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Issue BRIEF

What Does Consistent Participation in 401(k) Plans Generate?

By Jack VanDerhei, EBRI, Sarah Holden, ICI, and Luis Alonso, EBRI

EXECUTIVE SUMMARY

EBRI/ICI 401(K) DATABASE: The annual EBRI/ICI 401(k) database update report is based on large cross-sections of 401(k) plan participants. Whereas the cross-sections cover participants with a wide range of participation experience in 401(k) plans, meaningful analysis of the potential for 401(k) participants to accumulate retirement assets over time must examine how a consistent group of participants' accounts have performed over the long term. Looking at consistent participants in the EBRI/ICI 401(k) database over the eight-year period from 1999 to 2007:

- The average 401(k) account balance increased at an annual growth rate of 9.5 percent over the period, to $137,430 at year-end 2007.
- The median 401(k) account balance (half above, half below) increased at an annual growth rate of 15.2 percent over the period, to $76,946 at year-end 2007.

ANALYSIS OF A CONSISTENT GROUP OF 401(K) PARTICIPANTS HIGHLIGHTS THE ACCUMULATION POTENTIAL OF 401(K) PLANS. At year-end 2007, the average account balance among consistent participants was double the average account balance among all participants in the EBRI/ICI 401(k) database. The consistent group's median balance was more than four times larger than the median balance across all participants at year-end 2007.

YOUNGER PARTICIPANTS OR THOSE WITH SMALLER INITIAL BALANCES EXPERIENCED HIGHER GROWTH IN ACCOUNT BALANCES COMPARED WITH OLDER PARTICIPANTS OR THOSE WITH LARGER INITIAL BALANCES. Among the consistent group, individual participant experience is influenced by three primary factors that impact account balances: contributions, investment returns, and withdrawal and loan activity. For example, the average account balance of participants in their 20s was heavily influenced by the relative size of contributions to the account balances and increased at an average growth rate of 36.0 percent per year between year-end 1999 and year-end 2007.

401(K) PARTICIPANTS TEND TO CONCENTRATE THEIR ACCOUNTS IN EQUITY SECURITIES. The asset allocation of the 2.4 million 401(k) participants in the consistent group was broadly similar to the asset allocation of the 21.8 million participants in the entire year-end 2007 EBRI/ICI 401(k) database. On average, about two-thirds of 401(k) participants' assets were invested in equities, through equity funds, the equity portion of balanced funds, and company stock.

> The data in this report extend only to year-end 2007; the EBRI/ICI data for year-end 2008 are not available at this time, so the sharp market downturn of 2008 is not reflected in this report. Those data are currently being analyzed and are expected to be published later this year.

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What Does Consistent Participation in 401(k) Plans Generate?

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Introduction

The EBRI/ICI 401(k) database, which is constructed from the administrative records of 401(k) plans, represents a large cross-section or snapshot of 401(k) plans at the end of each year.[1] As a cross-section of the entire population of 401(k) plan participants, the EBRI/ICI 401(k) database includes 401(k) participants who are young and individuals who are new to their jobs, as well as older participants and those who have been with their current employers for many years. For example, at year-end 2007, 12 percent of 401(k) participants in the EBRI/ICI 401(k) database were in their 20s, while 8 percent were in their 60s (Figure 1); 19 percent of participants had two or fewer years of tenure at their current jobs, while 5 percent had more than 30 years of tenure (Figure 2).

Although annual updates of the EBRI/ICI 401(k) database provide snapshots of 401(k) account balances, asset allocation, and loan activity across wide cross-sections of participants, the cross-sectional analysis is not well-suited to addressing the question of the impact of participation in 401(k) plans over time. Cross-sections change in composition over time because the selection of data providers and sample of plans using a given provider vary from year to year and because 401(k) participants join or leave plans.[2] In addition, the database contains only the account balances held in the 401(k) plans at participants' current employers. Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included in the analysis.[3, 4] To explore the questions of the impact of ongoing participation in 401(k) plans or to understand how typical 401(k) plan participants have fared over a given time period, it is important to analyze a group of consistent participants (a longitudinal sample). This consistent group of participants is drawn from the annual cross-sections.

The December 2008 *ICI Perspective/EBRI Issue Brief* reported year-end 2007 account balance, asset allocation, and loan activity results for the EBRI/ICI 401(k) database, which represents a large cross-section of 21.8 million 401(k) plan participants. This *Issue Brief* presents a longitudinal analysis—the analysis of 401(k) participants who maintained accounts each year from 1999 through 2007—that was not included in the previous report. The longitudinal analysis tracks the account balances of 2.4 million 401(k) plan participants present in the year-end 1999 EBRI/ICI 401(k) database and each subsequent year through 2007.

Consistent Participation in 401(k) Plans

About 23 percent, or 2.4 million, of the 401(k) participants with accounts at the end of 1999 in the EBRI/ICI 401(k) database had accounts at the end of each year from 1999 through 2007.[5] These 2.4 million 401(k) participants make up a group of consistent participants (or a longitudinal sample), which removes the effect of participants and plans entering and leaving the database. Initially, this group was demographically similar to the entire EBRI/ICI 401(k) database at year-end 1999. However, by year-end 2007, these participants had grown older, accrued longer job tenures, and accumulated larger account balances compared with the cross-section of participants in the entire year-end 2007 EBRI/ICI 401(k) database.

