$401(\mathrm{k})$ Plan Asset Allocation, Account Balances, and Loan Activity in 2010

By Jack VanDerhei, EBRI; Sarah Holden, ICI; Luis Alonso, EBRI; and Steven Bass, ICI

THE BULK OF 401(K) ASSETS CONTI NUED TO BE INVESTED IN STOCKS. On average, at year-end 2010, 62 percent of $401(\mathrm{k})$ participants' assets were invested in equity securities through equity funds, the equity portion of balanced funds, and company stock. Thirty-three percent were in fixed-income securities such as stable value investments and bond and money funds.

## SEVENTY PERCENT OF 401(K) PLANS I NCLUDED TARGET-DATE FUNDS IN THEI R I NVESTMENT

 LI NEUP AT YEAR-END 2010. At year-end 2010, 11 percent of the assets in the EBRI/ICI 401(k) database were invested in target-date funds and 36 percent of 401(k) participants held target-date funds. Also known as lifecycle funds, they are designed to offer a diversified portfolio that automatically rebalances to be more focused on income over time.MORE NEW OR RECENT HI RES INVESTED THEI R 401(K) ASSETS I $\operatorname{~BALANCED~FUNDS,~I~NCLUDI~NG~}$ TARGET-DATE FUNDS. For example, at year-end 2010, 44 percent of the account balances of recently hired participants in their 20s were invested in balanced funds, compared with 42 percent in 2009, and about 7 percent in 1998. A significant subset of that balanced fund category is target-date funds. At year-end 2010, 35 percent of the account balances of recently hired participants in their 20s were invested in target-date funds, compared with 31 percent at year-end 2009.

401(K) PARTI CI PANTS CONTI NUED TO SEEK DI VERSI FI CATI ON OF THEI R I NVESTMENTS. The share of $401(\mathrm{k})$ accounts invested in company stock continued to shrink, falling by more than a percentage point (to 8 percent) in 2010, continuing a steady decline that started in 1999. Recently hired 401(k) participants contributed to this trend: They tended to be less likely to hold employer stock.

PARTICIPANTS' 401(K) LOAN BALANCES DECLI NED SLI GHTLY IN 2010. In 2010, 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 up from 18 percent at year-end 2008. Loans outstanding amounted to 14 percent of the remaining account balance, on average, at year-end 2010, compared with 15 percent at year-end 2009. Loan amounts outstanding declined slightly from those in the past few years.

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# 401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2010 

By Jack VanDerhei, EBRI; Sarah Holden, ICI; Luis Alonso, EBRI; and Steven Bass, ICI

## 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 2010, an estimated 51 million American workers were active 401(k) plan participants. ${ }^{2}$ By year-end 2010, 401(k) plan assets had grown to represent 17 percent of all retirement assets, amounting to $\$ 3.0$ 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 $401(\mathrm{k})$ 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 2010. ${ }^{6}$ 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 2010; 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.

As with previous EBRI/ICI updates, analysis of a sample of consistent 401(k) participants (for example, those that have been in the same plan since 2003) is planned. This additional analysis is expected to be published in 2012.

## 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, 2010, the EBRI/ICI database included statistical information about:

- 23.4 million 401(k) plan participants, in
- 64,455 employer-sponsored 401(k) plans, holding
- $\$ 1.414$ trillion in assets.

The 2010 EBRI/ICI database covered 46 percent of the universe of $401(\mathrm{k})$ plan participants, more than 10 percent of plans, and 47 percent of $401(\mathrm{k})$ 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 Type of Data

Several recordkeeping organizations provided records on active participants in 401(k) plans at year-end 2010. These plan recordkeepers include mutual fund companies, insurance companies, and consulting firms. Although the EBRI/ICI project has collected data from 1996 through 2010, the universe of data providers varies 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 2010 EBRI/ICI database it is possible to link individuals across plans across a majority of the recordkeepers. This improves the identification of active participants and resulted in the reclassification of 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. ${ }^{15}$

## Distribution of Plans, Participants, and Assets by Plan Size

The 2010 EBRI/ICI 401(k) database contains information on 64,455 401(k) plans with $\$ 1.414$ trillion in assets and 23.4 million participants (Figure 1). Most of the plans in the database are small: 45 percent of the plans have 25 or fewer participants, and 30 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 70 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 2010 EBRI/ICI 401(k) database is a representative sample of the estimated universe of 401(k) plans. At year-end 2010, all 401(k) plans held a total of $\$ 3.0$ trillion in assets, and the database represents about 47 percent of that total. ${ }^{16}$ The database also covers 46 percent of the universe of active $401(\mathrm{k})$ plan participants and more than 10 percent of all 401 (k) plans. ${ }^{17}$ The distribution of assets, participants, and plans in the database for 2010 is similar to the universe of plans as reported by the Department of Labor (Figure 4). ${ }^{18}$

## The Typical 401(k) Plan Participant

The database includes 401(k) participants across a wide range of age and tenure groups. At year-end 2010, 52 percent of participants were in their 30 s or 40 s , while 12 percent of participants were in their 20 s and 10 percent were in their 60s (Figure 5, upper panel). The median age of the participants in the 2010 database is 45 years, the same as in 2009. 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 2010, 57 percent of $401(\mathrm{k})$ plan assets were held by participants in their 50 s or 60 s, while 14 percent were held by participants in their 20 s or 30 s (Figure 5 , lower panel).

Participants in 401(k) plans represent a wide range of job tenure experiences. In 2010, 39 percent of the participants 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 2010.

## Figure 1

401(k) Plan Characteristics, by Number of Plan Participants, 2010

| Number of Plan Participants | Total Plans | Total Participants | Total Assets* | Average Account Balance |
| :--- | :---: | :---: | :---: | :---: |
| $1-10$ | 14,738 | 81,271 | $\$ 5,293,614,819$ | $\$ 65,135$ |
| $11-25$ | 14,400 | 246,571 | $\$ 15,292,228,356$ | $\$ 62,020$ |
| $26-50$ | 10,708 | 388,807 | $\$ 23,153,272,398$ | $\$ 59,550$ |
| $51-100$ | 8,504 | 601,793 | $\$ 34,300,674,711$ | $\$ 56,997$ |
| $101-250$ | 7,389 | $1,170,655$ | $\$ 63,010,562,582$ | $\$ 53,825$ |
| $251-500$ | 3,514 | $1,243,600$ | $\$ 63,343,209,885$ | $\$ 50,935$ |
| $501-1,000$ | 2,120 | $1,494,659$ | $\$ 81,507,444,900$ | $\$ 54,532$ |
| $1,001-2,500$ | 1,656 | $2,620,385$ | $\$ 142,917,466,974$ | $\$ 54,541$ |
| $2,501-5,000$ | 707 | $2,474,605$ | $\$ 141,671,469,879$ | $\$ 57,250$ |
| $5,001-10,000$ | 371 | $2,610,260$ | $\$ 170,372,981,833$ | $\$ 65,271$ |
| $>10,000$ | 348 | $10,508,579$ | $\$ 673,316,270,459$ | $\$ 64,073$ |
| All | $\mathbf{6 4 , 4 5 5}$ | $\mathbf{2 3 , 4 4 1 , 1 8 5}$ | $\mathbf{\$ 1 , 4 1 4 , 1 7 9 , 1 9 6 , 7 9 4}$ | $\mathbf{\$ 6 0 , 3 2 9}$ |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. |  |  |  |  |
| Note: The median account balance at year-end 2010 was $\$ 17,686$. |  |  |  |  |
| The assets do not add to the total because of rounding.  |  |  |  |  |

Figure 2
Distribution of 401(k) Plans, Participants, and Assets
Percentage of plans, participants, and assets by number of plan participants, 2010


Figure 3
401(k) Plan Characteristics, by Plan Assets, 2010

| Total Plan Assets | Total Plans | Total Participants | Total Assets | Average Account Balance |
| :---: | :---: | :---: | :---: | :---: |
| \$0-\$250,000 | 10,711 | 88,588 | \$1,118,849,491 | \$12,630 |
| >\$250,000-\$625,000 | 9,472 | 158,833 | \$4,018,246,974 | \$25,299 |
| >\$625,000-\$1,250,000 | 9,792 | 268,169 | \$8,920,545,024 | \$33,265 |
| >\$1,250,000-\$2,500,000 | 9,903 | 482,292 | \$17,806,695,542 | \$36,921 |
| >\$2,500,000-\$6,250,000 | 10,616 | 1,007,958 | \$42,239,227,123 | \$41,906 |
| >\$6,250,000-\$12,500,000 | 5,393 | 1,066,111 | \$47,345,993,298 | \$44,410 |
| >\$12,500,000-\$25,000,000 | 3,459 | 1,336,004 | \$60,949,175,102 | \$45,621 |
| >\$25,000,000-\$62,500,000 | 2,528 | 2,100,167 | \$98,641,290,405 | \$46,968 |
| >\$62,500,000-\$125,000,000 | 1,084 | 1,938,697 | \$95,071,751,337 | \$49,039 |
| >\$125,000,000-\$250,000,000 | 647 | 2,009,640 | \$112,544,204,836 | \$56,002 |
| >\$250,000,000 | 850 | 12,984,726 | \$925,523,217,662 | \$71,278 |
| All | 64,455 | 23,441,185 | \$1,414,179,196,794 | \$60,329 |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. Note: The median account balance at year-end 2010 was $\$ 17,686$. |  |  |  |  |
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Figure 4

## EBRIIICI 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 2010 vs. 2008 DOL Form 5500 for all 401(k) plans

Plan Assets
Percentage of plan assets


Participants
Percentage of participants


Plans
Percentage of plans


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

| Figure 5 <br> 401(k) Participants Represent a Range of Ages <br> Percentage of active 401(k) plan participants and 401(k) plan assets by age, 2010 <br> Active 401(k) Plan Participants <br> (Median Age: 45 Years) |
| :---: |
| 401(k) Plan Assets <br> Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. |

## Figure 6

401(k) Participants Represent a Range of Job Tenures
Percentage of active $401(\mathrm{k})$ plan participants, by tenure, 2010


Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: Components do 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.


#### Abstract

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 (arguably a good event) to the database would tend to pull down the average account balance, which 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 and rolled over their account balances. In addition, changes in the sample of recordkeepers and changes in the set of plans for which they keep records can also influence the change in aggregate average account balance. Thus, to ascertain what is happening to 401 (k) participants' account balances, a set of consistent participants must be analyzed. Future research will examine linked data to analyze the consistent sample of participants in the EBRI/ICI data collection effort from 2003 through 2010.


## Year-End 2010 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 15.1 percent during 2010, while bonds (as measured by the Barclays Capital U.S. Aggregate Bond Index) increased 6.5 percent (Figures 7 and 8).

## 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 crosssectional 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 $401(\mathrm{k})$ participants join or leave plans. ${ }^{19}$ In addition, the database contains only the account balances held in the $401(\mathrm{k})$ 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 2010, the average account balance was $\$ 60,329$ and the median account balance was $\$ 17,686$ (Figure 9). There is wide variation in 401(k) plan participants' account balances at year-end 2010. About three-quarters of the participants in the 2010 EBRI/ICI 401(k) database had account balances that were lower than $\$ 60,329$, the size of the average account balance. In fact, 39.2 percent of participants had account balances of less than $\$ 10,000$, while

Figure 7
Domestic Stock and Bond Market Indexes
Month-end level,a December 1996 to September 2011


Sources: Bloomberg, Barclays Global Investors, Frank Russell Company, and Standard \& Poor's.
${ }^{\text {a }}$ All indexes are set to 100 in December 1996.
${ }^{\mathrm{b}}$ The S\&P 500 is an index of 500 stocks chosen for market size, liquidity, and industry group representation.
${ }^{\text {c }}$ 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).
${ }^{d}$ 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.

17.1 percent of participants had account balances 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.

## Relationship of Age and Tenure to Account Balances

There is a positive correlation between age and account balance among participants covered by the 2010 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 20 s or 30 s (Figure 11). Similarly, 59 percent of participants with account balances greater than $\$ 100,000$ were in their 50 s or 60 s. 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.

