

401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2023

By Peter Brady, ICI; Steven Bass, ICI; and Craig Copeland, EBRI

Key Findings:

- **401(k) plans draw many young and newly hired workers into saving for retirement.** At year-end 2023, 41 percent of 401(k) plan participants were in their twenties or thirties, and 23 percent were in their forties. Nearly half of 401(k) plan participants had five years of tenure or less at their current employer, including just over one-quarter who had two years of tenure or less.
- **More 401(k) plan participants held equities in 2023 than in 2007, before the onset of the Global Financial Crisis.** At year-end 2023, 97 percent of participants held some portion of their assets in equities—through equity funds, the equity portion of balanced funds, and company stock. This compares with 87 percent of participants at year-end 2007.
- **Compared with 401(k) plan participants in 2007, participants in 2023 obtained a higher share of their equity exposure through balanced funds, such as target date funds, and a lower share through equity funds and company stock.** At year-end 2023, 71 percent of participants held target date funds, with those funds accounting for 42 percent of assets. This compares with 26 percent of participants and 8 percent of assets in 2007. 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.
- **On average, younger 401(k) plan participants allocate a higher share of their assets to equities than older participants.** At year-end 2023, 75 percent of the assets in the EBRI/ICI 401(k) database were invested in equity securities. That equity share varies by participant age, however, from 90 percent of the assets of participants in their twenties to 61 percent of the assets of participants in their sixties.
- **401(k) plan loans are widely available, but a small share take them.** At year-end 2023, 77 percent of 401(k) plan participants were in plans allowing loans, but only 15 percent of participants who were eligible for loans had loans outstanding against their 401(k) plan accounts. For those participants with loans, outstanding amounts were 9 percent of participants' remaining account balance, on average, at year-end 2023.
- **401(k) plan account balances tend to increase with participant age and tenure.** Controlling for participant age, average account balances increase with the amount of tenure a worker has at their job and, controlling for tenure, average account balances generally increase with participant age. For example, at year-end 2023, participants in their forties with two years or less of tenure had an average 401(k) plan account balance of about \$24,000, compared with an average 401(k) plan account balance of nearly \$400,000 among participants in their fifties with more than 30 years of tenure.

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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 2023, an estimated 68 million American workers were active 401(k) plan participants.² At year-end 2023, 401(k) plan assets were \$7.9 trillion, representing one-fifth of all retirement assets.³

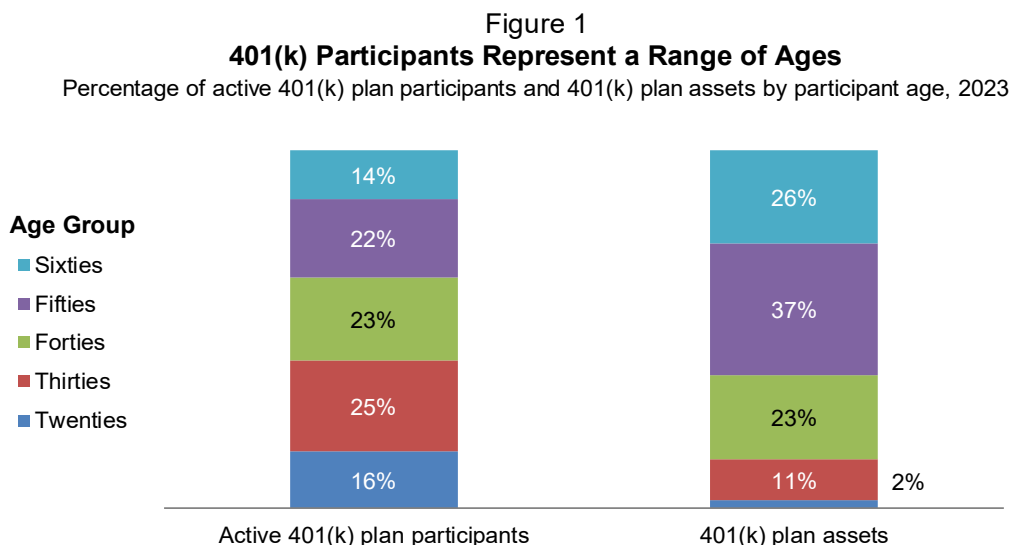
In an ongoing collaborative effort, the Employee Benefit Research Institute (EBRI)⁴ and the Investment Company Institute (ICI)⁵ collect annual data on millions of 401(k) plan participants and analyze how these participants manage their 401(k) plan accounts. This report is an update of EBRI and ICI’s ongoing research through year-end 2023.⁶

This 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. The 2023 EBRI/ICI 401(k) database covers 126,107 employer-sponsored 401(k) plans, with 10.6 million participants, holding \$829 billion in assets. This represents 17 percent of 401(k) plans, 16 percent of active participants, and 10 percent of assets. See the appendix for a more detailed description of the 2023 data.

The report is divided into four sections: the first examines the composition of 401(k) plan participants by age and length of tenure; the second presents a snapshot of participant account balances at year-end 2023; 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.

401(k) Plans Draw Many Younger Workers and New Hires Into Retirement Saving

Most 401(k) plan participants are younger than age 50, but the majority of 401(k) plan assets are held by those aged 50 or older. At year-end 2023, 64 percent of participants were younger than 50, with a median age of 43 (Figure 1).⁷ Because older participants tend to have larger account balances, assets are more heavily concentrated among the older 401(k) participant groups. At year-end 2023, 63 percent of 401(k) plan assets were held by participants in their fifties or sixties.

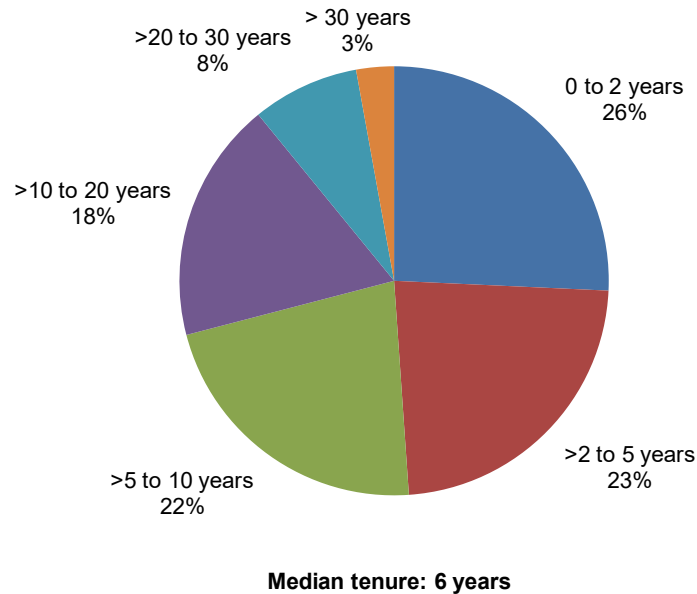


Note: At year-end 2023, the median 401(k) plan participant age was 43 years old.

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

Many 401(k) plan participants were recently hired. Participants’ median tenure at their current employer in the 2023 database was six years. At year-end 2023, nearly half of the participants had five years of tenure or less, including just over one-quarter with two years of tenure or less (Figure 2).⁸ Less than 30 percent of participants had tenure of more than 10 years.

Figure 2
401(k) Participants Represent a Range of Job Tenures
 Percentage of active 401(k) plan participants by years of tenure, 2023