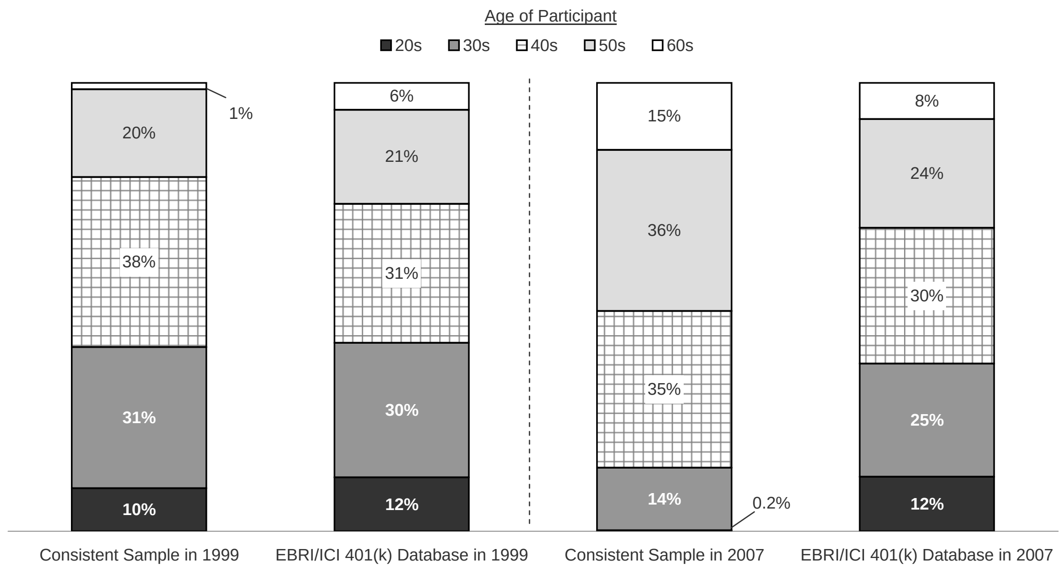
Age and Tenure of Consistent Participants

At year-end 1999, the consistent group was similar in age and job tenure to the participants in the entire EBRI/ICI database. For example, 41 percent of the participants in the consistent sample were in their 20s or 30s in 1999, compared with 42 percent of the 10.3 million participants in the entire database (Figure 1).[6] Thirty-eight percent of the participants in the consistent sample were in their 40s in 1999, while 31 percent of participants in the entire database were in their 40s. Twenty-one percent of the participants in the consistent sample were in their 50s or 60s, compared with 27 percent of participants in the EBRI/ICI 401(k) database overall.

Figure 1

Consistent Sample Was Older Than All Participants in EBRI/ICI 401(k) Database at Year-End 2007

Percentage of participants by age, year-end 1999 and year-end 2007

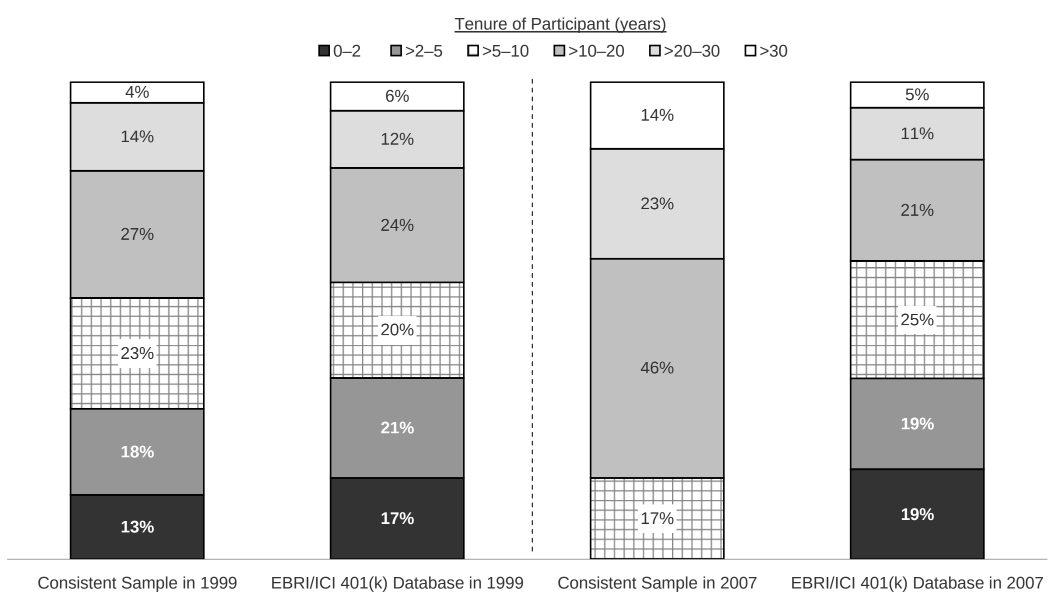


Source: EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: The EBRI/ICI 401(k) database contains 10.3 million 401(k) plan participants at year-end 1999 and 21.8 million at year-end 2007.
The consistent sample consists of 2.4 million 401(k) plan participants with account balances at the end of each year from 1999 through 2007.
Components may not add to 100 percent because of rounding.