There is also a positive correlation between account balance and tenure among participants represented by the 2010 database. A participant's tenure with an employer serves as a proxy for the length of time a worker has participated in the $401(\mathrm{k})$ plan. ${ }^{23}$ Indeed, 62 percent of participants with account balances of less than $\$ 10,000$ had five or fewer years of tenure, while 76 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 60 s with up to two years of tenure was $\$ 26,649$, compared with $\$ 202,329$ for participants in their 60 s with more than 30 years of tenure (Figure 13). ${ }^{25}$ Similarly, the average account balance of participants in their 40s with up to two years of tenure was $\$ 16,337$, compared with $\$ 132,209$ for participants in their 40 s 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, 88 percent of participants in their 20 s with two or fewer years of tenure had account balances of less than $\$ 10,000$ in 2010, compared with 55 percent of participants in their 20 s with between five and 10 years of tenure (Figure 14). Older workers display a similar pattern. For example, 61 percent of participants in their 60 s with two or fewer years of tenure had account balances of less than $\$ 10,000$. In contrast, only 18 percent of those in their 60 s with more than 20 years of tenure had account balances of less than $\$ 10,000 .{ }^{26}$

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 60 s with five to 10 years of tenure had account balances in excess of $\$ 100,000$ in 2010 (Figure 15). However, 44 percent of participants in their 60s with between 20 and 30 years of tenure with their current employer had account balances greater than $\$ 100,000$. The percentage increases to 49 percent for participants in their 60 s 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 at their current jobs 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 30 years ago). ${ }^{27}$

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 20 s with salaries between $\$ 20,000$ and $\$ 40,000$, the median account balance was $\$ 6,299$ in 2010 (Figure 16). Longer-tenured

Figure 9
Snapshot of Year-End 401(k) Account Balances
401(k) plan participant account balances, ${ }^{\text {a }} 1996$-2010 ${ }^{\text {b }}$



Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
${ }^{\text {a }}$ Account balances are participant account balances held in $401(\mathrm{k})$ 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.
${ }^{\mathrm{b}}$ The sample of participants changes over time.
Note: The sample of participants changes over time.

Figure 10
Distribution of 401(k) Account Balances, by Size of Account Balance
Percentage of participants with account balances in specified ranges, 2010


Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: At year-end 2010, the average account balance among all 23.4 million $401(\mathrm{k})$ particiants was $\$ 60,329$; the median account balance was $\$ 17,686$. Percentages do not add to 100 percent because of rounding.

Figure 11
Age Composition of Selected 401(k) Account Balance Categories
Percentage of participants with account balances in specified ranges, 2010


[^1]Figure 12
Tenure Composition of Selected 401(k) Account Balance Categories Percentage of participants with account balances in specified ranges, 2010


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

Figure 13
401(k) Account Balances Increase With Participant Age and Tenure
Average 401(k) account balance, by age and tenure, 2010

|  | Tenure (years) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| Age Group | $0-2$ | $>2-5$ | $>5-10$ | $>10-20$ | $>20-30$ | $>30$ |
| 20 s | $\$ 4,250$ | $\$ 10,793$ | $\$ 16,132$ |  |  |  |
| 30 s | $\$ 10,369$ | $\$ 21,812$ | $\$ 37,915$ | $\$ 55,087$ |  |  |
| 40 s | $\$ 16,337$ | $\$ 30,158$ | $\$ 52,148$ | $\$ 87,914$ | $\$ 132,209$ |  |
| 50 s | $\$ 22,024$ | $\$ 36,030$ | $\$ 56,899$ | $\$ 98,289$ | $\$ 179,587$ | $\$ 194,399$ |
| 60 s | $\$ 26,649$ | $\$ 37,560$ | $\$ 53,108$ | $\$ 89,956$ | $\$ 159,654$ | $\$ 202,329$ |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: At year-end 2010, the average account balance among all 23.4 million 401 (k) particiants was $\$ 60,329$; the median account balance was $\$ 17,686$. The tenure variable is generally years working at current employer, and thus may overstate years of participation in the $401(\mathrm{k})$ plan.

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 2010


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

participants in their 20s earning $\$ 80,000$ to $\$ 100,000$ had a median account balance of $\$ 46,872$, while those earning more than $\$ 100,000$ had a median account balance of $\$ 37,168$. Among longer-tenured participants in their 60 s with $\$ 20,000$ to $\$ 40,000$ in salary in 2010, the median account balance was $\$ 53,250$. For longer-tenured participants in their 60 s earning more than $\$ 100,000$, the median account balance was $\$ 299,460$.

The ratio of participant account balance to salary is positively correlated with age and tenure. ${ }^{29}$ Participants in their 60s-having had more time to accumulate assets-tended to have higher ratios, while those in their 20s 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 20 s, the ratio tends to 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 60s (Figure 19). ${ }^{30}$

## Year-End 2010 Snapshot of 401(k) Asset Allocation

When the stock market rises in value (Figures 7 and 8), the percentage of 401(k) assets invested in equities tends to rise; following this pattern, assets invested in equities increased as the stock market went up in 2010. At year-end 2010, 42 percent of 401(k) plan participants' account balances was invested in equity funds, on average, compared with 41 percent at year-end 2009, 37 percent at year-end 2008, 48 percent at year-end 2007, and 40 percent at yearend 2002 (Figure 20). Altogether, equity securities-equity funds, the equity portion of balanced funds, ${ }^{31}$ and company stock—represented about 62 percent of 401(k) plan participants' assets.

## Changes in Asset Allocation Between Year-End 2009 and Year-End 2010

Investment performance likely explains much of the changes 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 in 2009 and 2010 (Figures 8 and 20). At year-end 2010, equity funds were 42 percent of the assets in the EBRI/ICI 401(k) database, compared with a 41 percent share at year-end 2009. Balanced funds, which invest in equities and fixed-income securities, also increased in share, accounting for 18 percent of the assets in the database at year-end 2010. Despite the increases in shares of equity and balanced funds and the decreases in the shares of GICs and other stable value funds, money funds, and company stock, most 401(k) participants appeared not to have made dramatic shifts in their asset allocations in 2010. ${ }^{32}$

## Asset Allocation and Participant Age

As in previous years, the database for year-end 2010 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 20s, the average allocation to equity and balanced funds was 74 percent of assets, compared with 50 percent of assets among participants in their 60s. Among participants in their 20 s , the average allocation to equity funds was 37 percent of assets, compared with 34 percent of assets among participants in their 60s. Younger participants also had higher allocations to balanced funds, particularly to target-date funds. A targetdate, 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 2010, 11 percent of $401(\mathrm{k})$ assets in the database was invested in target-date funds. Among participants in their 20s, 27 percent of their $401(\mathrm{k})$ assets were invested in target-date funds, while among participants in their $60 \mathrm{~s}, 9$ percent of their 401(k) assets were invested in target-date funds.

## Asset Allocation and Investment Options

The investment options that a plan sponsor 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 2010 database were in these plans, which generally offer equity funds, bond funds, money funds, and balanced funds as investment options. Another 26 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,


Figure 17
Ratio of 401(k) Account Balance to Salary, by Participant Age and Tenure

Percentage, 2010


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

Figure 18
Ratio of 401(k) Account Balance to Salary for Participants in Their 20s, by Tenure Percentage, 2010


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

Figure 19
Ratio of 401(k) Account Balance to Salary for Participants in Their 60s, by Tenure
Percentage, 2010


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

14 percent of participants were in plans that offer company stock but no stable value products, while the remaining 25 percent of participants were offered both company stock and stable value products, in addition to the base options.

Target-date funds were available in 70 percent of 401(k) plans in the year-end 2010 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, 53 percent held them at year-end 2010. Target-date fund assets represented 17 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 the analysis of asset allocation by investment options and also by participants' age. Salary information is available for a subset of participants in the 2010 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. This trend emerges, 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 60 percent of participants in plans with more than 5,000 participants were offered company stock as an investment option in 2010. Thus, to analyze the potential effect of plan size, the remaining panels of Figure 25 group plans by investment options and plan size.

## 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.

Figure 20
Average Asset Allocation of 401(k) Participants


Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
${ }^{\text {a }}$ Minor investment options are not shown; therefore, percentages do not add to 100 percent. Percentages are dollar-weighted averages.
${ }^{\mathrm{b}}$ Not all participants are offered this investment option.
${ }^{\text {c GICs }}$ 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.

Figure 21

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

Percentage of account balances, ${ }^{\text {a }} 2010$


Source: Tabulations from EBRI/ICIP articipant-Directed Retirement Plan Data Collection Project.
${ }^{\text {a }}$ Row percentages may not add to 100 percent because of rounding. Percentages are dollar-weighted averages.
${ }^{\circ}$ 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.
${ }^{\circ}$ 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.

| Figure 22 |  |  |  |
| :---: | :---: | :---: | :---: |
| Distribution of 401(k) Plans, Participants, and Assets, by Investment Options, 2010 |  |  |  |
| Investment Options Offered by Plan | Plans | Participants | Assets |
| Equity, bond, money, and/or balanced funds | 40,638 | 8,177,054 | \$405,510,024,541 |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 27,212 | 5,679,434 | \$275,050,452,512 |
| Equity, bond, money, and/or balanced funds, |  |  |  |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 16,919 | 4,466,445 | \$235,136,454,086 |
| Equity, bond, money, and/or balanced funds, |  |  |  |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 430 | 2,471,571 | \$136,656,195,629 |
| Equity, bond, money, and/or balanced funds, <br> and company stock, and GICs ${ }^{\text {b }}$ and/or |  |  |  |
| Of which: target-date funds ${ }^{a}$ an option | $636$ | $3,239,383$ | \$259,567,917,586 |
| All | 64,455 | 23,441,185 | 1,414,179,196,794 |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 45,159 | 15,856,833 | 906,411,019,813 |
| Investment Options Offered by Plan | Percentage of plans | Percentage of participants | Percentage of assets |
| Equity, bond, money, and/or balanced funds | 63.0\% | 34.9\% | 28.7\% |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 42.2\% | 24.2\% | 19.4\% |
| Equity, bond, money, and/or balanced funds, |  |  |  |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 26.2\% | 19.1\% | 16.6\% |
| Equity, bond, money, and/or balanced funds, |  |  |  |
| and company stock | 1.0\% | 14.3\% | 15.2\% |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 0.7\% | 10.5\% | 9.7\% |
| Equity, bond, money, and/or balanced funds, and company stock, and GICs ${ }^{\text {b }}$ and/or |  |  |  |
| other stable value funds | 1.3\% | 24.7\% | 32.2\% |
| Of which: target-date funds ${ }^{\text {a }}$ an option | 1.0\% | 13.8\% | 18.4\% |
| Ali.................................................................... | 100\% | 100\% | 100\% |
| Of which: target date funds ${ }^{\text {a }}$ an option | 70.1\% | 67.6\% | 64.1\% |
| Source: Tabulations from EBRI/ICI 401(k) Participant-Directed Retirement Plan Data Collection Project. ${ }^{\text {a }}$ 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. |  |  |  |
| ${ }^{\mathrm{b}}$ GICs are guaranteed investment contracts. <br> ${ }^{\text {c }}$ Column percentages may not add to 100 percent be | of rounding. |  |  |