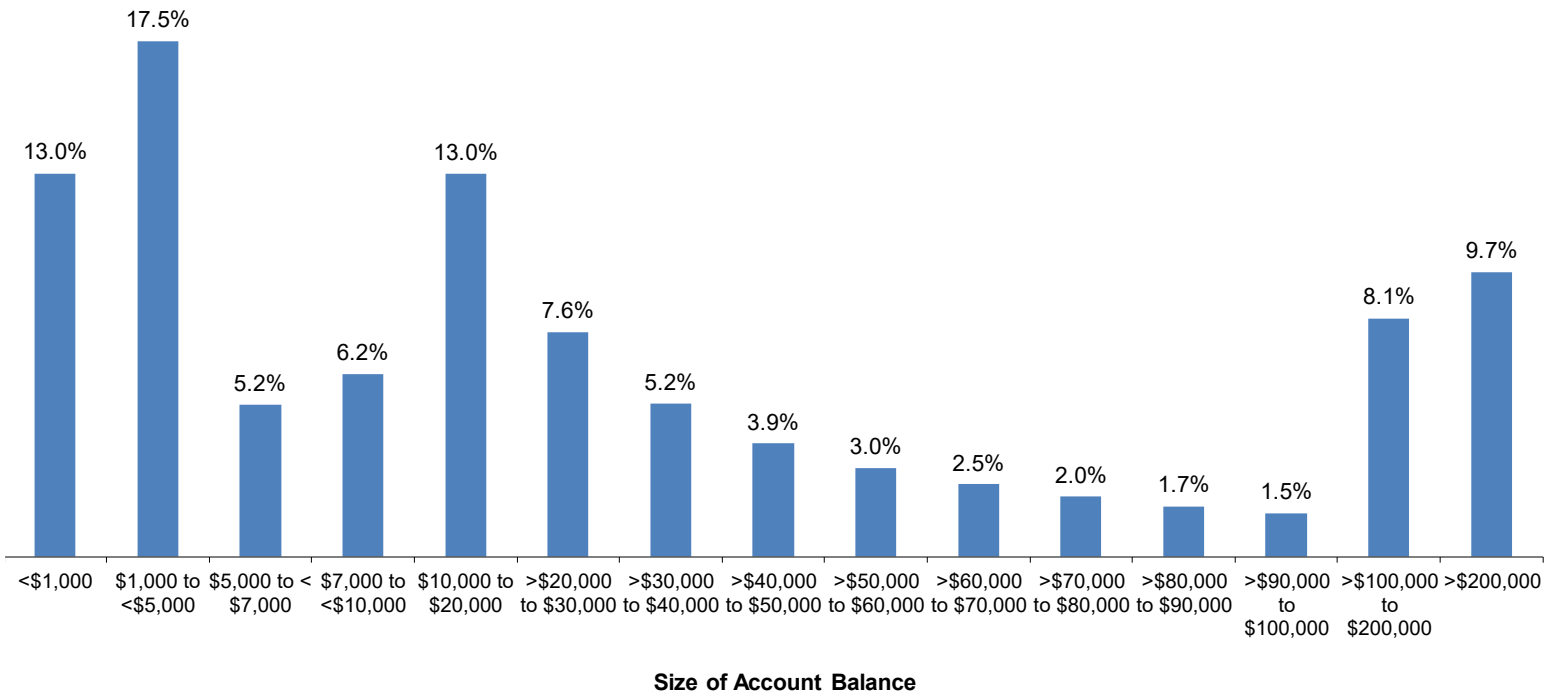
Note: The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

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

401(k) Participants’ Account Balances Tend to Rise With Participant Age and Tenure

At year-end 2023, the average account balance was \$78,112 and the median was \$15,448, but account balances varied widely.⁹ In fact, 31 percent of participants had account balances of less than \$5,000, while 18 percent of participants had account balances greater than \$100,000 (Figure 3). The variation in account balances reflects the effects of various factors, such as participant age, tenure at their current employer, salary, employer and employee contribution rates, rollovers from other plans, asset allocation and market returns, loan activity, and withdrawals.

Figure 3
Distribution of 401(k) Plan Account Balances by Size of Account Balance
 Percentage of participants with account balances in specified ranges, 2023



Note: At year-end 2023, the average account balance among all 10.6 million 401(k) participants was \$78,112; the median account balance was \$15,448. 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 EBR/ICI Participant-Directed Retirement Plan Data Collection Project

Controlling for 401(k) plan participant age, average account balances increase with the length of tenure a worker has at their job. Among participants in their 40s, for example, average account balances range from around \$24,000 for those with two years of tenure or less to more than \$200,000 for those with more than 20 years of tenure (Figure 4). Participants with longer tenure have had more time to contribute to their accounts and earn investment returns on those contributions.

Controlling for 401(k) plan participant tenure, average account balances typically increase with participant age. Among participants with between five and 10 years of tenure, for example, average account balances range from just under \$26,000 for participants in their 20s to more than \$100,000 for participants in their 60s. Older workers are more likely to have higher compensation and more likely to have rolled over assets from a previous employer's plan into their current employer's plan.

Figure 4
401(k) Plan Account Balances Increase With Participant Age and Tenure
 Average 401(k) plan account balance by participant age and tenure, 2023

Age Group	Years of Tenure					
	0 to 2	>2 to 5	>5 to 10	>10 to 20	>20 to 30	>30
20s	\$7,600	\$15,885	\$25,734			
30s	15,532	28,819	49,346	\$81,451		
40s	23,973	43,610	76,388	135,573	\$201,515	
50s	32,134	57,428	97,559	170,638	281,817	\$398,185
60s	37,033	63,448	100,873	163,055	249,813	395,414

Note: The average account balance among all 10.6 million 401(k) participants was \$78,112; the median account balance was \$15,448. 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.

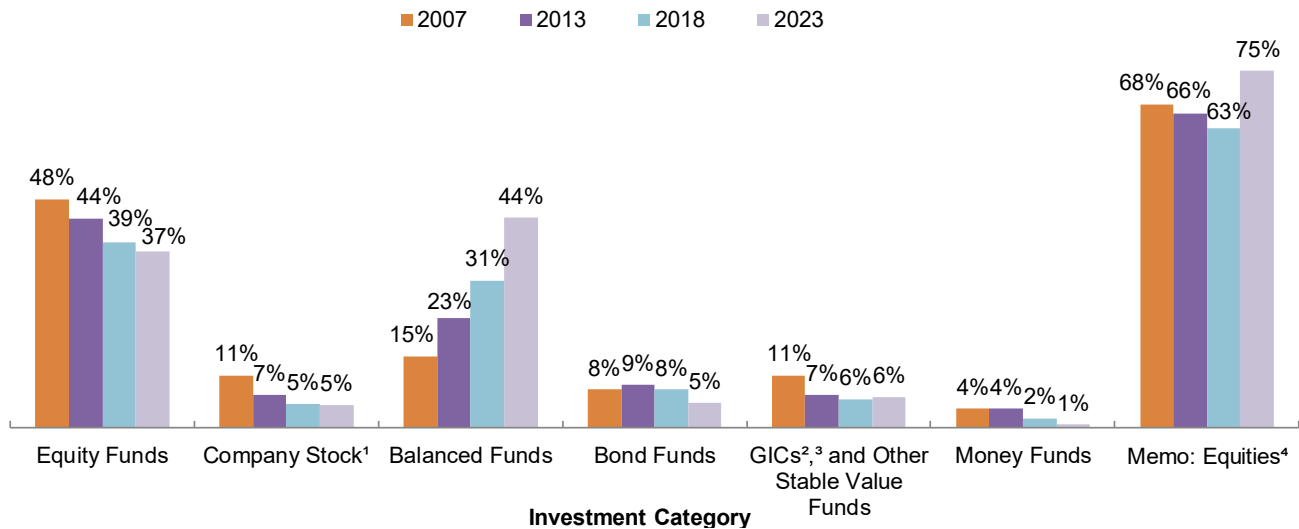
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

401(k) Participants Allocate a Large Share of Assets to Equities

Equities—inclusive of equity funds, the equity portion of balanced funds,¹⁰ and company stock—were held by 97 percent of plan participants and represented 75 percent of 401(k) plan participants' assets at year-end 2023 (Figure 5). Participants invested 37 percent of their account balances in equity funds, on average, and 5 percent in company stock. Participants invested another 44 percent of their account balances in balanced funds, which invest in a mix of equities and fixed-income securities.

The share of 401(k) plan assets invested in equities is higher now than it was before the Global Financial Crisis, and the way participants invest in equities has changed. In 2007, equities were held by 87 percent of plan participants and accounted for 68 percent of 401(k) plan participants' assets. Although higher shares of assets were invested in equity funds and company stock in 2007 compared with 2023, total exposure to equities was lower because a much lower share of assets was invested in balanced funds.¹¹

Figure 5
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 A7).

³GICs are guaranteed investment contracts.

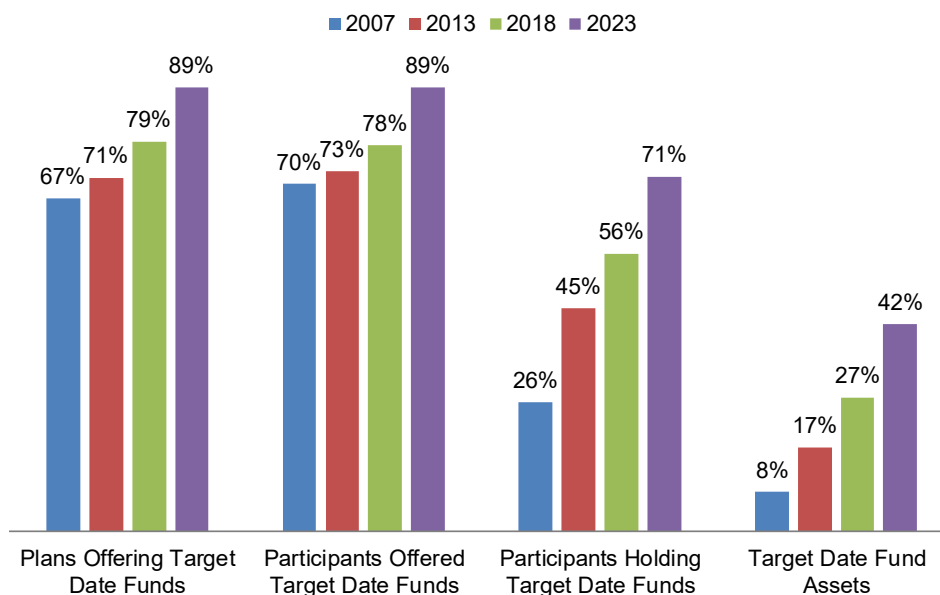
⁴Equities include equity funds, company stock, and the equity portion of balanced funds.

