019, 30.7 percent of 401(k) assets in the database were invested in target date funds, up from 26.6 percent in 2018 (Figure 14). Among participants in their twenties, 53.4 percent of their 401(k) assets were invested in target date funds at year-end 2019; among participants in their sixties, 28.2 percent of their 401(k) assets were invested in target date funds (Figure 13).

Figure 13
Average Asset Allocation of 401(k) Plan Accounts by Participant Age
Percentage of account balances,¹ 2019

| Age Group | Equity Funds | Balanced Funds | | Bond Funds | Money Funds | GICs ^{3,4} and Other Stable Value Funds | Company Stock ³ | Other | Unknown | Memo: Equities ⁵ |
|------------|--------------|----------------------------------|--------------------------------|-------------|-------------|--|----------------------------|-------------|-------------|-----------------------------|
| | | Target Date Funds ^{2,3} | Non-Target Date Balanced Funds | | | | | | | |
| 20s | 31.3% | 53.4% | 4.9% | 4.6% | 0.3% | 1.9% | 1.6% | 1.1% | 0.8% | 85.4% |
| 30s | 37.7% | 43.8% | 4.3% | 5.1% | 0.5% | 2.9% | 3.4% | 1.6% | 0.5% | 83.6% |
| 40s | 46.7% | 31.2% | 2.5% | 6.8% | 0.7% | 4.3% | 5.4% | 1.9% | 0.5% | 78.3% |
| 50s | 43.6% | 28.2% | 3.0% | 8.4% | 0.9% | 7.2% | 6.1% | 2.1% | 0.5% | 68.1% |
| 60s | 38.0% | 28.2% | 4.0% | 10.4% | 1.4% | 10.5% | 4.7% | 2.2% | 0.6% | 57.7% |
| All | 42.1% | 30.7% | 3.5% | 8.1% | 1.0% | 6.9% | 5.2% | 2.0% | 0.5% | 70.2% |

¹Percentages are dollar-weighted averages.

²A 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.

³Not all participants are offered this investment option (see Figure A2).

⁴GICs are guaranteed investment contracts.

⁵Equities include equity funds, company stock, and the equity portion of balanced funds.

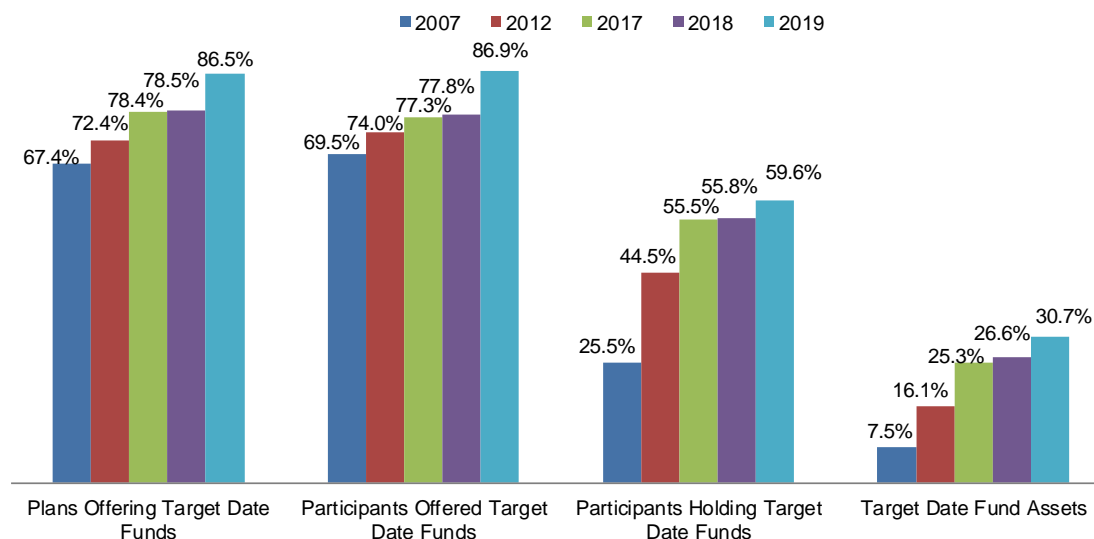
Note: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Asset Allocation and Investment Options

The investment options that a plan offers can significantly affect how participants allocate their 401(k) assets.³¹ Target date funds are an investment option that have been increasingly offered in 401(k) plans and increasingly used by 401(k) plan participants (Figure 14). Target date funds were available in 87 percent of the 401(k) plans in the year-end 2019 database.³² These plans offered target date funds to 87 percent of the participants in the database.³³ At year-end 2019, 60 percent of 401(k) plan participants in the EBRI/ICI 401(k) database held target date funds and target date funds were 31 percent of 401(k) plan assets. Not all participants are offered target date funds--among participants who were offered target date funds, 69 percent held them at year-end 2019.³⁴ Target date fund assets represented 35 percent of the assets of plans offering such funds in their investment lineups.³⁵

Figure 14
Target Date Funds' 401(k) Market Share
 Percentage of total 401(k) market, year-end



Note: 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, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Asset Allocation to Equities

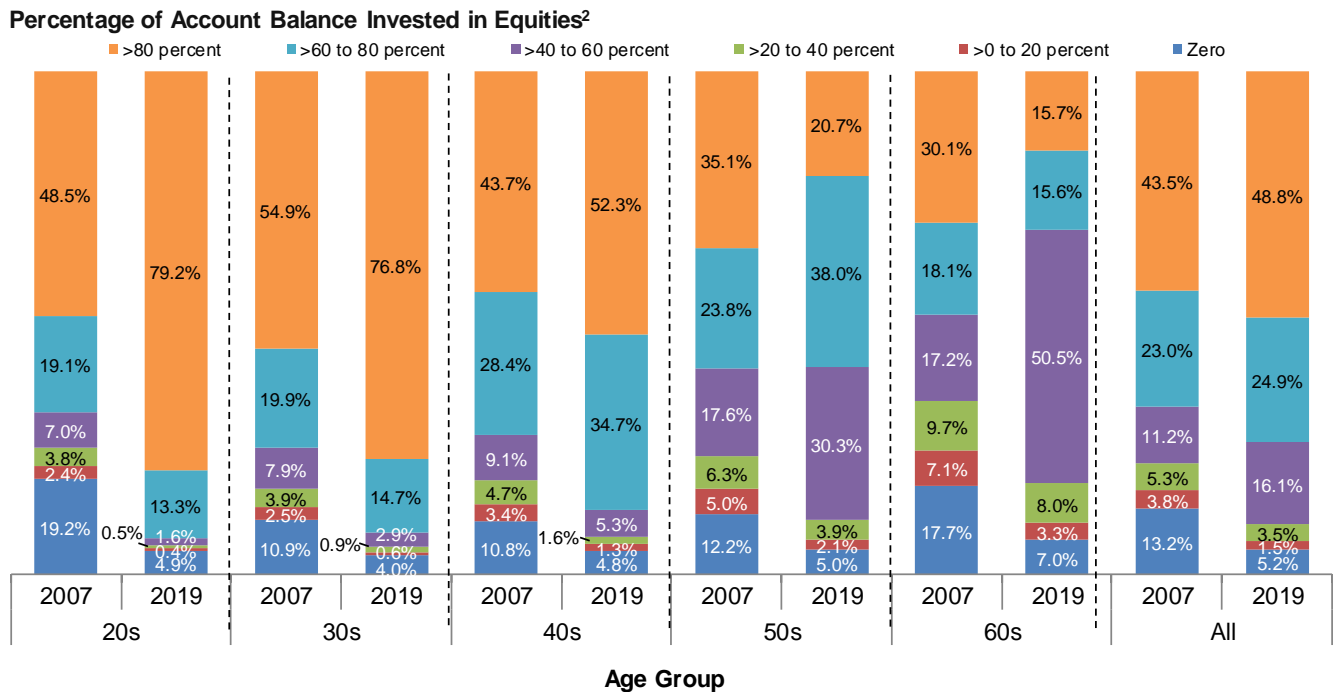
Among individual 401(k) plan participants, the allocation of account balances to equities (equity funds, company stock, and the equity portion of balanced funds) varies widely around the average of 70 percent for all participants in the 2019 database (Figure 13).³⁶ Forty-nine percent of participants had more than 80 percent of their account balances invested in equities, while 5 percent held no equities at all at the end of 2019 (Figure 15). Younger 401(k) plan participants were much more likely to have high concentrations in equities. At year-end 2019, about four-fifths of 401(k) plan participants in their twenties had more than 80 percent of their account balances invested in equities, compared with 16 percent of 401(k) plan participants in their sixties.