| Figure 23 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Asset Allocation of 401(k) Accounts, by Participant Age and Investment Options Percentage of account balances, ${ }^{\text {a }} 2010$ |  |  |  |  |  |  |  |
|  | Equity <br> Funds | Target-date Funds ${ }^{\text {b }}$ | Non-Target-date Balanced Funds | Bonds <br> Funds | Money <br> Funds | $\mathrm{GICs}^{\mathrm{c}} /$ Stable- <br> Value Funds | Company <br> Stock |
| Investment Options, All Ages |  |  |  |  |  |  |  |
| Equity, bond, money, and/or balanced funds | 48.6\% | 14.2\% | 6.3\% | 17.8\% | 6.5\% |  |  |
| Equity, bond, money, and/or balanced funds; and $\mathrm{GICs}^{\mathrm{c}}$ and/or other stable-value funds | 43.0\% | 13.4\% | 9.2\% | 8.2\% | 2.5\% | 18.2\% |  |
| Equity, bond, money, and/or balanced funds; and company stock | 37.0\% | 11.4\% | 4.8\% | 13.9\% | 8.9\% |  | 18.8\% |
| Equity, bond, money, and/or balanced funds, company stock; and $\mathrm{GICs}^{\mathrm{c}}$ and/or other stable-value funds | 37.7\% | 6.6\% | 7.3\% | 7.5\% | 2.0\% | 18.3\% | 15.8\% |
| Plans Without Company Stock, and GICs, ${ }^{\text {c }}$ and/or Other Stable-Value Funds Age Group |  |  |  |  |  |  |  |
| 20s | 42.7\% | 29.6\% | 7.1\% | 10.7\% | 4.1\% |  |  |
| 30s | 52.5\% | 18.3\% | 5.9\% | 12.6\% | 4.5\% |  |  |
| 40s | 53.9\% | 13.9\% | 6.1\% | 14.4\% | 5.1\% |  |  |
| 50s | 47.4\% | 13.4\% | 6.5\% | 18.6\% | 6.8\% |  |  |
| 60s | 40.8\% | 12.2\% | 6.3\% | 23.8\% | 9.1\% |  |  |
| Plans With GICs ${ }^{\text {c and/or Other Stable-Value Funds }}$ |  |  |  |  |  |  |  |
| 20s | 37.0\% | 29.1\% | 14.6\% | 5.2\% | 1.5\% | 7.8\% |  |
| 30s | 47.8\% | 19.2\% | 9.7\% | 6.4\% | 1.9\% | 9.4\% |  |
| 40s | 49.3\% | 13.9\% | 8.8\% | 7.2\% | 2.2\% | 12.5\% |  |
| 50s | 42.2\% | 12.2\% | 9.3\% | 8.9\% | 2.6\% | 19.3\% |  |
| 60s | 34.7\% | 10.7\% | 8.9\% | 9.8\% | 3.3\% | 27.9\% |  |
| Plans With Company Stock |  |  |  |  |  |  |  |
| 20s | 31.9\% | 34.7\% | 5.2\% | 7.6\% | 3.5\% |  | 12.4\% |
| 30s | 44.8\% | 15.9\% | 4.7\% | 9.9\% | 4.6\% |  | 15.2\% |
| 40s | 43.6\% | 11.6\% | 4.6\% | 11.1\% | 5.8\% |  | 18.3\% |
| 50s | 34.4\% | 10.1\% | 5.1\% | 15.0\% | 9.2\% |  | 20.3\% |
| 60s | 27.7\% | 8.9\% | 4.6\% | 19.4\% | 15.2\% |  | 19.2\% |
| Plans With Company Stock and GICs, ${ }^{\text {c and/or Other Stable-Value Funds }}$ |  |  |  |  |  |  |  |
| 20s | 33.4\% | 18.3\% | 13.1\% | 4.8\% | 1.5\% | 8.3\% | 16.4\% |
| 30s | 43.3\% | 10.5\% | 8.8\% | 6.1\% | 1.6\% | 9.0\% | 15.5\% |
| 40s | 43.8\% | 7.1\% | 7.4\% | 6.7\% | 1.8\% | 12.0\% | 16.1\% |
| 50s | 36.2\% | 5.7\% | 7.0\% | 8.1\% | 2.1\% | 19.2\% | 16.5\% |
| 60s | 29.8\% | 5.0\% | 6.7\% | 8.3\% | 2.3\% | 29.4\% | 14.1\% |
| ${ }^{\mathrm{b}}$ 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. <br> ${ }^{\text {c }}$ GICs are guaranteed investment contracts. <br> Note: "Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. |  |  |  |  |  |  |  |


| Figure 24 <br> Average Asset Allocation of 401(k) Accounts, by Participant Salary and Investment Options <br> Percentage of account balances, ${ }^{\text {a }} 2010$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Salary ${ }^{\text {b }}$ | Equity Funds | Target-date Funds ${ }^{\text {c }}$ | Non-Target-date Balanced Funds | Bond Funds | Money Funds | GICs ${ }^{\text {d } / S t a b l e-~}$ <br> Value Funds | Company <br> Stock |
| Plans Without Company Stock, GICs, ${ }^{\text {d }}$ or Other Stable-Value Funds |  |  |  |  |  |  |  |
| \$20,000-\$40,000 | 42.7\% | 21.9\% | 6.8\% | 17.2\% | 6.1\% |  |  |
| >\$40,000-\$60,000 | 43.5\% | 19.2\% | 7.2\% | 16.6\% | 6.7\% |  |  |
| > \$60,000-\$80,000 | 45.7\% | 17.8\% | 6.4\% | 15.9\% | 6.1\% |  |  |
| >\$80,000-\$100,000 | 48.1\% | 15.9\% | 5.6\% | 16.3\% | 5.9\% |  |  |
| >\$100,000 | 48.6\% | 12.3\% | 5.9\% | 17.2\% | 5.9\% |  |  |
| All | 48.6\% | 14.2\% | 6.3\% | 17.8\% | 6.5\% |  |  |
| Plans With GICs ${ }^{\text {d }}$ and/or Other Stable-Value Funds |  |  |  |  |  |  |  |
| \$20,000-\$40,000 | 39.1\% | 17.4\% | 11.1\% | 7.5\% | 2.4\% | 18.0\% |  |
| >\$40,000-\$60,000 | 38.2\% | 13.4\% | 15.3\% | 7.3\% | 2.7\% | 17.7\% |  |
| > \$60,000-\$80,000 | 41.8\% | 10.5\% | 15.1\% | 7.7\% | 2.5\% | 17.0\% |  |
| >\$80,000-\$100,000 | 45.5\% | 9.5\% | 13.2\% | 8.4\% | 2.2\% | 16.6\% |  |
| >\$100,000 | 47.9\% | 9.1\% | 11.0\% | 8.9\% | 2.1\% | 15.9\% |  |
| All | 43.0\% | 13.4\% | 9.2\% | 8.2\% | 2.5\% | 18.2\% |  |
| Plans With Company Stock |  |  |  |  |  |  |  |
| \$20,000-\$40,000 | 34.1\% | 14.3\% | 3.5\% | 14.5\% | 11.2\% |  | 16.4\% |
| >\$40,000-\$60,000 | 36.8\% | 12.2\% | 5.8\% | 14.6\% | 10.5\% |  | 13.0\% |
| > \$60,000-\$80,000 | 37.7\% | 10.8\% | 6.1\% | 14.1\% | 8.6\% |  | 14.8\% |
| >\$80,000-\$100,000 | 38.2\% | 7.9\% | 6.7\% | 12.1\% | 8.4\% |  | 18.1\% |
| >\$100,000 | 38.0\% | 7.6\% | 5.8\% | 14.5\% | 6.1\% |  | 20.1\% |
| All | 37.0\% | 11.4\% | 4.8\% | 13.9\% | 8.9\% |  | 18.8\% |
| Plans With Company Stock and GICs ${ }^{\text {d }}$ and/or Other Stable-Value Funds |  |  |  |  |  |  |  |
| \$20,000-\$40,000 | 35.3\% | 7.2\% | 9.3\% | 7.3\% | 1.5\% | 18.6\% | 18.6\% |
| >\$40,000-\$60,000 | 35.1\% | 7.6\% | 9.9\% | 7.0\% | 2.3\% | 17.3\% | 17.5\% |
| > \$60,000-\$80,000 | 37.0\% | 7.8\% | 9.1\% | 7.2\% | 2.2\% | 16.6\% | 16.5\% |
| >\$80,000-\$100,000 | 39.6\% | 7.0\% | 9.0\% | 7.8\% | 2.0\% | 15.2\% | 15.0\% |
| >\$100,000 | 41.1\% | 6.7\% | 6.6\% | 7.5\% | 1.4\% | 15.5\% | 13.0\% |
| All | 37.7\% | 6.6\% | 7.3\% | 7.5\% | 2.0\% | 18.3\% | 15.8\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. |  |  |  |  |  |  |  |
| ${ }^{\text {c }}$ 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. <br> ${ }^{\text {d }}$ GICs are guaranteed investment contracts. <br> Note: "Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. |  |  |  |  |  |  |  |

## Asset Allocation to Equity Funds

The year-end 2010 EBRI/ICI 401(k) database shows that, on average, 42 percent of participant account balances were allocated to equity funds (Figure 21), which is one way to hold equities. However, individual asset allocations varied widely across participants. For example, about 47 percent of participants held no equity funds, while 16 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 63 percent of participants in their 20s, 42 percent of participants in their 40 s, and 49 percent of participants in their 60 s holding no equity funds. The percentage of 401(k) participants holding no equity funds also varied with tenure, with participants with five or fewer years of tenure 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).

## 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, 75 percent of participants with no equity fund allocation had investments in either company stock or balanced funds at year-end 2010 (Figure 28). For example, 85 percent of participants in their 20s without equity funds held equities through company stock, balanced funds, or both. Indeed, 50 percent of participants in their 20s 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 20 s without equity funds had equity exposure through non-target-date balanced funds, and another 5 percent held company stock as their only equity investment. Nineteen 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).

## 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 62 percent for all participants in the 2010 database. Forty percent of participants had more than 80 percent of their account balances invested in equities, while 12 percent held no equities at all at the end of 2010 (Figure 30).

## Distribution of Participants' Balanced Fund Allocations by Age

Individual 401(k) participants' asset allocation to balanced funds varies widely around an average of 18 percent (Figure 20). For example, 47 percent of participants held no balanced funds, while 27 percent of participants held more than 80 percent of their accounts in balanced funds at the end of 2010 (Figure 31). At year-end 2010, 53 percent of 401(k) participants held balanced funds, up from the 50 percent of participants holding balanced funds at year-end 2009. ${ }^{38}$ At year-end 2010, balanced fund use by participants occurred through target-date funds and non-target-date balanced funds: 36 percent of $401(\mathrm{k})$ participants held target-date funds, 20 percent held non-target-date balanced funds, and 2 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 2010, 49 percent of participants in their 20s held target-date funds, compared with 28 percent of participants in their 60s (Figure 31). Recently hired participants were more likely to hold target-date funds than those with more years on the job: at year-end 2010, 48 percent of participants with two or fewer years of tenure held target-date funds, compared with 34 percent of participants with more than five to 10 years of tenure, and 19 percent of participants with more than 30 years of tenure (Figure 32).

## Distribution of Participants' Company Stock Allocations

Participants' allocations to company stock remained in line with previous years. Thirty-nine percent (or 9.1 million) of the $401(k)$ participants in the 2010 EBRI/ICI 401(k) database were in plans that offered company stock as an investment option (Figure 22). Among these participants, 73 percent held 20 percent or less of their account balances

