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WHAT'S INSIDE

Sarah Holden, ICI Senior Director of Retirement and Investor Research; Jack VanDerhei, EBRI Director of Research; Luis Alonso, EBRI Director of Information Technology and Research Databases; and Steven Bass, ICI Associate Economist, prepared this report.

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This paper is an annual update to ICI and EBRI's ongoing research into 401(k) plan participants' activity. The previous update was "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2010," originally published in December 2011.

401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2011

KEY FINDINGS

- **The bulk of 401(k) assets continued to be invested in stocks.** On average, at year-end 2011, 61 percent of 401(k) participants' assets was invested in equity securities through equity funds, the equity portion of balanced funds, and company stock. Thirty-four percent was in fixed-income securities such as stable value investments and bond and money funds.

- **Seventy-two percent of 401(k) plans included target date funds in their investment lineup at year-end 2011.** At year-end 2011, 13 percent of the assets in the EBRI/ICI 401(k) database was invested in target date funds and 39 percent of 401(k) participants 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.

- **More new or recent hires invested their 401(k) assets in balanced funds, including target date funds.** For example, at year-end 2011, 51 percent of the account balances of recently hired participants in their twenties was invested in balanced funds, compared with 44 percent in 2010, and about 7 percent in 1998. A significant subset of that balanced fund category is target date funds. At year-end 2011, 40 percent of the account balances of recently hired participants in their twenties was invested in target date funds, compared with 35 percent at year-end 2010.

- **401(k) participants continued to seek diversification of their investments.** The share of 401(k) accounts invested in company stock remained at 8 percent in 2011. This share has fallen by more than half since 1999. Recently hired 401(k) participants contributed to this trend: they tended to be less likely to hold employer stock.

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Key findings continued on the next page

- **Participants' 401(k) loan activity remained steady, although loan balances increased slightly in 2011.** At year-end 2011, 21 percent of all 401(k) participants who were eligible for loans had loans outstanding against their 401(k) accounts, unchanged from year-end 2009 and year-end 2010, and up from 18 percent at year-end 2008. Loans outstanding amounted to 14 percent of the remaining account balance, on average, at year-end 2011, unchanged from year-end 2010. Loan amounts outstanding increased slightly from those at year-end 2010.

- **The year-end 2011 average account balance in the database was 2.2 percent lower than the year before, but may not accurately reflect the experience of typical 401(k) participants in 2011.** 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) participants (those that have been in the same plan since 2003) is expected to be published in 2013.

Introduction

Over the past three decades, 401(k) plans have grown to be the most widespread private-sector employer-sponsored retirement plan in the United States.[1] In 2011, an estimated 51 million American workers were active 401(k) plan participants.[2] By year-end 2011, 401(k) plan assets had grown to represent 18 percent of all retirement assets, amounting to $3.2 trillion.[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 accurately portray how these participants manage their 401(k) accounts.

This report is an update of EBRI and ICI's ongoing research into 401(k) plan participants' activity through year-end 2011.[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 2011; 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.

About the EBRI/ICI Database

The EBRI/ICI Participant-Directed Retirement Plan Data Collection Project is the largest, most representative repository of information about individual 401(k) plan participant accounts. As of December 31, 2011, the EBRI/ICI database included statistical information about:

- 24.0 million 401(k) plan participants, in
- 64,141 employer-sponsored 401(k) plans, holding
- $1.415 trillion in assets.

The 2011 EBRI/ICI database covers 47 percent of the universe of 401(k) plan participants, more than 10 percent of plans, and 44 percent of 401(k) plan assets. The EBRI/ICI project is unique because it includes data provided by a wide variety of plan recordkeepers and, therefore, portrays the activity of participants in 401(k) plans of varying sizes—from very large corporations to small businesses—with a variety of investment options.

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 2011. These plan recordkeepers include mutual fund companies, insurance companies, and consulting firms. Although the EBRI/ICI project has collected data from 1996 through 2011, the universe of data providers may vary from year to year. In addition, the sample of plans at any given provider can change. Thus, aggregate figures in this report generally should not be used to estimate time trends. Records were encrypted prior to 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 2011 EBRI/ICI database it is possible to link individuals across plans and across a majority of the recordkeepers. This improves the identification of active participants and resulted in the reclassification of nearly 1.2 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. Similarly, ***bond funds*** are any pooled account 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 over time.[11] Non–target date balanced funds include asset allocation or hybrid funds, in addition to 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. The ***other*** category is the residual for other investments, such as real estate funds. The final category, ***unknown***, consists of assets that could not be identified.[15]

About Changes in Account Balances

When analyzing the change in participant account balances over time, it is important to have a consistent sample. Comparing average account balances across different year-end snapshots can lead to false conclusions. For example, the addition of 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 actually 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 also can 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 from 2003 through 2011.

Distribution of Plans, Participants, and Assets by Plan Size

The 2011 EBRI/ICI 401(k) database contains information on 64,141 401(k) plans with $1.415 trillion in assets and 24.0 million participants (Figure 1). As is the case in the 401(k) universe at large, most of the plans in the database are small: 46 percent of the plans have 25 or fewer participants, and 29 percent have 26 to 100 participants (Figure 2). In contrast, only 2 percent of the plans have more than 2,500 participants. However, participants and assets are concentrated in large plans. For example, 67 percent of participants are in plans with more than 2,500 participants, and these same plans account for 71 percent of all plan assets. Because most of the plans have a small number of participants, the asset size for many plans is modest. About 17 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 (Figure 3).

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

The 2011 EBRI/ICI 401(k) database is a representative sample of the estimated universe of 401(k) plans. At year-end 2011, all 401(k) plans held a total of $3.2 trillion in assets, and the database represents about 44 percent of that total.[16] The database also covers 47 percent of the universe of active 401(k) plan participants and more than 10 percent of all 401(k) plans.[17] The distribution of assets, participants, and plans in the database for 2011 is similar to the universe of plans as reported by the U.S. Department of Labor (Figure 4).[18]

FIGURE 1

401(k) Plan Characteristics by Number of Plan Participants, 2011

Number of plan participants	Total plans	Total participants	Total assets*	Average account balance
1 to 10	15,348	83,356	$5,477,984,783	$65,718
11 to 25	14,063	239,414	14,896,588,825	62,221
26 to 50	10,572	383,375	22,828,923,766	59,547
51 to 100	8,231	584,138	32,986,462,264	56,470
101 to 250	7,225	1,149,252	59,870,272,596	52,095
251 to 500	3,341	1,183,366	58,189,446,849	49,173
501 to 1,000	2,145	1,493,790	76,859,874,228	51,453
1,001 to 2,500	1,726	2,694,991	144,785,840,676	53,724
2,501 to 5,000	725	2,549,808	141,022,864,266	55,307
5,001 to 10,000	407	2,850,981	178,142,390,009	62,485
>10,000	358	10,770,927	679,735,615,735	63,108
All	64,141	23,983,398	1,414,796,263,998	58,991

*Assets do not add to the total because of rounding.

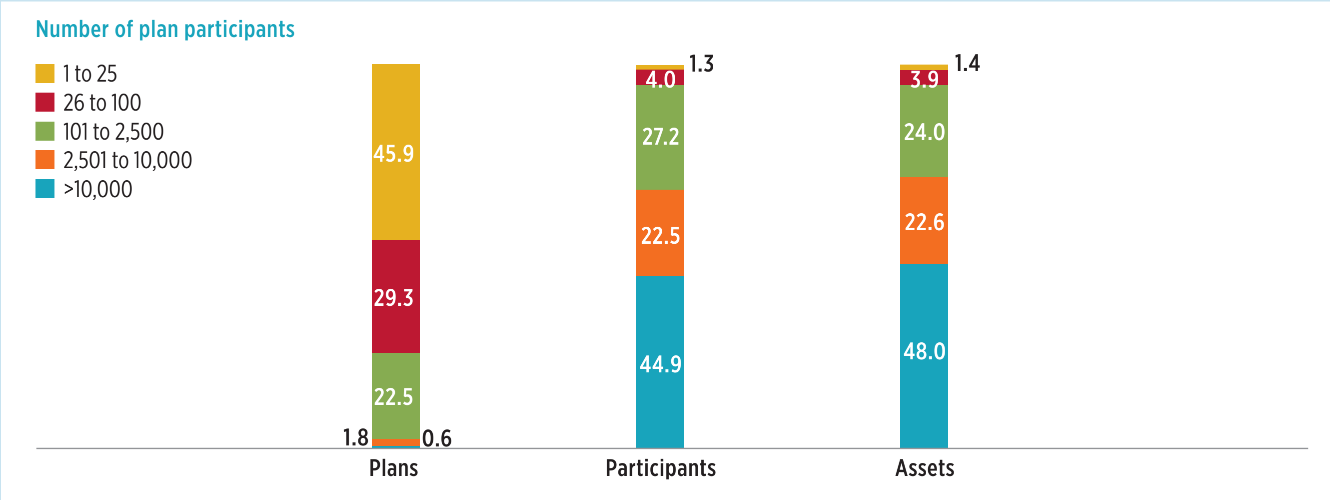
Note: The median account balance at year-end 2011 was $16,649.

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

FIGURE 2

Distribution of 401(k) Plans, Participants, and Assets

Percentage of plans, participants, and assets by number of plan participants, 2011



Note: Percentages do not add to 100 percent because of rounding.

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

FIGURE 3

401(k) Plan Characteristics by Plan Assets, 2011

Total plan assets	Total plans	Total participants	Total assets*	Average account balance
$0 to $250,000	10,995	90,610	$1,107,875,896	$12,227
>$250,000 to $625,000	9,491	159,029	4,027,629,392	25,326
>$625,000 to $1,250,000	9,665	259,013	8,810,480,199	34,016
>$1,250,000 to $2,500,000	9,917	475,568	17,815,180,285	37,461
>$2,500,000 to $6,250,000	10,430	992,902	41,471,378,582	41,768
>$6,250,000 to $12,500,000	5,261	1,095,474	46,032,866,859	42,021
>$12,500,000 to $25,000,000	3,351	1,351,083	59,194,497,815	43,813
>$25,000,000 to $62,500,000	2,452	2,148,257	95,359,396,617	44,389
>$62,500,000 to $125,000,000	1,043	1,959,335	90,984,418,266	46,436
>$125,000,000 to $250,000,000	678	2,253,296	117,795,073,319	52,277
>$250,000,000	858	13,198,831	932,197,466,769	70,627
All	64,141	23,983,398	1,414,796,263,998	58,991

*Assets do not add to the total because of rounding.

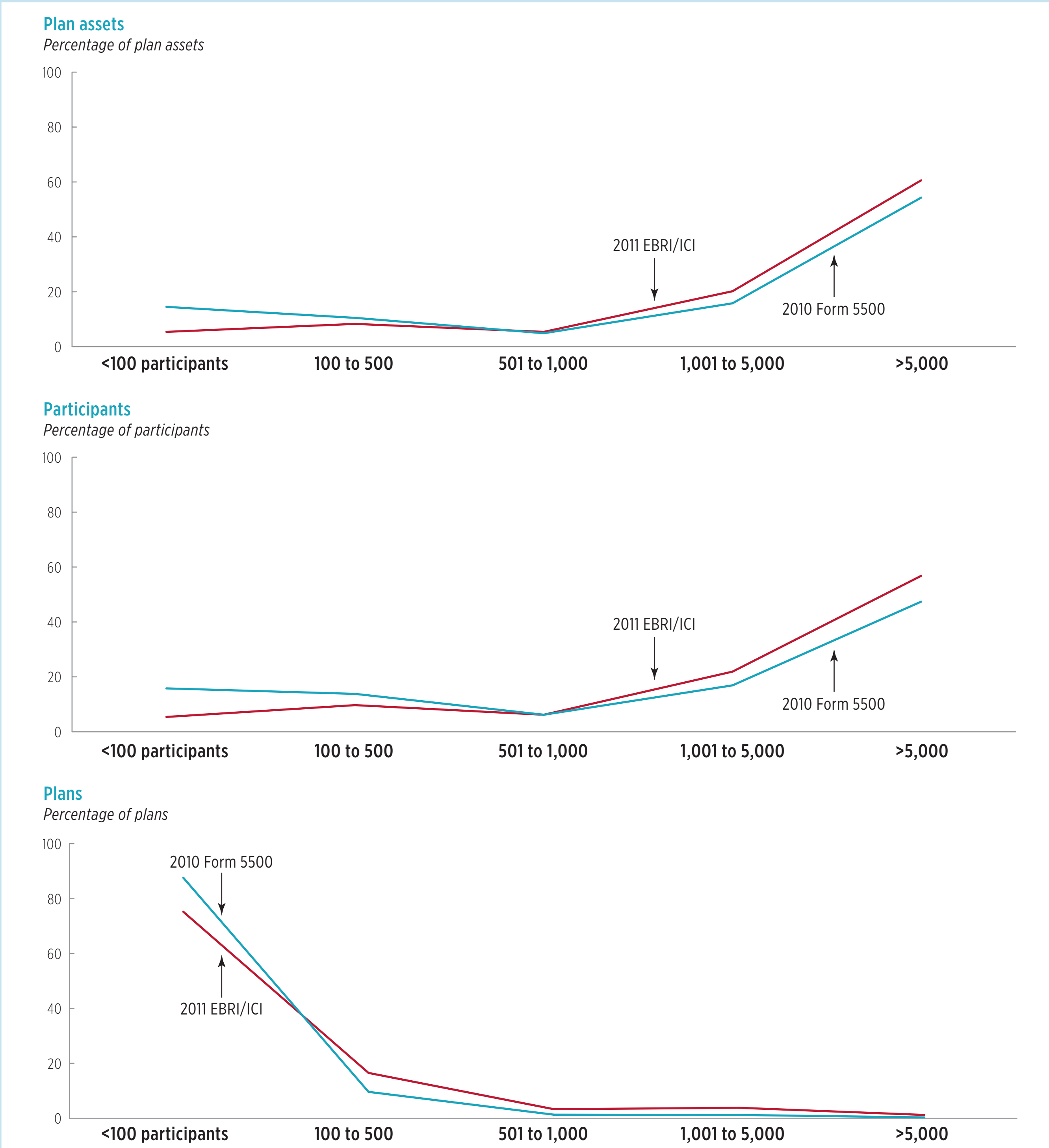
Note: The median account balance at year-end 2011 was $16,649.

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

FIGURE 4

EBRI/ICI 401(k) Database Represents Wide Cross Section of 401(k) Universe

401(k) plan characteristics by number of participants: EBRI/ICI 401(k) database in 2011 versus 2010 DOL Form 5500 for all 401(k) plans



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

The Typical 401(k) Plan Participant

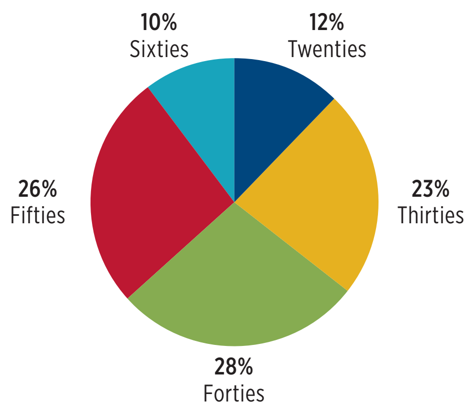
The database includes 401(k) participants across a wide range of age and tenure groups. At year-end 2011, 51 percent of participants were in their thirties or forties, while 12 percent of participants were in their twenties and 10 percent were in their sixties (Figure 5, upper panel). The median age of the participants in the 2011 database is 45 years, the same as in 2010. Because older participants tend to have larger account balances, assets in the database are more concentrated among the older 401(k) participant groups. At year-end 2011, 60 percent of 401(k) plan assets were held by participants in their fifties or sixties, while 13 percent were held by participants in their twenties or thirties (Figure 5, lower panel).

FIGURE 5

401(k) Participants Represent a Range of Ages

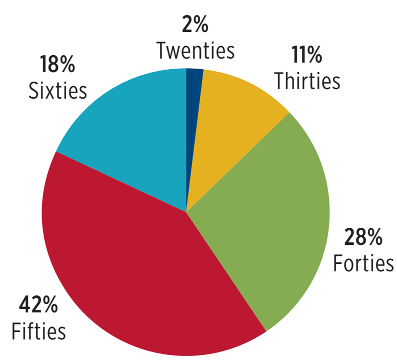
Percentage of active 401(k) plan participants and 401(k) plan assets by age, 2011

Active 401(k) plan participants



Median age: 45 years

401(k) plan assets



Note: Components do not add to 100 percent because of rounding.

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

Participants in 401(k) plans represent a wide range of job tenure experiences. In 2011, 38 percent of the participants in the database had five or fewer years of tenure and 5 percent had more than 30 years of tenure (Figure 6). The median tenure at the current employer was eight years in 2011.

Year-End 2011 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 is the sum of three factors:

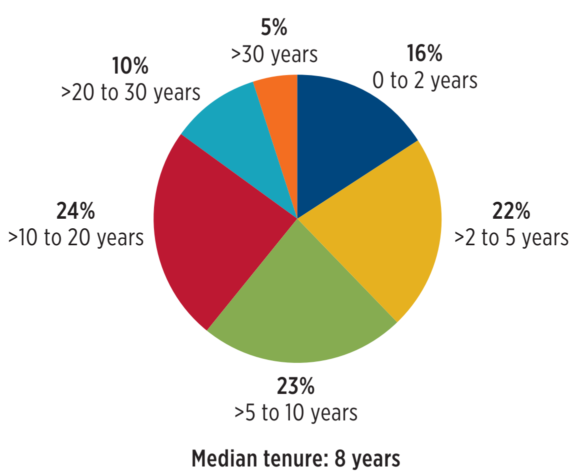
- new contributions by the participant or employer or both;
- total investment return on account balances, which depends on the performance of financial markets and on the allocation of assets in an individual's account; and
- withdrawals, borrowing, and loan repayments.