Figure 2

Consistent Sample Had Longer Tenure Than All Participants in EBRI/ICI 401(k) Database at Year-End 2007

Percentage of participants by years of tenure, year-end 1999 and year-end 2007



Source: EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: The EBRI/ICI 401(k) database contains 10.3 million 401(k) plan participants at year-end 1999 and 21.8 million at year-end 2007.
The consistent sample consists of 2.4 million 401(k) plan participants with account balances at the end of each year from 1999 through 2007.
Components may not add to 100 percent because of rounding.

The tenure composition of the consistent sample was similar to the tenure composition of 401(k) participants in the year-end 1999 EBRI/ICI 401(k) database.[7] For example, 31 percent of the consistent sample had five or fewer years of tenure in 1999, compared with 38 percent of participants in the entire EBRI/ICI 401(k) database (Figure 2). Eighteen percent of the consistent sample had more than 20 years of tenure in 1999, as did 18 percent of the participants in the entire EBRI/ICI 401(k) database.

The participants who were followed over the eight-year period tended to be older and to have longer tenure by year-end 2007, compared with the broad base of 401(k) participants in the EBRI/ICI 401(k) database. Participants in the consistent sample, by definition, had a minimum tenure of eight years (the length of time for the longitudinal analysis), with 17 percent having between five and 10 years of tenure and 46 percent having between 10 and 20 years of tenure (Figure 2). In contrast, in the entire EBRI/ICI 401(k) database in 2007, 38 percent of participants had five or fewer years of tenure, 25 percent had between five and 10 years of tenure, and 21 percent had between 10 and 20 years of tenure.

By year-end 2007, the consistent sample was also older, on average, than the 21.8 million participants in the entire EBRI/ICI 401(k) database. For example, hardly any of the participants in the consistent group were in their 20s and only 14 percent were in their 30s (Figure 1). In the entire EBRI/ICI 401(k) database at year-end 2007, 12 percent of participants were in their 20s and 25 percent were in their 30s. Thirty-six percent of the consistent sample were in their 50s and 15 percent were in their 60s, compared with 24 percent and 8 percent, respectively, in the entire database.

Consistent Participants Have Accumulated Sizable 401(k) Account Balances

The consistent group's account balances highlight the accumulation effect of ongoing 401(k) participation. At year-end 2007, one-fifth of the consistent group had more than $200,000 in their 401(k) accounts at their current employers, while another one-fifth had between $100,000 and $200,000 (Figure 3). In contrast, in the broader EBRI/ICI 401(k) database, fewer than one-tenth had accounts with more than $200,000 and one-tenth had accounts between $100,000 and $200,000.

Reflecting their higher average age and tenure, the consistent group also had median and average account balances that were much higher than the median and average account balances of the broader EBRI/ICI 401(k) database (Figure 4). At year-end 2007, the average 401(k) account balance of the consistent group was $137,430, more than double the average account balance of $65,454 among participants in the entire EBRI/ICI 401(k) database. The median 401(k) account balance among the consistent participants was $76,946 at year-end 2007, more than four times the median account balance of $18,942 among participants in the entire EBRI/ICI 401(k) database.

401(k) account balances varied with both age and tenure among the consistent group of participants, as they do in the cross-sectional EBRI/ICI 401(k) database. Younger participants or those with shorter job tenure tended to have smaller account balances, while those who were older or had longer job tenure tended to have higher account balances. For example, with the consistent group, participants in their 20s at year-end 2007 had an average account balance of $29,116, compared with an average of $168,811 for participants in their 60s (Figure 5).