|  | Avera by <br> Equity Funds | Asset Al an Size rcentage <br> Target-date Funds ${ }^{\text {b }}$ | Figure 25 cation of and Invest account bal Non-Targetdate Balanced Funds | 1(k) <br> nt O <br> ces, ${ }^{\text {a }}$ <br> Bond <br> Funds | coun ons <br> Money Funds | $\mathrm{GICs}^{\mathrm{c}} /$ StableValue Funds | Company Stock |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plan Size by Number of Participants All Plans |  |  |  |  |  |  |  |
| 1-100 | 45.1\% | 16.6\% | 6.1\% | 13.8\% | 6.8\% | 5.3\% | 0.1\% |
| 101-500 | 45.4\% | 16.8\% | 5.6\% | 14.2\% | 6.0\% | 5.9\% | 0.5\% |
| 501-1,000 | 44.9\% | 15.3\% | 5.9\% | 13.7\% | 5.4\% | 6.9\% | 2.2\% |
| 1,001-5,000 | 44.4\% | 13.6\% | 6.2\% | 12.9\% | 4.6\% | 8.2\% | 4.4\% |
| >5,000 | 40.1\% | 8.5\% | 7.8\% | 10.4\% | 3.8\% | 12.5\% | 11.5\% |
| All | 42.0\% | 11.1\% | 7.1\% | 11.6\% | 4.4\% | 10.3\% | 8.0\% |
| Plans Without Company Stock, GICs $^{\text {c//Stable-Value Funds }}$ |  |  |  |  |  |  |  |
| 1-100 | 45.0\% | 18.0\% | 4.1\% | 17.0\% | 7.6\% |  |  |
| 101-500 | 46.6\% | 17.7\% | 4.7\% | 17.4\% | 7.3\% |  |  |
| 501-1,000 | 46.9\% | 15.3\% | 5.5\% | 18.1\% | 7.2\% |  |  |
| 1001-5,000 | 48.6\% | 14.2\% | 6.5\% | 17.6\% | 6.3\% |  |  |
| >5,000 | 51.5\% | 9.5\% | 8.2\% | 18.6\% | 4.9\% |  |  |
| All | 48.6\% | 14.2\% | 6.3\% | 17.8\% | 6.5\% |  |  |
| Plans With GICs ${ }^{\text {c }}$ /Stable-Value Funds |  |  |  |  |  |  |  |
| 1-100 | 45.2\% | 13.8\% | 9.9\% | 7.6\% | 5.1\% | 15.3\% |  |
| 101-500 | 44.3\% | 14.8\% | 6.9\% | 8.0\% | 3.1\% | 17.2\% |  |
| 501-1,000 | 44.3\% | 15.7\% | 6.8\% | 8.1\% | 2.3\% | 17.4\% |  |
| 1,001-5,000 | 42.6\% | 15.6\% | 6.5\% | 8.4\% | 1.9\% | 18.3\% |  |
| >5,000 | 42.0\% | 11.0\% | 11.5\% | 8.2\% | 2.4\% | 19.0\% |  |
| All | 43.0\% | 13.4\% | 9.2\% | 8.2\% | 2.5\% | 18.2\% |  |
| Plans With Company Stock |  |  |  |  |  |  |  |
| $1-100{ }^{\text {d }}$ | 34.2\% | 14.7\% | 4.3\% | 13.0\% | 9.4\% |  | 15.6\% |
| 101-500 | 35.4\% | 14.3\% | 5.3\% | 13.2\% | 9.9\% |  | 14.7\% |
| 501-1,000 | 38.8\% | 11.1\% | 3.1\% | 13.2\% | 8.7\% |  | 18.1\% |
| 1,001-5,000 | 41.6\% | 8.1\% | 4.8\% | 14.8\% | 7.4\% |  | 16.8\% |
| >5,000 | 34.0\% | 12.2\% | 4.7\% | 13.4\% | 9.2\% |  | 19.1\% |
| All | 37.0\% | 11.4\% | 4.8\% | 13.9\% | 8.9\% |  | 18.8\% |
| Plans With Company Stock and GICs ${ }^{\text {c }}$ /Stable-Value Funds |  |  |  |  |  |  |  |
| 1-100 | 35.4\% | 14.1\% | 6.5\% | 8.3\% | 5.4\% | 14.5\% | 7.6\% |
| 101-500 | 33.9\% | 15.4\% | 8.6\% | 7.7\% | 3.3\% | 16.8\% | 6.9\% |
| 501-1,000 | 35.1\% | 15.0\% | 6.2\% | 6.9\% | 3.1\% | 13.9\% | 14.2\% |
| 1,001-5,000 | 37.2\% | 12.7\% | 6.0\% | 7.2\% | 2.8\% | 15.8\% | 12.0\% |
| >5,000 | 37.6\% | 5.7\% | 7.4\% | 7.5\% | 1.8\% | 18.6\% | 16.3\% |
| All | 37.7\% | 6.6\% | 7.3\% | 7.5\% | 2.0\% | 18.3\% | 15.8\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. |  |  |  |  |  |  |  |
| ${ }^{\text {a }}$ Minor investment options are not shown; therefore, row percentages will not add to 100 percent. Percentages are dollar-weighted averages. |  |  |  |  |  |  |  |
| ${ }^{\mathrm{b}}$ 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. <br> ${ }^{\text {c }}$ GICs are guaranteed investment contracts. |  |  |  |  |  |  |  |
| ${ }^{\text {d }}$ Because few plans fall into this category, these percentages may be heavily influenced by a few outliers. <br> Note: "Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. |  |  |  |  |  |  |  |


| Figure 26 <br> Asset Allocation Distribution of 401(k) Account Balances to Equity Funds, by Participant Age Percentage of participants, ${ }^{\text {a,b }} 2010$ <br> Percentage of Account Balance Invested in Equity Funds |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 20s | 63.0\% | 2.5\% | 2.0\% | 2.7\% | 2.7\% | 3.1\% | 4.0\% | 3.7\% | 3.9\% | 3.5\% | 8.8\% |
| 30s | 46.6\% | 3.0\% | 2.9\% | 3.8\% | 4.0\% | 4.9\% | 5.9\% | 5.7\% | 6.1\% | 5.1\% | 11.9\% |
| 40s | 41.8\% | 3.5\% | 3.2\% | 4.2\% | 4.4\% | 5.5\% | 6.5\% | 6.2\% | 6.5\% | 5.2\% | 13.1\% |
| 50s | 43.1\% | 4.4\% | 3.8\% | 4.7\% | 4.9\% | 6.1\% | 6.5\% | 5.9\% | 5.6\% | 3.9\% | 11.1\% |
| 60s | 49.2\% | 4.7\% | 4.0\% | 4.7\% | 4.8\% | 5.4\% | 5.6\% | 4.5\% | 4.0\% | 2.7\% | 10.4\% |
| All | 47.0\% | 3.6\% | 3.2\% | 4.1\% | 4.2\% | 5.2\% | 5.9\% | 5.5\% | 5.6\% | 4.3\% | 11.5\% |

So urce: Tabulations from EBRI/ICI 401 (k) Participant-Directed Retirement Plan Data Collection Project.
${ }^{\text {a }}$ The analysis includes the 23.4 million participants in the year-end 2010 EBRI/ICI database.
${ }^{\text {b }}$ 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 company stock, including 49 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.

## 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 2010 tended to be more likely to hold balanced funds compared with recent hires in the past. Sixty-three percent of recently hired participants in 2010 held balanced funds, compared with 61 percent of recently hired participants 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 2010, 48 percent of recently hired 401(k) participants held target-date funds, while 17 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 2009, 47 percent of recently hired 401(k) participants held target-date funds, 17 percent held non-target-date balanced funds, and 2 percent held both.

Among those who held balanced funds, recently hired participants in 2010 were more likely to hold a high concentration of their accounts in balanced funds compared with past years. At year-end 2010, 70 percent of recently hired participants holding balanced funds had more than 90 percent of their account balance invested in balanced funds, compared with 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 2010, 74 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-two 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 2010.

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 20s were more likely to be highly concentrated in such funds. For example, 52 percent of recently hired participants in their 20 s held more than 90 percent of their account balances in balanced funds, compared with 40 percent of recent hires in their 40 s and 38 percent of recent hires in their 60s in 2010 (Figure 38). Concentrated target-date fund use ranged from 41 percent of recent hires in their 20s holding more than 90 percent of their account balances in target-date funds to 30 percent of recently hired participants in their 60s with that concentration. In addition, at year-end 2010, 44 percent of the account balances of recently hired participants in their 20s was invested in balanced funds, compared with 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 2010, among recently hired participants in their 20s, target-date funds accounted for 79 percent of their balanced fund assets, or 35 percent of their account balances overall. The increase in asset allocation to balanced funds occurred in the target-date fund category: target-date fund assets accounted for 31 percent of the account balance assets of recently hired participants in their 20 s at year-end 2009 (non-target-date balanced funds were 10 percent at year-end 2009 and 9 percent at year-end 2010). ${ }^{40}$ 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 2010 with similar age groups in 1998 also illustrates that asset allocation to company stock and equity funds tended to be lower in 2010 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 27 <br> Asset Allocation Distribution of 401(k) Participant Account Balance to Equity Funds, by Participant Age, Tenure, or Salary <br> Percentage of participants, 2010 <br> Percentage of Account Balance Invested in Equity Funds |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Zero | 1-20\% | >20\%-80\% | >80\% |
| All | 47.0\% | 6.8\% | 30.4\% | 15.8\% |
| Age Group |  |  |  |  |
| 20s | 63.0\% | 4.5\% | 20.2\% | 12.3\% |
| 30s | 46.6\% | 5.9\% | 30.4\% | 17.1\% |
| 40s | 41.8\% | 6.7\% | 33.2\% | 18.3\% |
| 50s | 43.1\% | 8.2\% | 33.7\% | 15.0\% |
| 60s | 49.2\% | 8.7\% | 29.1\% | 13.0\% |
| Tenure (years) |  |  |  |  |
| 0-2 | 62.1\% | 4.0\% | 21.0\% | 12.9\% |
| >2-5 | 52.6\% | 5.0\% | 26.9\% | 15.4\% |
| >5-10 | 44.3\% | 6.6\% | 33.0\% | 16.1\% |
| >10-20 | 37.0\% | 8.3\% | 36.7\% | 18.0\% |
| >20-30 | 35.8\% | 10.8\% | 37.3\% | 16.1\% |
| >30 | 41.7\% | 11.7\% | 33.1\% | 13.5\% |
| Salary |  |  |  |  |
| \$20,000-\$40,000 | 53.8\% | 7.5\% | 27.0\% | 11.7\% |
| >\$40,000-\$60,000 | 44.1\% | 9.4\% | 33.3\% | 13.2\% |
| >\$60,000-\$80,000 | 36.2\% | 10.3\% | 38.6\% | 14.9\% |
| >\$80,000-\$100,000 | 30.5\% | 10.7\% | 42.4\% | 16.3\% |
| >\$100,000 | 26.5\% | 10.8\% | 44.9\% | 17.9\% |


|  | Percentage Who Hav <br> Company stock and/or balanced funds ${ }^{\text {a }}$ | 401(k) Plan Pa Equity Exposu <br> Percen | Figure 28 <br> cipants Wit <br> by Particip <br> of Participants | Equity Fun <br> Age or Tenu <br> hout Equity Fun | alances $2010$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ```Target-Date funds }\mp@subsup{}{}{0 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, ${ }^{\text {D }}$ and/or non-target-date balanced funds |
| Age Group |  |  |  |  |  |
| 20s | 85.1\% | 49.6\% | 11.3\% | 4.8\% | 19.3\% |
| 30s | 79.4\% | 45.4\% | 9.6\% | 8.1\% | 16.3\% |
| 40s | 74.8\% | 39.3\% | 8.8\% | 10.8\% | 15.9\% |
| 50s | 70.3\% | 33.4\% | 8.2\% | 13.2\% | 15.4\% |
| 60s | 63.7\% | 27.0\% | 9.0\% | 14.6\% | 13.1\% |
| Ä̇il' | 74.8\% | 379.3\% | $9.4 \%$ | 10.3\% | 15.9\% |
| Tenure (years) |  |  |  |  |  |
| 0-2 | 82.8\% | 55.0\% | 11.9\% | 3.3\% | 12.6\% |
| >2-5 | 79.5\% | 41.9\% | 11.0\% | 4.2\% | 22.3\% |
| >5-10 | 73.0\% | 31.5\% | 8.7\% | 13.9\% | 18.9\% |
| >10-20 | 68.7\% | 24.4\% | 8.1\% | 21.2\% | 15.1\% |
| >20-30 | 61.7\% | 18.7\% | 8.6\% | 20.7\% | 13.7\% |
| >30 | 57.8\% | 16.7\% | 8.8\% | 20.4\% | 11.9\% |
| Àili | 74.80 | 379.3\% | 9.4\% | 10.3\% | 15.9\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. ${ }^{\text {a }}$ Components may not add to the total in the first column because of rounding. |  |  |  |  |  |
| ${ }^{\mathrm{b}}$ 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. |  |  |  |  |  |