Changes in Concentrations in Equities Since the Financial Crisis

More 401(k) plan participants held equities at year-end 2019 than at year-end 2007, and a larger percentage of younger investors had higher concentrations in equities. Overall, at year-end 2019, 5 percent of 401(k) plan participants held no equities, down from 13 percent at year-end 2007 (Figure 15). Younger 401(k) participants were much more likely to hold equities and to hold high concentrations in equities at year-end 2019 compared with year-end 2007. For example, about 79 percent of 401(k) plan participants in their twenties had more than 80 percent of their account balances invested in equities at year-end 2019 compared with less than half at year-end 2007. Older 401(k) participants were much less likely to have such high concentrations in equities at year-end 2019 compared with year-end 2007: 16 percent of 401(k) plan participants in their sixties had more than 80 percent of their account balances invested in equities at year-end 2019 compared with 30 percent of 401(k) plan participants in their sixties at year-end 2007. Across all age groups, a lower share held no equities at year-end 2019 compared with year-end 2007.

Figure 15
**Exposure to Equities Increased Among 401(k) Participants
 Between 2007 and 2019**

Percentage of 401(k) participants by age of participant,¹ year-end 2007 and year-end 2019



¹Participants include the 11.8 million 401(k) plan participants in the year-end 2019 EBRI/ICI 401(k) database and the 21.8 million 401(k) plan participants in the year-end 2007 EBRI/ICI database.

²Equities include equity funds, company stock, and the equity portion of balanced funds. Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Distribution of 401(k) Participants' Balanced Fund Allocations by Age

Individual 401(k) participants' asset allocation to balanced funds varied widely around an average of 34 percent at year-end 2019 (Figure 12). For example, 32 percent of participants held no balanced funds, while 48 percent of participants held more than 80 percent of their accounts in balanced funds at the end of 2019 (Figure 16). At year-end 2019, 68 percent of 401(k) participants held balanced funds through target date funds and non-target date balanced funds, up from 65 percent in 2018.³⁷ Three-fifths of 401(k) participants held target date funds, 11 percent held non-target date balanced funds, and 3 percent held both. Target date fund use varies with participant age and tenure. Younger participants were slightly more likely to hold target date funds than older participants. At year-end 2019, 62 percent of participants in their twenties and 63 percent of participants in their thirties held target date funds, compared with 58 percent of participants in their sixties. EBRI/ICI analysis of 401(k) plan target date fund investors finds that the majority of them are holding one age-appropriate target date fund.³⁸

Recently hired participants were more likely to hold target date funds than those with more years on the job: at year-end 2019, 65 percent of participants with two or fewer years of tenure held target date funds, compared with 56 percent of participants with more than 10 to 20 years of tenure, and 43 percent of participants with more than 30 years of tenure (Figure 17).

Figure 16
**Asset Allocation Distribution of 401(k) Participant
Account Balance to Balanced Funds by Age**
Percentage of participants,¹ 2019

Percentage of Account Balance Invested in Balanced Funds

| Age group | Zero | >0 to 10 | >10 to 20 | >20 to 30 | >30 to 40 | >40 to 50 | >50 to 60 | >60 to 70 | >70 to 80 | >80 to 90 | >90 to 100 |
|------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 20s | 28.3% | 2.6% | 1.3% | 1.6% | 1.0% | 1.0% | 0.9% | 0.7% | 0.8% | 0.8% | 60.8% |
| 30s | 27.9% | 3.7% | 2.4% | 2.4% | 1.8% | 1.6% | 1.5% | 1.2% | 1.4% | 1.6% | 54.5% |
| 40s | 36.2% | 5.6% | 3.6% | 3.3% | 2.3% | 2.0% | 1.7% | 1.5% | 1.7% | 2.1% | 40.1% |
| 50s | 33.5% | 6.4% | 4.1% | 3.7% | 2.7% | 2.4% | 2.0% | 1.6% | 1.8% | 2.1% | 39.8% |
| 60s | 33.7% | 6.3% | 3.9% | 3.6% | 2.6% | 2.4% | 2.0% | 1.5% | 1.7% | 1.8% | 40.6% |
| All | 32.2% | 5.0% | 3.1% | 3.0% | 2.1% | 1.9% | 1.7% | 1.3% | 1.5% | 1.7% | 46.4% |

Percentage of Account Balance Invested in Target Date Funds²

| Age group | Zero | >0 to 10 | >10 to 20 | >20 to 30 | >30 to 40 | >40 to 50 | >50 to 60 | >60 to 70 | >70 to 80 | >80 to 90 | >90 to 100 |
|------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 20s | 37.8% | 1.1% | 1.2% | 1.5% | 1.0% | 0.9% | 0.9% | 0.7% | 0.8% | 0.8% | 53.4% |
| 30s | 36.9% | 2.0% | 2.0% | 2.1% | 1.6% | 1.4% | 1.4% | 1.1% | 1.4% | 1.5% | 48.6% |
| 40s | 42.6% | 3.4% | 2.9% | 2.8% | 2.1% | 1.7% | 1.5% | 1.3% | 1.6% | 2.0% | 38.1% |
| 50s | 41.0% | 4.2% | 3.2% | 3.0% | 2.2% | 2.0% | 1.7% | 1.4% | 1.7% | 2.0% | 37.7% |
| 60s | 42.3% | 4.0% | 3.0% | 2.8% | 2.1% | 1.9% | 1.7% | 1.3% | 1.5% | 1.7% | 37.7% |
| All | 40.4% | 3.0% | 2.5% | 2.5% | 1.8% | 1.6% | 1.5% | 1.2% | 1.4% | 1.6% | 42.5% |