The change in any individual participant's account balance is influenced by the magnitude of these three factors relative to the starting account balance. 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 2.1 percent during 2011, while bonds (as measured by the Barclays Capital U.S. Aggregate Bond Index) increased 7.8 percent (Figures 7 and 8).

FIGURE 6

401(k) Participants Represent a Range of Job Tenures

Percentage of active 401(k) plan participants by years of tenure, 2011

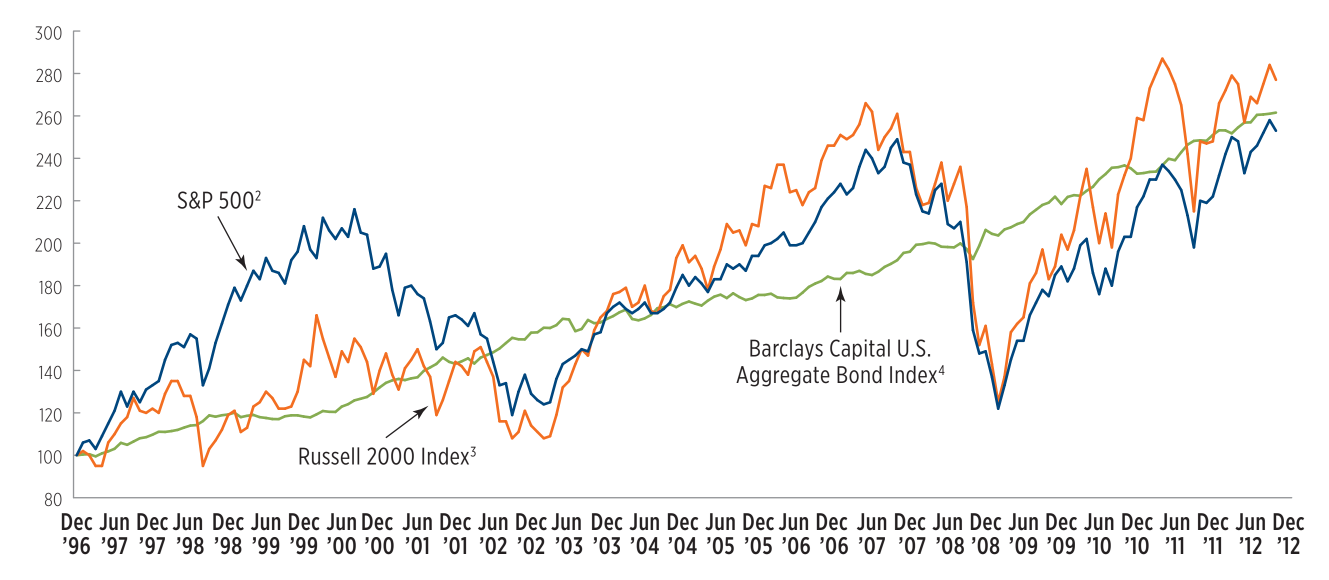


Note: The tenure variable is generally years working at current employer, and thus may overstate years of participation in the 401(k) plan.
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

FIGURE 7

Domestic Stock and Bond Market Indexes

Month-end level,[1] December 1996 to November 2012



[1] All indexes are set to 100 in December 1996.

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

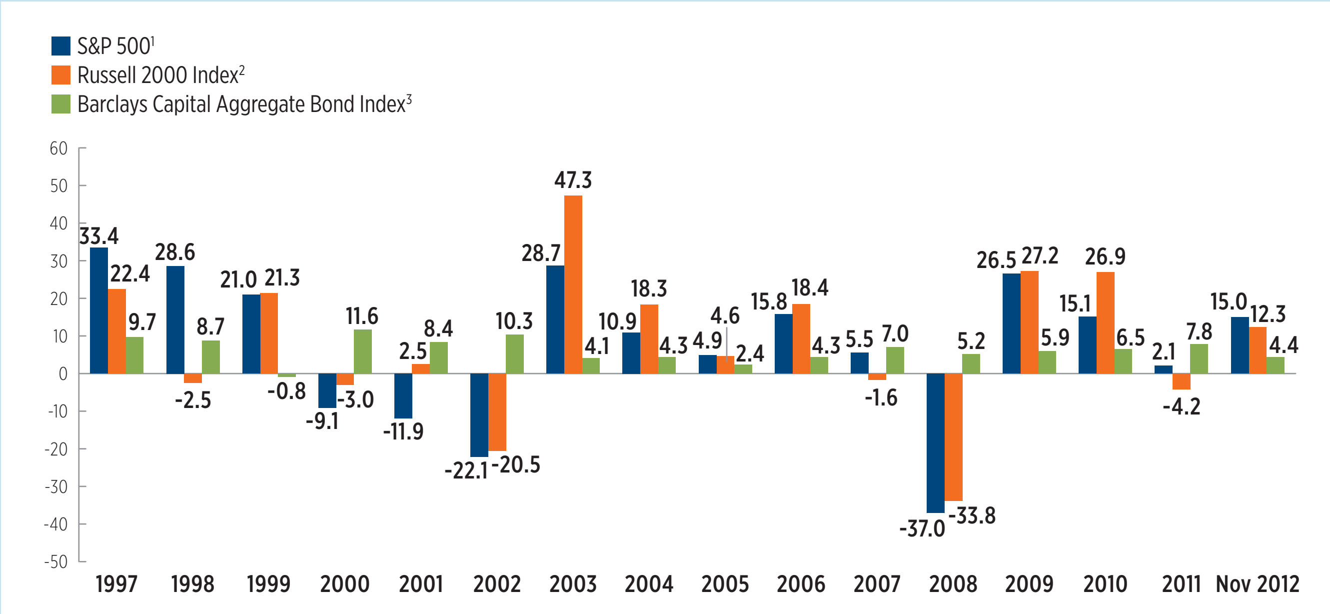
[3] The Russell 2000 Index measures the performance of the 2,000 smallest U.S. companies (based on total market capitalization) included in the Russell 3000 Index (which tracks the 3,000 largest U.S. companies).

[4] Formerly the Lehman Brothers U.S. Aggregate Bond Index, the Barclays Capital U.S. 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, Barclays Global Investors, Frank Russell Company, and Standard & Poor's

FIGURE 8

Percent Change in Total Return Indexes



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

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

[3] Formerly the Lehman Brothers U.S. Aggregate Bond Index, the Barclays Capital U.S. 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, Barclays Global Investors, Frank Russell Company, and Standard & Poor's

Definition of 401(k) 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) 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 over time because the selection of data providers and sample of plans using a given provider vary from year to year and because 401(k) participants join or leave plans.[19] 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.[20, 21] 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.

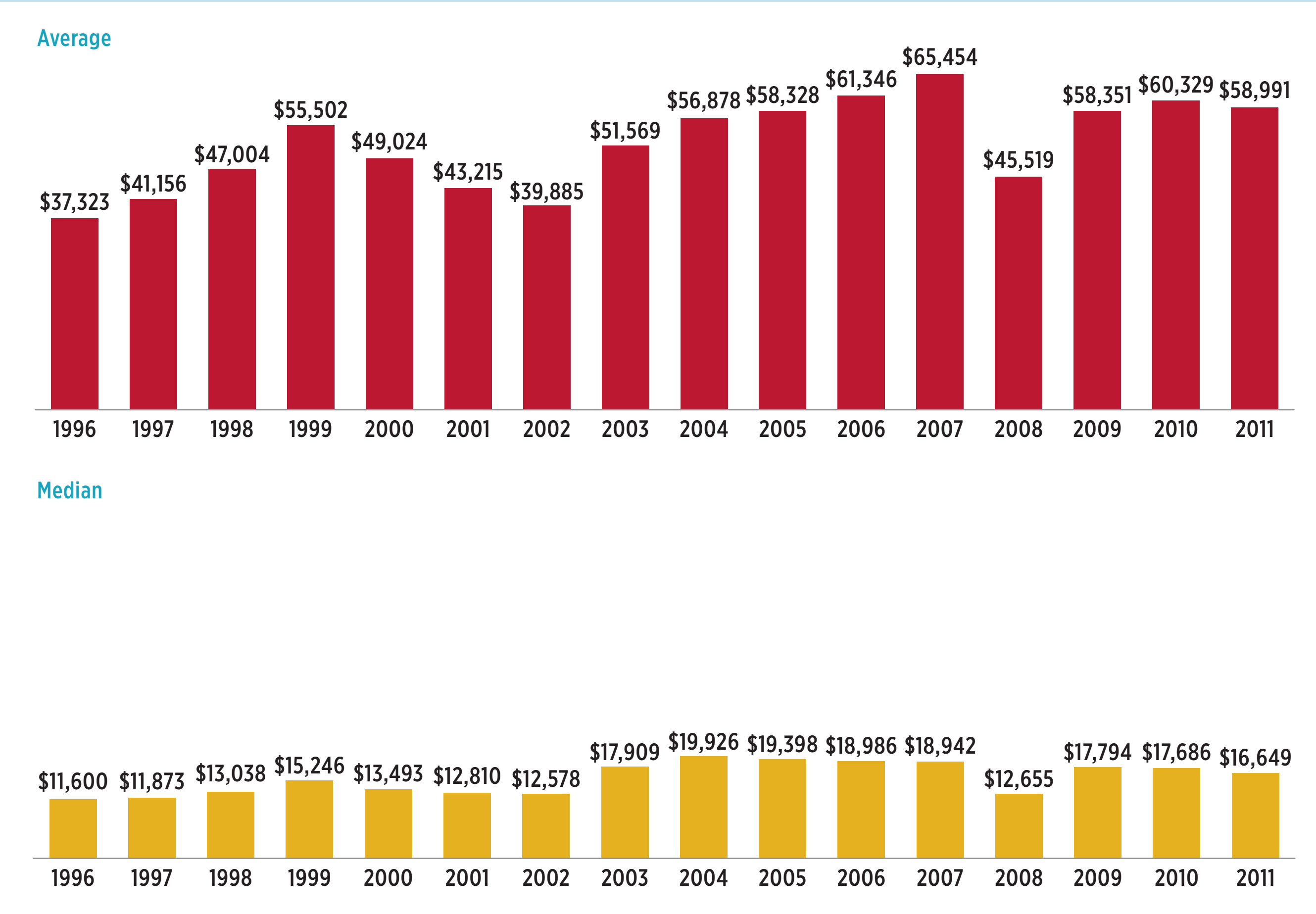
Size of 401(k) Account Balances

At year-end 2011, the average account balance was $58,991 and the median account balance was $16,649 (Figure 9). There is wide variation in 401(k) plan participants' account balances at year-end 2011. Nearly three-quarters of the participants in the 2011 EBRI/ICI 401(k) database had account balances that were lower than $58,991, the size of the average account balance. In fact, 40.5 percent of participants had account balances of less than $10,000, while 16.7 percent of participants had account balances

FIGURE 9

Snapshot of Year-End 401(k) Account Balances

401(k) plan participant account balances,[1] 1996–2011[2]



[1] 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.

[2] The sample of participants changes over time.

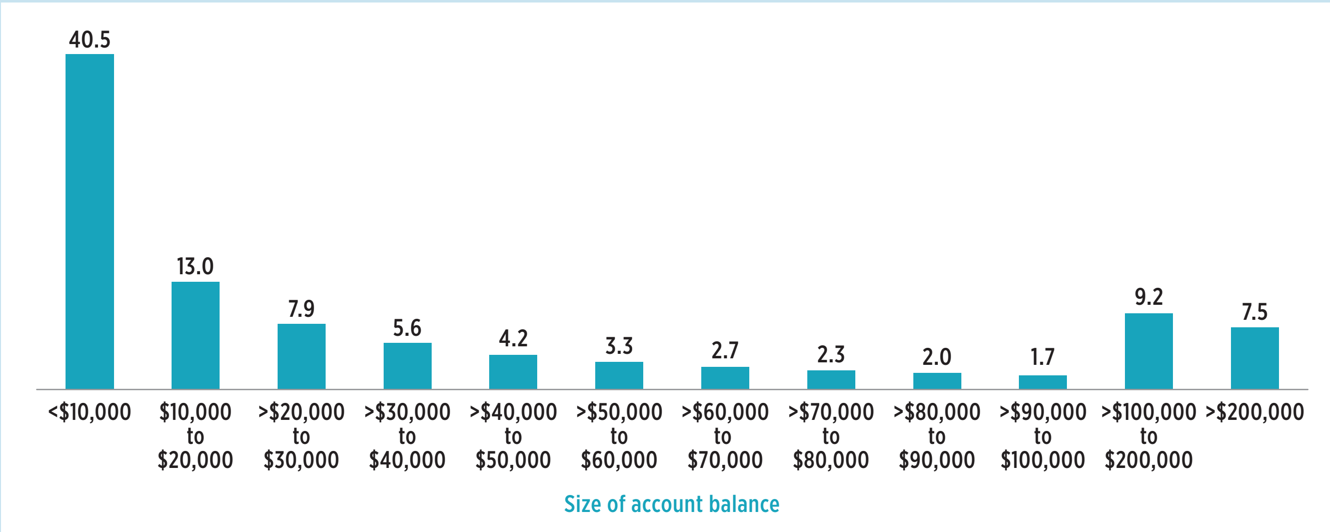
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

greater than $100,000 (Figure 10). 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 research report examines the relationship between account balances and participants' age, tenure, and salary.

FIGURE 10

Distribution of 401(k) Account Balances by Size of Account Balance

Percentage of participants with account balances in specified ranges, 2011



Note: At year-end 2011, the average account balance among all 24.0 million 401(k) plan participants was $58,991; the median account balance was $16,649. Percentages do not add to 100 percent because of rounding.

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

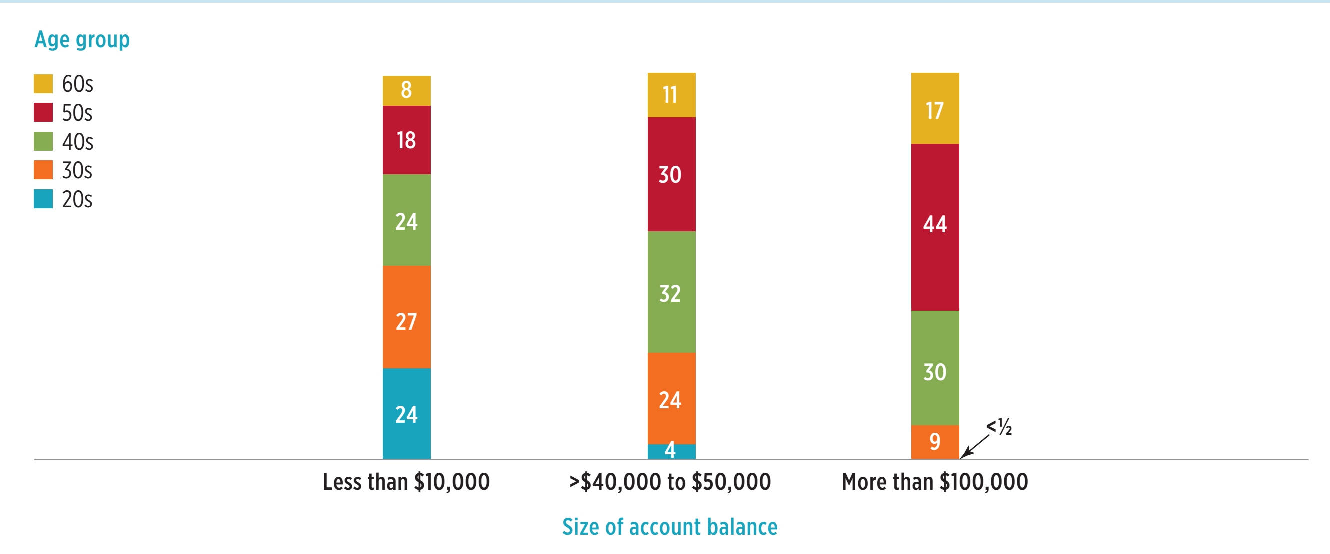
Relationship of Age and Tenure to Account Balances

There is a positive correlation between age and account balance among participants covered by the 2011 database.[22] Examination of the age composition of account balances finds that 51 percent of participants with account balances of less than $10,000 were in their twenties or thirties (Figure 11). 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.

FIGURE 11

Age Composition of Selected 401(k) Account Balance Categories

Percentage of participants with account balances in specified ranges, 2011



Note: Percentages do not add to 100 percent because of rounding.