|  | Figure 29 <br> Average Asset Allocation for 401(k) Plan Participants Without Equity Fund Balances, by Participant Age or Tenure <br> Percentage of account balances, 2010 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Target-date Funds ${ }^{\text {a }}$ | Non-Target-date <br> Balanced Funds | Bond <br> Funds | Money Funds | GICs ${ }^{\text {b/ }}$ Stable- <br> Value Funds | Company Stock | Other | Unknown | Total ${ }^{\text {c }}$ |
| Age Group |  |  |  |  |  |  |  |  |  |
| 20s | 56.7\% | 17.4\% | 4.4\% | 3.9\% | 6.1\% | 7.0\% | 1.5\% | 2.5\% | 100\% |
| 30s | 47.8\% | 14.3\% | 7.2\% | 6.3\% | 9.2\% | 8.5\% | 3.2\% | 2.9\% | 100\% |
| 40s | 36.7\% | 12.1\% | 9.8\% | 7.7\% | 13.7\% | 11.2\% | 5.1\% | 3.2\% | 100\% |
| 50s | 26.5\% | 10.4\% | 12.3\% | 9.3\% | 20.9\% | 12.1\% | 5.2\% | 3.0\% | 100\% |
| 60s | 19.7\% | 8.5\% | 15.5\% | 11.8\% | 28.3\% | 9.3\% | 4.0\% | 2.8\% | 100\% |
| All ${ }^{\text {d }}$ | 29.9\% | 10.9\% | 11.9\% | 9.3\% | 19.8\% | 10.7\% | 4.5\% | 3.1\% | 100\% |
| Tenure (years) |  |  |  |  |  |  |  |  |  |
| 0-2 | 54.3\% | 10.5\% | 10.8\% | 5.1\% | 9.0\% | 4.6\% | 3.5\% | 2.2\% | 100\% |
| >2-5 | 47.3\% | 14.6\% | 10.5\% | 6.6\% | 9.5\% | 6.2\% | 3.7\% | 2.2\% | 100\% |
| >5-10 | 37.9\% | 13.0\% | 10.7\% | 8.9\% | 13.8\% | 8.1\% | 3.5\% | 3.7\% | 100\% |
| >10-20 | 30.4\% | 10.8\% | 11.4\% | 9.2\% | 17.6\% | 11.4\% | 4.9\% | 3.7\% | 100\% |
| >20-30 | 20.6\% | 10.2\% | 11.9\% | 9.3\% | 24.2\% | 14.0\% | 6.1\% | 3.3\% | 100\% |
| >30 | 13.4\% | 8.8\% | 12.7\% | 12.6\% | 31.2\% | 14.1\% | 4.5\% | 2.6\% | 100\% |
| All ${ }^{\text {d }}$ | 29.9\% | 10.9\% | 11.9\% | 9.3\% | 19.8\% | 10.7\% | 4.5\% | 3.1\% | 100\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. <br> ${ }^{\text {a }}$ 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. <br> ${ }^{\mathrm{b}}$ GICs are guaranteed investment contracts. <br> ${ }^{\text {c }}$ Row percentages may not add to 100 percent because of rounding. Percentages are dollar-weighted averages. <br> ${ }^{d}$ The analysis includes the 11.1 million participants with no equity funds at year-end 2010. <br> Note: "Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. <br> The tenure variable is generally years working at current employer, and thus may overstate years of participation in the 401(k) plan. |  |  |  |  |  |  |  |  |  |

Figure 30

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

Asset allocation distribution of 401(k) participant account balances to equities, ${ }^{\text {a }}$ by age, percentage of participants, ${ }^{\text {b }} 2010$

Percentage of Account Balance Invested in Equities

|  | Percentage of Account Balance Invested in Equities |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Group | Zero | $1-20 \%$ | $>20-40 \%$ | $>40-60 \%$ | $>60-80 \%$ | $>80-100 \%$ |
| 20 s | $9.4 \%$ | $1.7 \%$ | $2.8 \%$ | $5.8 \%$ | $19.9 \%$ | $60.4 \%$ |
| 30 s | $9.6 \%$ | $2.9 \%$ | $4.1 \%$ | $8.4 \%$ | $20.9 \%$ | $54.2 \%$ |
| 40 s | $10.5 \%$ | $4.0 \%$ | $5.2 \%$ | $9.7 \%$ | $30.1 \%$ | $40.4 \%$ |
| 50 s | $12.8 \%$ | $6.1 \%$ | $7.3 \%$ | $19.1 \%$ | $29.1 \%$ | $25.5 \%$ |
| 60s | $17.9 \%$ | $8.2 \%$ | $12.4 \%$ | $23.3 \%$ | $16.8 \%$ | $21.4 \%$ |
| All | $11.8 \%$ | $4.5 \%$ | $6.1 \%$ | $12.6 \%$ | $24.9 \%$ | $40.0 \%$ |

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
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.
${ }^{\text {b }}$ Participants include the 23.4 million $401(\mathrm{k})$ plan participants in the year-end 2010 EBRI/ICI 401(k) database.
Note: Row percentages may not add to 100 percent because of rounding.

| Figure 31 <br> Asset Allocation Distribution of 401(k) Participant Account Balances to Balanced Funds, by Age Percentage of Participants, ${ }^{\text {a,b }} 2010$ <br> Percentage of Account Balance Invested in Balanced Funds |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 20s | 33.2\% | 3.8\% | 3.2\% | 2.9\% | 1.9\% | 2.0\% | 2.7\% | 1.5\% | 1.6\% | 1.7\% | 45.4\% |
| 30s | 43.1\% | 6.0\% | 5.1\% | 4.4\% | 2.7\% | 2.4\% | 2.5\% | 1.7\% | 1.9\% | 1.9\% | 28.2\% |
| 40s | 48.1\% | 6.8\% | 5.5\% | 4.8\% | 3.0\% | 2.5\% | 2.4\% | 1.6\% | 1.7\% | 1.7\% | 21.9\% |
| 50 s | 50.7\% | 6.9\% | 5.3\% | 4.9\% | 3.1\% | 2.6\% | 2.4\% | 1.5\% | 1.7\% | 1.6\% | 19.3\% |
| 60s | 54.4\% | 6.3\% | 4.4\% | 4.2\% | 2.8\% | 2.4\% | 2.2\% | 1.4\% | 1.6\% | 1.5\% | 18.6\% |
| All | 46.6\% | 6.2\% | 4.9\% | 4.4\% | 2.8\% | 2.4\% | 2.4\% | 1.6\% | 1.7\% | 1.7\% | 25.2\% |
| Age | Percentage of Account Balance Invested in Target-date Funds |  |  |  |  |  |  |  |  |  |  |
| Group | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 20s | 51.0\% | 1.8\% | 1.6\% | 1.6\% | 1.1\% | 1.1\% | 2.0\% | 1.1\% | 1.2\% | 1.4\% | 36.1\% |
| 30s | 60.7\% | 3.3\% | 2.6\% | 2.3\% | 1.6\% | 1.4\% | 1.7\% | 1.2\% | 1.5\% | 1.6\% | 22.2\% |
| 40s | 66.1\% | 3.8\% | 2.6\% | 2.3\% | 1.6\% | 1.4\% | 1.5\% | 1.1\% | 1.3\% | 1.3\% | 17.1\% |
| 50s | 68.7\% | 3.9\% | 2.5\% | 2.2\% | 1.5\% | 1.4\% | 1.4\% | 1.0\% | 1.2\% | 1.3\% | 15.0\% |
| 60s | 71.6\% | 3.4\% | 2.0\% | 1.9\% | 1.3\% | 1.2\% | 1.2\% | 0.9\% | 1.2\% | 1.2\% | 14.1\% |
| All | 64.4\% | 3.4\% | 2.4\% | 2.1\% | 1.5\% | 1.3\% | 1.5\% | 1.0\% | 1.3\% | 1.4\% | 19.7\% |
| Age | Percentage of Account Balance Invested in Non-Target-date Balanced Funds |  |  |  |  |  |  |  |  |  |  |
| Group | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 20s | 80.2\% | 3.2\% | 2.1\% | 1.6\% | 0.8\% | 1.0\% | 0.8\% | 0.5\% | 0.4\% | 0.4\% | 9.0\% |
| 30s | 79.7\% | 4.5\% | 3.3\% | 2.5\% | 1.2\% | 1.0\% | 0.8\% | 0.5\% | 0.4\% | 0.3\% | 5.7\% |
| 40s | 79.5\% | 4.7\% | 3.6\% | 2.9\% | 1.5\% | 1.1\% | 0.9\% | 0.5\% | 0.4\% | 0.3\% | 4.5\% |
| 50s | 79.4\% | 4.8\% | 3.6\% | 3.0\% | 1.7\% | 1.2\% | 1.0\% | 0.5\% | 0.4\% | 0.3\% | 4.0\% |
| 60s | 80.7\% | 4.2\% | 3.0\% | 2.7\% | 1.6\% | 1.2\% | 1.0\% | 0.5\% | 0.4\% | 0.3\% | 4.3\% |
| All | 79.8\% | 4.4\% | 3.3\% | 2.6\% | 1.4\% | 1.1\% | 0.9\% | 0.5\% | 0.4\% | 0.3\% | 5.2\% |
| Source: Tabulations from EBRI/ICI P articipant-Directed Retirement Plan Data Collection Project. ${ }^{\text {a }}$ The analysis includes the 23.4 million $401(\mathrm{k})$ plan participants in the year-end $2010 \mathrm{EBRI/ICI} 401(\mathrm{k})$ database. |  |  |  |  |  |  |  |  |  |  |  |
| b Row percentages may not add to 100 percent because of rounding. |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{\text {c }}$ 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. |  |  |  |  |  |  |  |  |  |  |  |


| Figure 32 <br> Asset Allocation Distribution of 401(k) Participant Account Balances to Balanced Funds, by Tenure <br> Percentage of Participants, ${ }^{\text {a,b }} 2010$ <br> Percentage of Account Balance Invested in Balanced Funds |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tenure (years) | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 0-2 | 37.0\% | 3.4\% | 2.8\% | 2.7\% | 1.7\% | 1.8\% | 2.7\% | 1.4\% | 1.3\% | 1.1\% | 44.0\% |
| >2-5 | 42.2\% | 4.7\% | 4.0\% | 3.8\% | 2.4\% | 2.4\% | 2.3\% | 1.7\% | 1.7\% | 1.6\% | 33.2\% |
| >5-10 | 47.6\% | 6.4\% | 5.5\% | 5.0\% | 3.1\% | 2.7\% | 2.5\% | 1.7\% | 1.7\% | 2.5\% | 21.6\% |
| >10-20 | 52.1\% | 8.1\% | 6.2\% | 5.4\% | 3.4\% | 2.7\% | 2.6\% | 1.8\% | 2.6\% | 2.2\% | 12.8\% |
| >20-30 | 57.4\% | 9.2\% | 6.2\% | 5.4\% | 3.5\% | 2.7\% | 2.2\% | 1.4\% | 1.2\% | 1.1\% | 9.6\% |
| >30 | 61.8\% | 8.6\% | 5.4\% | 4.5\% | 3.0\% | 2.2\% | 1.9\% | 1.2\% | 1.0\% | 1.0\% | 9.4\% |
| All | 46.6\% | 6.2\% | 4.9\% | 4.4\% | 2.8\% | 2.4\% | 2.4\% | 1.6\% | 1.7\% | 1.7\% | 25.2\% |
| Percentage of Account Balance Invested in Target-date Funds ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Tenure (years) | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 0-2 | 52.4\% | 1.8\% | 1.7\% | 1.7\% | 1.1\% | 1.2\% | 2.1\% | 1.0\% | 1.1\% | 1.0\% | 35.0\% |
| >2-5 | 59.8\% | 2.6\% | 2.1\% | 2.1\% | 1.4\% | 1.3\% | 1.5\% | 1.1\% | 1.2\% | 1.2\% | 25.6\% |
| >5-10 | 66.0\% | 3.5\% | 2.6\% | 2.4\% | 1.7\% | 1.5\% | 1.5\% | 1.1\% | 1.2\% | 2.1\% | 16.3\% |
| >10-20 | 71.4\% | 4.5\% | 2.9\% | 2.4\% | 1.6\% | 1.5\% | 1.5\% | 1.2\% | 2.1\% | 1.8\% | 9.2\% |
| >20-30 | 77.5\% | 5.0\% | 2.7\% | 2.2\% | 1.6\% | 1.3\% | 1.1\% | 0.8\% | 0.7\% | 0.7\% | 6.3\% |
| >30 | 80.8\% | 4.6\% | 2.2\% | 1.7\% | 1.2\% | 1.0\% | 0.9\% | 0.6\% | 0.6\% | 0.6\% | 5.9\% |
| All | 64.4\% | 3.4\% | 2.4\% | 2.1\% | 1.5\% | 1.3\% | 1.5\% | 1.0\% | 1.3\% | 1.4\% | 19.7\% |
| Percentage of Account Balance Invested in Non-Target-date Balanced Funds |  |  |  |  |  |  |  |  |  |  |  |
| Tenure (years) | Zero | 1-10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100\% |
| 0-2 | 83.0\% | 2.5\% | 1.6\% | 1.3\% | 0.6\% | 0.7\% | 0.6\% | 0.4\% | 0.3\% | 0.2\% | 8.8\% |
| >2-5 | 80.2\% | 3.5\% | 2.6\% | 2.0\% | 1.1\% | 1.1\% | 0.8\% | 0.6\% | 0.5\% | 0.4\% | 7.2\% |
| >5-10 | 78.9\% | 4.6\% | 3.7\% | 2.9\% | 1.5\% | 1.2\% | 1.0\% | 0.5\% | 0.5\% | 0.4\% | 4.9\% |
| >10-20 | 78.0\% | 5.5\% | 4.2\% | 3.4\% | 1.8\% | 1.3\% | 1.1\% | 0.5\% | 0.4\% | 0.4\% | 3.4\% |
| >20-30 | 77.2\% | 6.1\% | 4.3\% | 3.5\% | 1.9\% | 1.3\% | 1.1\% | 0.6\% | 0.5\% | 0.4\% | 3.1\% |
| >30 | 78.4\% | 5.9\% | 3.9\% | 3.1\% | 1.8\% | 1.2\% | 1.0\% | 0.5\% | 0.4\% | 0.4\% | 3.3\% |
| All | 79.8\% | 4.4\% | 3.3\% | 2.6\% | 1.4\% | 1.1\% | 0.9\% | 0.5\% | 0.4\% | 0.3\% | 5.2\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. <br> ${ }^{\text {a }}$ The analysis includes the 23.4 million 401 (k) plan participants in the year-end 2010 EBRI/ICI database. <br> ${ }^{\mathrm{b}}$ Row percentages may not add to 100 percent because of rounding. <br> ${ }^{\text {c }}$ 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. <br> 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. |  |  |  |  |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ma <br> Perc |  | ired 4 <br> y hired | ) Plan <br> (k) par | ticipa <br> ants ho | Hold balanc | nced <br> unds, 1 | $\begin{aligned} & \mathbf{d s}^{\mathbf{b}} \\ & -2010 \end{aligned}$ |  |  |  |
| Age Group | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 20s | 27.0\% | 28.3\% | 27.1\% | 27.3\% | 32.7\% | 35.1\% | 38.9\% | 43.5\% | 48.5\% | 51.1\% | 63.6\% | 64.1\% | 69.6\% |
| 30s | 29.0\% | 31.0\% | 28.3\% | 26.5\% | 33.1\% | 36.2\% | 39.8\% | 42.8\% | 47.9\% | 54.2\% | 59.6\% | 61.2\% | 63.0\% |
| 40s | 30.5\% | 33.6\% | 30.8\% | 27.9\% | 33.7\% | 35.7\% | 39.8\% | 42.1\% | 46.6\% | 52.8\% | 57.8\% | 59.3\% | 59.9\% |
| 50s | 30.9\% | 34.9\% | 32.1\% | 29.2\% | 33.9\% | 35.5\% | 40.3\% | 43.3\% | 47.8\% | 53.4\% | 58.0\% | 58.7\% | 59.1\% |
| 60s | 28.4\% | 34.9\% | 33.2\% | 29.1\% | 30.2\% | 30.7\% | 36.3\% | 41.6\% | 45.5\% | 50.1\% | 53.9\% | 53.6\% | 55.2\% |
| All | 28.9\% | 31.3\% | 29.1\% | 27.4\% | 33.0\% | 35.4\% | 39.3\% | 42.8\% | 47.6\% | 52.7\% | 59.9\% | 60.9\% | 63.0\% |
| Source: Tabulations from EBRIIICI Participant-Directed Retirement Plan Data Collection Project. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{\text {a }}$ The analysis includes participants with two or fewer years of tenure in the year indicated. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{\text {b }}$ "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. |  |  |  |  |  |  |  |  |  |  |  |  |  |