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

Target date funds account for the growing importance of balanced funds since 2007. These funds are increasingly offered in 401(k) plans and increasingly used by 401(k) plan participants. In 2023, target date funds were available in 89 percent of the 401(k) plans covering 89 percent of participants, up from 67 percent and 70 percent, respectively, in 2007 (Figure 6). In 2023, 71% of participants held target date funds and target date funds were 42 percent of 401(k) plan assets, up from 26 percent and 8 percent respectively, in 2007.

Figure 6
Target Date Funds Continue to Gain 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

Younger 401(k) Plan Participants Tend to Invest a Higher Share of Assets in Equities

Younger 401(k) plan participants allocate a higher share of their portfolios to equities than do older participants (Figure 7). While equities comprise 75 percent of all assets in the EBRI/ICI 401(k) database, their share ranges from 90 percent for participants in their 20s to 61 percent for participants in their 60s.

Where 401(k) plan participants get their equity exposure also differs by age, with younger participants having a much higher share of their assets in balanced funds. For example, participants in their 20s invest 24 percent of their assets, representing 27 percent of their total equity exposure, in the combination of equity funds and company stock. The remainder of their equity exposure comes through balanced funds, primarily target date funds. In contrast, participants in their 60s invest 42 percent of their assets, representing 68 percent of their equity exposure, in a combination of equity funds and company stock.

Figure 7
Asset Allocation in 401(k) Accounts Varies by Age, With Younger Participants Holding More Equity
 Percentage of account balances,¹ 2023

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	23.3	69.8	1.2	1.9	0.1	1.6	1.1	0.3	0.5	90.0
30s	29.7	60.5	1.4	2.7	0.2	2.1	2.4	0.5	0.5	88.7
40s	36.6	46.9	1.7	4.1	0.4	3.7	4.9	0.8	0.7	82.9
50s	40.5	37.0	2.0	5.6	0.7	6.4	5.7	1.1	0.9	72.8
60s	37.2	35.8	2.5	7.0	1.1	9.8	4.6	1.0	1.0	61.4
All	37.0	41.7	2.4	5.3	0.7	6.4	4.7	0.9	0.9	74.6

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 A7).

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 EBR/ICI Participant-Directed Retirement Plan Data Collection Project

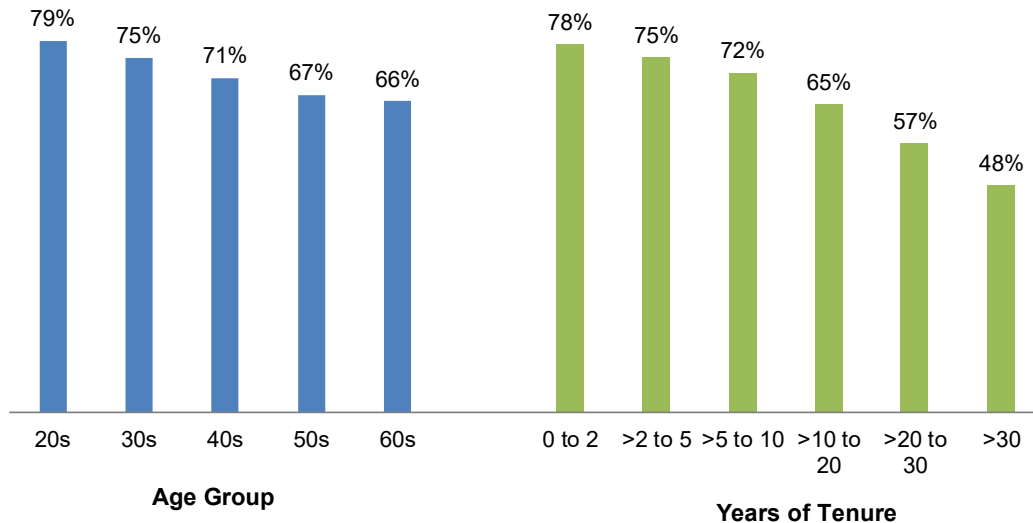
Younger and Lower-Tenured Participants Are More Likely to Hold Target Date Funds

Younger 401(k) plan participants were more likely to hold target date funds than older 401(k) plan participants. At year-end 2023, 79 percent of participants in their twenties held target date funds, compared with 66 percent of participants in their sixties (Figure 8, left panel). Younger participants also allocated a higher share of their 401(k) plan assets to target date funds. Participants in their twenties invested 70 percent of their assets in target date funds, compared with 36 percent of assets for participants in their sixties (Figure 7).

Recently hired 401(k) plan participants were more likely to hold target date funds than those with more years on the job. At year-end 2023, 78 percent of participants with two years of tenure or less held target date funds, compared with 48 percent of participants with more than 30 years of tenure (Figure 8, right panel).

Figure 8
Younger and Lower-Tenured Participants More Likely to Hold Target Date Funds

Percentage of participants¹ holding target date funds² by participant age group or years of tenure,³ 2023



¹The analysis includes the 10.6 million participants in the year-end 2023 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. Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

³The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

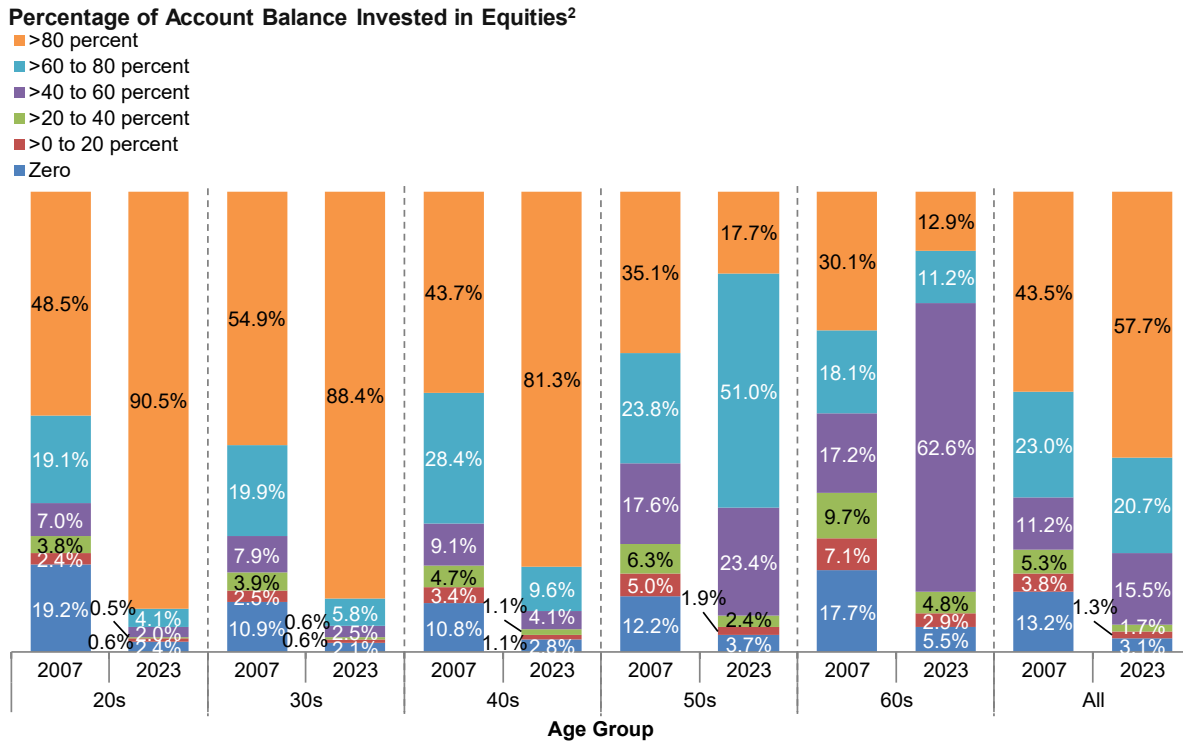
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Concentration in Equities Has Changed Since the Global Financial Crisis

The asset allocation of individual 401(k) plan participants has changed since 2007 in a way that is consistent with the increased use of target date funds (Figure 9). First, across all age groups, the share of participants who hold no equities in their 401(k) plan accounts fell between 2007 and 2023. Second, compared with 2007, participants younger than age 50 were more likely to have high equity concentrations in 2023, whereas participants aged 50 or older were less likely. For example, more than 90 percent of 401(k) plan participants in their twenties had more than 80 percent of their account balances invested in equities at year-end 2023 compared with less than half at year-end 2007. In contrast, the share of participants in their 60s with more than 80 percent of their 401(k) plan assets in equities fell from 30 percent in 2007 to 13 percent in 2023, while the share with between 40 percent and 60 percent of assets in equities increased from 17 percent to 63 percent.