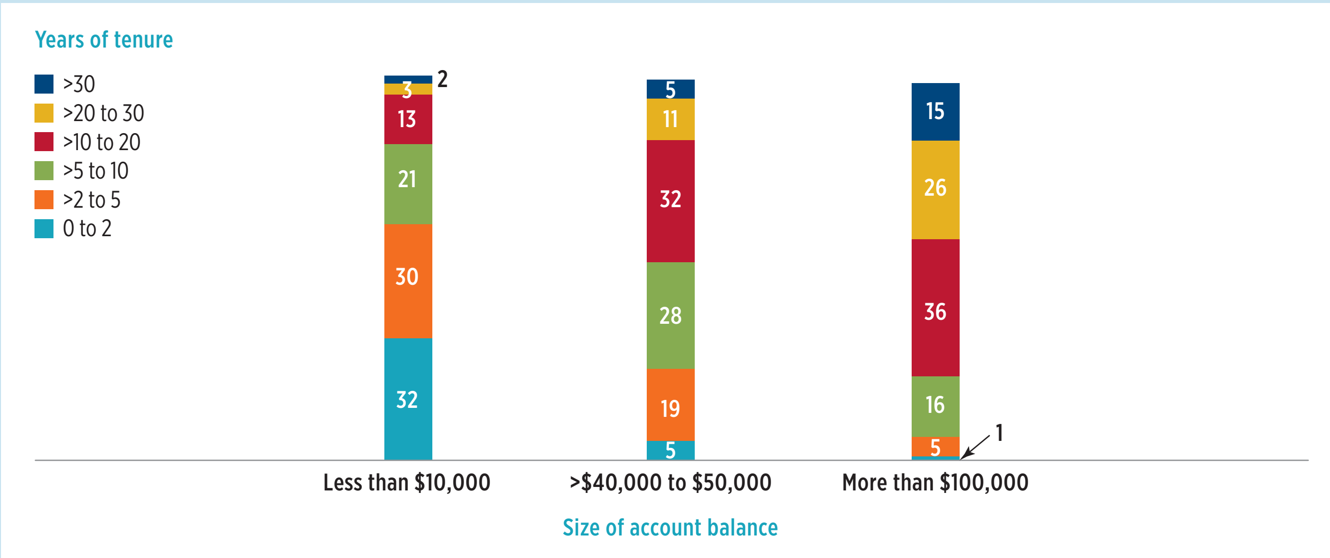
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

There is also a positive correlation between account balance and tenure among participants in the 2011 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.[23] Indeed, 62 percent of participants with account balances of less than $10,000 had five or fewer years of tenure, while 77 percent of participants with account balances greater than $100,000 had more than 10 years of tenure (Figure 12).[24] 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 $25,678, compared with $208,892 for participants in their sixties with more than 30 years of tenure (Figure 13).[25] Similarly, the average account balance of participants in

FIGURE 12

Tenure Composition of Selected 401(k) Account Balance Categories

Percentage of participants with account balances in specified ranges, 2011



Note: Percentages may not add to 100 percent because of rounding. 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 13

401(k) Account Balances Increase with Participant Age and Tenure

Average 401(k) account balance by participant age and tenure, 2011

	Years of tenure					
Age group	0 to 2	>2 to 5	>5 to 10	>10 to 20	>20 to 30	>30
20s	$3,426	$10,024	$15,146			
30s	8,745	20,425	34,450	$52,583		
40s	14,582	29,162	48,899	84,757	$128,158	
50s	20,623	35,496	55,571	97,006	175,962	$200,908
60s	25,678	36,949	53,063	89,568	159,447	208,892

Note: The average account balance among all 24.0 million 401(k) plan participants was $58,991; the median account balance was $16,649. 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

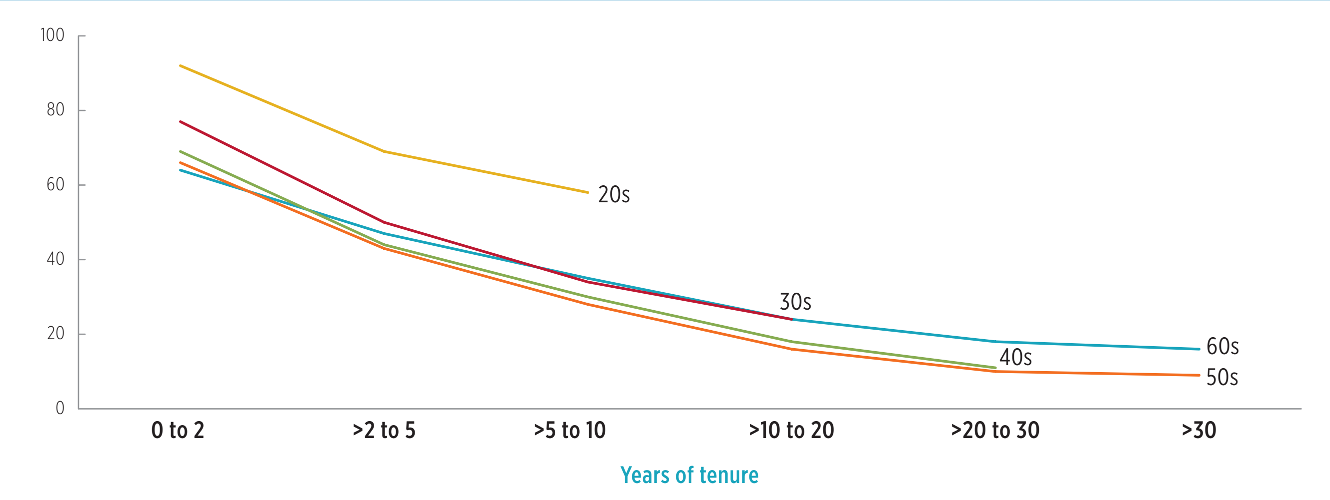
their forties with up to two years of tenure was $14,582, compared with $128,158 for participants in their forties with more than 20 years of tenure.

The distribution of account balances underscores the effects of age and tenure on account balances. In a given age group, shorter tenure tends to mean that a higher percentage of participants will have account balances of less than $10,000. For example, 92 percent of participants in their twenties with two or fewer years of tenure had account balances of less than $10,000 in 2011, compared with 58 percent of participants in their twenties with between five and 10 years of tenure (Figure 14). Older workers display a similar pattern. For example, 64 percent of participants in their sixties with two or fewer years of tenure had account balances of less than $10,000. In contrast, fewer than one-fifth of those in their sixties with more than 20 years of tenure had account balances of less than $10,000.[26]

FIGURE 14

401(k) Account Balances Less Than $10,000 by Participant Age and Tenure

Percentage of participants with account balances less than $10,000 at year-end 2011



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

In a given age group, longer tenure tends to mean that a higher percentage of participants will have account balances greater than $100,000. For example, 16 percent of participants in their sixties with five to 10 years of tenure had account balances in excess of $100,000 in 2011 (Figure 15). However, 44 percent of participants in their sixties with between 20 and 30 years of tenure with their current employer had account balances greater than $100,000. The percentage increases to 50 percent for participants in their sixties with more than 30 years of tenure.

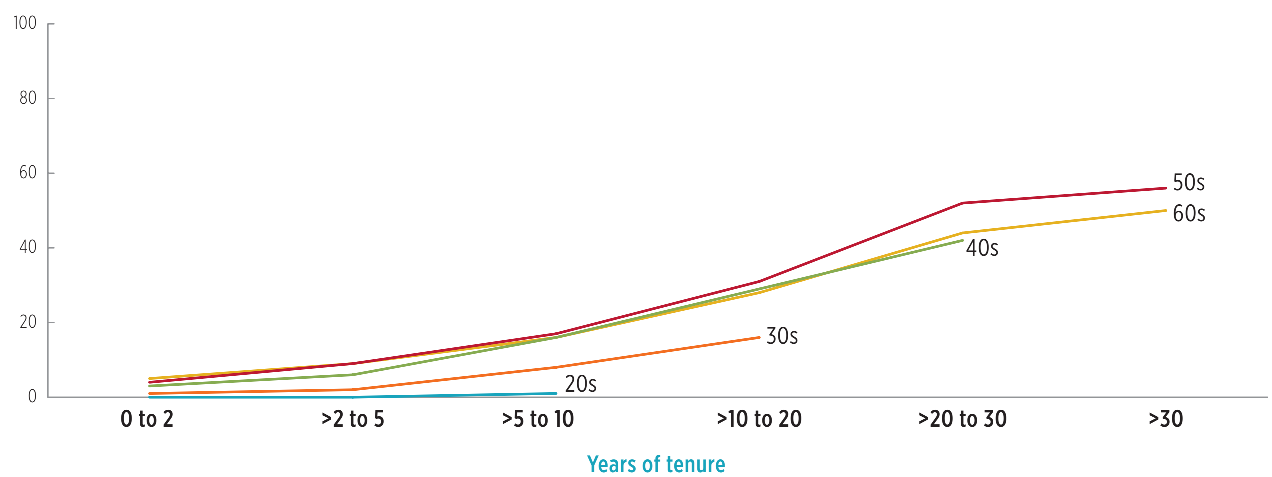
Relationship Between Account Balances and Salary

Participants' account balances vary not only with age and tenure, but also with salary. Figure 16 reports the account balances of longer-tenured participants at their current employers' 401(k) plans. Retirement savings held at previous employers or amounts rolled over to IRAs are not included in the analysis. To capture as long a savings history as possible, only longer-tenured participants are included in this analysis. However, it is important to note that the tenure variable is the time that individuals have been with their current employers and may not reflect the length of time they have participated in a 401(k) plan (particularly among older participants since 401(k) plans were introduced only about 31 years ago).[27]

FIGURE 15

401(k) Account Balances Greater Than $100,000 by Participant Age and Tenure

Percentage of participants with account balances greater than $100,000 at year-end 2011



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

Older, longer-tenured, and higher-income participants tend to have larger account balances, which are important for meeting their income-replacement needs in retirement.[28] For longer-tenured participants in their twenties with salaries between $20,000 and $40,000, the median account balance was $6,020 in 2011 (Figure 16). Longer-tenured participants in their twenties earning $80,000 to $100,000 had a median account balance of $42,763, while those earning more than $100,000 had a median account balance of $35,963. Among longer-tenured participants in their sixties with $20,000 to $40,000 in salary in 2011, the median account balance was $48,643. For longer-tenured participants in their sixties earning more than $100,000, the median account balance was $292,591.

FIGURE 16

Median 401(k) Account Balance[1] Among Longer-Tenured[2] Participants by Age and Salary, 2011

	Participant age group				
Salary range	**20s**	**30s**	**40s**	**50s**	**60s**
$20,000 to $40,000	$6,020	$14,956	$39,062	$54,067	$48,643
>$40,000 to $60,000	13,062	28,854	61,932	88,243	81,923
>$60,000 to $80,000	26,598	50,313	105,389	142,629	137,117
>$80,000 to $100,000	42,763	79,963	156,990	203,917	199,368
>$100,000	35,963	104,349	240,603	300,150	292,591

[1] Account balances are based on administrative records and cover the account balance at the 401(k) plan participant's current employer. Retirement savings held in plans at previous employers or rolled over into IRAs are not included. Account balances are net of loan balances.

[2] Longer-tenured participants are used in this analysis to capture the longest possible work and savings history (see note 1). The tenure variable tends to be years with the current employer rather than years of participation in the 401(k) plan. Particularly among older participants, job tenure may not reflect length of participation in the 401(k) plan; the regulations for 401(k) plans were introduced about 31 years ago.

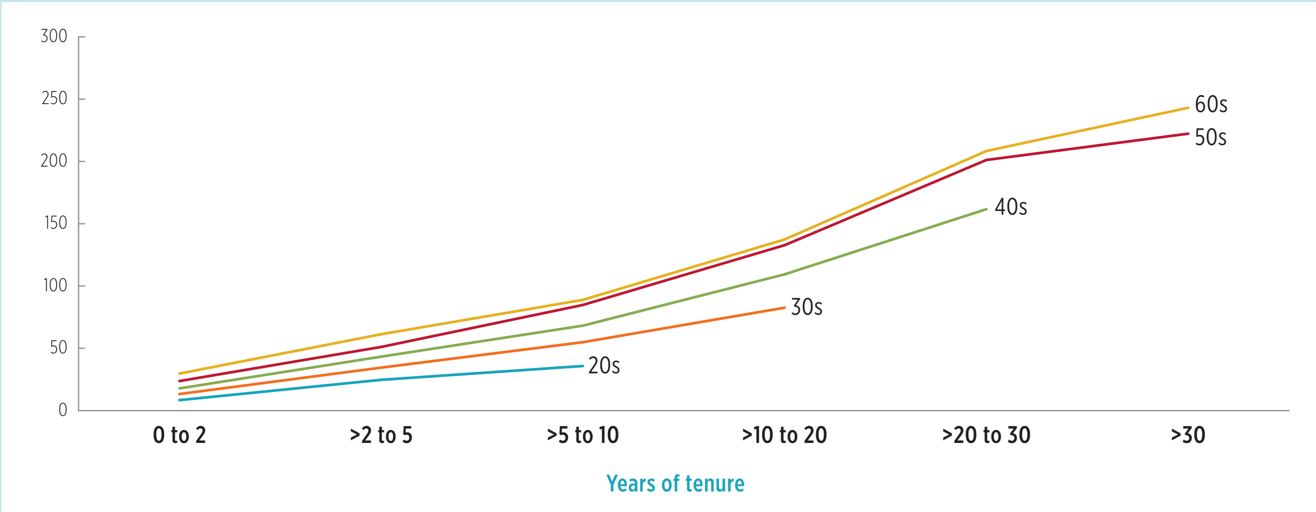
Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

The ratio of participant account balance to salary is positively correlated with age and tenure.[29] Participants in their sixties—having had more time to accumulate assets—tended to have higher ratios, while those in their twenties had the lowest ratios (Figure 17). In addition, for any given age and tenure combination, the ratio of account balance to salary varies somewhat with salary. For example, among participants in their twenties, the ratio tends to

FIGURE 17

Ratio of 401(k) Account Balance to Salary by Participant Age and Tenure

Percent, 2011



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

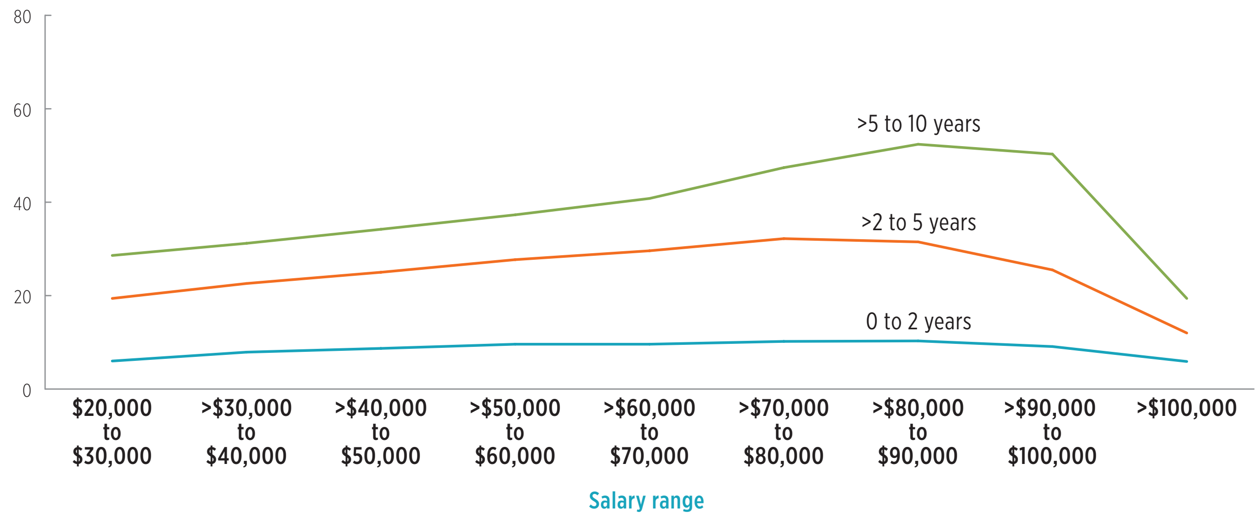
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

increase slightly with salary for low-to-moderate salary groups (Figure 18). However, at high salary levels the ratio tends to decline somewhat. A similar pattern occurs among participants in their sixties (Figure 19).[30]

FIGURE 18

Ratio of 401(k) Account Balance to Salary for Participants in Their Twenties by Tenure

Percent, 2011

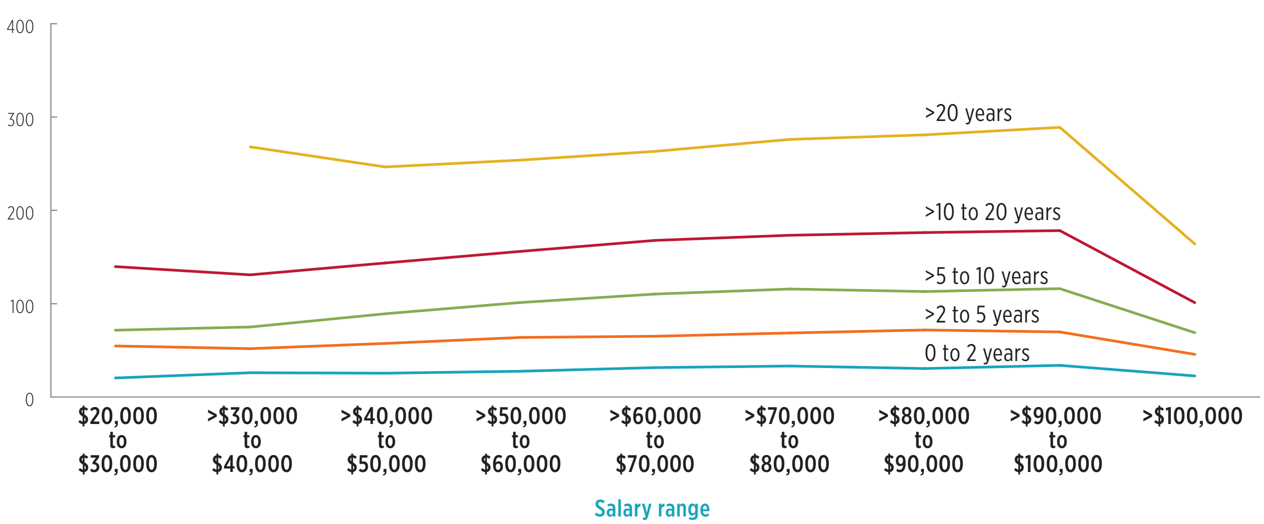


Note: The tenure variable is generally years working at current employer, and thus may overstate years of participation in the 401(k) plan.
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

FIGURE 19

Ratio of 401(k) Account Balance to Salary for Participants in Their Sixties by Tenure

Percent, 2011



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 2011 Snapshot of 401(k) Participants' Asset Allocation

At year-end 2011, 39 percent of 401(k) plan participants' account balances was invested in equity funds, on average, compared with 42 percent at year-end 2010, 41 percent at year-end 2009, 37 percent at year-end 2008, 48 percent at year-end 2007, and 40 percent at year-end 2002 (Figure 20). Altogether, equity securities—equity funds, the equity portion of balanced funds,[31] and company stock—represented 61 percent of 401(k) plan participants' assets at year-end 2011.