Changes in 401(k) Participants' Account Balances

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

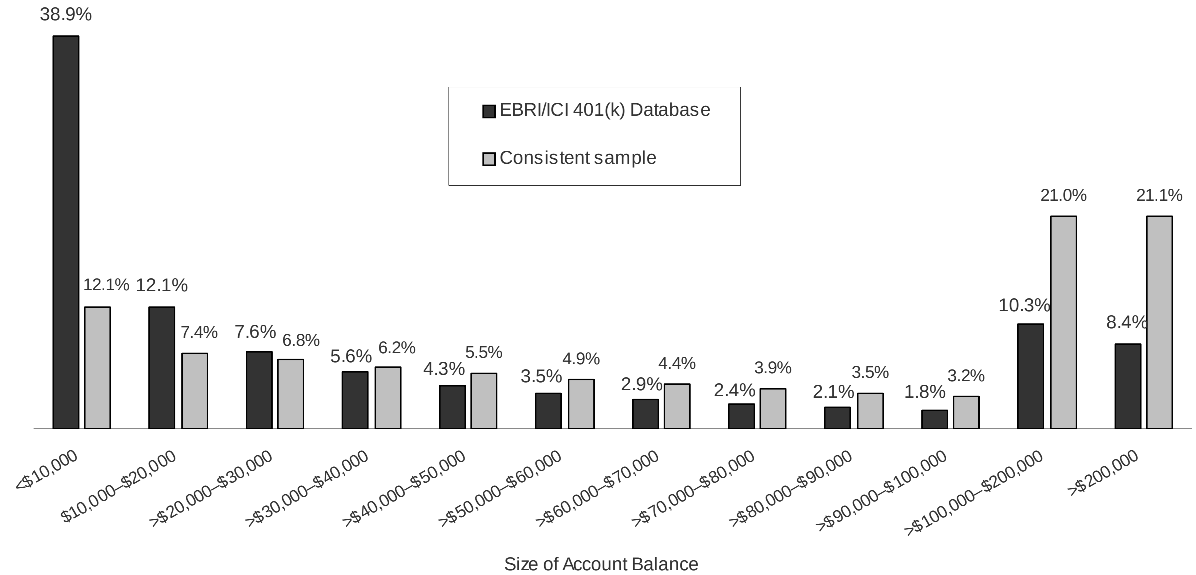
- New contributions by the participant or the employer or both;
- Total investment return on account balances, which depends on the performance of financial markets and on the allocation of assets in an individual's account; and
- Withdrawals, borrowing, and loan repayments.

The change in any individual participant's account balance is influenced by the magnitudes 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.

Figure 3

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

Percentage of participants with account balances in specified ranges, 2007



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

Note: The EBRI/ICI 401(k) database at year-end 2007 represents 21.8 million 401(k) plan participants; the median account balance in the database was $18,942 at year-end 2007. The consistent sample represents the 2.4 million 401(k) plan participants with account balances at the end of each year from 1999 through 2007; the median account balance among the consistent sample was $76,946 at year-end 2007.

All told, from 1999 through year-end 2007, the average account balance among the group of consistent participants more than doubled, rising from $66,660 at year-end 1999 to $137,430 at year-end 2007 (Figure 4).[8] This translates into an annual average growth rate of 9.5 percent over the eight-year period. The median account balance (or midpoint, with half above and half below) among this consistent group also grew, rising 210 percent from $24,844 in 1999 to $76,946 in 2007 (an annual average growth rate of 15.2 percent).

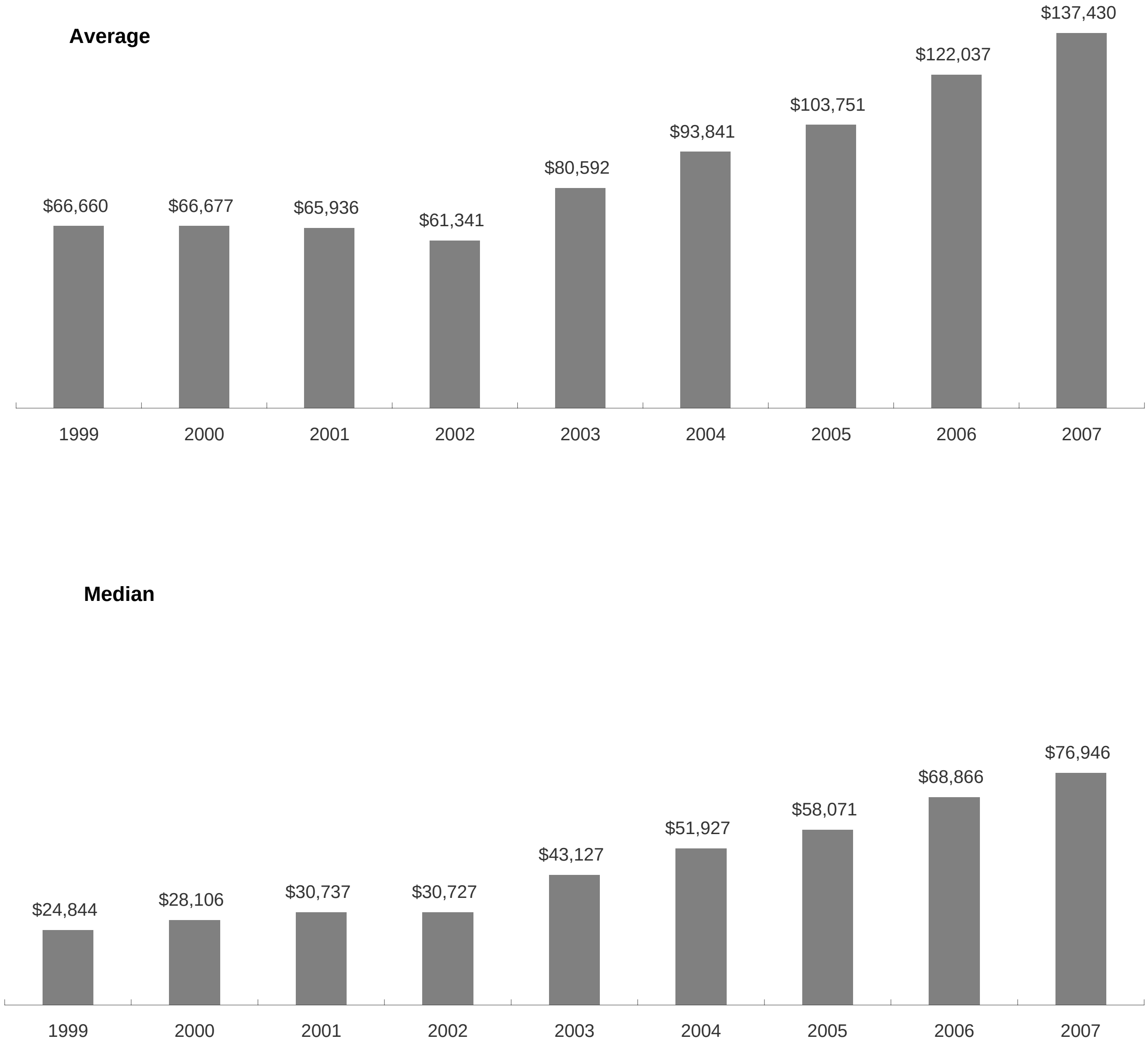
Among the consistent group, there was a wide range of individual participant experience, often influenced by the relationship among the three factors mentioned above: contributions, investment returns, and withdrawal and loan activity. Participants who were younger or had fewer years of tenure experienced the largest increases in average account balance between year-end 1999 and year-end 2007. For example, the average account balance of participants in their 20s rose 1,073.6 percent (a 36.0 percent annual average growth rate) between the end of 1999 and the end of 2007 (Figures 5 and 6). Because younger participants' account balances tended to be small (Figure 5), contributions produced significant account balance growth. In contrast, the average account balance of older participants or those with longer tenures showed more modest growth (Figure 6). For example, the average account balance of participants in their 60s increased 44.3 percent (a 4.7 percent annual average growth rate) between year-end 1999 and year-end 2007. Investment returns, rather than annual contributions, generally account for most of the change in accounts with larger balances. In addition, participants in their 60s tend to have a higher propensity to make withdrawals.[9]