Percentage of Account Balance Invested in Non-Target Date Balanced Funds

| Age group | Zero | >0 to 10 | >10 to 20 | >20 to 30 | >30 to 40 | >40 to 50 | >50 to 60 | >60 to 70 | >70 to 80 | >80 to 90 | >90 to 100 |
|------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 20s | 88.7% | 2.5% | 0.7% | 0.4% | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% | 7.0% |
| 30s | 88.5% | 3.2% | 1.2% | 0.6% | 0.2% | 0.2% | 0.2% | 0.1% | 0.1% | 0.1% | 5.5% |
| 40s | 90.8% | 4.0% | 1.6% | 0.9% | 0.3% | 0.3% | 0.2% | 0.1% | 0.1% | 0.1% | 1.8% |
| 50s | 89.5% | 4.2% | 1.9% | 1.1% | 0.5% | 0.4% | 0.2% | 0.1% | 0.1% | 0.1% | 1.9% |
| 60s | 88.4% | 4.2% | 1.8% | 1.3% | 0.6% | 0.4% | 0.3% | 0.2% | 0.1% | 0.1% | 2.6% |
| All | 89.2% | 3.7% | 1.5% | 0.9% | 0.4% | 0.3% | 0.2% | 0.1% | 0.1% | 0.1% | 3.6% |

¹The analysis includes the 11.8 million participants in the year-end 2019 EBRI/ICI 401(k) database.

²A 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: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 17
Asset Allocation Distribution of 401(k) Participant Account
Balance to Balanced Funds by Tenure

Percentage of participants,¹ 2019

Percentage of Account Balance Invested in Balanced Funds

| Years of tenure | Zero | >0 to 10 | >10 to 20 | >20 to 30 | >30 to 40 | >40 to 50 | >50 to 60 | >60 to 70 | >70 to 80 | >80 to 90 | >90 to 100 |
|-----------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| 0 to 2 | 28.3 | 3.8 | 1.3 | 1.0 | 0.7 | 0.8 | 0.8 | 0.6 | 0.8 | 0.8 | 61.1 |
| >2 to 5 | 27.9 | 4.2 | 2.0 | 1.8 | 1.4 | 1.4 | 1.4 | 1.1 | 1.4 | 1.5 | 55.9 |
| >5 to 10 | 30.6 | 4.9 | 2.7 | 2.5 | 1.8 | 1.7 | 1.6 | 1.4 | 1.7 | 1.9 | 49.1 |
| >10 to 20 | 36.4 | 6.6 | 4.4 | 3.7 | 2.6 | 2.2 | 1.9 | 1.6 | 2.0 | 2.9 | 35.6 |
| >20 to 30 | 41.4 | 9.5 | 5.8 | 4.7 | 3.2 | 2.9 | 2.5 | 2.4 | 3.2 | 4.0 | 20.4 |
| >30 | 45.7 | 10.6 | 6.2 | 4.9 | 3.5 | 3.1 | 2.4 | 1.9 | 1.7 | 1.7 | 18.1 |
| All | 32.2 | 5.0 | 3.1 | 3.0 | 2.1 | 1.9 | 1.7 | 1.3 | 1.5 | 1.7 | 46.4 |

Percentage of Account Balance Invested in Target Date Funds²

| Years of tenure | Zero | >0 to 10 | >10 to 20 | >20 to 30 | >30 to 40 | >40 to 50 | >50 to 60 | >60 to 70 | >70 to 80 | >80 to 90 | >90 to 100 |
|-----------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| 0 to 2 | 35.4 | 0.8 | 0.7 | 0.8 | 0.6 | 0.7 | 0.8 | 0.6 | 0.8 | 0.8 | 58.0 |
| >2 to 5 | 35.2 | 1.4 | 1.3 | 1.5 | 1.3 | 1.2 | 1.3 | 1.1 | 1.3 | 1.4 | 53.2 |
| >5 to 10 | 37.6 | 2.3 | 1.9 | 2.1 | 1.6 | 1.4 | 1.5 | 1.4 | 1.6 | 1.8 | 46.8 |
| >10 to 20 | 44.1 | 4.3 | 3.3 | 2.8 | 2.1 | 1.8 | 1.7 | 1.5 | 1.9 | 2.8 | 33.7 |
| >20 to 30 | 50.5 | 6.9 | 4.2 | 3.4 | 2.5 | 2.3 | 2.2 | 2.2 | 3.0 | 3.9 | 19.0 |
| >30 | 56.9 | 7.9 | 4.5 | 3.5 | 2.7 | 2.4 | 2.0 | 1.6 | 1.5 | 1.5 | 15.5 |
| All | 40.4 | 3.0 | 2.5 | 2.5 | 1.8 | 1.6 | 1.5 | 1.2 | 1.4 | 1.6 | 42.5 |

Percentage of Account Balance Invested in Non-Target Date Balanced Funds

| Years of tenure | Zero | >0 to 10 | >10 to 20 | >20 to 30 | >30 to 40 | >40 to 50 | >50 to 60 | >60 to 70 | >70 to 80 | >80 to 90 | >90 to 100 |
|-----------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0 to 2 | 92.2 | 3.4 | 0.8 | 0.3 | 0.1 | 0.1 | 0.1 | (*) | (*) | (*) | 2.9 |
| >2 to 5 | 91.3 | 3.6 | 1.1 | 0.6 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 2.5 |
| >5 to 10 | 91.1 | 3.6 | 1.4 | 0.8 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 2.1 |
| >10 to 20 | 89.6 | 4.0 | 2.0 | 1.3 | 0.5 | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 | 1.6 |
| >20 to 30 | 87.6 | 4.9 | 2.6 | 1.7 | 0.7 | 0.5 | 0.3 | 0.2 | 0.2 | 0.1 | 1.2 |
| >30 | 85.5 | 5.0 | 2.7 | 1.8 | 0.9 | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 | 2.4 |
| All | 89.2 | 3.7 | 1.5 | 0.9 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 3.6 |

¹The analysis includes the 11.8 million participants in the year-end 2019 EBRI/ICI 401(k) database.

²A 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.

(*) = Less than 0.05 percent.