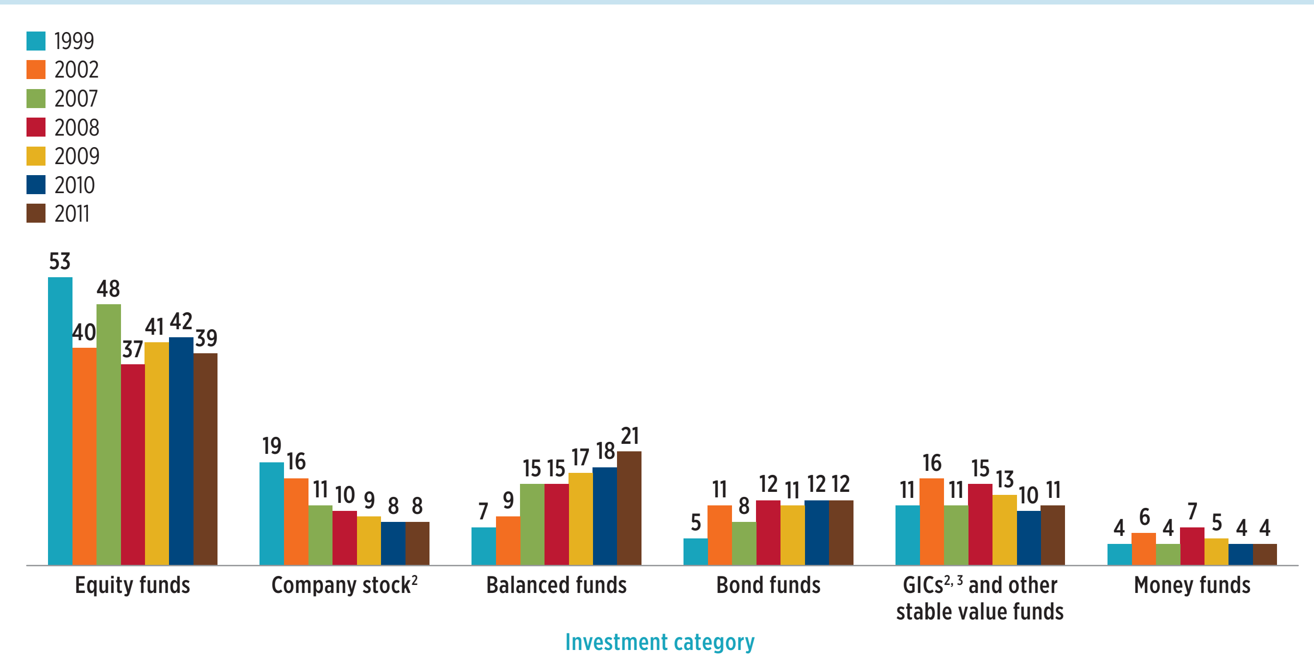
Changes in Asset Allocation Between Year-End 2010 and Year-End 2011

Investment performance likely explains much of the fluctuation in 401(k) participants' asset allocations over time. Much of the movement in the largest component, equity funds, tends to reflect overall equity market prices, which generally rose from 1997 through 1999, before falling through 2002, rising again from 2003 through 2007, then dropping in 2008, and rising from 2009 through 2010, before moderating in 2011 (Figures 8 and 20). At year-end 2011, equity funds were 39 percent of the assets in the EBRI/ICI 401(k) database, compared with a 42 percent share at year-end 2010. Balanced funds, which invest in equities and fixed-income securities, increased in share, accounting for 21 percent of the assets in the database at year-end 2011. Despite these changes in shares of balanced and equity funds, most 401(k) participants appeared not to have made dramatic shifts in their asset allocations in 2011.[32]

FIGURE 20

401(k) Plan Assets Are Concentrated in Equities

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



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

[2] Not all participants are offered this investment option (see Figure 22).

[3] GICs 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 2011 shows that participants' asset allocation varied considerably with age.[33] Younger participants tended to favor 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 21). For example, among participants in their twenties, the average allocation to equity and balanced funds was 75 percent of assets, compared with 50 percent of assets among participants in their sixties. Among participants in their twenties, the average allocation to equity funds was 33 percent of assets, compared with 32 percent of assets among participants in their sixties. Younger participants had much higher allocations to balanced funds, particularly 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 over time.[34] At year-end 2011, 13 percent of 401(k) assets in the database was invested in target date funds. Among participants in their twenties, 31 percent of their 401(k) assets was invested in target date funds; among participants in their sixties, 11 percent of their 401(k) assets was invested in target date funds.

FIGURE 21

Average Asset Allocation of 401(k) Accounts by Participant Age

Percentage of account balances,[1] 2011

Age group	Equity funds	Target date funds[2]	Non–target date balanced funds	Bond funds	Money funds	GICs[3, 4] and other stable value funds	Company stock[4]	Other	Unknown	Total[1]
20s	32.8	31.3	11.2	7.4	2.3	3.9	6.4	1.9	2.8	100
30s	43.8	19.4	7.9	9.0	3.0	4.9	7.0	2.5	2.6	100
40s	45.5	13.8	7.0	10.0	3.5	6.8	8.2	3.0	2.2	100
50s	37.9	11.9	7.1	12.5	4.5	11.6	9.1	3.4	2.0	100
60s	31.8	11.0	6.8	15.0	6.1	17.0	7.3	3.1	2.0	100
All	39.2	13.3	7.2	11.9	4.4	10.8	8.2	3.1	1.9	100

[1] Row percentages may not add to 100 percent because of rounding. Percentages are dollar-weighted averages.

[2] 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.

[3] GICs are guaranteed investment contracts.

[4] Not all participants are offered this investment option (see Figure 22).

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 significantly affect how participants allocate their 401(k) assets. Figure 22 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 do not offer company stock, GICs, or other stable value funds. Thirty-five percent of participants in the 2011

FIGURE 22

Distribution of 401(k) Plans, Participants, and Assets by Investment Options, 2011

Investment options offered by plan	Plans	Participants	Assets[1]
Equity, bond, money, and/or balanced funds	**40,918**	**8,300,549**	**393,851,429,251**
Of which: target date funds[2] an option	29,371	6,454,624	303,591,429,002
Equity, bond, money, and/or balanced funds; and GICs[3] and/or other stable value funds	**21,768**	**6,524,313**	**343,171,066,072**
Of which: target date funds[2] an option	15,839	4,171,464	221,733,496,098
Equity, bond, money, and/or balanced funds; and company stock	**565**	**3,332,778**	**207,379,938,703**
Of which: target date funds[2] an option	465	2,657,116	150,996,996,797
Equity, bond, money, and/or balanced funds; company stock; and GICs[3] and/or other stable value funds	**890**	**5,825,758**	**470,393,829,973**
Of which: target date funds[2] an option	650	3,044,827	261,284,457,135
All	**64,141**	**23,983,398**	**1,414,796,263,998**
Of which: target date funds[2] an option	46,325	16,328,031	937,606,379,032

Investment options offered by plan	Percentage of plans	Percentage of participants	Percentage of assets[1]
Equity, bond, money, and/or balanced funds	**63.8%**	**34.6%**	**27.8%**
Of which: target date funds[2] an option	45.8	26.9	21.5
Equity, bond, money, and/or balanced funds; and GICs[3] and/or other stable value funds	**33.9**	**27.2**	**24.3**
Of which: target date funds[2] an option	24.7	17.4	15.7
Equity, bond, money, and/or balanced funds; and company stock	**0.9**	**13.9**	**14.7**
Of which: target date funds[2] an option	0.7	11.1	10.7
Equity, bond, money, and/or balanced funds; company stock; and GICs[3] and/or other stable value funds	**1.4**	**24.3**	**33.2**
Of which: target date funds[2] an option	1.0	12.7	18.5
All	**100.0**	**100.0**	**100.0**
Of which: target date funds[2] an option	72.2	68.1	66.3

[1] Components may not add to the total because of rounding.

[2] 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.

[3] GICs 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

database were in these plans, which generally offer equity funds, bond funds, money funds, and balanced funds as investment options. Another 27 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, 14 percent of participants were in plans that offer company stock but no stable value products, while the remaining 24 percent of participants were offered both company stock and stable value products, in addition to the base options.

Target date funds were available in 72 percent of the 401(k) plans in the year-end 2011 database (Figure 22).[35] These plans offered target date funds to 68 percent of the participants in the database.[36] Among participants who were offered target date funds, 58 percent held them at year-end 2011. Target date fund assets represented 20 percent of the assets of plans offering such funds in their investment lineups.

Asset Allocation by Investment Options and Age, Salary, and Plan Size

As discussed above, asset allocation varies with participant age. Thus, Figure 23 presents an analysis of asset allocation by investment options and also by participants' age. Salary information is available for a subset of participants in the 2011 EBRI/ICI 401(k) database. Because asset allocation is influenced by the investment options available to participants, Figure 24 presents asset allocation by salary range and by investment options. Participant asset allocation also varies with plan size (Figure 25, top panel), but much of the variation can be explained by differences in the investment options offered by plan sponsors. For example, the percentage of plan assets invested in company stock rises with plan size, in part, because few small plans offered company stock as an investment option. For example, fewer than 1 percent of participants in small plans (100 participants or fewer) were offered company stock as an investment option, while 58 percent of participants in plans with more than 5,000 participants were offered company stock as an investment option in 2011. Thus, to analyze the potential effect of plan size, the remaining panels of Figure 25 group plans by investment options and plan size.

FIGURE 23

Average Asset Allocation of 401(k) Accounts by Participant Age and Investment Options

Percentage of account balances,[1] 2011

	Equity funds	Target date funds[2]	Non–target date balanced funds	Bond funds	Money funds	GICs[3] and other stable value funds	Company stock
All ages combined							
Investment options							
Equity, bond, money, and/or balanced funds	45.6	18.0	6.5	17.8	6.7		
Equity, bond, money, and/or balanced funds; and GICs[3] and/or other stable value funds	41.1	14.0	8.9	9.9	2.6	18.4	
Equity, bond, money, and/or balanced funds; and company stock	32.4	16.1	4.2	13.6	8.7		19.7
Equity, bond, money, and/or balanced funds; company stock; and GICs[3] and/or other stable value funds	35.7	7.6	7.8	7.9	2.0	19.0	16.0
Plans without company stock, GICs,[3] or other stable value funds							
Age group							
20s	35.8	38.7	7.4	9.5	3.5		
30s	48.1	24.0	6.3	12.1	4.4		
40s	51.0	17.9	6.2	14.2	5.2		
50s	44.9	16.9	6.7	18.6	7.0		
60s	38.5	15.4	6.6	23.8	9.4		
Plans with GICs[3] and/or other stable value funds							
20s	35.1	27.9	14.2	8.1	1.4	7.4	
30s	44.8	20.0	10.1	7.9	1.9	9.4	
40s	47.5	14.5	8.6	8.5	2.2	12.4	
50s	40.2	12.8	8.6	10.4	2.6	19.2	
60s	32.7	11.4	8.2	11.5	3.1	27.4	
Plans with company stock							
20s	27.3	41.7	5.2	6.7	2.9		12.0
30s	38.4	22.6	4.4	9.5	4.4		15.4
40s	38.5	17.2	4.0	11.0	5.5		18.9
50s	30.3	14.2	4.6	14.7	8.9		21.5
60s	25.0	12.6	3.9	18.4	14.7		20.5

Continued on the next page

FIGURE 23 CONTINUED

Average Asset Allocation of 401(k) Accounts by Participant Age and Investment Options

Percentage of account balances,[1] 2011

	Equity funds	Target date funds[2]	Non–target date balanced funds	Bond funds	Money funds	GICs[3] and other stable value funds	Company stock
Plans with company stock and GICs[3] and/or other stable value funds							
20s	30.4	20.8	15.8	4.9	1.4	7.1	16.0
30s	41.5	12.3	9.7	6.5	1.7	8.7	15.4
40s	42.5	8.1	7.9	7.0	1.8	12.0	16.3
50s	34.3	6.6	7.4	8.5	2.2	19.8	16.7
60s	27.7	6.1	7.1	8.7	2.4	30.0	14.4

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

[2] 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.

[3] GICs 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 24

Average Asset Allocation of 401(k) Accounts by Participant Salary and Investment Options

Percentage of account balances,[1] 2011

Salary[2]	Equity funds	Target date funds[3]	Non–target date balanced funds	Bond funds	Money funds	GICs[4] and other stable value funds	Company stock
Plans without company stock, GICs,[4] or other stable value funds							
$20,000 to $40,000	40.4	26.4	7.1	13.6	6.3		
>$40,000 to $60,000	42.5	22.2	7.8	15.4	7.1		
>$60,000 to $80,000	45.5	20.0	7.4	15.2	6.4		
>$80,000 to $100,000	47.8	18.4	6.4	16.1	5.9		
>$100,000	49.2	14.9	6.6	17.3	5.6		
All	45.6	18.0	6.5	17.8	6.7		
Plans with GICs[4] and/or other stable value funds							
$20,000 to $40,000	31.7	18.1	12.6	9.6	2.1	20.1	
>$40,000 to $60,000	34.8	13.5	14.2	9.3	2.4	18.9	
>$60,000 to $80,000	38.7	10.6	13.8	9.6	2.5	17.9	
>$80,000 to $100,000	42.3	9.4	11.7	10.4	2.4	17.0	
>$100,000	44.6	9.0	10.3	11.6	2.3	15.7	
All	41.1	14.0	8.9	9.9	2.6	18.4	
Plans with company stock							
$20,000 to $40,000	25.7	17.7	3.9	12.8	15.6		19.4
>$40,000 to $60,000	32.9	12.8	2.8	12.8	11.3		22.5
>$60,000 to $80,000	31.3	14.4	4.4	13.7	8.4		21.7
>$80,000 to $100,000	33.9	11.1	5.5	13.0	7.5		21.8
>$100,000	33.7	10.9	4.8	15.8	5.8		21.7
All	32.4	16.1	4.2	13.6	8.7		19.7
Plans with company stock and GICs[4] and/or other stable value funds							
$20,000 to $40,000	29.9	8.0	11.2	6.2	1.5	20.2	20.9
>$40,000 to $60,000	32.0	7.0	11.4	7.1	1.9	20.1	18.4
>$60,000 to $80,000	33.1	7.0	10.0	7.1	1.8	20.8	17.5
>$80,000 to $100,000	36.2	6.1	10.2	7.9	1.7	18.4	16.3
>$100,000	39.6	6.2	8.0	8.0	1.4	17.6	13.9
All	35.7	7.6	7.8	7.9	2.0	19.0	16.0

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

[2] Salary information is available for a subset of participants in the EBRI/ICI 401(k) database.

[3] 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.

[4] GICs 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 25

Average Asset Allocation of 401(k) Accounts by Plan Size and Investment Options

Percentage of account balances,[1] 2011

Plan size by number of participants	Equity funds	Target date funds[2]	Non–target date balanced funds	Bond funds	Money funds	GICs[3] and other stable value funds	Company stock
All plans							
1 to 100	42.4	18.2	5.3	15.4	7.1	5.6	0.1
101 to 500	43.2	18.5	5.5	15.2	5.7	6.7	0.5
501 to 1,000	42.2	17.5	6.2	14.2	5.4	7.4	2.2
1,001 to 5,000	41.2	16.7	6.1	12.8	4.4	8.8	4.5
>5,000	37.6	10.6	8.0	10.7	3.9	12.8	11.7
All	39.2	13.3	7.2	11.9	4.4	10.8	8.2
Plans without company stock, GICs,[3] or other stable value funds							
1 to 100	41.8	20.4	4.0	18.6	8.0		
101 to 500	44.3	20.8	5.0	18.6	7.4		
501 to 1,000	43.9	19.9	5.9	18.2	7.5		
1,001 to 5,000	45.5	19.0	6.9	17.3	6.1		
>5,000	48.8	13.7	8.2	17.5	5.8		
All	45.6	18.0	6.5	17.8	6.7		
Plans with GICs[3] and/or other stable value funds							
1 to 100	43.9	13.8	7.9	9.1	5.1	16.4	
101 to 500	42.9	14.3	6.2	9.9	2.8	18.2	
501 to 1,000	42.9	14.5	6.9	9.6	2.5	18.2	
1,001 to 5,000	40.5	16.5	6.2	9.1	2.1	19.2	
>5,000	40.1	12.2	11.3	10.4	2.3	18.2	
All	41.1	14.0	8.9	9.9	2.6	18.4	
Plans with company stock							
1 to 100[4]	33.1	15.7	4.3	12.2	13.2		13.7
101 to 500	34.2	17.8	5.5	14.6	8.6		12.7
501 to 1,000	35.3	15.8	4.0	15.5	7.4		18.6
1,001 to 5,000	37.1	13.7	4.5	14.4	6.3		18.1
>5,000	31.0	16.7	4.2	13.3	9.4		20.3
All	32.4	16.1	4.2	13.6	8.7		19.7

Continued on the next page

FIGURE 25 CONTINUED

Average Asset Allocation of 401(k) Accounts by Plan Size and Investment Options

Percentage of account balances,[1] 2011

Plan size by number of participants	Equity funds	Target date funds[2]	Non–target date balanced funds	Bond funds	Money funds	GICs[3] and other stable value funds	Company stock
Plans with company stock and GICs[3] and/or other stable value funds							
1 to 100	32.1	16.7	7.4	9.2	5.3	15.0	7.5
101 to 500	32.7	17.6	7.9	8.5	3.2	16.0	7.1
501 to 1,000	34.1	15.3	6.1	7.4	2.4	14.7	14.2
1,001 to 5,000	35.1	14.0	5.6	7.4	3.2	16.4	12.0
>5,000	35.8	6.6	8.1	7.9	1.9	19.3	16.5
All	35.7	7.6	7.8	7.9	2.0	19.0	16.0

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

[2] 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.