These changes in participant account balances also reflect changes in asset values during the eight-year time period (Figure 7). Although asset allocation varied with age and many participants held a range of investments, the impact of stock market performance showed through in 401(k) accounts because 401(k) plan participants tended to be heavily invested in equity securities. At year-end 2007, whether looking at the consistent group or the entire EBRI/ICI 401(k) database, altogether, equity securities—equity funds, the equity portion of balanced funds,[10] and company stock—represented about two-thirds of 401(k) plan participants' assets (Figure 8).[11] The asset allocation of participants in the

Figure 4

401(k) Account Balances

401(k) Account Balances [a] Among 401(k) Participants Present From Year-End 1999 Through Year-End 2007 [b]



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

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

[b] The analysis is based on a sample of 2.4 million participants with account balances at the end of each year from 1999 through 2007.

Figure 5

Average Account Balances Among 401(k) Participants Present From Year-End 1999 Through Year-End 2007,[a] by Age and Tenure[b]

Age Group[b]	Tenure (years)[b]	1999	2000	2001	2002	2003	2004	2005	2006	2007
20s	All	$2,481	$4,810	$7,079	$8,161	$12,455	$15,740	$19,242	$24,305	$29,116
	>5–10	1,727	3,754	5,803	7,245	11,580	15,105	18,573	23,754	28,617
30s	All	15,359	18,058	20,657	21,151	31,828	40,346	47,917	59,858	70,765
	>5–10	7,333	11,158	14,841	16,801	26,825	35,366	43,460	55,386	66,726
	>10–20	20,125	22,158	24,124	23,763	34,864	43,376	50,640	62,583	73,223
40s	All	47,261	48,533	49,205	46,187	63,728	76,790	87,544	105,910	122,281
	>5–10	16,273	20,867	24,742	26,202	39,526	50,557	60,893	76,010	90,238
	>10–20	43,719	44,875	45,658	42,796	59,492	71,859	82,133	99,520	115,005
	>20–30	77,852	77,074	75,244	68,683	91,493	107,838	120,155	143,369	163,572
50s	All	78,303	78,792	77,712	72,358	95,308	111,719	124,393	147,256	166,971
	>5–10	21,277	26,313	30,211	31,667	45,833	57,938	69,362	85,861	101,413
	>10–20	50,734	52,855	53,958	51,190	69,256	83,398	95,297	114,722	131,757
	>20–30	111,313	109,778	106,164	97,125	126,268	146,489	161,733	190,638	215,810
	>30	104,166	102,726	99,299	91,706	118,220	135,024	145,825	168,766	186,955
60s	All	117,005	112,865	108,259	98,689	122,662	135,807	142,431	158,603	168,811
	>5–10	23,446	28,839	32,906	34,448	48,150	59,989	70,136	83,938	95,089
	>10–20	55,689	58,617	59,732	57,032	75,177	88,986	99,723	116,151	128,126
	>20–30	126,624	124,179	120,284	110,359	138,105	155,199	165,276	185,432	196,612
	>30	172,288	160,618	150,057	133,836	161,942	172,970	174,399	188,893	197,276
All[a]	All	66,660	66,677	65,936	61,341	80,592	93,841	103,751	122,037	137,430

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

[a] The analysis is based on a sample of 2.4 million participants with account balances at the end of each year from 1999 through 2007.