Figure 9
Exposure to Equities Increased Among 401(k) Participants Between 2007 and 2023

Percentage of 401(k) participants by age of participant,¹ year-end 2007 and year-end 2023



¹Participants include the 10.6 million 401(k) plan participants in the year-end 2023 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

401(k) Plan Loans Are Widely Available, but a Small Share Take Them

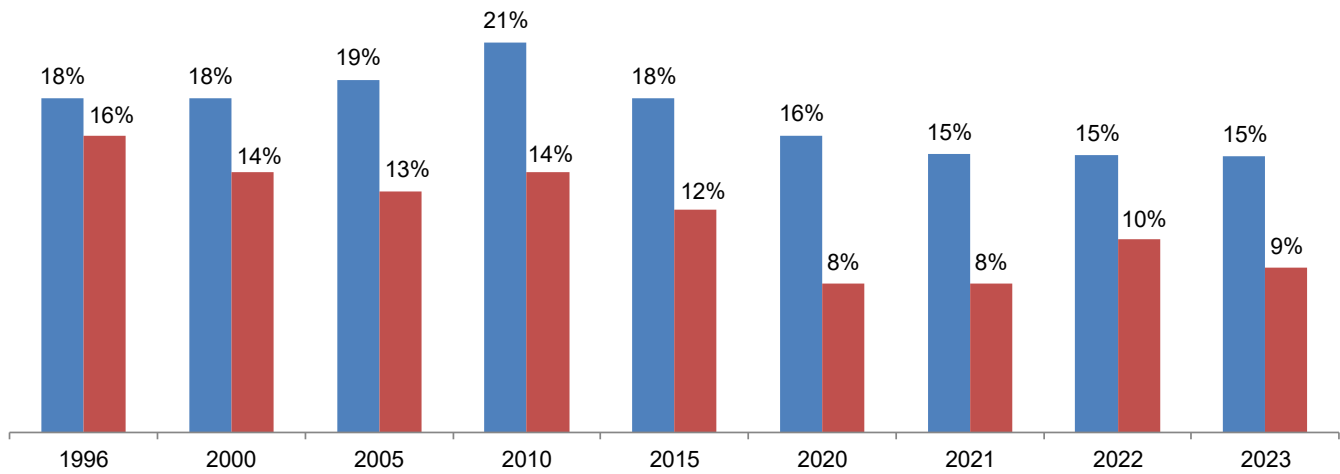
While a majority of 401(k) plan participants are in plans that allow loans, relatively few participants took loans. Among plans for which loan data were available in 2023, 63 percent of the 401(k) plans, covering 77 percent of participants, allowed loans.¹² In 2023, 15 percent of participants in plans that allowed loans, or 12 percent of all 401(k) participants, had loans outstanding (Figure 10).¹³ Eligible participants in their 40s and 50s were more likely to take out loans, as were eligible participants with between 10 and 30 years of tenure (Figure 11).

401(k) plan loans tend to be small, with an average unpaid balance of \$8,653 and a median of \$4,907 at year-end 2023. For those with loans, the unpaid loan balance as a percentage of remaining account balance was 9 percent, on average (Figure 10).¹⁴ The average ratio of loan balance to remaining account balance declines with both age and years of tenure (Figure 11).

Figure 10

Few 401(k) Participants Had Outstanding 401(k) Loans, and Loans Tended to Be Small

■ Percentage of eligible 401(k) participants with outstanding 401(k) loans
 ■ Loan as a percentage of the remaining 401(k) plan account balance



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

Figure 11

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

Loan activity by participant age, tenure, or account size, 2023

Percentage of Eligible 401(k) Participants With Outstanding 401(k) Loans **Loan as a Percentage of the Remaining 401(k) Plan Account Balance**

	Percentage of Eligible 401(k) Participants With Outstanding 401(k) Loans	Loan as a Percentage of the Remaining 401(k) Plan Account Balance
All	15%	9%
Age Group		
20s	6%	21%
30s	15%	15%
40s	20%	10%
50s	20%	7%
60s	11%	6%
Years of Tenure*		
0 to 2	9%	19%
>2 to 5	15%	18%
>5 to 10	21%	14%
>10 to 20	23%	9%
>20 to 30	23%	5%
>30	15%	3%
Size of Account Balance		
<\$10,000	7%	37%
\$10,000 to \$20,000	18%	30%
>\$20,000 to \$30,000	20%	26%
>\$30,000 to \$40,000	21%	24%
>\$40,000 to \$50,000	22%	21%
>\$50,000 to \$60,000	22%	19%
>\$60,000 to \$70,000	21%	17%
>\$70,000 to \$80,000	21%	16%
>\$80,000 to \$90,000	21%	15%
>\$90,000 to \$100,000	21%	14%
>\$100,000 to \$200,000	21%	10%
>\$200,000	17%	4%

*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

Appendix: EBRI/ICI 401(k) Database

Sources of Data and Information Reported

Several recordkeeping organizations provided records on active participants in 401(k) plans at year-end 2023. These recordkeepers include mutual fund companies, banks, insurance companies, and consulting firms.

Data provided for each participant included date of birth, date of hire, outstanding loan balance, funds in the participant's investment portfolios, and asset values attributed to those funds. For each participant, an account balance is calculated as the sum of the participant's assets in all funds excluding any outstanding loan balance. 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.

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.¹⁵ For a majority of the recordkeepers in the 2023 EBRI/ICI 401(k) database, it is also possible to link individuals across plans with different recordkeepers. This improves the identification of active participants and resulted in the reclassification of about 300,000 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.¹⁶

Investment Options

Investment options are grouped into eight broad categories.

- 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.
- 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)¹⁷ and other stable value funds,¹⁸ 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.¹⁹

Distribution of Plans, Participants, and Assets by Plan Size

Although most plans in the 2023 EBRI/ICI 401(k) database are small, most participants and assets are in large plans (Figure A1). More than 90 percent of the plans in the database have 100 participants or fewer, while only 1 percent of the plans have more than 1,000 participants. Nonetheless, roughly 80 percent of participants and assets are in plans with more than 100 participants, including about three-fifths of assets and participants in plans with more than 1,000 participants.

The distribution of plans, participants, and assets by plan size in the EBRI/ICI 401(k) database is similar to the distribution of the entire 401(k) plan universe (Figure A2).

Figures A3 through A12 provide additional detail on account balances, asset allocation, and plan loans.

Comparison of Data Across Years

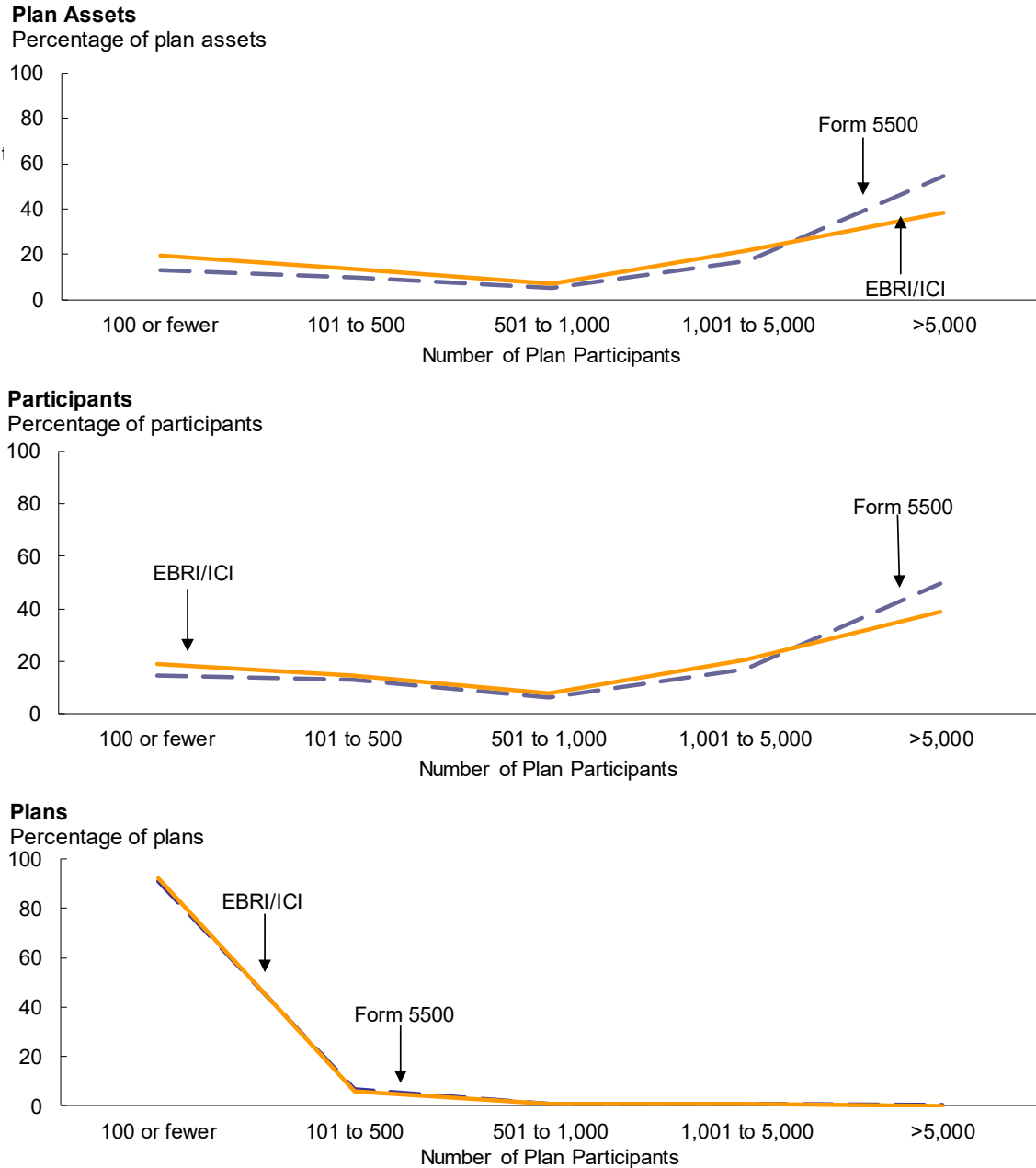
Annual data from the EBRI/ICI 401(k) database generally should not be used to estimate time trends. Although the EBRI/ICI project has collected data from 1996 through 2023, the recordkeepers providing the data may change from year to year. Further, employer plans may change their recordkeeper from year to year, meaning the data provided by any given recordkeeper may not include a consistent set of employer plans from year to year.