[3] GICs are guaranteed investment contracts.

[4] Because few plans fall into this category, these percentages may be heavily influenced by a few outliers.

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

Distribution of Equity Fund Allocations and Participant Exposure to Equities

Participants in 401(k) plans may hold equities through a variety of options including equity funds, company stock, and balanced funds. This section focuses first on the investing pattern of 401(k) plan participants with respect to equity funds. The asset allocation of participants without equity funds is explored next, because 401(k) participants holding no equity funds can hold equities in the form of company stock or through balanced funds. Finally, the overall investment in equities across all 401(k) plan participants is presented.

Asset Allocation to Equity Funds

The year-end 2011 EBRI/ICI 401(k) database shows that, on average, 39 percent of participant account balances was allocated to equity funds (Figure 21), which is one way to hold equities. However, individual asset allocations varied widely across participants. For example, about 49 percent of participants held no equity funds, while 15 percent of participants held more than 80 percent of their balances in equity funds (Figures 26 and 27). Furthermore, the percentage of participants holding no equity funds varied with age, with 67 percent of participants in their twenties, 44 percent of participants in their forties, and 50 percent

FIGURE 26

Asset Allocation Distribution of 401(k) Participant Account Balance to Equity Funds by Participant Age

Percentage of participants,[1, 2] 2011

	Percentage of account balance invested in equity funds										
Age group	**Zero**	**1 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	67.1	2.3	1.8	2.3	2.3	2.8	3.3	3.1	3.4	3.2	8.3
30s	50.4	3.1	2.9	3.6	3.7	4.6	5.2	5.0	5.5	4.7	11.3
40s	44.0	3.6	3.2	4.1	4.3	5.3	6.0	5.7	6.1	4.8	12.9
50s	44.6	4.6	3.9	4.7	4.9	6.0	6.1	5.6	5.2	3.5	11.0
60s	50.0	5.0	4.1	4.8	4.8	5.5	5.4	4.2	3.7	2.4	10.1
All	49.4	3.7	3.2	4.0	4.1	5.0	5.4	5.0	5.1	3.9	11.1

[1] The analysis includes the 24.0 million participants in the year-end 2011 EBRI/ICI 401(k) database.

[2] Row percentages may not add to 100 percent because of rounding.

Note: "Equity funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in equities. In addition, 401(k) participants may hold equities through balanced funds or company stock—see Figure 30 for the distribution of 401(k) account balances to equities.

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

of participants in their sixties holding no equity funds. The percentage of 401(k) participants holding no equity funds also varied with tenure—participants with five or fewer years of tenure were more likely not to be invested in equity funds. The percentage of participants holding no equity funds tends to fall as salary increases (Figure 27).

FIGURE 27

Asset Allocation Distribution of 401(k) Participant Account Balance to Equity Funds by Participant Age, Tenure, or Salary

Percentage of participants, 2011

	Percentage of account balance invested in equity funds			
	Zero	**1 to 20 percent**	**>20 to 80 percent**	**>80 percent**
All	49.4	6.9	28.6	15.0
Age group				
20s	67.1	4.2	17.2	11.5
30s	50.4	6.0	27.6	16.0
40s	44.0	6.9	31.5	17.6
50s	44.6	8.5	32.4	14.5
60s	50.0	9.0	28.4	12.5
Years of tenure				
0 to 2	66.3	3.6	18.4	11.8
>2 to 5	56.7	5.4	24.0	13.9
>5 to 10	46.8	6.9	30.9	15.5
>10 to 20	37.8	8.9	35.7	17.5
>20 to 30	35.9	11.4	36.5	16.3
>30	40.6	12.7	33.3	13.4
Salary				
$20,000 to $40,000	60.2	6.6	23.5	9.8
>$40,000 to $60,000	47.7	9.1	31.3	11.9
>$60,000 to $80,000	40.9	10.4	35.3	13.4
>$80,000 to $100,000	34.9	11.2	39.2	14.8
>$100,000	27.9	12.7	43.8	15.6

Note: Row percentages may not add to 100 percent because of rounding. "Equity funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in equities. 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

Asset Allocation of 401(k) Plan Participants Without Equity Funds

Participants with no equity fund balances may still have exposure to the stock market through company stock or balanced funds, which include target date funds. Indeed, 78 percent of 401(k) participants with no equity fund allocation had investments in either company stock or balanced funds at year-end 2011 (Figure 28). For example, 86 percent of participants in their twenties without equity funds held equities through company stock, balanced funds, or both. Indeed, 58 percent of participants in their twenties without equity funds held target date funds—which tend to be highly concentrated in equity securities for that age group—as their only equity investment. Another 11 percent of participants in their twenties without equity funds had

FIGURE 28

Percentage of 401(k) Participants Without Equity Fund Balances Who Have Equity Exposure by Participant Age or Tenure, 2011

	Percentage of participants without equity funds				
	Company stock and/or balanced funds	**Target date funds* as only equity investment**	**Non–target date balanced funds as only equity investment**	**Company stock as only equity investment**	**Combination of company stock and/or target date funds* and/or non–target date balanced funds**
Age group					
20s	**85.9**	57.8	11.2	2.1	14.8
30s	**82.6**	52.2	7.5	3.6	19.2
40s	**78.7**	46.4	6.3	5.7	20.3
50s	**74.4**	40.6	4.7	7.8	21.3
60s	**67.6**	35.0	4.7	8.7	19.3
All	**78.2**	46.6	6.9	5.5	19.1
Years of tenure					
0 to 2	**85.6**	60.5	13.1	2.0	10.1
>2 to 5	**82.6**	53.1	11.1	3.1	15.2
>5 to 10	**76.7**	40.7	5.5	4.9	25.6
>10 to 20	**72.0**	31.5	3.4	11.0	26.0
>20 to 30	**65.7**	23.7	4.2	15.1	22.8
>30	**60.3**	18.7	7.0	20.0	14.6
All	**78.2**	46.6	6.9	5.5	19.1

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

Note: Row components may not add to total in first column because of rounding. "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

equity exposure through non–target date balanced funds, and another 2 percent held company stock as their only equity investment. Fifteen percent held some combination of target date funds, non–target date balanced funds, or company stock as their equity investment. As a result, many participants with no equity funds had exposure to equity-related investments through company stock or balanced funds or both (Figure 29).

FIGURE 29

Average Asset Allocation for 401(k) Plan Participants Without Equity Fund Balances by Participant Age or Tenure

Percentage of account balances, 2011

	Target date funds[1]	Non–target date balanced funds	Bond funds	Money funds	GICs[2] and other stable value funds	Company stock	Other	Unknown	Total[3]
Age group									
20s	58.8	17.5	5.0	3.0	4.7	6.2	1.9	2.3	100
30s	51.5	14.4	7.1	5.3	7.9	7.9	3.1	2.4	100
40s	40.7	12.1	9.5	7.0	12.5	10.8	5.1	2.0	100
50s	29.4	10.3	12.0	8.8	20.2	12.0	5.2	2.0	100
60s	22.4	8.6	14.7	11.2	27.6	9.4	4.1	1.8	100
All[4]	32.8	10.9	11.5	8.6	19.0	10.4	4.5	2.2	100
Years of tenure									
0 to 2	58.9	11.5	10.1	3.9	7.2	3.6	3.8	1.4	100
>2 to 5	52.0	13.8	10.5	5.6	7.9	5.6	3.5	2.2	100
>5 to 10	41.7	13.1	10.4	7.8	13.3	7.3	3.4	2.6	100
>10 to 20	32.8	10.9	11.2	8.7	17.5	10.9	4.8	2.6	100
>20 to 30	22.9	10.1	11.7	9.1	23.8	13.8	6.2	2.0	100
>30	14.9	8.9	12.3	12.1	30.7	14.5	4.7	1.8	100
All[4]	32.8	10.9	11.5	8.6	19.0	10.4	4.5	2.2	100

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

[2] GICs are guaranteed investment contracts.

[3] Row percentages may not add to 100 percent because of rounding. Percentages are dollar-weighted averages.

[4] The analysis includes the 11.8 million participants with no equity funds at year-end 2011.

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

Asset Allocation to Equities

Among individual participants, the allocation of account balances to equities (equity funds, company stock, and the equity portion of balanced funds[37]) varies widely around the average of 61 percent for all participants in the 2011 database. Forty-one percent of participants had more than 80 percent of their account balances invested in equities, while 11 percent held no equities at all at the end of 2011 (Figure 30).

Distribution of Participants' Balanced Fund Allocations by Age

Individual 401(k) participants' asset allocation to balanced funds varied widely around an average of 21 percent at year-end 2011 (Figure 20). For example, 44 percent of participants held no balanced funds, while 31 percent of participants held more than 80 percent of their accounts in balanced funds at the end of 2011 (Figure 31). At year-end 2011, 56 percent of 401(k) participants held balanced funds, up from the 53 percent of participants holding balanced funds at year-end 2010.[38] At year-end 2011, balanced fund use by participants occurred through target date funds and non–target date balanced funds: 39 percent of 401(k) participants held target date funds, 20 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 more likely to hold target date funds than older participants. At year-end 2011, 51 percent of participants in their twenties held target date funds, compared with 32 percent of participants in their sixties (Figure 31). Recently hired participants were more likely to hold target date funds than those with more years on the job: at year-end 2011, 51 percent of participants with two or fewer years of tenure held target date funds, compared with 37 percent of participants with more than five to 10 years of tenure, and 22 percent of participants with more than 30 years of tenure (Figure 32).

FIGURE 30

Asset Allocation to Equities Varied Widely Among 401(k) Plan Participants

Asset allocation distribution of 401(k) participant account balance to equities[1] by age; percentage of participants,[2, 3] 2011

	Percentage of account balance invested in equities[1]					
Age group	**Zero**	**1 to 20 percent**	**>20 to 40 percent**	**>40 to 60 percent**	**>60 to 80 percent**	**>80 percent**
20s	9.4	1.5	2.3	5.3	19.6	61.9
30s	8.8	2.8	3.7	7.7	20.4	56.6
40s	9.4	4.0	4.8	9.2	31.3	41.3
50s	11.4	6.2	7.0	20.2	30.5	24.7
60s	16.2	8.3	13.3	25.1	16.5	20.6
All[2]	10.8	4.5	6.0	12.8	25.4	40.6

[1] Equities 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.

[2] Participants include the 24.0 million 401(k) plan participants in the year-end 2011 EBRI/ICI 401(k) database.

[3] Row percentages may not add to 100 percent because of rounding.

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

FIGURE 31

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

Percentage of participants,[1, 2] 2011

Age group	Percentage of account balance invested in balanced funds										
	Zero	1 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	30.8	2.8	2.6	2.5	1.7	1.9	2.9	1.6	1.5	1.4	50.3
30s	39.6	5.1	4.5	4.1	2.7	2.4	2.6	1.8	1.9	2.1	33.2
40s	45.0	6.2	5.0	4.7	3.0	2.5	2.6	1.7	1.8	1.9	25.6
50s	47.6	6.6	5.0	4.8	3.1	2.6	2.6	1.7	1.7	1.8	22.5
60s	51.3	6.1	4.2	4.2	2.8	2.4	2.4	1.5	1.6	1.7	21.7
All	43.6	5.6	4.5	4.2	2.7	2.4	2.6	1.7	1.7	1.8	29.1
	Percentage of account balance invested in target date funds[3]										
Age group	Zero	1 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	48.8	1.5	1.4	1.4	1.0	1.1	2.0	1.1	1.0	1.0	39.7
30s	56.7	3.0	2.4	2.2	1.6	1.5	1.8	1.3	1.4	1.7	26.3
40s	62.2	3.8	2.7	2.4	1.7	1.5	1.6	1.2	1.3	1.4	20.1
50s	64.9	4.0	2.6	2.4	1.6	1.5	1.5	1.1	1.2	1.4	17.7
60s	67.6	3.7	2.2	2.1	1.4	1.4	1.4	1.0	1.1	1.3	16.9
All	60.8	3.4	2.4	2.2	1.5	1.4	1.6	1.1	1.3	1.4	22.9
	Percentage of account balance invested in non–target date balanced funds										
Age group	Zero	1 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	80.6	2.3	1.7	1.4	0.8	0.8	0.8	0.5	0.5	0.4	10.1
30s	80.2	3.9	2.9	2.3	1.2	0.9	0.8	0.5	0.5	0.4	6.5
40s	80.0	4.3	3.3	2.7	1.4	1.0	0.9	0.5	0.4	0.4	5.1
50s	80.0	4.4	3.3	2.9	1.6	1.1	1.0	0.5	0.4	0.4	4.4
60s	81.5	3.8	2.7	2.6	1.5	1.1	1.0	0.5	0.4	0.4	4.5
All	80.3	3.9	2.9	2.5	1.3	1.0	0.9	0.5	0.5	0.4	5.9

[1] The analysis includes the 24.0 million participants in the year-end 2011 EBRI/ICI 401(k) database.

[2] Row percentages may not add to 100 percent because of rounding.

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

Note: "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 32

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

Percentage of participants,[1, 2] 2011

	Percentage of account balance invested in balanced funds										
Years of tenure	**Zero**	**1 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	32.5	2.5	2.3	2.5	1.6	1.7	2.8	1.5	1.4	1.1	50.0
>2 to 5	38.1	4.0	3.4	3.5	2.3	2.2	2.5	1.7	1.8	1.8	38.6
>5 to 10	44.1	5.8	5.1	4.8	3.0	2.6	2.6	1.8	1.8	2.1	26.2
>10 to 20	49.6	7.7	6.0	5.5	3.5	2.8	2.7	1.9	2.3	2.9	15.1
>20 to 30	54.8	8.9	6.1	5.4	3.6	2.9	2.6	1.6	1.4	1.3	11.3
>30	60.7	8.8	5.3	4.6	3.0	2.3	2.0	1.3	1.1	1.0	9.9
All	43.6	5.6	4.5	4.2	2.7	2.4	2.6	1.7	1.7	1.8	29.1
	Percentage of account balance invested in target date funds[3]										
Years of tenure	**Zero**	**1 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	48.8	1.4	1.4	1.5	1.0	1.2	2.2	1.1	1.1	0.8	39.4
>2 to 5	55.1	2.5	2.1	2.1	1.5	1.5	1.8	1.2	1.2	1.2	29.9
>5 to 10	62.7	3.4	2.6	2.4	1.6	1.6	1.5	1.2	1.3	1.6	20.0
>10 to 20	68.3	4.7	2.9	2.5	1.8	1.6	1.6	1.3	1.8	2.5	11.0
>20 to 30	73.6	5.4	3.0	2.5	1.8	1.6	1.4	1.0	0.9	0.8	7.9
>30	78.4	5.3	2.5	2.0	1.3	1.1	0.9	0.7	0.6	0.6	6.6
All	60.8	3.4	2.4	2.2	1.5	1.4	1.6	1.1	1.3	1.4	22.9
	Percentage of account balance invested in non–target date balanced funds										
Years of tenure	**Zero**	**1 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	82.2	1.9	1.4	1.3	0.6	0.6	0.6	0.3	0.3	0.4	10.3
>2 to 5	81.0	2.9	2.1	1.8	0.9	0.8	0.8	0.5	0.5	0.5	8.2
>5 to 10	78.5	4.3	3.4	2.9	1.5	1.1	1.1	0.6	0.5	0.5	5.7
>10 to 20	78.1	5.2	4.0	3.4	1.8	1.3	1.1	0.5	0.5	0.4	3.8
>20 to 30	78.1	5.7	4.0	3.3	1.9	1.3	1.1	0.6	0.5	0.4	3.2
>30	79.7	5.3	3.5	3.0	1.8	1.2	1.0	0.5	0.5	0.4	3.1
All	80.3	3.9	2.9	2.5	1.3	1.0	0.9	0.5	0.5	0.4	5.9

[1] The analysis includes the 24.0 million participants in the year-end 2011 EBRI/ICI 401(k) database.

[2] Row percentages may not add to 100 percent because of rounding.

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

Note: "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

Distribution of Participants' Company Stock Allocations

Participants' allocations to company stock remained in line with previous years. Thirty-eight percent (or 9.2 million) of the 401(k) participants in the 2011 EBRI/ICI 401(k) database were in plans that offered company stock as an investment option (Figure 22). Among these participants, 74 percent held 20 percent or less of their account balances in company stock, including 51 percent who held none (Figure 33). On the other hand, about 6 percent had more than 80 percent of their account balances invested in company stock.

FIGURE 33

Asset Allocation Distribution of 401(k) Participant Account Balance to Company Stock in 401(k) Plans with Company Stock by Participant Age

Percentage of participants,[1, 2] 2011

	Percentage of account balance invested in company stock										
Age group	Zero	1 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	65.8	8.9	5.0	3.9	3.2	5.0	2.3	1.0	0.7	0.5	3.8
30s	52.5	13.6	9.1	6.3	4.5	4.2	2.5	1.5	1.0	0.8	4.1
40s	48.2	14.9	9.6	6.9	4.8	4.1	2.7	1.7	1.3	1.0	4.8
50s	45.9	16.6	9.8	6.8	4.7	3.8	2.7	1.8	1.4	1.1	5.5
60s	49.4	15.7	8.7	5.9	4.0	3.3	2.3	1.6	1.3	1.1	6.8
All	51.0	14.3	8.8	6.2	4.4	4.0	2.5	1.6	1.2	0.9	5.0

[1] The analysis includes the 9.2 million participants in plans with company stock at year-end 2011.