[b] Age and tenure groups are based on participant age and tenure at year-end 2007.

Figure 6

Percentage Change in Average Account Balances Among 401(k) Participants Present From Year-End 1999 Through Year-End 2007,[a] by Age and Tenure[b]

Age Group[b]	Tenure (years)[b]	1999–2000	2000–2001	2001–2002	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007	1999–2007
20s	All	93.9%	47.2%	15.3%	52.6%	26.4%	22.2%	26.3%	19.8%	1,073.6%
	>5–10	117.4	54.6	24.8	59.8	30.4	23.0	27.9	20.5	1,557.0
30s	All	17.6	14.4	2.4	50.5	26.8	18.8	24.9	18.2	360.7
	>5–10	52.2	33.0	13.2	59.7	31.8	22.9	27.4	20.5	809.9
	>10–20	10.1	8.9	-1.5	46.7	24.4	16.7	23.6	17.0	263.8
40s	All	2.7	1.4	-6.1	38.0	20.5	14.0	21.0	15.5	158.7
	>5–10	28.2	18.6	5.9	50.9	27.9	20.4	24.8	18.7	454.5
	>10–20	2.6	1.7	-6.3	39.0	20.8	14.3	21.2	15.6	163.1
	>20–30	-1.0	-2.4	-8.7	33.2	17.9	11.4	19.3	14.1	110.1
50s	All	0.6	-1.4	-6.9	31.7	17.2	11.3	18.4	13.4	113.2
	>5–10	23.7	14.8	4.8	44.7	26.4	19.7	23.8	18.1	376.6
	>10–20	4.2	2.1	-5.1	35.3	20.4	14.3	20.4	14.8	159.7
	>20–30	-1.4	-3.3	-8.5	30.0	16.0	10.4	17.9	13.2	93.9
	>30	-1.4	-3.3	-7.6	28.9	14.2	8.0	15.7	10.8	79.5
60s	All	-3.5	-4.1	-8.8	24.3	10.7	4.9	11.4	6.4	44.3
	>5–10	23.0	14.1	4.7	39.8	24.6	16.9	19.7	13.3	305.6
	>10–20	5.3	1.9	-4.5	31.8	18.4	12.1	16.5	10.3	130.1
	>20–30	-1.9	-3.1	-8.3	25.1	12.4	6.5	12.2	6.0	55.3
	>30	-6.8	-6.6	-10.8	21.0	6.8	0.8	8.3	4.4	14.5
All[a]	All	0.0	-1.1	-7.0	31.4	16.4	10.6	17.6	12.6	106.2

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

[a] The analysis is based on a sample of 2.4 million participants with account balances at the end of each year from 1999 through 2007.

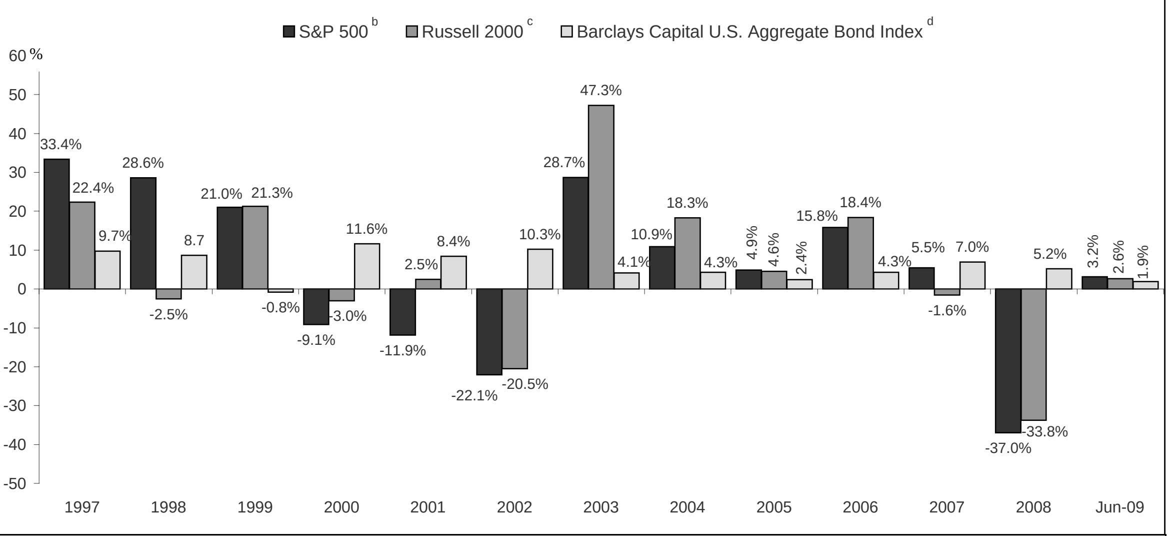
[b] Age and tenure groups are based on participant age and tenure at year-end 2007.