Note: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

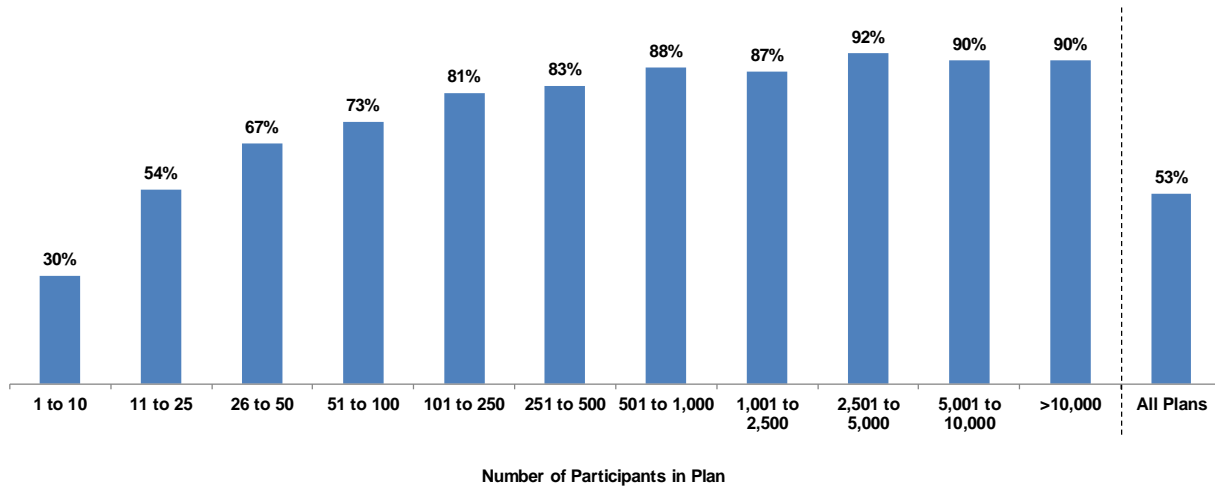
Year-End 2019 Snapshot of 401(k) Plan Loan Activity

Availability and Use of 401(k) Plan Loans by Plan Size

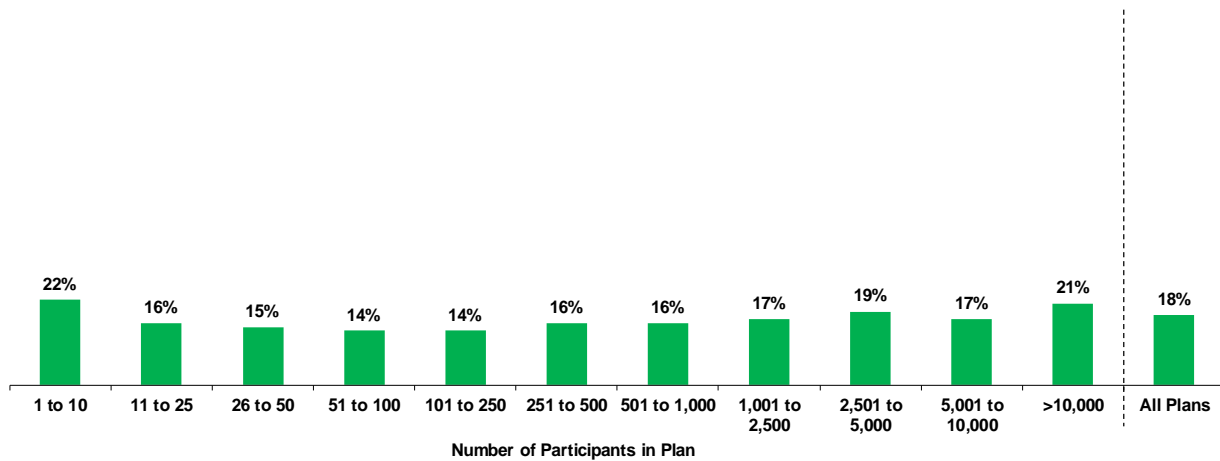
Fifty-three percent of the 401(k) plans for which loan data were available in the 2019 EBRI/ICI 401(k) database offered a plan loan provision to participants (Figure 18, upper panel).³⁹ The loan feature was more commonly associated with large plans (as measured by the number of participants in the plan). About 90 percent of plans with more than 500 participants included a loan provision, compared with 30 percent of plans with 10 or fewer participants. Participant loan activity varied modestly by plan size, ranging from 14 percent of participants with loans outstanding in 401(k) plans with 51 to 250 participants to 22 percent of participants in 401(k) plans with 10 or fewer participants (Figure 18, middle panel). Loan ratios—the amount of the loan outstanding divided by the remaining account balance—are lower for participants in larger 401(k) plans (as measured by the number of plan participants). Among those in plans with 250 or fewer participants, the loan ratio was 11 percent of the remaining assets in 2019, while in plans with more than 10,000 participants, the loan ratio was 6 percent (Figure 18, lower panel). In the 24 years that the database has been tracking loan activity among 401(k) plan participants, there has been little variation.

Figure 18
401(k) Plans' Loan Offering and Participant Use by Plan Size

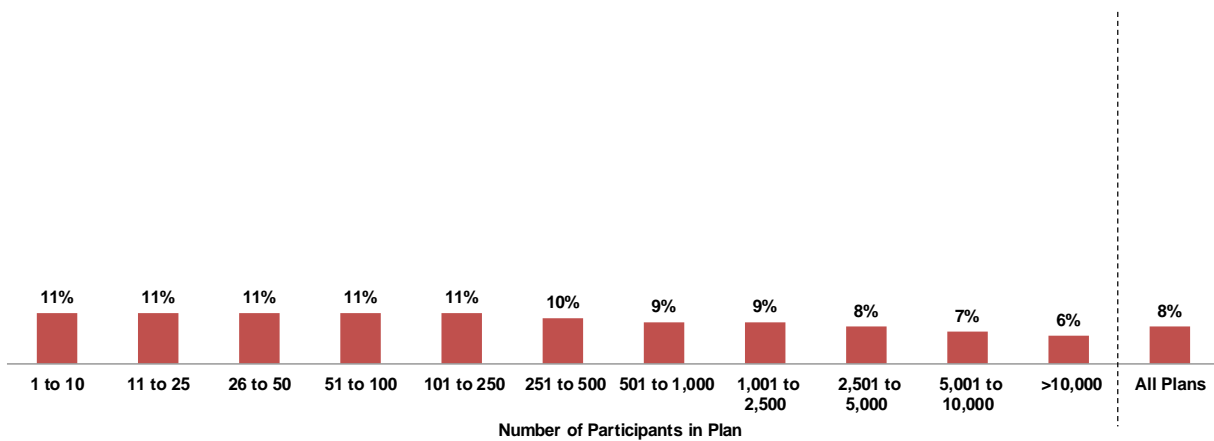
Percentage of 401(k) Plans Offering Loans by Plan Size, 2019