In particular, annual changes in average or median account values may not reflect the experience of the typical 401(k) plan participant. In addition to changes in the employer plans included in the database, the participants in any given plan change from year to year as new employees are hired and other employees leave or retire. Only participants' account balances at their current employer are included in the data. Retirement assets held in a previous employer's plan or rolled over into individual retirement accounts (IRAs) are not included in the analysis.

To analyze the experience of individual participants over time, other research analyzes a sample of participants that are consistently in the EBRI/ICI data over a number of consecutive years.²⁰

Figure A1 EBRI/ICI 401(k) Plan Database				
401(k) Plan Characteristics by Number of Plan Participants, 2023				
Number of Plan Participants	Total Plans	Total Participants	Total Assets	Average Account Balance
1 to 10	58,819	310,082	\$33,493,875,149	\$108,016
11 to 25	33,069	542,497	44,161,729,329	81,405
26 to 50	15,668	554,630	40,863,717,254	73,677
51 to 100	8,773	612,141	43,777,259,934	71,515
101 to 250	5,305	816,484	57,530,073,535	70,461
251 to 500	2,037	710,969	54,529,201,473	76,697
501 to 1,000	1,145	799,176	57,282,478,359	71,677
1,001 to 2,500	782	1,205,340	96,925,840,265	80,414
2,501 to 5,000	273	963,448	83,512,199,594	86,681
5,001 to 10,000	144	1,012,729	82,170,762,867	81,138
>10,000	92	3,088,905	235,016,423,315	76,084
All	126,107	10,616,401	829,263,561,074	78,112
401(k) Plan Characteristics by Plan Assets, 2023				
Plan Assets	Total Plans	Total Participants	Total Assets	Average Account Balance
\$0 to \$250,000	33,549	246,577	\$3,541,077,455	\$14,361
>\$250,000 to \$625,000	25,060	319,671	10,528,437,697	32,935
>\$625,000 to \$1,250,000	22,074	407,102	19,880,026,568	48,833
>\$1,250,000 to \$2,500,000	18,977	524,673	33,655,795,453	64,146
>\$2,500,000 to \$6,250,000	15,088	785,055	58,251,908,628	74,201
>\$6,250,000 to \$12,500,000	5,371	660,337	46,640,781,484	70,632
>\$12,500,000 to \$25,000,000	2,652	650,599	46,062,246,397	70,800
>\$25,000,000 to \$62,500,000	1,827	974,290	69,738,940,320	71,579
>\$62,500,000 to \$125,000,000	705	841,523	61,760,102,635	73,391
>\$125,000,000 to \$250,000,000	409	917,517	70,402,251,680	76,731
>\$250,000,000	395	4,289,057	408,801,992,758	95,313
All	126,107	10,616,401	829,263,561,074	78,112
Note: The median account balance at year-end 2023 was \$15,448.				
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project				

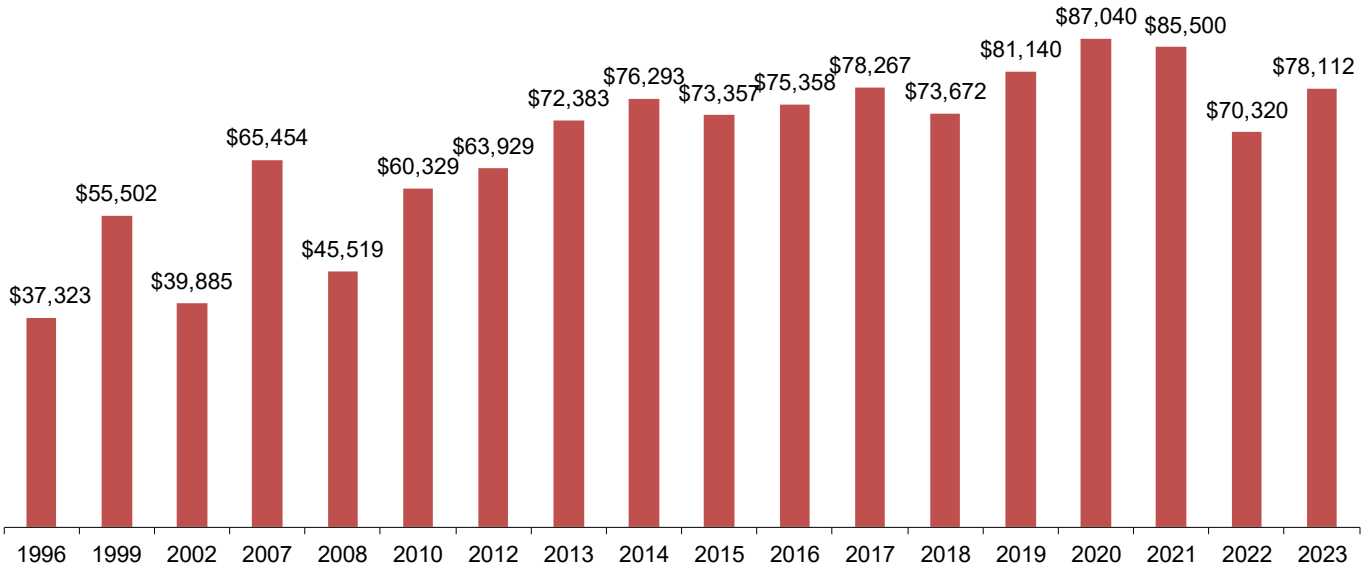
Figure A2
EBRI/ICI 401(k) Database Represents a Wide Cross Section of the 401(k) Universe
 401(k) plan characteristics by number of participants: EBRI/ICI 401(k) database
 vs. DOL Form 5500 for all 401(k) plans, 2023



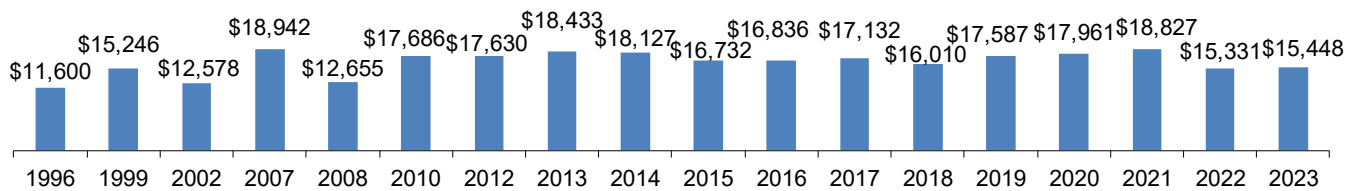
Sources: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project and US Department of Labor

Figure A3
Snapshot of Year-End 401(k) Plan Account Balances
 401(k) plan participant account balances,¹ selected years²