[2] Row percentages may not add to 100 percent because of rounding.

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

Asset Allocation of Recently Hired Participants

Comparing snapshots of newly hired 401(k) plan participants' asset allocations provides further insight into recent investment allocations. Balanced funds, which include lifestyle and target date funds, have increased in popularity among 401(k) participants. Recently hired participants in 2011 tended to be more likely to hold balanced funds compared with recent hires in the past. Sixty-eight percent of recently hired participants in 2011 held balanced funds, compared with 63 percent of recently hired participants in 2010, 61 percent of recent hires in 2009, 60 percent of recent hires in 2008, 53 percent of recent hires in 2007, 33 percent of recent hires in 2002, and 29 percent of recent hires in 1998 (Figure 34). At year-end 2011, 51 percent of recently hired 401(k) participants held target date funds, while 18 percent held non–target date balanced funds, and 2 percent held both target date and non–target date balanced funds (Figure 35). At year-end 2010, 48 percent of recently hired 401(k) participants held target date funds, 17 percent held non–target date balanced funds, and 2 percent held both.

FIGURE 34

Many Recently Hired 401(k) Plan Participants Hold Balanced Funds

Percentage of recently hired participants[1] holding balanced funds,[2] 1998–2011

	Age group					
Year	**20s**	**30s**	**40s**	**50s**	**60s**	**All**
1998	27.0	29.0	30.5	30.9	28.4	28.9
1999	28.3	31.0	33.6	34.9	34.9	31.3
2000	27.1	28.3	30.8	32.1	33.2	29.1
2001	27.3	26.5	27.9	29.2	29.1	27.4
2002	32.7	33.1	33.7	33.9	30.2	33.0
2003	35.1	36.2	35.7	35.5	30.7	35.4
2004	38.9	39.8	39.8	40.3	36.3	39.3
2005	43.5	42.8	42.1	43.3	41.6	42.8
2006	48.5	47.9	46.6	47.8	45.5	47.6
2007	51.1	54.2	52.8	53.4	50.1	52.7
2008	63.6	59.6	57.8	58.0	53.9	59.9
2009	64.1	61.2	59.3	58.7	53.6	60.9
2010	69.6	63.0	59.9	59.1	55.2	63.0
2011	72.0	68.1	65.0	64.2	60.7	67.5

[1] The analysis includes 401(k) plan participants with two or fewer years of tenure in the year indicated.

[2] "Balanced funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in a mix of equities and fixed-income securities.

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

FIGURE 35

Many Recently Hired 401(k) Plan Participants Hold Target Date Funds

Percentage of recently hired participants, 2006–2011

	Holding balanced funds					
Age group	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
20s	48.5	51.1	63.6	64.1	69.6	72.0
30s	47.9	54.2	59.6	61.2	63.0	68.1
40s	46.6	52.8	57.8	59.3	59.9	65.0
50s	47.8	53.4	58.0	58.7	59.1	64.2
60s	45.5	50.1	53.9	53.6	55.2	60.7
All	47.6	52.7	59.9	60.9	63.0	67.5
	Holding target date funds*					
Age group	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
20s	29.4	31.7	46.5	48.5	52.0	53.6
30s	28.5	35.1	43.5	47.3	47.8	52.1
40s	27.4	34.2	41.8	45.5	45.3	49.5
50s	28.1	34.9	42.2	45.2	45.0	49.2
60s	26.1	32.1	38.4	41.0	41.7	46.5
All	28.3	33.8	43.6	46.6	47.6	51.2
	Holding non–target date balanced funds					
Age group	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
20s	22.5	21.8	19.3	17.7	19.0	19.5
30s	22.5	22.2	18.8	16.4	16.9	17.6
40s	21.3	21.4	18.3	16.1	16.1	17.1
50s	21.4	21.2	18.1	15.5	15.5	16.5
60s	19.8	20.3	17.3	14.2	14.5	15.4
All	21.9	21.7	18.7	16.5	17.0	17.8

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

Note: The analysis includes the 2.8 million recently hired participants (those with two or fewer years of tenure) in 2006, the 3.8 million recently hired participants in 2007, the 4.0 million recently hired participants in 2008, the 3.1 million recently hired participants in 2009, the 3.2 million recently hired participants in 2010, and the 3.4 million recently hired participants in 2011. "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

Among those who held balanced funds, recently hired participants in 2011 were more likely to hold a high concentration of their accounts in balanced funds compared with past years. At year-end 2011, 74 percent of recently hired participants holding balanced funds had more than 90 percent of their account balance invested in balanced funds, compared with 70 percent in 2010, 61 percent in 2009, 56 percent in 2008, 48 percent in 2007, 43 percent in 2006, and 7 percent in 1998 (Figure 36). Concentration is highest among recently hired participants with target date funds; at year-end 2011, 77 percent of recently hired participants holding target date funds held more than 90 percent of their account balance in target date funds (Figure 37). Fifty-eight percent of recently hired participants holding non–target date balanced funds had more than 90 percent of their account balance invested in non–target date balanced funds at year-end 2011.

Balanced fund, target date fund, and non–target date balanced fund use varied somewhat by age group among recently hired participants, and recently hired participants in their twenties were more likely to be highly concentrated in such funds. For example, 56 percent of recently hired participants in their twenties held more than 90 percent of their account balances in balanced funds, compared with 46 percent of recent hires in their forties and 45 percent of recent hires in their sixties in 2011 (Figure 38). Concentrated target date fund use ranged from 43 percent of recent hires in their twenties holding more than 90 percent of their account balances in target date funds to 36 percent of recently hired participants in their sixties. In addition, at year-end 2011, 51 percent of the account balances of recently hired participants in their twenties was invested in balanced funds, compared with 44 percent in 2010, 42 percent in 2009, 36 percent in 2008, 28 percent in 2007, 24 percent in 2006, 19 percent in 2005, and about 7 percent among that age group in 1998 (Figure 39).[39] At year-end 2011, among recently hired participants in their twenties, target date funds accounted for 78 percent of their balanced fund assets, or 40 percent of their account balances overall. The increase in asset allocation to balanced funds mostly occurred in the target date fund category: target date fund assets accounted for 35 percent of the account balance assets of recently hired participants in their twenties at year-end 2010 (non–target date balanced funds were 9 percent at year-end 2010 and 11 percent at year-end 2011).[40] The pattern of target date and non–target date balanced fund use varied with participant age and lineup of plan investment options.

Comparing recently hired participants in 2011 with similar age groups in 1998 also illustrates that asset allocation to company stock and equity funds tended to be lower in 2011 than in 1998, while asset allocation to fixed-income securities tended to increase (Figure 39). Recently hired 401(k) participants tended to be less likely to hold company stock (Figure 40) and tended not to hold a high concentration of their account balance in company stock (Figures 41 and 42).[41]

FIGURE 36

Recently Hired 401(k) Participants Now Hold Higher Concentrations in Balanced Funds

Percentage of recently hired participants holding balanced fund assets,[1, 2] selected years

	Percentage of account balance invested in balanced funds		
	1998		
Age group	>0 to 50 percent	>50 to 90 percent	>90 percent
20s	84.9	7.3	7.8
30s	86.0	7.6	6.4
40s	84.1	8.9	7.0
50s	81.1	10.7	8.2
60s	77.0	12.4	10.6
All	84.5	8.2	7.3
	2006		
Age group	>0 to 50 percent	>50 to 90 percent	>90 percent
20s	40.1	13.7	46.2
30s	47.7	12.8	39.5
40s	46.0	13.1	40.9
50s	43.3	13.3	43.4
60s	39.5	12.6	47.9
All	43.9	13.3	42.8
	2007		
Age group	>0 to 50 percent	>50 to 90 percent	>90 percent
20s	36.3	14.7	49.0
30s	40.9	12.6	46.5
40s	40.1	12.9	47.0
50s	38.1	13.0	48.8
60s	36.4	12.8	50.8
All	38.8	13.3	47.9
	2008		
Age group	>0 to 50 percent	>50 to 90 percent	>90 percent
20s	26.1	11.8	62.2
30s	33.5	13.3	53.2
40s	33.9	13.5	52.6
50s	32.8	13.5	53.6
60s	32.1	12.8	55.1
All	31.0	12.9	56.1

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FIGURE 36 CONTINUED

Recently Hired 401(k) Participants Now Hold Higher Concentrations in Balanced Funds

Percentage of recently hired participants holding balanced fund assets,[1, 2] selected years

	2009		
Age group	**>0 to 50 percent**	**>50 to 90 percent**	**>90 percent**
20s	20.4	13.3	66.3
30s	27.8	13.9	58.3
40s	28.8	13.9	57.4
50s	28.7	13.7	57.6
60s	29.4	13.3	57.3
All	25.9	13.6	60.5
	2010		
Age group	**>0 to 50 percent**	**>50 to 90 percent**	**>90 percent**
20s	14.8	10.0	75.2
30s	21.2	11.3	67.5
40s	22.7	10.7	66.6
50s	22.4	10.1	67.5
60s	22.3	9.2	68.5
All	19.7	10.5	69.8
	2011		
Age group	**>0 to 50 percent**	**>50 to 90 percent**	**>90 percent**
20s	11.6	10.2	78.2
30s	16.8	10.4	72.7
40s	18.4	10.3	71.2
50s	18.2	9.9	71.8
60s	17.6	8.9	73.5
All	15.8	10.2	74.0

[1] The analysis includes the 0.4 million recently hired participants (those with two or fewer years of tenure) holding balanced funds in 1998, the 1.4 million recently hired participants holding balanced funds in 2006, the 2.0 million recently hired participants holding balanced funds in 2007, the 2.4 million recently hired participants holding balanced funds in 2008, the 1.9 million recently hired participants holding balanced funds in 2009, the 2.0 million recently hired participants holding balanced funds in 2010, and the 2.3 million recently hired participants holding balanced funds in 2011.

[2] Row percentages may not add to 100 percent because of rounding.

Note: "Balanced funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in a mix of equities and fixed-income securities.

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

FIGURE 37

Many Recently Hired 401(k) Participants Hold High Concentrations in Target Date Funds

Percentage of recently hired participants holding the type of fund indicated,[1, 2] 2011

	Percentage of account balance invested in balanced funds		
Age group	**>0 to 50 percent**	**>50 to 90 percent**	**>90 percent**
20s	11.6	10.2	78.2
30s	16.8	10.4	72.7
40s	18.4	10.3	71.2
50s	18.2	9.9	71.8
60s	17.6	8.9	73.5
All	15.8	10.2	74.0
	Percentage of account balance invested in target date funds[3]		
Age group	**>0 to 50 percent**	**>50 to 90 percent**	**>90 percent**
20s	9.0	10.4	80.6
30s	14.0	10.4	75.6
40s	15.2	10.2	74.5
50s	14.6	9.6	75.8
60s	13.7	8.2	78.1
All	12.8	10.1	77.0
	Percentage of account balance invested in non–target date balanced funds		
Age group	**>0 to 50 percent**	**>50 to 90 percent**	**>90 percent**
20s	24.6	9.2	66.2
30s	34.9	9.2	55.8
40s	37.2	9.3	53.5
50s	38.7	9.6	51.8
60s	37.7	10.0	52.3
All	32.7	9.3	58.0

[1] The analysis includes the 2.3 million recently hired participants (those with two or fewer years of tenure) holding balanced funds in 2011; the 1.7 million recently hired participants holding target date funds in 2011; and the 0.6 million recently hired participants holding non–target date balanced funds in 2011.

[2] Row percentages may not add to 100 percent because of rounding.

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

Note: "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 38

Asset Allocation Distribution of 401(k) Account Balance to Balanced Funds Among Recently Hired 401(k) Participants by Participant Age

Percentage of recently hired participants,[1, 2] 2011

Age group	Percentage of account balance invested in balanced funds										
	Zero	1 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	28.0	1.9	1.8	1.8	1.3	1.6	3.3	1.6	1.4	1.0	56.3
30s	31.9	2.6	2.6	2.7	1.7	1.8	2.8	1.5	1.5	1.3	49.5
40s	35.0	2.9	2.6	2.9	1.8	1.8	2.6	1.4	1.5	1.2	46.3
50s	35.8	2.9	2.4	2.8	1.7	1.8	2.5	1.3	1.4	1.1	46.1
60s	39.3	2.9	2.1	2.6	1.6	1.6	2.1	1.1	1.2	1.0	44.6
All	32.5	2.5	2.3	2.5	1.6	1.7	2.8	1.5	1.4	1.1	50.0
	Percentage of account balance invested in target date funds[3]										
Age group	**Zero**	**1 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	46.4	1.0	1.0	1.1	0.8	1.0	2.6	1.2	1.0	0.7	43.2
30s	47.9	1.6	1.6	1.7	1.1	1.3	2.2	1.2	1.2	0.9	39.4
40s	50.6	1.7	1.6	1.8	1.1	1.3	2.0	1.1	1.1	0.8	36.9
50s	50.8	1.7	1.5	1.7	1.1	1.2	1.9	1.0	1.0	0.8	37.3
60s	53.5	1.6	1.3	1.4	1.0	1.1	1.5	0.8	0.8	0.7	36.3
All	48.8	1.4	1.4	1.5	1.0	1.2	2.2	1.1	1.1	0.8	39.4
	Percentage of account balance invested in non–target date balanced funds										
Age group	**Zero**	**1 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	80.5	1.5	1.2	0.9	0.5	0.6	0.7	0.4	0.4	0.3	12.9
30s	82.4	2.0	1.6	1.3	0.7	0.6	0.6	0.3	0.3	0.4	9.8
40s	82.9	2.0	1.6	1.5	0.7	0.6	0.6	0.3	0.3	0.4	9.2
50s	83.5	2.0	1.5	1.6	0.7	0.6	0.6	0.3	0.3	0.3	8.6
60s	84.6	1.8	1.2	1.5	0.7	0.6	0.6	0.3	0.3	0.3	8.0
All	82.2	1.9	1.4	1.3	0.6	0.6	0.6	0.3	0.3	0.4	10.3

[1] The analysis includes the 3.4 million recently hired participants (those with two or fewer years of tenure) in 2011.

[2] Row percentages may not add to 100 percent because of rounding.

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

Note: "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 39

Average Asset Allocation of 401(k) Accounts by Participant Age and Investment Options Among 401(k) Plan Participants with Two or Fewer Years of Tenure[1]

Percentage of account balances,[2] 1998 and 2011

Age group	Equity funds		Balanced funds: Total		Balanced funds: Target date funds[3]	Balanced funds: Non–target date balanced funds	Bond funds		Money funds		GICs[4] and other stable value funds		Company stock	
	1998	2011	1998	2011	2011	2011	1998	2011	1998	2011	1998	2011	1998	2011
All														
20s	66.9	28.3	7.4	51.3	40.2	11.0	5.1	7.7	4.0	1.8	3.7	2.0	10.5	4.5
30s	67.8	35.4	8.0	41.9	34.0	7.9	5.1	9.7	4.1	2.4	3.2	2.8	9.4	3.5
40s	64.5	38.6	9.7	34.4	27.9	6.5	5.9	11.4	5.1	2.5	4.4	4.5	8.0	3.9
50s	60.5	35.0	11.3	31.2	25.4	5.7	6.6	14.7	5.9	2.7	6.7	7.8	6.5	3.6
60s	50.0	29.9	12.1	27.2	22.1	5.1	8.7	19.1	7.8	3.3	13.3	10.5	5.7	3.3
All	64.8	35.0	9.1	35.7	28.9	6.8	5.7	12.5	4.9	2.6	4.6	5.6	8.6	3.7
Plans without company stock, GICs,[4] or other stable value funds														
20s	77.8	28.7	7.8	55.9	50.1	5.8	7.7	9.2	4.9	2.5				
30s	77.9	37.0	8.4	43.5	38.9	4.6	7.2	12.0	4.8	3.0				
40s	74.0	39.3	9.9	37.0	33.0	4.1	8.3	14.6	6.0	3.1				
50s	70.3	34.6	11.3	35.3	31.6	3.7	10.0	19.2	6.5	3.3				
60s	59.4	30.7	11.8	30.5	27.4	3.1	13.5	25.0	12.2	3.9				
All	75.0	35.5	9.3	38.7	34.3	4.4	8.2	16.4	5.7	3.2				
Plans with GICs[4] and/or other stable value funds														
20s	73.4	32.9	7.3	47.4	31.9	15.5	3.9	8.5	2.9	1.0	9.1	4.8		
30s	73.5	34.0	8.1	45.0	32.7	12.4	4.1	8.2	2.8	1.3	7.9	6.9		
40s	69.0	34.8	9.4	38.1	28.7	9.4	5.0	8.4	3.4	1.4	9.5	12.1		
50s	63.6	30.9	10.2	34.4	26.1	8.3	5.9	9.8	4.6	1.4	11.9	19.4		
60s	52.7	27.6	11.2	30.8	22.8	8.0	6.8	13.5	7.2	1.7	19.2	21.5		
All	69.7	32.7	7.9	39.0	28.7	10.3	5.0	9.2	3.5	1.4	10.1	13.0		
Plans with company stock														
20s	51.8	24.9	6.1	51.1	44.5	6.6	5.0	7.5	5.4	2.4			29.5	9.5
30s	56.0	33.5	6.6	38.5	34.0	4.6	5.3	10.3	5.2	3.7			24.6	9.5
40s	54.4	34.8	8.2	34.0	30.2	3.8	6.5	12.4	6.4	4.4			22.6	11.1
50s	53.2	30.8	9.8	32.2	28.5	3.7	6.9	16.2	8.6	5.4			19.4	12.1
60s	47.2	24.9	11.1	27.8	24.3	3.5	14.3	21.3	6.4	7.8			19.3	13.1
All	54.2	31.8	7.2	35.8	31.6	4.2	6.3	13.1	6.1	4.5			24.1	10.9

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FIGURE 39 CONTINUED

Average Asset Allocation of 401(k) Accounts by Participant Age and Investment Options Among 401(k) Plan Participants with Two or Fewer Years of Tenure[1]

Percentage of account balances,[2] 1998 and 2011

Age group	Equity funds		Balanced funds: Total		Balanced funds: Target date funds[3]	Balanced funds: Non–target date balanced funds	Bond funds		Money funds		GICs[4] and other stable value funds		Company stock	
	1998	2011	1998	2011	2011	2011	1998	2011	1998	2011	1998	2011	1998	2011
Plans with company stock and GICs[4] and/or other stable value funds														
20s	56.2	25.4	8.2	47.5	29.7	17.8	2.3	4.7	2.5	1.3	6.7	3.8	22.0	13.0
30s	56.3	34.9	8.9	38.3	26.1	12.1	2.6	6.8	3.3	1.4	5.9	5.9	20.6	9.4
40s	53.8	41.9	11.0	27.7	17.9	9.8	2.8	7.7	5.0	1.4	7.8	9.2	17.3	9.1
50s	49.3	39.8	13.8	21.6	13.3	8.3	3.3	9.5	5.3	1.4	11.8	16.6	14.5	8.5
60s	38.0	31.4	14.3	18.0	10.2	7.8	2.6	9.9	4.9	1.6	27.8	28.4	10.7	8.9
All	54.1	37.3	10.1	28.6	18.3	10.3	2.4	8.0	2.4	1.4	10.1	12.6	18.6	9.3

[1] The analysis is based on samples of 1.2 million participants with two or fewer years of tenure in 1998 and 3.4 million participants with two or fewer years of tenure in 2011.