Percentage of Eligible 401(k) Participants With 401(k) Loans by Plan Size, 2019



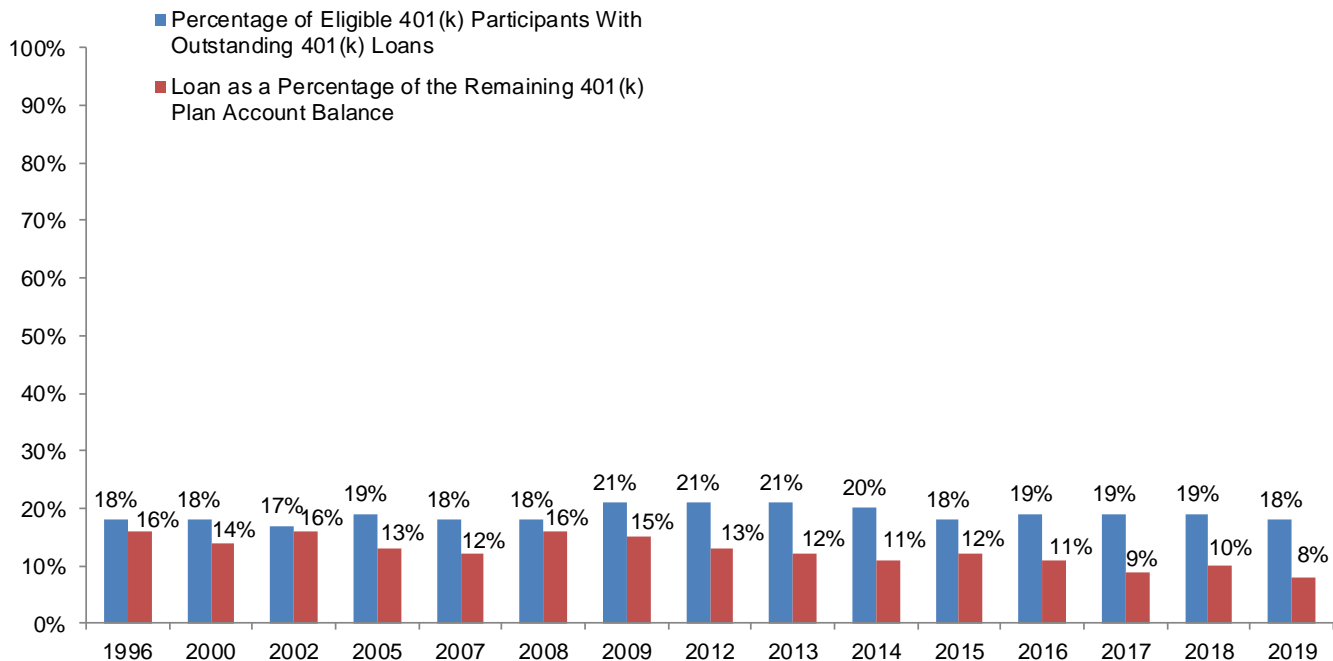
401(k) Loan Balances as a Percentage of 401(k) Plan Account Balances for Participants With 401(k) Loans by Plan Size, 2019



Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

At year-end 2019, 18 percent of 401(k) participants with access to loans had loans outstanding, down slightly from year-end 2018 (Figure 19).^{40, 41} However, not all participants have access to 401(k) plan loans—factoring in all 401(k) participants with and without loan access in the database, only 15 percent had loans outstanding at year-end 2019. On average, over the past 24 years, among participants with loans outstanding, about 13 percent of the remaining account balance remained unpaid. US Department of Labor data indicate that loan amounts tend to be a negligible portion of plan assets.⁴²

Figure 19
Few 401(k) Participants Had Outstanding 401(k) Loans; Loans Tended to Be Small
 Selected years



Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

401(k) Plan Loan Activity Varies with Participant Age, Tenure, and Account Balance

In the 2019 EBRI/ICI 401(k) database, 85 percent of participants were in plans offering loans. However, relatively few participants made use of this borrowing privilege—which has been the case for the 24 years that the database has tracked 401(k) plan participants. At year-end 2019, 18 percent of those eligible for loans had 401(k) plan loans outstanding (Figure 19). Loan activity varies with age, tenure, and account balance. Of those participants in plans offering loans, the highest percentages of participants with outstanding loan balances were among participants in their thirties, forties, or fifties (Figure 20). In addition, participants with five or fewer years of tenure or with more than 30 years of tenure were less likely to use the loan provision than other participants. Nine percent of participants with account balances of less than \$10,000 had loans outstanding.

Average Loan Balances

Among participants with outstanding 401(k) loans at the end of 2019, the average unpaid balance was \$6,950, compared with \$8,162 in the year-end 2018 database (Figure 21). The median loan balance outstanding was \$3,343 at year-end 2019, compared with \$4,486 in the year-end 2018 database. The ratio of the loan outstanding to the remaining account balance decreased, from 10 percent at year-end 2018 to 8 percent at year-end 2019 (Figure 19). In

addition, variation around this average tends to correspond with age (the older the participant, the lower the average), tenure (the longer the tenure of the participant, the lower the average), and account balance (the higher the account balance, the lower the average)⁴³ (Figure 20). Overall, loans from 401(k) plans tended to be small, with a sizable majority of eligible 401(k) participants in all age groups having no loan outstanding at all. For example, 92 percent of participants in their twenties, 76 percent of participants in their forties, and 86 percent of participants in their sixties had no loans outstanding at year-end 2019 (Figure 22).

Figure 20
401(k) Loan Activity Varied Across 401(k) Plan Participants

Loan activity by participant age, tenure, or account size, 2019

| | Percentage of Eligible 401(k) Participants With Outstanding 401(k) Loans | Loan as a Percentage of the Remaining 401(k) Plan Account Balance |
|--------------------------------|--|--|
| All | 18 | 8 |
| Age Group | | |
| 20s | 8 | 17 |
| 30s | 18 | 13 |
| 40s | 24 | 9 |
| 50s | 22 | 6 |
| 60s | 14 | 6 |
| Years of Tenure* | | |
| 0 to 2 | 8 | 13 |
| >2 to 5 | 17 | 13 |
| >5 to 10 | 25 | 10 |
| >10 to 20 | 28 | 7 |
| >20 to 30 | 26 | 4 |
| >30 | 18 | 3 |
| Size of Account Balance | | |
| <\$10,000 | 9 | 28 |
| \$10,000 to \$20,000 | 23 | 23 |
| >\$20,000 to \$30,000 | 26 | 20 |
| >\$30,000 to \$40,000 | 27 | 18 |
| >\$40,000 to \$50,000 | 27 | 16 |
| >\$50,000 to \$60,000 | 27 | 15 |
| >\$60,000 to \$70,000 | 27 | 13 |
| >\$70,000 to \$80,000 | 27 | 12 |
| >\$80,000 to \$90,000 | 27 | 12 |
| >\$90,000 to \$100,000 | 26 | 11 |
| >\$100,000 to \$200,000 | 25 | 8 |
| >\$200,000 | 17 | 3 |