Average



Median

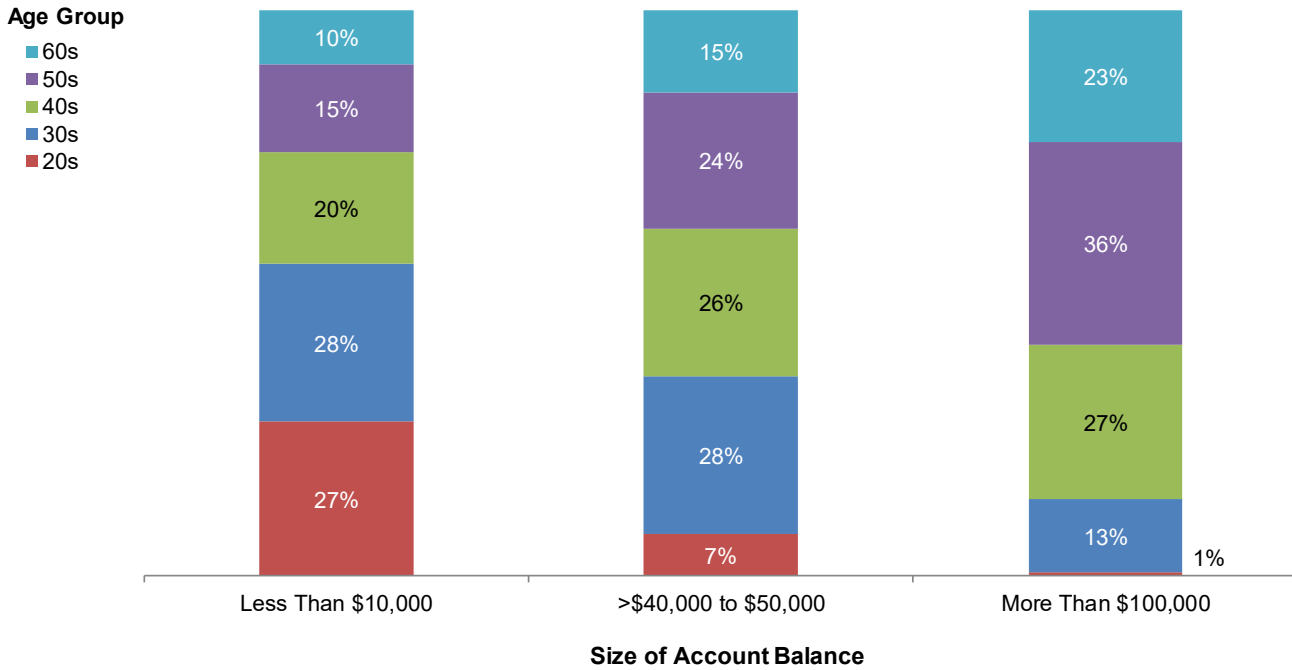


¹Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

²The sample of participants changes over time.

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

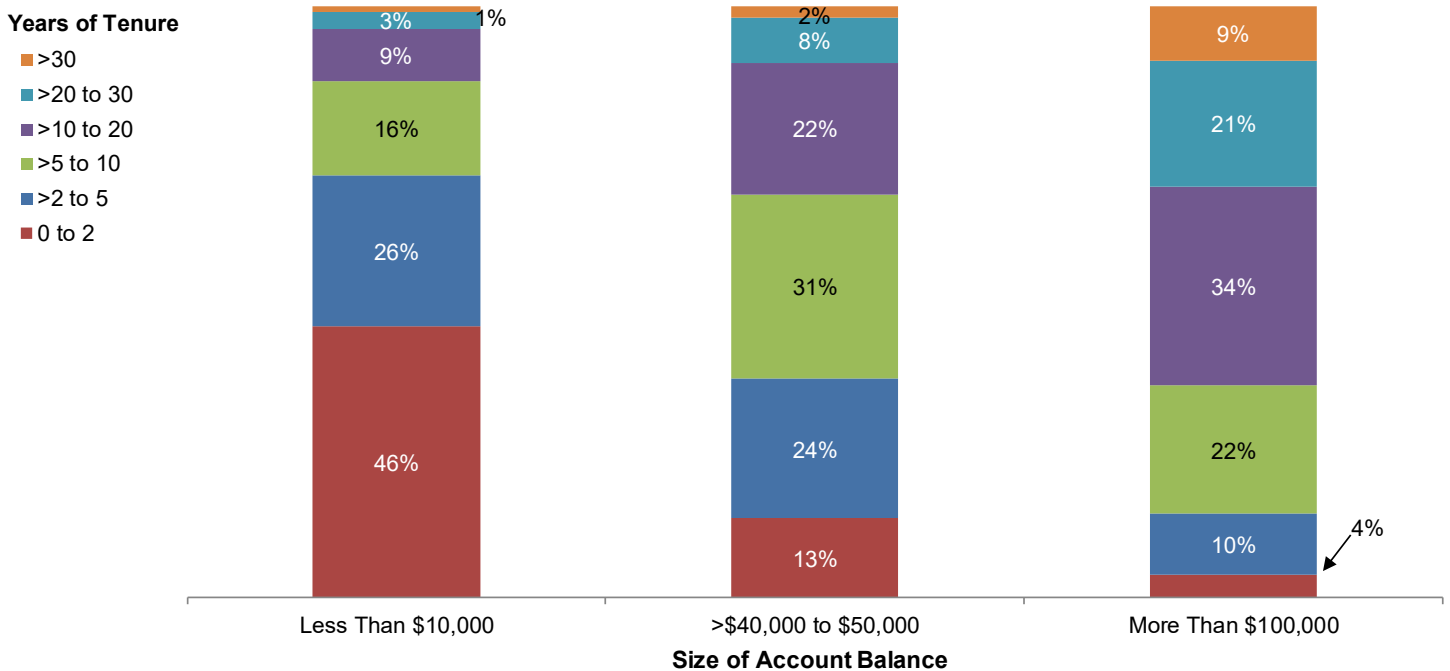
Figure A4
Age Composition of Selected 401(k) Plan Account Balance Categories
 Percentage of participants with account balances in specified ranges, 2023



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 A5
Tenure Composition of Selected 401(k) Plan Account Balance Categories
 Percentage of participants with account balances in specified ranges, 2022

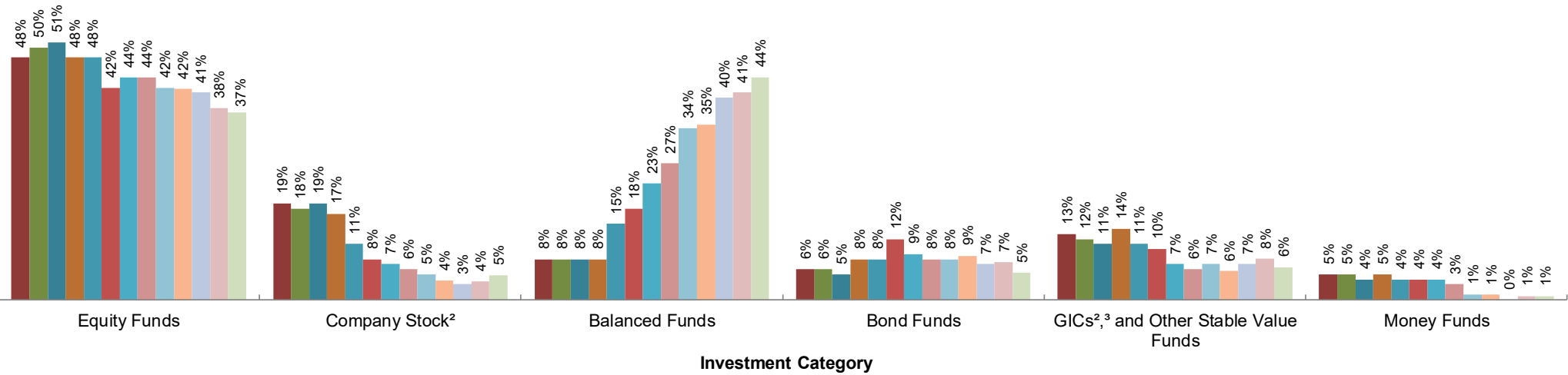


Note: Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included. The tenure variable is generally years working at current employer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

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

Figure A6
401(k) Plan Assets Are Concentrated in Equities
 401(k) plan average asset allocation, percentage of total assets,¹ selected years

■ 1997 ■ 1998 ■ 2000 ■ 2001 ■ 2007 ■ 2010 ■ 2013 ■ 2016 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023



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 A7).
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

Figure A7
Distribution of 401(k) Plans, Participants, and Assets by Investment Options, 2023

Investment Options Offered by Plan	Plans	Participants	Assets
Equity, bond, money, and/or balanced funds	73,773	2,473,621	\$167,511,239,337
Of which: target date funds ¹ are an option	67,719	2,204,952	142,377,887,891
Equity, bond, money, and/or balanced funds; and GICs² and/or other stable value funds	51,578	5,955,801	457,753,485,713
Of which: target date funds ¹ are an option	44,245	5,201,104	407,486,455,782
Equity, bond, money, and/or balanced funds; and company stock	126	987,325	58,048,449,275
Of which: target date funds ¹ are an option	91	921,287	47,847,931,405
Equity, bond, money, and/or balanced funds; company stock; and GICs² and/or other stable value funds	631	1,199,653	145,950,386,749
Of which: target date funds ¹ are an option	578	1,158,321	141,603,287,433
All	126,107	10,616,401	829,263,561,074
Of which: target date funds ¹ are an option	112,633	9,485,665	739,315,562,511
Investment Options Offered by Plan	Percentage of Plans	Percentage of Participants	Percentage of Assets
Equity, bond, money, and/or balanced funds	58.5%	23.3%	20.2%
Of which: target date funds ¹ are an option	53.7	20.8	17.2
Equity, bond, money, and/or balanced funds; and GICs² and/or other stable value funds	40.9	56.1	55.2
Of which: target date funds ¹ are an option	35.1	49.0	49.1
Equity, bond, money, and/or balanced funds; and company stock	0.1	9.3	7.0
Of which: target date funds ¹ are an option	0.1	8.7	5.8
Equity, bond, money, and/or balanced funds; company stock; and GICs² and/or other stable value funds	0.5	11.3	17.6
Of which: target date funds ¹ are an option	0.5	10.9	17.1
All	100.0	100.0	100.0
Of which: target date funds ¹ are an option	89.3	89.3	89.2