[2] Minor investment options are not shown; therefore, row percentages do not add to 100 percent. Percentages are dollar-weighted averages.

[3] 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.

[4] GICs 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 40

Recently Hired 401(k) Participants Tend to Be Less Likely to Hold Company Stock

Percentage of recently hired participants offered and holding company stock by participant age, 1998–2011

	Age group					
	20s	30s	40s	50s	60s	All
1998	60.8	61.9	59.8	57.6	54.1	60.5
1999	61.1	62.3	60.6	58.8	55.5	61.0
2000	60.5	61.6	59.5	57.4	53.6	60.0
2001	58.1	60.0	58.8	57.9	55.7	58.7
2002	53.9	57.2	55.9	53.9	51.0	55.3
2003	49.6	53.3	52.6	51.2	49.5	51.6
2004	49.8	52.3	52.0	49.5	47.8	51.0
2005	45.4	47.6	47.3	45.2	43.9	46.3
2006	40.0	43.6	43.6	42.3	40.4	42.0
2007	35.4	40.4	40.7	39.6	38.4	38.7
2008	32.9	37.4	37.9	37.8	38.7	36.2
2009	32.3	36.2	37.0	37.6	40.5	35.5
2010	30.3	33.6	34.4	34.4	36.8	33.0
2011	26.2	30.0	31.4	31.3	30.8	29.3

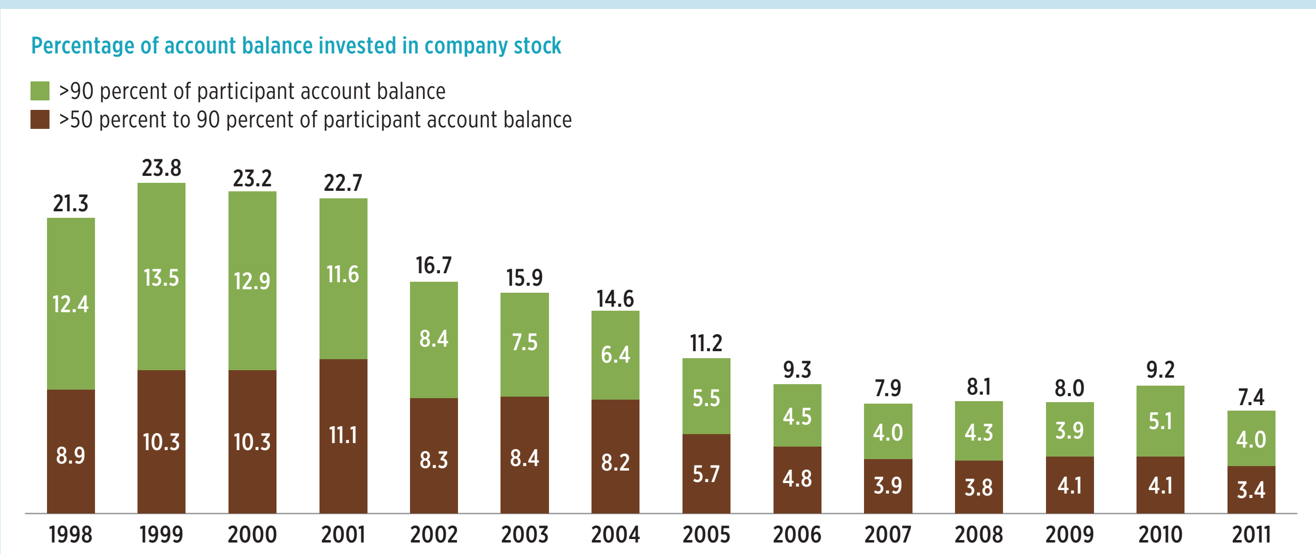
Note: The analysis includes 401(k) plan participants with two or fewer years of tenure in the year indicated and in a plan offering company stock as an investment option.

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

FIGURE 41

New 401(k) Participants Tend Not to Hold High Concentrations in Company Stock

Percentage of recently hired participants in plans offering company stock as an investment option, 1998–2011



Note: The analysis includes 401(k) plan participants with two or fewer years of tenure in the year indicated and in a plan offering company stock as an investment option.

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

FIGURE 42

Asset Allocation Distribution of Recently Hired 401(k) Participant Account Balance to Company Stock in 401(k) Plans with Company Stock by Participant Age

Percentage of recently hired participants in plans offering company stock as an investment option,[1, 2] 2011

Age group	Percentage of account balance invested in company stock										
	Zero	1 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	73.8	4.4	3.5	3.1	2.9	5.4	1.8	0.6	0.4	0.4	3.6
30s	70.0	6.6	5.0	4.0	3.0	4.1	1.8	0.7	0.6	0.4	3.8
40s	68.6	6.9	5.2	4.5	3.2	3.7	1.7	0.8	0.6	0.5	4.3
50s	68.7	7.1	5.1	4.5	3.2	3.6	1.5	0.8	0.6	0.4	4.5
60s	69.2	6.9	4.7	4.0	2.8	3.2	1.5	0.8	0.6	0.5	5.8
All	70.7	6.1	4.6	3.9	3.0	4.3	1.7	0.7	0.5	0.4	4.0

[1] The analysis includes the 1.2 million participants with two or fewer years of tenure in 2011 and in plans offering company stock as an investment option.

[2] Row percentages may not add to 100 percent because of rounding.

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

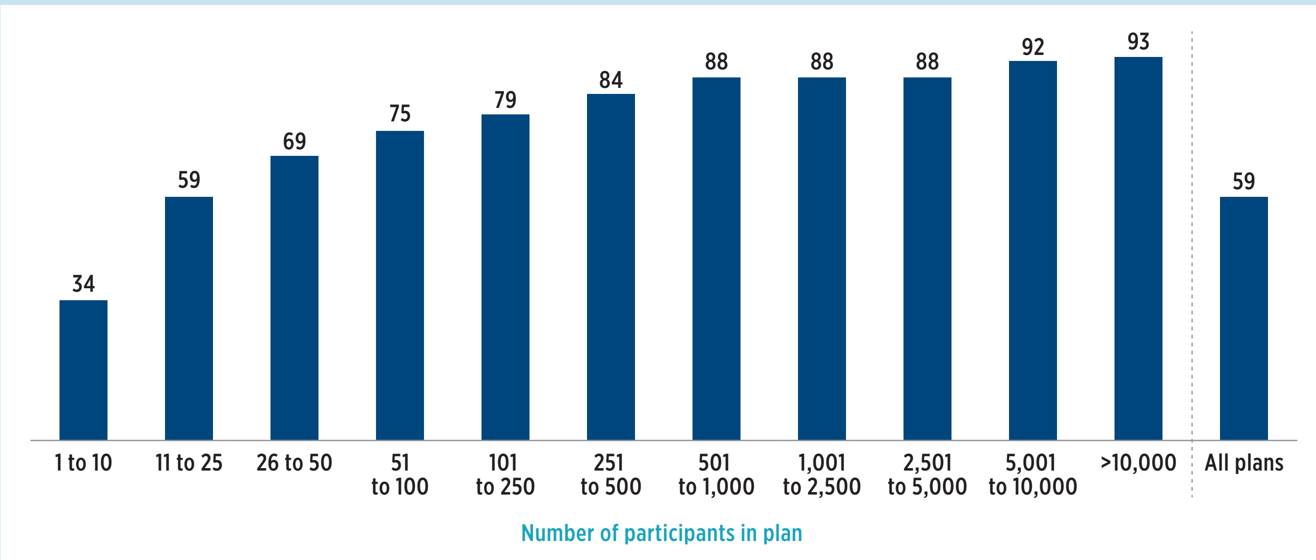
Year-End 2011 Snapshot of 401(k) Plan Loan Activity

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

Fifty-nine percent of the 401(k) plans for which loan data were available in the 2011 EBRI/ICI 401(k) database offered a plan loan provision to participants (Figure 43).[42] The loan feature was more commonly associated with large plans (as measured by the number of participants in the plan). Ninety-three percent of plans with more than 10,000 participants included a loan provision, compared with 34 percent of plans with 10 or fewer participants. Participant loan activity varied modestly by plan size, ranging from 19 percent of participants with loans outstanding in 401(k) plans with 26 to 100 participants to 24 percent of participants in 401(k) plans with 10 or fewer participants

FIGURE 43

Percentage of 401(k) Plans Offering Loans by Plan Size, 2011

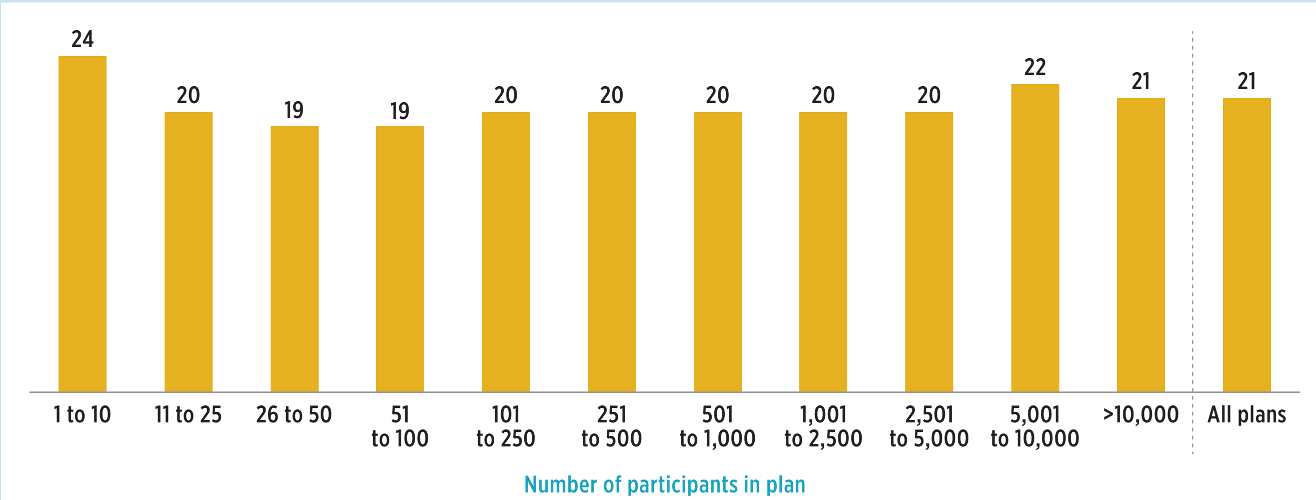


Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

(Figure 44). Loan ratios—the amount of the loan outstanding divided by the remaining account balance—vary only slightly when participants are grouped based on the size of their 401(k) plans (as measured by the number of plan participants). Among participants in plans with 100 or fewer participants, the loan ratio was 17 percent of the remaining assets in 2011, while in plans with more than 10,000 participants, the loan ratio was 13 percent (Figure 45).

FIGURE 44

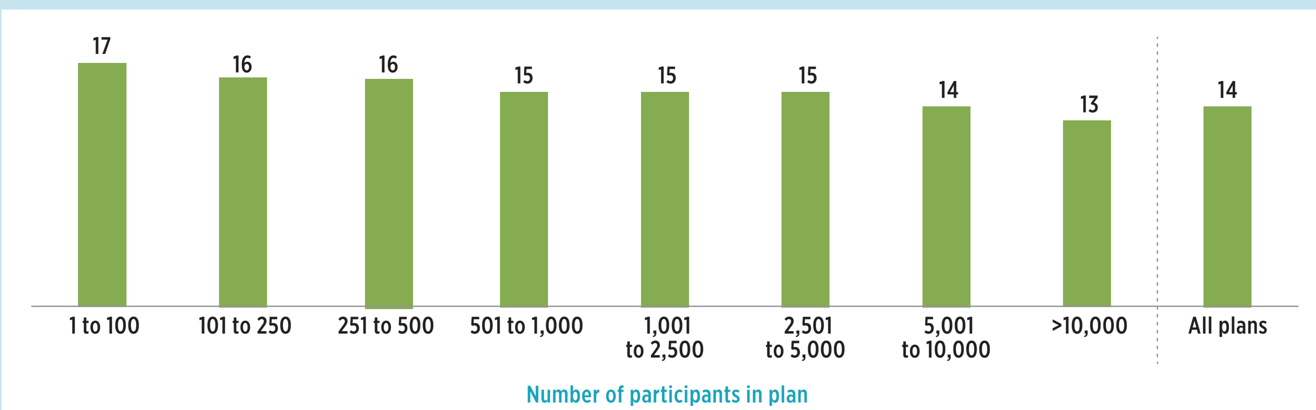
Percentage of Eligible 401(k) Participants with 401(k) Loans by Plan Size, 2011



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

FIGURE 45

401(k) Loan Balances as a Percentage of 401(k) Account Balances for Participants with 401(k) Loans by Plan Size, 2011



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

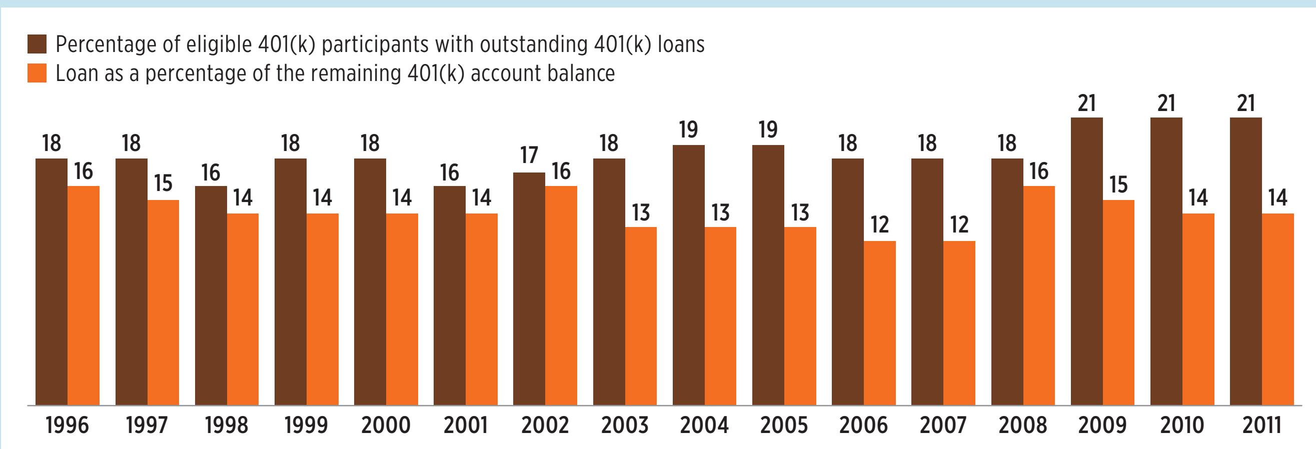
In the 16 years that the database has been tracking loan activity among 401(k) plan participants, there has been little variation. From 1996 through 2008, on average, less than one-fifth of 401(k) participants with access to loans had loans outstanding. At year-end 2009, the percentage of participants who were offered loans with loans outstanding ticked up to 21 percent and remained at that level at year-end 2010 and year-end 2011. 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 18 percent had loans outstanding at year-end 2011.[43] On average, over the past 16 years, among participants with loans outstanding, about 14 percent of the remaining account balance remained unpaid. (Figure 46). U.S. Department of Labor data indicate that loan amounts tend to be a negligible portion of plan assets and that very little is converted into deemed distributions in any given year.[44]

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

In the 2011 EBRI/ICI 401(k) database, 87 percent of participants were in plans offering loans. However, as has been the case for the 16 years that the database has tracked 401(k) plan participants, relatively few participants made use of this borrowing privilege. At year-end 2011, 21 percent of those eligible for loans had 401(k) plan loans outstanding (Figure 46). As in previous years, loan activity varies with age, tenure, account balance, and salary. 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 47). 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. Fifteen percent of participants with account balances of less than $10,000 had loans outstanding.