Figure 7

Domestic Stock and Bond Market Indexes

Month-end level,[a] December 1996 to June 2009

Annual Percentage Change in Total Return Index



Sources: Bloomberg, Barclays Global Investments, Frank Russell Company, and Standard & Poor's.

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

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

[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 index (rebalanced monthly by market capitalization). The index's total return consists of price appreciation/depreciation plus income as a percentage of the original investment.

consistent sample varied with participant age, a pattern that is also observed in the cross-sectional EBRI/ICI 401(k) database. Younger participants generally tended to favor equity funds, while older participants were more likely to invest in fixed-income securities such as bond funds, guaranteed investment contracts (GICs) and other stable value funds, or money funds.

Among individual 401(k) participants in the consistent sample, the allocation of account balances to equities varied widely around the average of 68 percent for the consistent group as a whole. Forty-five percent of participants in the consistent sample had more than 80 percent of their accounts invested in equities, while 10 percent held no equities at all in 2007 (Figure 9).

Stock market returns posted in 2007 varied by the segment of the market held: the S&P 500 total return index marked its fifth consecutive year of positive returns, while the Russell 2000 Index experienced a slight decline in 2007 after rising over the four previous years (Figure 7). The three-year bear market of 2000–2002 pulled 401(k) account balances down. Diversified portfolios and ongoing contributions[12] helped offset the impact of the stock market decline. The average account among the consistent group of participants fell 8.0 percent between year-end 1999 and year-end 2002 (Figure 4), while the S&P 500 total return index fell 37.6 percent and the Russell 2000 Index fell 21.0 percent (Figure 7). Between year-end 2002 and year-end 2007, the S&P 500 total return index climbed 82.9 percent and the Russell 2000 Index more than doubled. The average account balance among the consistent group of participants increased 124.0 percent between year-end 2002 and year-end 2007 (Figure 4).

Year-end 2008 data from the EBRI/ICI 401(k) database are currently being analyzed and are expected to be published later this year.[13] As Figure 7 highlights, stock market performance was sharply negative in 2008: The S&P 500 total return index fell 37.0 percent and the Russell 2000 Index fell 33.8 percent. Year-to-date in 2009 (through June), stock market returns have turned positive: The S&P 500 total return index has posted a 3.2 percent increase, while the Russell 2000 Index moved up 2.6 percent.

About the EBRI/ICI 401(k) 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, 2007, the EBRI/ICI 401(k) database included statistical information about 21.8 million 401(k) plan participants, in 56,232 employer-sponsored 401(k) plans, holding $1.425 trillion in assets. The 2007 EBRI/ICI 401(k) database covered about 45 percent of the universe of active 401(k) plan participants, 12 percent of plans, and 47 percent of 401(k) plan assets. The EBRI/ICI project is unique because of its inclusion of 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.

Sources and Type of Data

Several EBRI and ICI members provided records on active participants in 401(k) plans for which they kept records at year-end 2007.[14] These plan recordkeepers include mutual fund companies, insurance companies, and consulting firms. Although the EBRI/ICI 401(k) project has collected data from 1996 through 2007, the universe of data providers varies from year to year. In addition, the sample of plans using a given provider can change. Records were encrypted to conceal the identity of employers and employees, but were coded so that both could be tracked over multiple years. Data provided for each participant include 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.[15] Plan balances are constructed as the sum of all participant balances in the plan.

Investment Options

In the EBRI/ICI 401(k) database, investment options are grouped into eight broad categories.[16] Equity funds consist of pooled investments primarily invested in stocks; these funds include equity mutual funds, bank collective trusts, life

Figure 8

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

Percentage of account balances,[a] 2007

Age Group[b]	Equity Funds	Lifecycle Funds[c]	Nonlifecycle Balanced Funds	Bond Funds	Money Funds	GICs[d] and Other Stable Value Funds	Company Stock	Other	Unknown	Total[a]
20s	48.4%	10.6 %	6.8 %	5.7 %	5.5%	6.4 %	13.5 %	1.8 %	1.2 %	100%
30s	60.7	6.0	6.3	7.1	3.0	4.0	10.7	1.7	0.5	100
40s	56.7	5.2	7.3	8.0	3.5	6.0	11.0	1.8	0.5	100
50s	47.9	5.9	8.3	9.6	4.5	10.7	10.7	1.9	0.5	100
60s	39.8	5.4	8.5	11.8	5.5	17.6	9.0	1.9	0.4	100
All Consistent Sample[b]	49.5	5.5	7.9	9.5	4.3	10.7	10.4	1.8	0.5	100
EBRI/ICI 401(k) Database[e]	48.2	7.4	8.0	8.3	4.2	10.6	10.6	2.1	0.7	100

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

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

[b] Age group is based on the participant's age at year-end 2007. Figure reports asset allocation by age group among the consistent sample of 2.4 million 401(k) plan participants with account balances at the end of each year from 1999 through 2007.

[c] A lifecycle, or target date, fund typically rebalances to an increasingly conservative portfolio as the target date of the fund, which is usually included in the fund's name, approaches.