*The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 21
401(k) Loan Balances
Average and median loan balances for 401(k)
participants with 401(k) loans, 1998–2019

| Year | Average Loan Outstanding | Median Loan Outstanding |
|------|--------------------------|-------------------------|
| 1998 | \$6,717 | \$3,902 |
| 1999 | 6,815 | 4,400 |
| 2000 | 6,856 | 3,824 |
| 2001 | 6,644 | 3,659 |
| 2002 | 6,659 | 3,700 |
| 2003 | 6,839 | 3,832 |
| 2004 | 6,946 | 3,893 |
| 2005 | 6,821 | 3,661 |
| 2006 | 7,292 | 4,089 |
| 2007 | 7,495 | 4,167 |
| 2008 | 7,191 | 3,889 |
| 2009 | 7,346 | 3,972 |
| 2010 | 6,846 | 3,619 |
| 2011 | 7,027 | 3,785 |
| 2012 | 7,153 | 3,858 |
| 2013 | 7,421 | 3,973 |
| 2014 | 7,780 | 4,239 |
| 2015 | 7,982 | 4,359 |
| 2016 | 7,907 | 4,279 |
| 2017 | 7,935 | 4,293 |
| 2018 | 8,162 | 4,486 |
| 2019 | 6,950 | 3,343 |

Note: Average and median 401(k) loan amounts are calculated among participants with 401(k) loans at year-end.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure 22
Loans From 401(k) Plans Tended to Be Small
Percentage of eligible participants by participant age, 2019
Age Group

| 401(k) Loan as a Percentage of Remaining 401(k) Account Balance | 20s | 30s | 40s | 50s | 60s | All |
|--|-----|-----|-----|-----|-----|-----|
| Zero (no loan) | 92 | 82 | 76 | 78 | 86 | 82 |
| >0 to 10 percent | 3 | 8 | 12 | 13 | 8 | 9 |
| >10 to 20 percent | 2 | 4 | 5 | 4 | 2 | 4 |
| >20 to 30 percent | 1 | 2 | 3 | 2 | 1 | 2 |
| >30 to 80 percent | 2 | 4 | 4 | 3 | 2 | 3 |
| >80 percent | (*) | (*) | (*) | (*) | (*) | (*) |

(*)= less than 0.5 percent

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Appendix

Figure A1 highlights the distribution of 401(k) plans in the EBRI/ICI database by number of plan participants or by plan assets. Figure A2 highlights the combinations of investment options offered in the 401(k) plans in the EBRI/ICI database.

| Figure A1 EBRI/ICI 401(k) Plan Database | | | | |
|--|---------------|--------------------|------------------------|-------------------------|
| 401(k) Plan Characteristics by Number of Plan Participants, 2019 | | | | |
| Number of Plan Participants | Total Plans | Total Participants | Total Assets | Average Account Balance |
| 1 to 10 | 28,527 | 146,264 | \$14,815,098,171 | \$101,290 |
| 11 to 25 | 18,287 | 305,636 | 27,226,583,560 | 89,082 |
| 26 to 50 | 10,742 | 386,142 | 31,334,709,605 | 81,148 |
| 51 to 100 | 7,011 | 496,260 | 35,914,727,674 | 72,371 |
| 101 to 250 | 5,196 | 810,618 | 54,782,661,493 | 67,581 |
| 251 to 500 | 2,213 | 770,729 | 50,526,471,943 | 65,557 |
| 501 to 1,000 | 1,206 | 844,981 | 55,386,326,714 | 65,547 |
| 1,001 to 2,500 | 815 | 1,256,094 | 87,749,149,690 | 69,859 |
| 2,501 to 5,000 | 301 | 1,043,313 | 84,903,990,435 | 81,379 |
| 5,001 to 10,000 | 170 | 1,201,650 | 102,438,297,489 | 85,248 |
| >10,000 | 144 | 4,491,212 | 408,550,191,446 | 90,967 |
| All | 74,612 | 11,752,899 | 953,628,208,221 | 81,140 |
| 401(k) Plan Characteristics by Plan Assets, 2019 | | | | |
| Plan Assets | Total Plans | Total Participants | Total Assets | Average Account Balance |
| \$0 to \$250,000 | 18,105 | 132,771 | \$1,710,769,531 | \$12,885 |
| >\$250,000 to \$625,000 | 11,601 | 168,672 | 4,871,620,327 | 28,882 |
| >\$625,000 to \$1,250,000 | 10,973 | 231,745 | 9,970,199,333 | 43,022 |
| >\$1,250,000 to \$2,500,000 | 11,428 | 380,132 | 20,531,985,779 | 54,013 |
| >\$2,500,000 to \$6,250,000 | 11,579 | 714,462 | 45,634,334,357 | 63,872 |
| >\$6,250,000 to \$12,500,000 | 4,950 | 675,753 | 43,010,331,710 | 63,648 |
| >\$12,500,000 to \$25,000,000 | 2,749 | 751,416 | 47,709,472,424 | 63,493 |
| >\$25,000,000 to \$62,500,000 | 1,729 | 1,033,805 | 66,186,106,134 | 64,022 |
| >\$62,500,000 to \$125,000,000 | 676 | 947,339 | 58,434,359,992 | 61,683 |
| >\$125,000,000 to \$250,000,000 | 374 | 953,810 | 65,064,414,622 | 68,215 |
| >\$250,000,000 | 448 | 5,762,994 | 590,504,614,013 | 102,465 |
| All | 74,612 | 11,752,899 | 953,628,208,221 | 81,140 |
| Note: The median account balance at year-end 2019 was \$17,587. | | | | |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project | | | | |

Figure A2
**Distribution of 401(k) Plans, Participants, and
 Assets by Investment Options, 2019**

| Investment Options Offered by Plan | Plans | Participants | Assets |
|--|------------------------|-------------------------------|--------------------------|
| Equity, bond, money, and/or balanced funds | 45,676 | 2,852,372 | \$196,274,230,426 |
| Of which: target date funds ¹ are an option | 39,135 | 2,695,629 | 182,902,730,040 |
| Equity, bond, money, and/or balanced funds; and GICs² and/or other stable value funds | 27,487 | 5,809,956 | 441,415,633,068 |
| Of which: target date funds ¹ are an option | 23,353 | 4,069,419 | 324,043,253,355 |
| Equity, bond, money, and/or balanced funds; and company stock | 465 | 1,360,770 | 117,758,222,231 |
| Of which: target date funds ¹ are an option | 331 | 1,380,033 | 112,969,882,169 |
| Equity, bond, money, and/or balanced funds; company stock; and GICs² and/or other stable value funds | 984 | 1,729,801 | 198,180,122,495 |
| Of which: target date funds ¹ are an option | 713 | 1,476,906 | 174,086,560,249 |
| All | 74,612 | 11,752,899 | 953,628,208,221 |
| Of which: target date funds ¹ are an option | 64,507 | 10,217,569 | 841,195,281,958 |
| Investment Options Offered by Plan | Percentage of Plans | Percentage of Participants | Percentage of Assets |
| Equity, bond, money, and/or balanced funds | 61.2% | 24.3% | 20.6% |
| Of which: target date funds ¹ are an option | 52.5 | 22.9 | 19.2 |
| Equity, bond, money, and/or balanced funds; and GICs² and/or other stable value funds | 36.8 | 49.4 | 46.3 |
| Of which: target date funds ¹ are an option | 31.3 | 34.6 | 34.0 |
| Equity, bond, money, and/or balanced funds; and company stock | 0.6 | 11.6 | 12.3 |
| Of which: target date funds ¹ are an option | 0.4 | 11.7 | 11.8 |
| Equity, bond, money, and/or balanced funds; company stock; and GICs² and/or other stable value funds | 1.3 | 14.7 | 20.8 |
| Of which: target date funds ¹ are an option | 1.0 | 12.6 | 18.3 |
| All | 100.0 | 100.0 | 100.0 |
| Of which: target date funds ¹ are an option | 86.5 | 86.9 | 88.2 |

¹A 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.