FIGURE 46

Few 401(k) Participants Had Outstanding 401(k) Loans; Loans Tended to Be Small, 1996–2011



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

FIGURE 47

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

Percentage of eligible 401(k) participants with 401(k) loans by participant age, tenure, account size, or salary; selected years

	1996	2000	2002	2005	2007	2008	2009	2010	2011
All	18	18	17	19	18	18	21	21	21
Age group									
20s	12	11	10	11	10	10	13	13	13
30s	20	19	18	20	20	20	23	23	22
40s	22	21	20	22	22	22	26	26	25
50s	17	17	17	19	19	19	22	22	22
60s	9	9	9	10	10	11	12	13	13
Years of tenure*									
0 to 2	6	5	4	5	7	6	9	7	5
>2 to 5	15	14	12	14	15	15	17	18	18
>5 to 10	24	23	21	22	23	23	25	27	26
>10 to 20	27	26	26	26	26	26	29	29	29
>20 to 30	25	26	25	24	24	25	27	26	26
>30	13	16	15	17	17	18	19	19	19
Size of account balance									
<$10,000	12	11	11	12	11	12	16	16	15
$10,000 to $20,000	26	23	22	26	25	26	28	29	30
>$20,000 to $30,000	26	25	22	27	26	26	28	29	30
>$30,000 to $40,000	25	25	23	26	26	26	28	28	29
>$40,000 to $50,000	24	25	23	25	26	25	27	27	27
>$50,000 to $60,000	24	24	22	24	25	24	25	26	26
>$60,000 to $70,000	23	24	22	23	24	23	25	25	25
>$70,000 to $80,000	26	23	22	22	23	22	24	24	24
>$80,000 to $90,000	23	23	21	21	23	21	23	23	23
>$90,000 to $100,000	22	22	21	20	22	20	23	22	22
>$100,000 to $200,000	22	20	19	18	19	18	19	19	19
>$200,000	18	15	13	13	13	12	13	12	12
Salary range									
$20,000 to $40,000	18	17	13	19	20	19	24	22	25
>$40,000 to $60,000	20	23	21	26	28	27	30	26	26
>$60,000 to $80,000	18	23	20	24	24	24	26	23	22
>$80,000 to $100,000	17	21	17	22	21	20	23	20	19
>$100,000	14	16	13	16	14	14	16	14	14

*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

Average Loan Balances

Among participants with outstanding 401(k) loans at the end of 2011, the average unpaid balance was $7,027, compared with $6,846 in the year-end 2010 database (Figure 48). The median loan balance outstanding was $3,785 at year-end 2011, compared with $3,619 in the year-end 2010 database. Nevertheless, the ratio of the loan outstanding to the remaining account balance remained the same in 2011 (Figures 46 and 49). In addition, as in previous years, there is variation around this average that corresponds with age (lower the older the participant), tenure (lower the higher the tenure of the participant), account balance (lower the higher the account balance),[45] and salary (lower the higher the participant's salary). Overall, loans from 401(k) plans tended to be small, with the vast majority of 401(k) participants in all age groups having no loan outstanding at all (Figure 50).

FIGURE 48

401(k) Loan Balances

Average and median loan balances for 401(k) participants with 401(k) loans, 1998–2011

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

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 49

401(k) Loan Amounts Varied Across 401(k) Participants

401(k) loan balances as a percentage of 401(k) account balances for 401(k) participants with loans by participant age, tenure, account size, or salary; selected years

	1996	2000	2002	2005	2007	2008	2009	2010	2011
All	16	14	16	13	12	16	15	14	14
Age group									
20s	30	30	28	24	25	29	26	24	26
30s	22	20	22	19	19	25	22	20	21
40s	16	15	16	13	13	18	16	15	16
50s	12	11	12	10	10	13	12	11	11
60s	10	9	10	8	8	11	10	9	9
Years of tenure*									
0 to 2	27	24	27	23	21	25	22	19	21
>2 to 5	24	25	25	21	22	26	23	20	21
>5 to 10	23	21	23	19	18	24	20	19	20
>10 to 20	15	14	16	13	13	17	16	14	15
>20 to 30	11	10	11	9	8	12	11	9	10
>30	7	8	10	8	7	9	9	7	7
Size of account balance									
<$10,000	39	39	37	35	36	39	39	35	37
$10,000 to $20,000	32	32	31	29	30	33	31	28	30
>$20,000 to $30,000	28	28	28	25	26	29	27	25	27
>$30,000 to $40,000	23	24	25	22	23	26	25	23	24
>$40,000 to $50,000	22	21	22	20	21	24	22	20	21
>$50,000 to $60,000	19	19	20	18	19	21	21	19	19
>$60,000 to $70,000	16	17	18	16	17	19	19	17	18
>$70,000 to $80,000	16	15	16	15	16	18	17	16	16
>$80,000 to $90,000	14	14	15	14	14	16	16	15	15
>$90,000 to $100,000	13	13	13	13	13	15	15	14	14
>$100,000 to $200,000	10	9	10	9	10	11	11	10	11
>$200,000	5	5	5	4	5	5	5	5	5
Salary range									
$20,000 to $40,000	17	19	18	18	17	21	19	17	17
>$40,000 to $60,000	17	16	16	16	15	19	17	15	16
>$60,000 to $80,000	15	13	14	13	12	17	14	13	13
>$80,000 to $100,000	14	12	12	11	11	14	12	11	12
>$100,000	14	10	10	9	9	11	10	9	9

*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 50

Loans from 401(k) Plans Tended to Be Small

Percentage of eligible participants by participant age, 2011

401(k) loan as a percentage of remaining 401(k) account balance	Age group			
	20s	40s	60s	All
Zero (no loan)	88	75	87	79
1 to 10 percent	2	7	5	6
>10 to 20 percent	2	5	3	4
>20 to 30 percent	2	4	1	3
>30 to 80 percent	4	8	3	7
>80 percent	2	2	(*)	1

(*) = less than 0.5 percent

Note: Column percentages may not add to 100 percent because of rounding.

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

Notes

[1] For data on 401(k) plan assets, participants, and plans through 2010, see U.S. Department of Labor, Employee Benefits Security Administration 2012a and 2012b. For total retirement assets, including those in 401(k) plans, through the third quarter of 2012, see Investment Company Institute 2012. 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; and Brady and Bogdan 2010.

[2] Prior to 2005, the U.S. Department of Labor private pension plan bulletin updates reported a count of active 401(k) plan participants that had been adjusted from the number of active participants that was 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 5500s were submitted) incurred the break in service period established by their plan (see U.S. Department of Labor, Employee Benefits Security Administration 2008a and 2008b 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 U.S. Department of Labor, Employee Benefits Security Administration 2008b and 2010b). As the U.S. 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 51 million in 2011 and the number of 401(k) plans to be about 540,000. The estimate of the number of active 401(k) plan participants is based on a combination of data from U.S. Department of Labor, Bureau of Labor Statistics 2007, 2008a, 2008b, 2009, 2010a, 2010b, 2011a, 2011b, 2012a, and 2012b; and U.S. Department of Labor, Employee Benefits Security Administration 2008a, 2008b, 2010a, 2010b, 2011, 2012a, and 2012b; and analysis of samples of consistent plans in the EBRI/ICI database.

[3] See Investment Company Institute 2012.

[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 national association of U.S. investment companies, including mutual funds, closed-end funds, exchange-traded funds (ETFs), and unit investment trusts (UITs). ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. Members of ICI manage total assets of $13.8 trillion and serve more than 90 million shareholders (see Schrass, Bogdan, Holden, and 2012).

[6] This update extends previous findings from the project for 1996 through 2010. For year-end 2010 results, see Holden et al. 2011. Results for earlier years are available in earlier issues of *ICI Research Perspective* (www.ici.org/research/perspective) and *EBRI Issue Brief* (www.ebri.org/publications/ib).

[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 6 percent in the average 401(k) 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 16 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 4 percent with the consolidation of their multiple accounts. Future joint research with this feature will explore the longitudinal aspects of this consolidation in more detail.

[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. Deloitte/ICI Defined Contribution/401(k) Fee Study 2011 data indicate that in 2010, the median number of investment options offered among the 525 plans in the survey was 14 (see Deloitte Consulting LLP and Investment Company Institute 2011). Plan Sponsor Council of America 2012 indicates that in 2011, the average number of investment fund options available for participant contributions was 19 among the 840 plans surveyed; Aon Hewitt 2012 indicates an average number of 20 investment options in 2011. Aon Hewitt 2011 reports an average number of 19 investment options in 2010. Hewitt Associates 2009b indicates an average number of 20 investment options in 2009. Deloitte Consulting LLP, International Foundation of Employee Benefit Plans, and the International Society of Certified Employee Benefit Specialists 2012 report that the average number of funds offered by the 338 401(k) plan sponsors responding to that question in their survey was 18 in 2011.

[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." Since 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 401(k) asset figures, see Investment Company Institute 2012.

[17] Estimates of the number of 401(k) plans and active participants are based on a combination of data from U.S. Department of Labor, Bureau of Labor Statistics, and U.S. Department of Labor, Employee Benefits Security Administration reports; and consistent plans in the EBRI/ICI database. See discussion in note 2.

[18] The latest available data from the U.S. Department of Labor are for plan year 2010 (see U.S. Department of Labor, Employee Benefits Security Administration 2012b).

[19] 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.

[20] About half of traditional IRA assets resulted from rollovers from employer-sponsored retirement plans. See Brady, Holden, and Short 2010; and Copeland 2012.

[21] Account balances are net of unpaid loan balances.

[22] At year-end 2011, 1.8 percent of the participants in the database were missing a birth date entry, were younger than 20, or older than 69. They were not included in this analysis.

[23] At year-end 2011, 8.2 percent of the participants in the database were missing a date of hire entry and were not included in this analysis.

[24] 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 1 percent of them had two or fewer years of tenure, and 5 percent of them had between two and five years of tenure (see Figure 12).

[25] Because 401(k) plans were introduced about 31 years ago, older and longer-tenured employees would not have participated in 401(k) plans for their entire careers. The Revenue Act of 1978 contained a provision that became Internal Revenue Code Sec. 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 2005; and U.S. Internal Revenue Service 1981).

[26] There are two possible explanations for the low account balances among this group: (1) their employer's 401(k) plan has only recently been established (80 percent of all 401(k)-type plans in existence in 2010 were established after 1991 [tabulations of U.S. Department of Labor Form 5500 data for 2010]), or (2) the employee only recently joined the plan (whether on his or her own or through automatic enrollment). In either event, job tenure would not accurately reflect actual 401(k) plan participation.

[27] It is possible that these older, longer-tenured workers accumulated DC plan assets (e.g., possibly in a profit-sharing plan) prior to the introduction of 401(k) plan features. However, such DC plan arrangements generally did not permit employee contributions and often were designed to be supplemental to other employer plans. These participants' account balances that predate the 401(k) plan are not included in this analysis, which focuses on 401(k) balance amounts.

[28] Social Security replaces a much higher fraction of pre-retirement earnings for lower-income workers. For example, the first-year replacement rate (scheduled Social Security benefits as a percentage of average career earnings) for retired workers in the 1940–1949 birth cohort (individuals aged 62 to 71 in 2011) decreased as income increased. The median replacement rate for the lowest household lifetime earnings quintile was 70 percent; for the middle quintile, the median Social Security replacement rate was 42 percent; and for the highest quintile it was 29 percent. See Congressional Budget Office 2012.

[29] The ratio of 401(k) account balance (at the current employer) to salary alone is not an indicator of preparedness for retirement. A complete analysis of preparedness for retirement would require estimating projected balances at retirement by also considering retirement income from Social Security, defined benefit plans, IRAs, and other DC plans, possibly from previous employment. For references to such research, see MacDonald and Moore 2011 and Holden and VanDerhei 2005.

For an analysis of the possible impact of automatic increases in participants' contribution rates in automatic enrollment plans, see VanDerhei and Copeland 2008; VanDerhei 2010; and VanDerhei and Lucas 2010. For a discussion of the variety of factors (e.g., taxes, savings, mortgages, children) that impact replacement rates, see Brady 2010. For an analysis of the impact of changes in Social Security between 1992 and 2004 on retirement patterns, see Gustman and Steinmeier 2008.

[30] The tendency of the account balance-to-salary ratio to peak at higher salary levels and then fall off likely reflects the influence of two competing forces. First, empirical research suggests that higher earners tend to contribute higher percentages of salary; therefore, one would expect the ratio of account balance to salary to rise with salary. However, tax code contribution limits and nondiscrimination rules, which aim to ensure that employees of all income ranges attain the benefits of the 401(k) plan, constrain these high-income individuals' ability to save in the plan. See Holden and VanDerhei 2001c for a complete discussion of EBRI/ICI findings and others' research on the relationship between contribution rates and salary. For an analysis of 401(k) participants' contribution activity during the bear market of 2000 to 2002, see Holden and VanDerhei 2004c. For summary statistics on contribution activity in 2011, see The Vanguard Group 2012 and Aon Hewitt 2012.

[31] At year-end 2011, 63 percent of balanced mutual fund assets were invested in equities (see Investment Company Institute, Quarterly Supplementary Data).

[32] Other research suggests that most 401(k) participants do not make active changes to their asset allocations during any given year. For example, an ICI survey of recordkeepers covering nearly 24 million DC plan participant accounts found that 10.5 percent of DC plan participants changed the asset allocation of their account balances in 2011 and 7.7 percent changed the asset allocation of their contributions during 2011 (see Holden and Schrass 2012). Covering a year earlier, the ICI survey of recordkeepers covering nearly 24 million DC plan participant accounts found that 10.3 percent of DC plan participants changed the asset allocation of their account balances in 2010 and 8.0 percent changed the asset allocation of their contributions during 2010 (see Holden and Schrass 2012). Utkus and Young 2010 reported that 13 percent of DC plan participants traded in their retirement accounts in 2009, analyzing the plans administered by Vanguard. Analyzing 2011 data, The Vanguard Group 2012 reported that "only 11 [percent] of DC plan participants traded in their accounts," down from 16 percent in 2008, making it "the lowest level observed since [they] began tracking this data in 1999." Aon Hewitt 2012 found that 14.6 percent of participants traded in their accounts in 2011, and 12.9 percent changed the asset allocation of their contributions. Similarly, Aon Hewitt 2011 found that 14.2 percent of participants traded in their accounts in 2010, and 14.6 percent changed the asset allocation of their contributions. Hewitt Associates 2009a reported that 19.6 percent of participants made asset transfers in their account balances during 2008, which was "up only marginally" from 2007 (although, they tended to move larger portions of their account balances). Fidelity Investments 2008 reported that overall only 6.6 percent of participants in their recordkeeping system made exchanges during September, October, and November 2008, a time of stock market volatility. Furthermore, Choi et al. 2001 found that 401(k) participants rarely made changes after the initial point of enrollment. (For household survey results from late 2011 reflecting households' sentiment toward and confidence in 401(k) plans, see Holden and Bass 2012.)

[33] For the age distribution of 401(k) plan participants and assets at year-end 2011, see Figure 5.

[34] See note 11 for additional detail on target date funds.

[35] For an analysis tracking target date fund use and the persistence of their use from 2007 through 2009, see Copeland 2011.

[36] Target date funds often are used as the default investment in automatic enrollment plans and in plans' investment lineups (see Plan Sponsor Council of America 2012). At year-end 2011, 72 percent of target date mutual fund assets were held in DC plans (see Investment Company Institute 2012). Plan Sponsor Council of America 2012 reported an increase in the incidence of automatic enrollment in 2011. Of more than 800 plans surveyed, 45.9 percent had automatic enrollment in 2011, compared with 41.8 percent of plans in 2010, 38.4 percent of plans in 2009, 39.6 percent of plans in 2008, 35.6 percent of plans in 2007, about 17 percent of plans in 2005, and 10.5 percent of plans in 2004. Eighty-two percent of plans with automatic enrollment in 2011 applied automatic enrollment only to new hires, while 18 percent applied automatic enrollment to all nonparticipants.

[37] At year-end 2011, 63 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 Lifecycle Allocation Index.

At year-end 2011, on average, participants in their twenties had 74 percent of their 401(k) plan assets invested in equities—through equity funds, company stock, and the equity portion of balanced funds; participants in their thirties, on average, had 73 percent invested in equities; participants in their forties had 69 percent invested in equities; participants in their fifties had 58 percent invested in equities; and participants in their sixties had 48 percent invested in equities.

[38] For year-end 2010 data, see Holden et al. 2011.

[39] See Holden et al. 2008; Holden, VanDerhei, and Alonso 2009; Holden, VanDerhei, and Alonso 2010; and Holden et al. 2011 for data for earlier years.

[40] For year-end 2010 data, see Holden et al. 2011.

[41] In the database, there has been a downward trend in 401(k) plan participants' holdings of and concentration in company stock. In the wake of the collapse of Enron in 2001, participants' awareness of the need to diversify may have increased and some plan sponsors changed plan design (see VanDerhei 2002). In addition, some of this movement 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 U.S. Joint Committee on Taxation 2006).

[42] 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 U.S. Government Accountability 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.

[43] The percentage of 401(k) participants with 401(k) loans outstanding across all participants both with and without 401(k) plan loan access was similar in earlier years. For example, in 2010, this measure was 18 percent; in 2009, 19 percent; in 2008, 16 percent; in 2007, 16 percent; and in 2006, 15 percent.

[44] In plan year 2010 (latest data available), only 1.7 percent of the $3.1 trillion in 401(k) plan assets were participant loans. In addition, based on Form 5500 data, ICI estimates only about $730 million flowed out of 401(k) plans as the result of converting a loan into a "deemed distribution of participant loans." See U.S. Department of Labor, Employee Benefits Security Administration 2012b. However, some loans are included in regular plan distributions and cannot be tracked (see Holden, Pierce, and Burham 2012).

[45] This pattern is driven in part by restrictions placed on loan amounts.

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202-326-5800
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