[d] GICs are guaranteed investment contracts.

[e] The year-end 2007 EBRI/ICI 401(k) database represents 21.8 million 401(k) participants.

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

Figure 9

Asset Allocation to Equities Varied Widely Among Participants

Asset allocation distribution at year-end 2007 of 401(k) participant account balance to equities[a] by age; percentage of participants[b, c]

Age Group[d]	Percentage of Account Balance Invested in Equities[a]: Zero	1–20 percent	>20–40 percent	>40–60 percent	>60–80 percent	>80 percent
20s	13.3%	5.7 %	4.9 %	9.5 %	15.9 %	50.7 %
30s	6.8	3.0	3.8	8.5	18.7	59.3
40s	7.2	4.0	4.9	9.9	22.5	51.6
50s	10.0	6.4	6.8	14.1	22.3	40.4
60s	17.2	9.0	9.1	14.1	17.2	33.4
All Consistent Sample[b]	10.4	5.6	6.2	11.7	20.8	45.3
EBRI/ICI 401(k) Database[e]	13.2	3.8	5.3	11.2	23.0	43.4

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

[a] 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.

[b] Participants include the 2.4 million 401(k) plan participants with account balances at the end of each year from 1999 through 2007. Asset allocation is as of year-end 2007.

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

[d] Age group is based on the participant's age at year-end 2007.

[e] The year-end 2007 EBRI/ICI 401(k) database represents 21.8 million 401(k) participants.

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 in the year-end 2007 data update: lifecycle funds and nonlifecycle balanced funds. A lifecycle fund typically rebalances to an increasingly conservative portfolio as the target date of the fund, which is usually in the fund's name, approaches. Nonlifecycle balanced funds include asset allocation or hybrid funds, in addition to lifestyle funds.[17] 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)[18] and other stable value funds,[19] 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 funds that could not be identified.[20]

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Endnotes

[1] For example, as of December 31, 2007, the EBRI/ICI 401(k) database included statistical information about 21.8 million 401(k) plan participants, in 56,232 employer-sponsored 401(k) plans, holding $1.425 trillion in assets. The 2007 EBRI/ICI database covered 45 percent of the universe of 401(k) plan participants, 12 percent of plans, and 47 percent of 401(k) plan assets. See Holden, VanDerhei, Alonso, and Copeland, 2008.

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

[3] About half of traditional IRA assets resulted from rollovers from employer-sponsored retirement plans. See Brady, Holden, and Short, 2009a.

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

[5] The value of this percentage is lower than it would have been if it were merely reflecting employee turnover and retirement. The EBRI/ICI 401(k) database has added data providers since 1999 and by definition participants in these plans would not be included in the consistent sample. Moreover, any time a 401(k) plan sponsor changed service providers, all participants in the plan would be excluded from the consistent sample.

[6] For the report on the year-end 1999 EBRI/ICI 401(k) database, see Holden and VanDerhei 2001b.

[7] Tenure refers to years at the current employer and is generally derived from date of hire reported for the participant. Tenure will not reflect the years of participation in the 401(k) plan if the 401(k) plan was added by the employer at a later date or if there are restrictions on participating in the 401(k) plan immediately upon hire.

[8] For a forecast of the potential impact of the 2008 market returns on 401(k) balances, see VanDerhei 2009.

[9] For statistics indicating the higher propensity of withdrawals among participants in their 60s, see Holden and VanDerhei, 2002.

[10] At year-end 2007, 61 percent of balanced mutual fund assets were invested in equities (see Investment Company Institute, Quarterly Supplementary Data).

[11] For a description of the investment options, see page 10.

[12] For an analysis of contribution activity during the bear market of 2000–2002 using the cross-sectional EBRI/ICI 401(k) databases, see Holden and VanDerhei, 2004. The analysis finds that overall 401(k) participants' contribution rates were little changed in 2000, 2001, and 2002 when compared to 1999. Whether measured in dollar amounts or percentage of salary contributed, on average, 401(k) participants' contribution behavior does not appear to have been materially affected by the bear market in equities from 2000 through 2002.

[13] For a forecast of the potential impact of the 2008 market returns on 401(k) balances, see VanDerhei, 2009.

[14] For the complete update from the year-end 2007 EBRI/ICI 401(k) database, see Holden, VanDerhei, Alonso, and Copeland, 2008.

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

[16] 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 had 10.4 distinct options but, on average, chose only 2.5 (Holden and VanDerhei, 2001a). 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/n" asset allocation strategy. Profit Sharing/401k Council of America 2008 indicates that in 2007, the average number of investment fund options available for participant contributions was 18; Hewitt Associates, 2007, indicates an average number of investment options of 17 in 2007 (although, if premixed portfolios are excluded, the average number of investment options offered is 12). Deloitte Consulting LLP, International Foundation, and the International Society of Certified Employee Benefit Specialists 2008 report that the average number of funds offered by the 436 401(k) plan sponsors in their survey was 17 in 2007.

[17] 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-lifecycle balanced fund category.

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

[19] 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.

[20] 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.

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