| Figure 36 <br> Recently Hired 401(k) Participants Now Hold Higher Concentrations in Balanced Funds ${ }^{\text {a }}$ <br> Percentage of recently hired participants holding ed fund assets, ${ }^{\text {a,b }} 1998,2006,2007,2008,2009$, and 2010 <br> Percentage of Account Balance Invested in Balanced Funds 1998 |  |  |  |
| :---: | :---: | :---: | :---: |
| Age Group | >0-50 percent | >50-90 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 | >0-50 percent | >50-90 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 | >0-50 percent | >50-90 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 | >0-50 percent | >50-90 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\% |
| 2009 |  |  |  |
| Age Group | >0-50 percent | >50-90 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\% |
| Age Group | 2010 |  |  |
|  | >0-50 percent | >50-90 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\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. <br> ${ }^{\text {a }}$ 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; and the 2.0 million recently hired participants holding balanced funds in 2010. |  |  |  |
| ${ }^{\text {b }}$ 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. |  |  |  |


| Age Group | Figure 37 <br> Many Recently Hired 401(k) Participants Hold High Concentrations in Target-date Funds ${ }^{\text {a }}$ <br> Percentage of recently hired 401(k) participants holding the type of fund indicated, ${ }^{\text {b, }}{ }^{\text {c }} 2010$ <br> Percentage of Account Balance Invested in Balanced Funds |  |  |
| :---: | :---: | :---: | :---: |
|  | >0-50 percent | >50-90 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\% |
| Percentage of Account Balance Invested in Target-date Funds ${ }^{\text {a }}$ |  |  |  |
| Age Group | $>0-50$ percent | >50-90 percent | >90 percent |
| 20s | 11.2\% | 10.6\% | 78.3\% |
| 30s | 17.2\% | 11.7\% | 71.1\% |
| 40s | 18.1\% | 10.8\% | 71.0\% |
| 50s | 17.9\% | 10.0\% | 72.1\% |
| 60s | 18.1\% | 9.0\% | 72.9\% |
| All | 15.6\% | 10.8\% | 73.6\% |
| Age Group | Percentage of Account Balance Invested in Non-Target-date Balanced Fund |  |  |
|  | $>0-50$ percent | >50-90 percent | >90 percent |
| 20s | 32.3\% | 7.9\% | 59.8\% |
| 30s | 42.1\% | 9.0\% | 48.9\% |
| 40s | 44.2\% | 9.4\% | 46.4\% |
| 50s | 44.1\% | 9.1\% | 46.8\% |
| 60s | 41.4\% | 8.9\% | 49.7\% |
| All | 39.5\% | 8.7\% | 51.7\% |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. <br> ${ }^{\text {a }}$ 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. <br> ${ }^{\mathrm{b}}$ The analysis includes the 2.0 million recently hired participants (those with two or fewer years of tenure) holding balanced funds in 2010, the 1.5 million recently hired participants holding target-date funds in 2010; and the 0.5 million recently hired participants holding non-target-date balanced funds in 2010. <br> ${ }^{\text {c }}$ Row percentages may not add to 100 percent because of rounding. <br> Note: "Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. |  |  |  |
|  |  |  |  |
|  |  |  |  |



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 ${ }^{\text {a }}$

Percentage of account balances, ${ }^{\text {b }} 1998$ and 2010

| Age Group | Balanced Funds |  |  |  |  |  | Bond <br> Funds |  | Money Funds |  | GICs ${ }^{\text {d }}$ and Other Stable-Value Funds |  | Company Stock |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Equity Funds |  | Total |  | Target-date funds ${ }^{\text {c }}$ | Non-Targetdate balanced funds |  |  |  |  |  |  |  |  |
|  | 1998 | 2010 | 1998 | 2010 | 2010 | 2010 | 1998 | 2010 | 1998 | 2010 | 1998 | 2010 | 1998 | 2010 |
| ALL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20s | 66.9\% | 32.8\% | 7.4\% | 43.9\% | 34.9\% | 9.0\% | 5.1\% | 8.3\% | 4.0\% | 2.4\% | 3.7\% | 2.4\% | 10.5\% | 5.4\% |
| 30s | 67.8\% | 39.7\% | 8.0\% | 35.0\% | 28.2\% | 6.8\% | 5.1\% | 10.2\% | 4.1\% | 2.8\% | 3.2\% | 3.1\% | 9.4\% | 4.1\% |
| 40s | 64.5\% | 41.6\% | 9.7\% | 29.5\% | 23.7\% | 5.7\% | 5.9\% | 11.5\% | 5.1\% | 2.9\% | 4.4\% | 4.7\% | 8.0\% | 4.2\% |
| 50s | 60.5\% | 37.0\% | 11.3\% | 27.3\% | 22.0\% | 5.3\% | 6.6\% | 14.5\% | 5.9\% | 3.4\% | 6.7\% | 7.8\% | 6.5\% | 4.0\% |
| 60s | 50.0\% | 32.4\% | 12.1\% | 23.4\% | 18.8\% | 4.6\% | 8.7\% | 17.7\% | 7.8\% | 3.7\% | 13.3\% | 11.8\% | 5.7\% | 4.2\% |
| All | 64.8\% | 38.0\% | 9.1\% | 30.7\% | 24.7\% | 6.0\% | 5.7\% | 12.4\% | 4.9\% | 3.1\% | 4.6\% | 5.8\% | 8.6\% | 4.3\% |

PLANS WITHOUT COMPANY STOCK, GICs, ${ }^{\text {d }}$ OR OTHER STABLE-VALUE FUNDS

| 20s | 77.8\% | 36.8\% | 7.8\% | 43.9\% | 38.8\% | 5.1\% | 7.7\% | 11.2\% | 4.9\% | 3.2\% |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30s | 77.9\% | 43.9\% | 8.4\% | 33.4\% | 29.5\% | 3.9\% | 7.2\% | 13.3\% | 4.8\% | 3.7\% |  |  |  |  |
| 40s | 74.0\% | 45.2\% | 9.9\% | 29.3\% | 25.8\% | 3.5\% | 8.3\% | 15.0\% | 6.0\% | 3.7\% |  |  |  |  |
| 50s | 70.3\% | 39.5\% | 11.3\% | 28.3\% | 25.1\% | 3.2\% | 10.0\% | 19.4\% | 6.5\% | 4.3\% |  |  |  |  |
| 60s | 59.4\% | 35.4\% | 11.8\% | 25.2\% | 22.1\% | 3.1\% | 13.5\% | 24.7\% | 12.2\% | 4.8\% |  |  |  |  |
| All | 75.0\% | 41.4\% | 9.3\% | 30.6\% | 27.0\% | 3.6\% | 8.2\% | 16.6\% | 5.7\% | 4.0\% |  |  |  |  |
| PLANS WITH GICs ${ }^{\text {d }}$ ANDIOR OTHER STABLE-VALUE FUNDS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20s | 73.4\% | 32.4\% | 7.3\% | 49.2\% | 34.0\% | 15.2\% | 3.9\% | 6.4\% | 2.9\% | 1.1\% | 9.1\% | 5.8\% |  |  |
| 30s | 73.5\% | 36.1\% | 8.1\% | 42.2\% | 31.4\% | 10.7\% | 4.1\% | 7.1\% | 2.8\% | 1.6\% | 7.9\% | 7.8\% |  |  |
| 40s | 69.0\% | 38.8\% | 9.4\% | 33.4\% | 25.3\% | 8.1\% | 5.0\% | 7.7\% | 3.4\% | 1.5\% | 9.5\% | 13.0\% |  |  |
| 50s | 63.6\% | 36.0\% | 10.2\% | 28.9\% | 21.2\% | 7.7\% | 5.9\% | 9.3\% | 4.6\% | 1.8\% | 11.9\% | 19.0\% |  |  |
| 60s | 52.7\% | 32.8\% | 11.2\% | 26.4\% | 19.1\% | 7.3\% | 6.8\% | 11.8\% | 7.2\% | 2.4\% | 19.2\% | 22.3\% |  |  |
| All | 69.7\% | 36.2\% | 7.9\% | 35.0\% | 25.8\% | 9.2\% | 5.0\% | 8.3\% | 3.5\% | 1.7\% | 10.1\% | 13.4\% |  |  |
| PLANS WITH COMPANY STOCK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20s | 51.8\% | 29.5\% | 6.1\% | 41.8\% | 36.8\% | 5.0\% | 5.0\% | 9.1\% | 5.4\% | 2.9\% |  |  | 29.5\% | 11.5\% |
| 30s | 56.0\% | 40.6\% | 6.6\% | 29.2\% | 23.7\% | 5.5\% | 5.3\% | 11.5\% | 5.2\% | 3.7\% |  |  | 24.6\% | 10.4\% |
| 40s | 54.4\% | 42.5\% | 8.2\% | 24.8\% | 20.1\% | 4.7\% | 6.5\% | 12.8\% | 6.4\% | 4.0\% |  |  | 22.6\% | 12.0\% |
| 50s | 53.2\% | 37.1\% | 9.8\% | 24.1\% | 19.7\% | 4.4\% | 6.9\% | 16.5\% | 8.6\% | 5.6\% |  |  | 19.4\% | 12.4\% |
| 60s | 47.2\% | 31.0\% | 11.1\% | 21.4\% | 17.4\% | 3.9\% | 14.3\% | 23.0\% | 6.4\% | 6.7\% |  |  | 19.3\% | 13.1\% |
| All | 54.2\% | 38.5\% | 7.2\% | 27.4\% | 22.6\% | 4.8\% | 6.3\% | 13.6\% | 6.1\% | 4.4\% |  |  | 24.1\% | 11.7\% |
| PLANS WITH COMPANY STOCK AND GICs ${ }^{\text {d }}$ ANDIOR OTHER STABLE-VALUE FUNDS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20s | 56.2\% | 28.7\% | 8.2\% | 41.1\% | 28.2\% | 12.9\% | 2.3\% | 5.0\% | 2.5\% | 1.8\% | 6.7\% | 5.1\% | 22.0\% | 14.6\% |
| 30s | 56.3\% | 34.1\% | 8.9\% | 35.7\% | 25.8\% | 9.9\% | 2.6\% | 6.3\% | 3.3\% | 1.6\% | 5.9\% | 6.9\% | 20.6\% | 11.3\% |
| 40s | 53.8\% | 36.2\% | 11.0\% | 29.2\% | 20.6\% | 8.7\% | 2.8\% | 7.0\% | 5.0\% | 2.0\% | 7.8\% | 10.1\% | 17.3\% | 11.5\% |
| 50s | 49.3\% | 32.6\% | 13.8\% | 25.1\% | 17.5\% | 7.6\% | 3.3\% | 8.0\% | 5.3\% | 2.0\% | 11.8\% | 17.1\% | 14.5\% | 11.8\% |
| 60s | 38.0\% | 27.0\% | 14.3\% | 18.5\% | 12.7\% | 5.8\% | 2.6\% | 7.1\% | 4.9\% | 1.7\% | 27.8\% | 30.4\% | 10.7\% | 12.2\% |
| All | 54.1\% | 32.8\% | 10.1\% | 29.3\% | 20.6\% | 8.7\% | 2.4\% | 6.8\% | 2.4\% | 1.8\% | 10.1\% | 13.3\% | 18.6\% | 11.9\% |