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

Figure A8
Asset Allocation Distribution of 401(k) Participant Account Balance to Balanced Funds by Age
 Percentage of participants,¹ 2023

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	17.4%	2.8%	0.8%	0.7%	0.5%	0.6%	0.6%	0.5%	0.5%	0.5%	75.0%
30s	20.1%	3.8%	1.3%	1.1%	0.8%	0.9%	0.8%	0.8%	0.8%	0.8%	68.9%
40s	23.2%	5.3%	2.0%	1.7%	1.2%	1.2%	1.1%	1.0%	1.0%	1.3%	61.0%
50s	26.2%	6.2%	2.8%	2.2%	1.5%	1.5%	1.3%	1.1%	1.3%	1.5%	54.5%
60s	26.9%	6.3%	2.9%	2.4%	1.6%	1.6%	1.4%	1.2%	1.3%	1.5%	52.9%
All	22.9%	4.9%	1.9%	1.6%	1.1%	1.2%	1.0%	0.9%	1.0%	1.1%	62.4%

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	21.0%	0.7%	0.5%	0.6%	0.5%	0.6%	0.6%	0.5%	0.5%	0.5%	74.1%
30s	24.7%	1.2%	0.9%	0.9%	0.8%	0.8%	0.8%	0.7%	0.7%	0.8%	67.8%
40s	28.9%	2.1%	1.5%	1.4%	1.0%	1.1%	1.0%	0.9%	1.0%	1.3%	59.8%
50s	32.6%	3.1%	1.9%	1.8%	1.3%	1.3%	1.1%	1.0%	1.2%	1.4%	53.3%
60s	33.9%	3.3%	2.0%	1.8%	1.3%	1.4%	1.3%	1.0%	1.2%	1.4%	51.4%
All	28.6%	2.0%	1.4%	1.3%	1.0%	1.0%	0.9%	0.8%	0.9%	1.1%	61.0%

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	96.0%	2.4%	0.4%	0.2%	0.1%	(*)	(*)	(*)	(*)	(*)	0.9%
30s	94.7%	3.1%	0.6%	0.3%	0.1%	0.1%	0.1%	(*)	(*)	(*)	1.0%
40s	93.0%	4.0%	0.9%	0.5%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	1.1%
50s	92.0%	4.3%	1.3%	0.7%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%	1.0%
60s	91.3%	4.2%	1.4%	0.8%	0.3%	0.3%	0.2%	0.1%	0.1%	0.1%	1.4%
All	93.2%	3.6%	0.9%	0.5%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	1.3%

(*) = less than 0.05 percent

¹The analysis includes the 10.6 million participants in the year-end 2023 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 A9

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

Percentage of participants,¹ 2023

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	17.8%	3.3%	0.9%	0.8%	0.5%	0.6%	0.6%	0.6%	0.5%	0.5%	74.0%
>2 to 5	19.6%	4.0%	1.2%	1.1%	0.7%	0.9%	0.8%	0.7%	0.7%	0.7%	69.6%
>5 to 10	22.2%	4.7%	1.7%	1.5%	1.1%	1.2%	1.0%	0.9%	1.0%	1.1%	63.8%
>10 to 20	27.8%	6.1%	2.8%	2.4%	1.8%	1.6%	1.4%	1.2%	1.3%	1.5%	52.1%
>20 to 30	34.5%	9.2%	4.8%	3.6%	2.6%	2.3%	2.0%	1.9%	2.5%	4.0%	32.8%
>30	41.4%	11.4%	6.1%	4.6%	3.3%	2.9%	2.5%	2.1%	2.0%	1.7%	22.1%
All	22.9%	4.9%	1.9%	1.6%	1.1%	1.2%	1.0%	0.9%	1.0%	1.1%	62.4%

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	21.9%	0.7%	0.6%	0.7%	0.5%	0.6%	0.6%	0.5%	0.5%	0.5%	73.0%
>2 to 5	24.5%	1.1%	0.8%	1.0%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	68.4%
>5 to 10	27.9%	1.7%	1.2%	1.2%	1.0%	1.1%	1.0%	0.9%	0.9%	1.0%	62.3%
>10 to 20	34.6%	3.0%	2.0%	1.9%	1.5%	1.4%	1.3%	1.1%	1.2%	1.4%	50.5%
>20 to 30	42.8%	6.2%	3.5%	2.8%	2.1%	1.9%	1.7%	1.7%	2.3%	3.8%	31.4%
>30	51.8%	8.0%	4.3%	3.4%	2.6%	2.4%	2.1%	1.8%	1.8%	1.5%	20.3%
All	28.6%	2.0%	1.4%	1.3%	1.0%	1.0%	0.9%	0.8%	0.9%	1.1%	61.0%

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	95.4%	2.9%	0.5%	0.2%	0.1%	(*)	(*)	(*)	(*)	(*)	0.9%
>2 to 5	94.3%	3.4%	0.6%	0.3%	0.1%	0.1%	0.1%	0.1%	(*)	(*)	1.1%
>5 to 10	93.2%	3.8%	0.8%	0.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	1.3%
>10 to 20	91.4%	4.3%	1.3%	0.7%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	1.4%
>20 to 30	88.9%	5.0%	2.1%	1.2%	0.5%	0.4%	0.2%	0.2%	0.1%	0.1%	1.2%
>30	86.5%	5.6%	2.7%	1.5%	0.8%	0.5%	0.3%	0.2%	0.2%	0.1%	1.6%
All	93.2%	3.6%	0.9%	0.5%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	1.3%

(*) = less than 0.05 percent

¹The analysis includes the 10.6 million participants in the year-end 2023 EBRI/ICI 401(k) database.

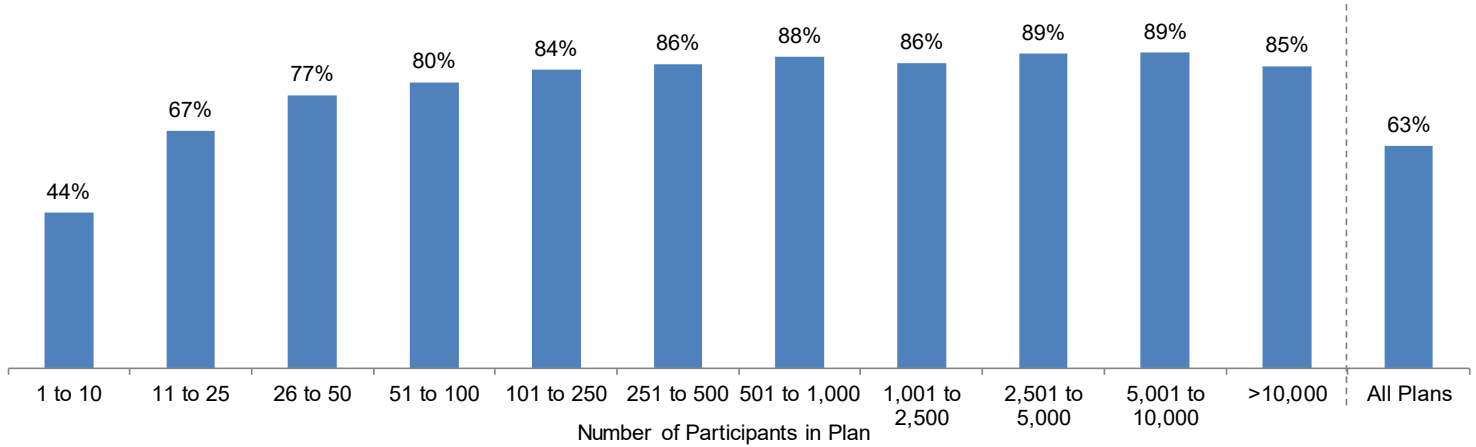
²A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