²GICs are guaranteed investment contracts.

Note: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

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Endnotes

¹ For data on 401(k) plan assets, participants, and plans through 2019, see US Department of Labor, Employee Benefits Security Administration 2021a and 2021b. For total retirement assets (including those in 401(k) plans) through the fourth quarter of 2021, see Investment Company Institute 2022. For a discussion of trends between defined benefit (DB) and defined contribution (DC) plans, see Poterba, Venti, and Wise 2007; Holden, Brady, and Hadley 2006; Brady and Bogdan 2010 and 2016; and Brady, Burham, and Holden 2012.

² Before 2005, the US Department of Labor private pension plan bulletins reported a count of active 401(k) plan participants that had been adjusted from the number of active participants actually reported in the Form 5500 filings to exclude (1) individuals eligible to participate in a 401(k) plan who had not elected to have their employers make contributions; and (2) nonvested former employees who had not (at the time the Form 5500 filings were submitted) incurred the break-in service period established by their plan; that adjustment was no longer possible beginning in 2005 (see US Department of Labor, Employee Benefits Security Administration 2012 for further detail). This change in methodology results in a dramatic increase in the number of individuals reported as active participants in 401(k) plans; in 2004, the number of active participants increased to 53.1 million (new method) from 44.4 million (old method; see US Department of Labor, Employee Benefits Security Administration 2018). As the US Department of Labor notes: "In a purely economic sense and for research purposes,

individuals in these groups should not be included in the count of active participants.” However, the form schedule needed to make the adjustment is no longer required. Using National Compensation Survey data and historical relationships and trends evident in the Form 5500 data, EBRI and ICI estimate the number of active 401(k) participants to be about 60 million in 2019. The estimate of the number of active 401(k) plan participants is based on a combination of data from US Department of Labor, Employee Benefits Security Administration 2022 and US Bureau of Labor Statistics 2022. US Department of Labor 2021a reports that there were about 604,400 401(k) plans in 2019.

³ See Investment Company Institute 2022.

⁴ The Employee Benefit Research Institute (EBRI) is a nonprofit, nonpartisan, public policy research organization that does not lobby or take positions on legislative proposals.

⁵ The Investment Company Institute (ICI) is the leading association representing regulated funds globally, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI carries out its international work through ICI Global, with offices in Washington, DC, London, Brussels, and Hong Kong.

⁶ This update extends previous findings from the project for 1996 through 2018. For year-end 2018 results, see Holden, VanDerhei, and Bass 2021a. Results for earlier years are available in earlier issues of *ICI Research Perspective* (www.ici.org/research/investors/ebri-ici) and *EBRI Issue Brief* (www.ebri.org/publications/research-publications/issue-briefs).

⁷ The EBRI/ICI 401(k) database environment is certified to be fully compliant with the ISO-27002 Information Security Audit standard. Moreover, EBRI has obtained a legal opinion that the methodology used meets the privacy standards of the Gramm-Leach-Bliley Act. At no time has any nonpublic personal information that is personally identifiable, such as a Social Security number, been transferred to or shared with EBRI.

⁸ Account balances are net of unpaid loan balances. Thus, unpaid loan balances are not included in any of the eight asset categories described.

⁹ The cross-sectional analysis for this publication found that consolidating the multiple accounts across a majority of the providers to the single individual owning them resulted in an overall increase of 2.6 percent in the average 401(k) plan account balance. This statistic should be interpreted with caution, as it may not represent the total 401(k) assets owned by the individual. The impact of account consolidation varied with the participant’s age and tenure with the current employer. The largest increases in average account balance occurred among older participants with fewer years of tenure. For example, among participants in their sixties with two or fewer years of tenure, the average account balance increased 5.3 percent with the consolidation of their multiple accounts. Among participants in their fifties or sixties with more than 30 years of tenure, the average account balance increased 2.8 percent with the consolidation of their multiple accounts.

¹⁰ This system of classification does not consider the number of distinct investment options presented to a given participant but rather the types of options presented. Preliminary research analyzing 1.4 million participants drawn from the 2000 EBRI/ICI 401(k) database suggests that the sheer number of investment options presented does not influence participants. On average, participants have 10.4 distinct options but, on average, choose only 2.5 (Holden and VanDerhei 2001b). In addition, the preliminary analysis found that 401(k) participants are not naive—that is, when given n options, they do not divide their assets among all n . Indeed, less than 1 percent of participants followed a $1/n$ asset allocation strategy. BrightScope and Investment Company Institute 2021 reports an average of 28 investment options in 2018 and an average of 21 investment options when a target date fund suite is counted as a single investment option.

Surveys of individuals owning DC plan accounts find that DC-owing individuals appreciate the investment choice and control, and typically agree that their plan offers a good lineup of investment options. See Holden et al. 2022.

¹¹ The asset allocation path that the target date fund follows to shift its focus from growth to income over time is typically referred to as the glide path. Because discussions of asset allocation usually focus on the percentage of the portfolio invested in equities, the glide path generally reflects the declining percentage of equities in the portfolio as it approaches and passes the target date, which is usually indicated in the fund’s name. The target date generally is the date at which the typical investor for whom that fund is designed would reach retirement age and stop making new investments in the fund.

¹² Lifestyle funds maintain a predetermined risk level and generally use words such as “conservative,” “moderate,” or “aggressive” in their name to indicate the fund’s risk level. Lifestyle funds generally are included in the non–target date balanced fund category.

¹³ GICs are insurance company products that guarantee a specific rate of return on the invested capital over the life of the contract.

¹⁴ Other stable value funds include synthetic GICs, which consist of a portfolio of fixed-income securities “wrapped” with a guarantee (typically by an insurance company or a bank) to provide benefit payments according to the plan at book value.

¹⁵ Some recordkeepers supplying data were unable to provide complete asset allocation detail on certain pooled asset classes for one or more of their clients. The final EBRI/ICI 401(k) database includes only plans for which at least 90 percent of all plan assets could be identified.

¹⁶ For additional detail, see Figure A1 in the appendix.

¹⁷ See Figure A1 in the appendix.

¹⁸ For 401(k) asset Figures, see Investment Company Institute 2022.

¹⁹ Estimates of the number of 401(k) plans and active participants are based on a data from the US Department of Labor’s Employee Benefits Security Administration. See discussion in note 2.