[^2]Figure 40
Recently Hired 401(k) Plan Participants Tend to Be Less Likely to Hold Company Stock
Percentage of recently hired participants offered and holding company stock, by participant age,1998-2010

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

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

Figure 41


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

| Figure 42 <br> Asset Allocation Distribution of Recently Hired Participant Account Balance to Company Stock in 401(k) Plans With Company Stock, by Participant Age <br> Percentage of recently hired participants in plans offering company stock as an investment option, ${ }^{\text {a,b }} 2010$ <br> Percentage of Account Balance Invested in Company Stock |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Group | Zero | -10\% | 11-20\% | 21-30\% | 31-40\% | 41-50\% | 51-60\% | 61-70\% | 71-80\% | 81-90\% | 91-100 |
| 20s | 69.7\% | 5.0\% | 4.1\% | 3.6\% | 3.0\% | 5.8\% | 2.2 | 0.7\% | $0.5 \%$ | 0.5\% | 4.7 |
| 30s | 66.4\% | 6.8\% | 5.5\% | 4.5\% | 3.6\% | 4.5\% | 2.1\% | 0.8\% | 0.6\% | 0.5\% | 4.8\% |
| 40s | 5.6\% | . 0 | 5.7\% | 4.8\% | 3.7\% | 3.6\% | 2.1\% | 0.9\% | $0.7 \%$ | 0.5\% | 5.4 |
| 50s | 65.6 | 7.3\% | 5.8\% | 4.8\% | 3.6\% | 3.3\% | 2.1\% | 0.9\% | 0.6 | 0.5\% | 5.5\% |
| 60s | 63.2\% | 8.2\% | 6.0\% | 4.4\% | 3.6\% | 3.1\% | 2.2\% | 1.1\% | 0.9 | 0.9\% | 6.5 |
| All | 67.0 | 6.4\% | 5.2\% | 3\% | 3.4\% | 4.4\% | 2.1\% | . 8 | 0.6\% | 0.5\% |  |

[^3]
## Year-End 2010 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 2010 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. There was modest variation in participant loan activity by plan size, ranging from 19 percent of participants with loans outstanding in 401(k) plans with 26 to 100 participants to 23 percent of participants in 401(k) plans with 10 or fewer participants or 5,001 to 10,000 participants (Figure 44). Loan ratios-the amount of the loan outstanding divided by the remaining balancevary 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 16 percent of the remaining assets in 2010, while in plans with more than 10,000 participants, the loan ratio was 12 percent (Figure 45).

In the 15 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. 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 a loan outstanding at year-end $2010 .{ }^{43}$ On average, over the past 15 years, among participants with loans outstanding, about 14 percent of the remaining account balance was taken out as a loan (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 gets converted into distributions in any given year (meaning that most loans are repaid). ${ }^{44}$

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

In the 2010 EBRI/ICI 401(k) database, 87 percent of participants were in plans offering loans. However, as has been the case for the 15 years that the database has tracked $401(\mathrm{k})$ plan participants, relatively few participants made use of this borrowing privilege. At year-end 2010, 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 30s, 40s, or 50s (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. Sixteen percent of participants with account balances of less than $\$ 10,000$ had loans outstanding.

## Average Loan Balances

Among participants with outstanding 401(k) loans at the end of 2010, the average unpaid balance was $\$ 6,846$, compared with $\$ 7,346$ in the year-end 2009 database (Figure 48). The median loan balance outstanding was $\$ 3,619$ at year-end 2010, compared with $\$ 3,972$ in the year-end 2009 database. With account balances generally higher on average in 2010 compared with 2009, the ratio of the loan outstanding to the remaining account balance edged down in 2010 (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 43
Percentage of 401(k) Plans Offering Loans, by Plan Size, 2010


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

Figure 44
Percentage of Eligible 401(k) Plan Participants With 401(k) Plan Loans, by Plan Size, 2010


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) Plan Loans, by Plan Size, 2010


Figure 46
Few 401(k) Participants Had Outstanding 401(k) Loans;
Loans Tended to be Small, 1996-2010


[^4]| Figure 47 <br> 401(k) Loan Activity Varied Across 401(k) Plan Paticipants <br> Percentage of Eligible Participants With 401(k) Loans, by Participant Age, Tenure, Account Size, or Salary, Selected Years |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1996 | 2000 | 2002 | 2005 | 2007 | 2008 | 2009 | 2010 |
| All | 18\% | 18\% | 17\% | 19\% | 18\% | 18\% | 21\% | 21\% |
| Age Group |  |  |  |  |  |  |  |  |
| 20s | 12\% | 11\% | 10\% | 11\% | 10\% | 10\% | 13\% | 13\% |
| 30s | 20\% | 19\% | 18\% | 20\% | 20\% | 20\% | 23\% | 23\% |
| 40s | 22\% | 21\% | 20\% | 22\% | 22\% | 22\% | 26\% | 26\% |
| 50s | 17\% | 17\% | 17\% | 19\% | 19\% | 19\% | 22\% | 22\% |
| 60s | 9\% | 9\% | 9\% | 10\% | 10\% | 11\% | 12\% | 13\% |
| Tenure (years) |  |  |  |  |  |  |  |  |
| 0-2 | 6\% | 5\% | 4\% | 5\% | 7\% | 6\% | 9\% | 7\% |
| >2-5 | 15\% | 14\% | 12\% | 14\% | 15\% | 15\% | 17\% | 18\% |
| >5-10 | 24\% | 23\% | 21\% | 22\% | 23\% | 23\% | 25\% | 27\% |
| >10-20 | 27\% | 26\% | 26\% | 26\% | 26\% | 26\% | 29\% | 29\% |
| >20-30 | 25\% | 26\% | 25\% | 24\% | 24\% | 25\% | 27\% | 26\% |
| >30 | 13\% | 16\% | 15\% | 17\% | 17\% | 18\% | 19\% | 19\% |
| Account Size |  |  |  |  |  |  |  |  |
| <\$10,000 | 12\% | 11\% | 11\% | 12\% | 11\% | 12\% | 16\% | 16\% |
| \$10,000-\$20,000 | 26\% | 23\% | 22\% | 26\% | 25\% | 26\% | 28\% | 29\% |
| >\$20,000-\$30,000 | 26\% | 25\% | 22\% | 27\% | 26\% | 26\% | 28\% | 29\% |
| >\$30,000-\$40,000 | 25\% | 25\% | 23\% | 26\% | 26\% | 26\% | 28\% | 28\% |
| >\$40,000-\$50,000 | 24\% | 25\% | 23\% | 25\% | 26\% | 25\% | 27\% | 27\% |
| > \$50,000-\$60,000 | 24\% | 24\% | 22\% | 24\% | 25\% | 24\% | 25\% | 26\% |
| >\$60,000-\$70,000 | 23\% | 24\% | 22\% | 23\% | 24\% | 23\% | 25\% | 25\% |
| >\$70,000-\$80,000 | 26\% | 23\% | 22\% | 22\% | 23\% | 22\% | 24\% | 24\% |
| >\$80,000-\$90,000 | 23\% | 23\% | 21\% | 21\% | 23\% | 21\% | 23\% | 23\% |
| >\$90,000-\$100,000 | 22\% | 22\% | 21\% | 20\% | 22\% | 20\% | 23\% | 22\% |
| > \$100,000-\$200,000 | 22\% | 20\% | 19\% | 18\% | 19\% | 18\% | 19\% | 19\% |
| > \$200,000 | 18\% | 15\% | 13\% | 13\% | 13\% | 12\% | 13\% | 12\% |
| Salary Range |  |  |  |  |  |  |  |  |
| \$40,000 or less | 18\% | 17\% | 13\% | 19\% | 20\% | 19\% | 24\% | 22\% |
| >\$40,000-\$60,000 | 20\% | 23\% | 21\% | 26\% | 28\% | 27\% | 30\% | 26\% |
| >\$60,000-\$80,000 | 18\% | 23\% | 20\% | 24\% | 24\% | 24\% | 26\% | 23\% |
| > \$80,000-\$100,000 | 17\% | 21\% | 17\% | 22\% | 21\% | 20\% | 23\% | 20\% |
| > \$100,000 | 14\% | 16\% | 13\% | 16\% | 14\% | 14\% | 16\% | 14\% |

Figure 48 401(k) Loan Balances


Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. Note: Average and median 401(k) loan amounts are calculated among participants with $401(\mathrm{k})$ loans.