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

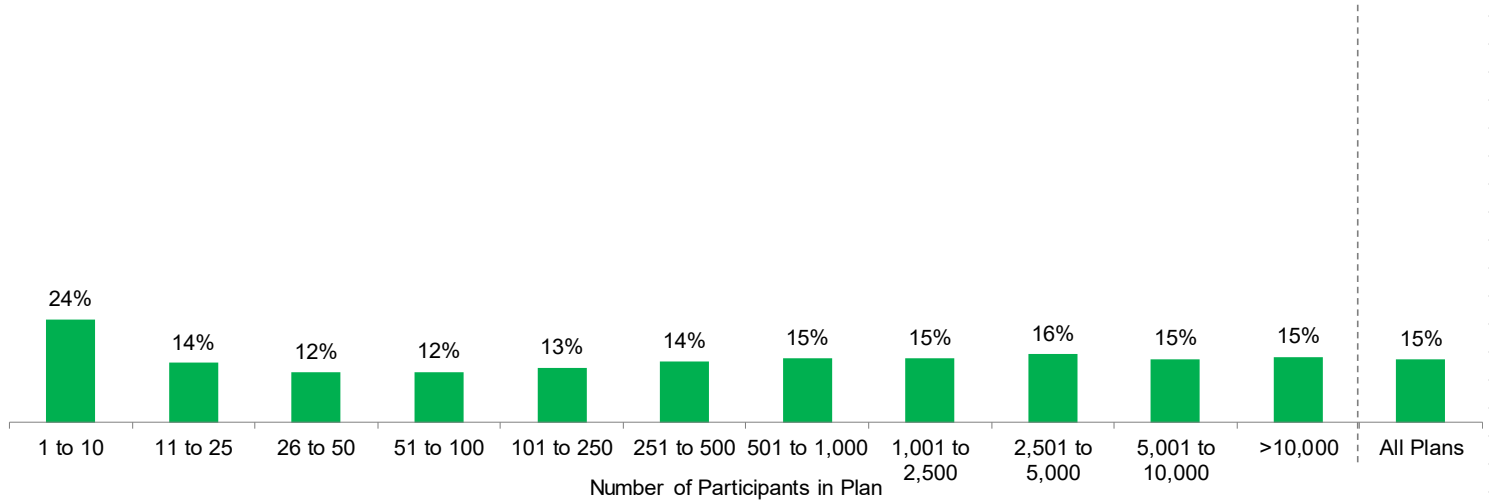
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Figure A10
401(k) Plans' Loan Offering and Participant Use by Plan Size

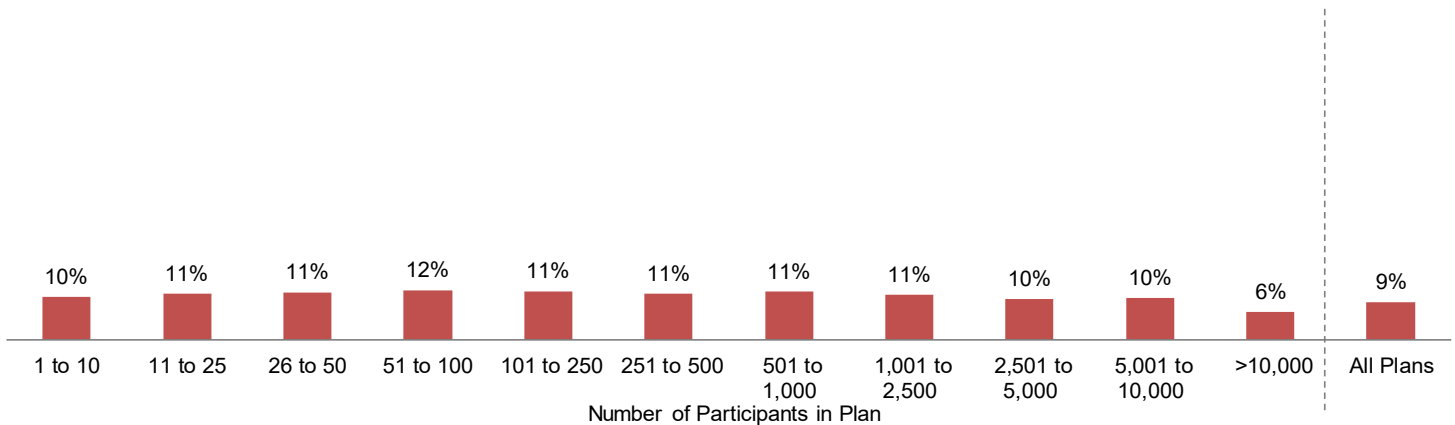
Percentage of 401(k) Plans Offering Loans by Plan Size, 2023



Percentage of Eligible 401(k) Participants with 401(k) Loans by Plan Size, 2023



401(k) Loan Balances as a Percentage of 401(k) Plan Account Balances for Participants with 401(k) Loans by Plan Size, 2023



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

Figure A11

401(k) Loan Balances

Average and median loan balances for 401(k) participants with 401(k) loans, 1998–2023

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
2020	7,560	4,020
2021	8,069	4,517
2022	8,068	4,537
2023	8,653	4,907

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 A12

Loans From 401(k) Plans Tended to Be Small

Percentage of eligible participants by participant age, 2023

401(k) Loan as a Percentage of Remaining 401(k) Account Balance	Age group					
	20s	30s	40s	50s	60s	All
Zero (no loan)	94%	85%	80%	80%	89%	85%
>0 to 10 percent	1%	5%	8%	9%	6%	6%
>10 to 20 percent	1%	3%	4%	4%	2%	3%
>20 to 30 percent	1%	2%	3%	2%	1%	2%
>30 to 80 percent	2%	4%	5%	4%	2%	4%
>80 percent	(*)	(*)	1%	(*)	(*)	(*)

(*)= less than 0.5 percent

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

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Notes

¹ For data on 401(k) plan assets, participants, and plans through 2023, see US Department of Labor, Employee Benefits Security Administration 2025a and 2025b. For total retirement assets (including those in 401(k) plans) through the third quarter of 2025, see Investment Company Institute 2026. 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, DOL 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 2025b). As the DOL 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 historical relationships and trends evident in the Form 5500 data, ICI estimates the number of active 401(k) participants to be about 68 million in 2023. There were about 725,000 401(k) plans in 2023 (see US Department of Labor, Employee Benefits Security Administration 2025a).

³ See Investment Company Institute 2026.

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 the asset management industry in service of individual investors. ICI's members include mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and UCITS and similar funds offered to investors in other jurisdictions. ICI also represents its members in their capacity as investment advisers to collective investment trusts (CITs) and retail separately managed accounts (SMAs). ICI Associate Members include service providers to member firms and CIT trust companies.

⁶ This update extends previous findings from the project for 1996 through 2022. For year-end 2022 results, see Holden, Bass, and Copeland 2024. Results for earlier years are available in earlier issues of ICI Research Perspective (www.ici.org/Research/Defined-Contribution-Plans/401ks/EBRIICI401kInvestorDatabase) and EBRI Issue Brief (www.ebri.org/publications/research-publications/issue-briefs).

⁷ At year-end 2023, 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.

⁸ At year-end 2023, 11 percent of the participants in the database were missing a date of hire entry and were not included in this analysis.

⁹ Account balances are net of plan loans and include only participants' account balances at their current employer. See the appendix for more detail on the calculation of account balances.

¹⁰ The allocation to equities in target date funds varies with the funds' target dates. To calculate year-end 2023 equity allocations, target date fund investors were assumed to be in a fund whose target date was nearest to their 65th birthday. The equity portion of the assigned fund was assumed to be equal to the industry average equity percentage for funds with the same target date using the Morningstar Lifetime Allocation Indexes (see

Morningstar 2023). Based on ICI mutual fund data, 60 percent of assets in non–target date balanced funds were assumed to be invested in equities.

¹¹ The share of 401(k) plan assets in company stock has fallen by 75 percent since 1999, when company stock accounted for 19 percent of assets (see Holden and VanDerhei 2001). 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).

¹² 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% of 401(k) plans that offer loans had at least one plan participant with an outstanding loan.

¹³ For an analysis of 401(k) participant loan activity over time, see Holden, Bass, and Copeland 2023. The lower share of eligible participants with an outstanding loan since 2019 may be related to provisions in Bipartisan Budget Act of 2018. Prior to 2019, plans that allowed loans had to require employees to take out a loan before requesting an in-service hardship distribution. Beginning in 2019, these plans had the option to eliminate that requirement. See Internal Revenue Service 2025, Dold 2018, and Joint Committee on Taxation 2019.

¹⁴ US Department of Labor data indicate that loan amounts tend to be a negligible portion of total plan assets. In plan year 2023, the latest data available, 1 percent of the \$7.9 trillion in 401(k) plan assets were participant loans. See Table D6 in US Department of Labor, Employee Benefits Security Administration 2025a.

¹⁵ 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.

¹⁶ 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 3.3 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 4.3 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 2.7 percent with the consolidation of their multiple accounts.

¹⁷ GICs are insurance company products that guarantee a specific rate of return on the invested capital over the life of the contract.

¹⁸ 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.

¹⁹ 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.

²⁰ For an analysis of the changes in account balances of consistent participants in the EBRI/ICI 401(k) database over the four-year period from year-end 2019 to year-end 2023, see Holden, Bass, and Copeland 2025.