²⁰ For an analysis of the changes in account balances of consistent participants in the EBRI/ICI 401(k) database in the wake of the financial crisis (over the eight-year period from year-end 2010 to year-end 2018), see Holden, VanDerhei, and Bass 2020.

²¹ Because of these changes in the cross sections, comparing average account balances across different year-end cross-sectional snapshots can lead to false conclusions. For example, newly formed plans would tend to pull down the average account balance but would tell us nothing about consistently participating workers. Similarly, the aggregate average account balance would tend to be pulled down if a large number of participants retired.

²² Tabulations of the Survey of Consumer Finances reveal that 58 percent of traditional IRA assets in 2019 resulted from rollovers from employer-sponsored retirement plans.

²³ At year-end 2019, 3 percent of the participants in the database were missing a birth date entry, were younger than 20, or were older than 69. They were not included in this analysis.

²⁴ At year-end 2019, 22 percent of the participants in the database were missing a date of hire entry and were not included in this analysis.

²⁵ The positive correlation between tenure and account balance is expected because long-term employees have had more time to accumulate an account balance. However, a rollover from a previous employer’s plan could interfere with this positive correlation because a rollover could give a short-tenured employee a high account balance. There is some discernible evidence of rollover assets among the participants with account balances greater than \$100,000, as 3 percent of them had two or fewer years of tenure, and 9 percent of them had between two and five years of tenure (see Figure 10).

²⁶ Because 401(k) plans were introduced about 40 years ago, older and longer-tenured employees may not have participated in 401(k) plans for their entire careers. The Revenue Act of 1978 contained a provision that became Internal Revenue Code Section 401(k). The law went into effect on January 1, 1980, but it was not until November 1981 that proposed regulations were issued (see Holden, Brady, and Hadley 2006; Employee Benefit Research Institute 2018; and US Internal Revenue Service 1981).

²⁷ See Holden and VanDerhei 2001a. Some of this movement away from company stock may be the result of regulations put in place by the Pension Protection Act of 2006 (PPA), which limited the length of time participants could be required to hold company stock contributed to their accounts by their employer; specified rules regarding the notification of blackout periods; and required quarterly statements that must include a notice highlighting the importance of diversification (see Joint Committee on Taxation 2006).

²⁸ At year-end 2019, 61 percent of non–target date balanced mutual fund assets were assumed to be invested in equities (see Investment Company Institute, Quarterly Supplementary Data). Allocation to equities in target date funds is assumed to vary

with investor age. Asset allocation to equities for target date funds was based on Morningstar analysis of target date fund asset allocation (see Morningstar 2019 and note 36 for additional discussion).

²⁹ For the age distribution of 401(k) plan participants and assets at year-end 2019, see Figure 3.

³⁰ See note 11 for additional detail on target date funds.

³¹ The 401(k) plan sponsor selects the investment options available in the plan. Figure A2 in the appendix presents the distribution of plans, participants, and assets by four combinations of investment offerings. The first category is the base group, which consists of plans that offer neither company stock nor GICs or other stable value funds. Twenty-four percent of participants in the 2019 EBRI/ICI 401(k) database were in these plans, which generally offer equity funds, bond funds, money funds, and balanced funds as investment options. Another 49 percent of participants were in plans that offer GICs and other stable value funds as an investment option, in addition to the base options. Alternatively, 12 percent of participants were in plans that offer company stock but no stable value products, while the remaining 15 percent of participants were in plans that offered both company stock and stable value products in addition to the base options.

³² Analysis of year-end 2018 EBRI/ICI 401(k) plan participant target date fund investors finds they tend to hold one age-appropriate target date fund (see Holden, VanDerhei, and Bass 2021b). For an analysis tracking target date fund use and the persistence of their use from 2007 through 2009, see Copeland 2011. For an analysis of target date fund use among defaulted and non-defaulted 401(k) plan participants, see Mitchell and Utkus 2012.

³³ Target date funds are often used as the default investment in automatic enrollment plans and in plans' investment lineups (see Plan Sponsor Council of America 2020). At year-end 2019, 67 percent of target date mutual fund assets were held in DC plans (see Investment Company Institute 2022). Alling and Clark 2021 reports that 54 percent of DC plans in their recordkeeping system in 2020 offer automatic enrollment, up from 50 percent in 2019 and 41 percent in 2015.

³⁴ See Figures 14 and A2.

³⁵ See Figures 13 and A2.

³⁶ At year-end 2019, 61 percent of non-target date balanced fund assets were assumed to be invested in equities (see Investment Company Institute, Quarterly Supplementary Data). The allocation to equities in target date funds varies with the funds' target dates. For target date funds, investors were assumed to be in a fund whose target date was nearest to their 65th birthday. The equity portion was estimated using the industry average equity percentage for the assigned target date fund calculated using the Morningstar Lifetime Allocation Indexes (see Morningstar 2019). For the average 401(k) plan asset allocation to equities (through equity funds, company stock, and the equity portion of balanced funds) by participant age, see Figure 13.

³⁷ See Figure 19 in Holden, VanDerhei, and Bass 2021a.

³⁸ See Holden, VanDerhei, and Bass 2021b.

³⁹ Plan-specific information on loan provisions is available for the majority of the plans in the sample (including virtually all of the small plans). Some plans without this information 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 (or participants eligible for loans) because some plans may have offered a plan loan, but no participant had taken out a loan. It is likely that this omission is small, as US General Accounting Office 1997 found that more than 95 percent of 401(k) plans that offer loans had at least one plan participant with an outstanding loan.

⁴⁰ For a complete time series of the percentage of eligible 401(k) participants with outstanding 401(k) loans and loan amounts as a percentage of the remaining 401(k) plan account balance, see Holden et al. 2013.

⁴¹ This may reflect changes instituted by the Bipartisan Act of 2018, which as explained by the Internal Revenue Service 2020, among other things:

The Bipartisan Budget Act of 2018 mandated changes to the 401(k) hardship distribution rules. On November 14, 2018, the Internal Revenue Service released proposed regulations to implement these changes. Generally, these changes relax certain restrictions on taking a hardship distribution. Although the provisions are effective January 1, 2019, for calendar year plans, the proposed regulations do not require changes for 2018–2019. Effective January 1, 2020, following issuance of final regulations, certain changes will be required. ...Under the proposed regulations,

effective January 1, 2019, ***a plan administrator has the option of including or excluding the requirement that the employee first obtain a plan loan prior to requesting a hardship distribution*** (Reg. Section 1.401(k)-1(d)(3)(iv)(E)). [Emphasis added.]

See also Dold 2018 and Joint Committee on Taxation 2019 (pp. 104–105). Holden, Schrass, and Chism 2022 find an ongoing downward trend in the percentage of 401(k) plan participants with outstanding loans in recent time periods.

⁴² In plan year 2019 (latest data available), only 1.2 percent of the \$6.2 trillion in 401(k) plan assets were participant loans. See Table D6 in US Department of Labor, Employee Benefits Security Administration 2021a.

⁴³ This pattern is driven in part by restrictions placed on loan amounts.

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