| Figure 49 <br> 401(k) Loan Amounts Varied Across 401(k) Participants <br> 401(k) Loan Balances as a Percentage of 401(k) Account Balances for Participants With Loans, by Participant Age, Tenure, Account Size, or Salary, Selected Years |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1996 | 2000 | 2002 | 2005 | 2007 | 2008 | 2009 | 2010 |
| All | 16\% | 14\% | 16\% | 13\% | 12\% | 16\% | 15\% | 14\% |
| Age Group |  |  |  |  |  |  |  |  |
| 20s | 30\% | 30\% | 28\% | 24\% | 25\% | 29\% | 26\% | 24\% |
| 30s | 22\% | 20\% | 22\% | 19\% | 19\% | 25\% | 22\% | 20\% |
| 40s | 16\% | 15\% | 16\% | 13\% | 13\% | 18\% | 16\% | 15\% |
| 50s | 12\% | 11\% | 12\% | 10\% | 10\% | 13\% | 12\% | 11\% |
| 60s | 10\% | 9\% | 10\% | 8\% | 8\% | 11\% | 10\% | 9\% |
| Tenure (years) |  |  |  |  |  |  |  |  |
| 0-2 | 27\% | 24\% | 27\% | 23\% | 21\% | 25\% | 22\% | 19\% |
| >2-5 | 24\% | 25\% | 25\% | 21\% | 22\% | 26\% | 23\% | 20\% |
| >5-10 | 23\% | 21\% | 23\% | 19\% | 18\% | 24\% | 20\% | 19\% |
| >10-20 | 15\% | 14\% | 16\% | 13\% | 13\% | 17\% | 16\% | 14\% |
| >20-30 | 11\% | 10\% | 11\% | 9\% | 8\% | 12\% | 11\% | 9\% |
| >30 | 7\% | 8\% | 10\% | 8\% | 7\% | 9\% | 9\% | 7\% |
| Account Size |  |  |  |  |  |  |  |  |
| <\$10,000 | 39\% | 39\% | 37\% | 35\% | 36\% | 39\% | 39\% | 35\% |
| \$10,000-\$20,000 | 32\% | 32\% | 31\% | 29\% | 30\% | 33\% | 31\% | 28\% |
| >\$20,000-\$30,000 | 28\% | 28\% | 28\% | 25\% | 26\% | 29\% | 27\% | 25\% |
| >\$30,000-\$40,000 | 23\% | 24\% | 25\% | 22\% | 23\% | 26\% | 25\% | 23\% |
| >\$40,000-\$50,000 | 22\% | 21\% | 22\% | 20\% | 21\% | 24\% | 22\% | 20\% |
| >\$50,000-\$60,000 | 19\% | 19\% | 20\% | 18\% | 19\% | 21\% | 21\% | 19\% |
| >\$60,000-\$70,000 | 16\% | 17\% | 18\% | 16\% | 17\% | 19\% | 19\% | 17\% |
| >\$70,000-\$80,000 | 16\% | 15\% | 16\% | 15\% | 16\% | 18\% | 17\% | 16\% |
| >\$80,000-\$90,000 | 14\% | 14\% | 15\% | 14\% | 14\% | 16\% | 16\% | 15\% |
| >\$90,000-\$100,000 | 13\% | 13\% | 13\% | 13\% | 13\% | 15\% | 15\% | 14\% |
| >\$100,000-\$200,000 | 10\% | 9\% | 10\% | 9\% | 10\% | 11\% | 11\% | 10\% |
| > 2000000 | 5\% | 5\% | 5\% | 4\% | 5\% | 5\% | 5\% | 5\% |
| Salary Range |  |  |  |  |  |  |  |  |
| \$40,000 or less | 17\% | 19\% | 18\% | 18\% | 17\% | 21\% | 19\% | 17\% |
| >\$40,000-\$60,000 | 17\% | 16\% | 16\% | 16\% | 15\% | 19\% | 17\% | 15\% |
| >\$60,000-\$80,000 | 15\% | 13\% | 14\% | 13\% | 12\% | 17\% | 14\% | 13\% |
| >\$80,000-\$100,000 | 14\% | 12\% | 12\% | 11\% | 11\% | 14\% | 12\% | 11\% |
| >\$100,000 | 14\% | 10\% | 10\% | 9\% | 9\% | 11\% | 10\% | 9\% |

Figure 50
Loans From 401(k) Plans Tended to be Small
Percentage of eligible participants, by age, 2010
401(k) Loan as a

| Percentage of Remaining | Age Group |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| 401(k) Account Balance | 20s | 40 s | 60 s | All |
| Zero | $87 \%$ | $75 \%$ | $87 \%$ | $79 \%$ |
| $1-10 \%$ | $3 \%$ | $8 \%$ | $6 \%$ | $6 \%$ |
| $>10 \%-20 \%$ | $3 \%$ | $6 \%$ | $3 \%$ | $5 \%$ |
| $>20-30 \%$ | $2 \%$ | $4 \%$ | $2 \%$ | $3 \%$ |
| $>30-80 \%$ | $5 \%$ | $7 \%$ | $3 \%$ | $6 \%$ |
| $>80 \%$ | $1 \%$ | $1 \%$ | $*$ | $1 \%$ |
| Source: Tabulations from EBRIICI Participant-Directed |  |  |  |  |
| Ketirement Plan Data Collection Project. |  |  |  |  |
| * Less than 0.5 percent. |  |  |  |  |
| Note: Column percentages may not add to 100 percent because of rounding. |  |  |  |  |

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## Endnotes

${ }^{1}$ For data on 401(k) plan assets, participants, and plans through 2008, see U.S. Department of Labor, Employee Benefits Security Administration (2010b). For total retirement assets, including those in 401(k) plans, through the second quarter of 2011, see Investment Company Institute (2011). For a discussion of trends between defined benefit (DB) and defined contribution (DC) plans, see Poterba, Venti, and Wise (2007) and Holden, Brady, and Hadley (2006).
${ }^{2}$ 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 $401(\mathrm{k})$ 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 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 $401(\mathrm{k})$ participants to be about 51 million in 2010 and the number of $401(\mathrm{k})$ plans to be about 550,000. The estimate of the number of active $401(\mathrm{k})$ 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, and 2011b; and U.S. Department of Labor, Employee Benefits Security Administration, 2008a, 2008b, 2010a, 2010b, and 2010c; and analysis of samples of consistent plans in the EBRI/ICI database.
${ }^{3}$ See Investment Company Institute (2011).
${ }^{4}$ 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 $\$ 12.5$ trillion and serve more than 90 million shareholders (see Bogdan, Holden, and Schrass, 2011).
${ }^{6}$ This update extends previous findings from the project for 1996 through 2009. For year-end 2009 results, see Holden, VanDerhei, and Alonso (2010). Results for earlier years are available in earlier issues of Investment Company Institute 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 6.6 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 60s with two or fewer years of tenure, the average account balance increased 17 percent with the consolidation of their multiple accounts. Among participants in their 50 s or 60 s with more than 30 years of tenure, the average account balance increased 5 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 naïve-that is, when given " $n$ " options, they do not divide their assets among all "n." Indeed, less than 1 percent of participants followed a " $1 / \mathrm{n}$ " 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 and Investment Company Institute 2011). Plan Sponsor Council of America 2011 indicates that in 2010, the average number of investment fund options available for participant contributions was 18 among the 820 plans surveyed; 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 (2010) report that the average number of funds offered by the 534 401(k) plan sponsors responding to that question in their survey was 21 in 2010.
${ }^{11}$ 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 (2011).
${ }^{17}$ 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 endnote 2.
${ }^{18}$ The latest available data from the Department of Labor are for plan year 2008 (see U.S. Department of Labor, Employee Benefits Security Administration, 2010c).
${ }^{19}$ Because of these changes in the cross-sections, comparing average account balances across different year-end crosssectional 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 retire and roll over their account balances.
${ }^{20}$ About half of traditional IRA assets resulted from rollovers from employer-sponsored retirement plans. See Brady, Holden, and Short (2010); and Copeland (2009).
${ }^{21}$ Account balances are net of unpaid loan balances.
${ }^{22}$ At year-end 2010, 2.0 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 2010, 9.7 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 2 percent of them had two or fewer years of tenure, and 6 percent of them had between two and five years of tenure (see Figure 12).
${ }^{25}$ Because 401(k) plans were introduced about 30 years ago, older and longer-tenured employees would not have participated in $401(\mathrm{k})$ 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 ( 83 percent of all 401(k)-type plans in existence in 2008 were established after 1989 [tabulations of U.S. Department of Labor Form 5500 data for 2008]), 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 pre-date the $401(\mathrm{k})$ plan are not included in this analysis, which focuses on $401(\mathrm{k})$ balance amounts.
${ }^{28}$ Social Security replaces a much higher fraction of pre-retirement earnings for lower-income workers. For example, the firstyear replacement rate (scheduled Social Security benefits as a percentage of average career earnings) for retired workers in the 1940-1949 birth cohort (individuals aged 61 to 70 in 2010) decreased as income increased. The median replacement rate for the lowest household lifetime earnings quintile was 71 percent; for the middle quintile, the median Social Security replacement rate was 43 percent; and for the highest quintile it was 30 percent. See Congressional Budget Office (2011).
${ }^{29}$ The ratio of $401(\mathrm{k})$ 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 (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 (2008). 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 $401(\mathrm{k})$ participants' contribution activity during the bear market of 2000 to 2002, see Holden and VanDerhei (2004c). For summary statistics on contribution activity in 2010, see The Vanguard Group (2011) and Aon Hewitt (2011).
${ }^{31}$ At year-end 2010, 64 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 10.3 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, 2011). Covering a year earlier, the ICI survey of recordkeepers covering nearly 24 million DC plan participant accounts found that 11.8 percent of DC plan participants changed the asset allocation of their account balances in 2009 and 10.5 percent changed the asset allocation of their contributions during 2009 (see Holden and Schrass, 2011). 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 2010 data, The Vanguard Group (2011) reported that "despite the ongoing market volatility of 2010, only 12 [percent] of participants made one or more portfolio trades or exchanges during the year, down from 16 [percent] in 2008." 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 2010 reflecting households' sentiment toward and confidence in 401(k) plans, see Holden, Bass, and Reid, 2011.)
${ }^{33}$ For the age distribution of 401(k) plan participants and assets at year-end 2010, see Figure 5.
${ }^{34}$ See endnote 11 for additional detail on target-date funds.
${ }^{35}$ This represents a decline from 77 percent of plans in the year-end 2009 EBRI/ICI 401(k) database (for year-end 2009 data, see Holden, VanDerhei, and Alonso, 2010). The decline represents a change in sample of plans and providers due to the cross-sectional nature of the data collection, rather than the removal of target-date funds from ongoing plans. 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, 2011). At year-end 2010, 72 percent of target-date mutual fund assets were held in DC plans (see Investment Company Institute, 2011). Plan Sponsor Council of America (2011) reported an increase in the incidence of automatic enrollment in 2010. Of more than 800 plans surveyed, 41.8 percent had automatic enrollment in 2010, compared with 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 2010 applied automatic enrollment only to new hires, while 18 percent applied automatic enrollment to all nonparticipants.
${ }^{37}$ At year-end 2010, 64 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 2010, on average, participants in their 20s had 74 percent of their $401(\mathrm{k})$ plan assets invested in equitiesthrough equity funds, company stock, and the equity portion of balanced funds; participants in their 30s, on average, had 73 percent invested in equities; participants in their 40s had 69 percent invested in equities; participants in their 50s had 59 percent invested in equities; and participants in their 60s had 49 percent invested in equities.
${ }^{38}$ For year-end 2009 data, see Holden, VanDerhei, and Alonso (2010).
${ }^{39}$ See Holden et al. (2008); Holden, VanDerhei, and Alonso (2009); and Holden, VanDerhei, and Alonso (2010) for data for earlier years.
${ }^{40}$ For year-end 2009 data, see Holden, VanDerhei, and Alonso (2010).
${ }^{41}$ 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 resulted in regulations that limit 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 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 plan 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 $401(\mathrm{k})$ participants with $401(\mathrm{k})$ loans outstanding across all participants both with and without 401(k) plan loan access was similar in earlier years. For example, in 2009, this measure was 19 percent; in 2008, 16 percent; in 2007, 16 percent; and in 2006, 15 percent.
${ }^{44}$ In plan-year 2008 (latest data available), only 2.2 percent of the $\$ 2.2$ trillion in 401(k) plan assets were participant loans. In addition, only $\$ 663$ million flowed out of $401(\mathrm{k})$ plans as the result of converting a loan into a withdrawal/distribution ("deemed distribution of participant loans"). See U.S. Department of Labor, Employee Benefits Security Administration (2010c).
${ }^{45}$ This pattern is driven in part by restrictions placed on loan amounts.


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[^0]:    THE YEAR-END 2010 AVERAGE ACCOUNT BALANCE IN THE DATABASE WAS 3.4 PERCENT HI GHER THAN THE YEAR BEFORE, BUT MAY NOT ACCURATELY REFLECT THE EXPERIENCE OF TYPI CAL 401(K) PARTI CI PANTS I N 2010. 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 2012.

[^1]:    Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project
    Note: Percentages do not add to 100 percent because of rounding

[^2]:    Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
    ${ }^{\text {a }}$ The analysis is based on samples of 1.2 million participants with two or fewer years of tenure in 1998 and 3.2 million participants with two or fewer years of tenure in 2010.
    Minor investment options are not shown; therefore, row percentages will not add to 100 percent. Percentages are dollar-weighted averages.
    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.
    ${ }^{d}$ 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.

[^3]:    Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project
    ${ }^{\text {a }}$ The analysis includes the 1.1 million participants with two or fewer years of tenure in 2010 and in plans offering company stock as an investment option.
    ${ }^{\mathrm{b}}$ Row percentages may not add to 100 percent because of rounding.

[^4]:    Source: Tabulations from the EBRI/ICI 401(k) Participant-Directed Retirement Plan Data Collection Project.

