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Issue BRIEF

401(k) Participants in the Wake of the Financial Crisis: Changes in Account Balances, 2007–2011

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

AT A GLANCE

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 must examine how a consistent group of participants' accounts change over time. Looking at consistent participants in the EBRI/ICI 401(k) database in the wake of the financial crisis (over the four-year period from year-end 2007 to year-end 2011):

- The average 401(k) account balance fell 34.8 percent in 2008, then rose from 2009 to 2011. Overall, the average account balance increased at a compound annual average growth rate of 5.4 percent over the 2007–2011 period, to $94,482 at year-end 2011.

- The median 401(k) account balance (half above, half below) increased at a compound annual average growth rate of 11.5 percent over the period, to $42,082 at year-end 2011.

- Analysis of a consistent group of 401(k) participants highlights the impact of consistent participation in 401(k) plans. At year-end 2011, the average account balance among consistent participants was 60 percent higher than the average account balance among all participants in the EBRI/ICI 401(k) database. The consistent group's median balance was about two-and-a-half times the median balance across all participants at year-end 2011.

- Younger participants or those with smaller initial balances experienced higher percentage growth in account balances compared with older participants or those with larger initial balances. There are three primary factors that impact account balances: contributions, investment returns, and withdrawal/loan activity. The percentage change in average account balance of consistent participants in their 20s was heavily influenced by the relative size of their contributions to their account balances and increased at a compound average rate of 41.0 percent per year between year-end 2007 and year-end 2011.

- 401(k) participants tend to concentrate their accounts in equity securities. The asset allocation of the 8.6 million 401(k) plan participants in the consistent group was broadly similar to the asset allocation of the 24.0 million participants in the entire year-end 2011 EBRI/ICI 401(k) database. On average, about three-fifths of 401(k) participants' assets were invested in equities, either through equity funds, the equity portion of target date funds, the equity portion of non–target date balanced funds, or company stock. Between year-end 2007 and year-end 2011, the allocation of consistent participant balances to equities, edged back from 42.9 percent of participants with more than 80 percent of their accounts in equities to 38.4 percent at year-end 2011. The percentage of consistent 401(k) participants without any allocation to equities remained unchanged at 11.8 percent.

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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 a wide range of circumstances; 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 2011, 12 percent of 401(k) participants in the EBRI/ICI 401(k) database were in their 20s, while 10 percent were in their 60s (Figure 1); 16 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 an invaluable perspective 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 from year to year because the selection of data providers and sample of plans using a given provider vary, and because 401(k) participants join or leave plans.[2] In addition, the analysis covers 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 full impact of ongoing participation in 401(k) plans, and to understand how typical 401(k) plan participants have fared over an extended 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.

Longitudinal Analysis

The December 2012 *EBRI Issue Brief* reported year-end 2011 account balance, asset allocation, and loan activity results for the EBRI/ICI 401(k) database, which represents a large cross-section of 24.0 million 401(k) plan participants. This paper presents a longitudinal analysis—the analysis of 401(k) participants who maintained accounts each year from 2007 through 2011—that was not included in the previous report. The longitudinal analysis tracks the account balances of 8.6 million 401(k) plan participants present in the year-end 2007 EBRI/ICI 401(k) database and each subsequent year through year-end 2011.

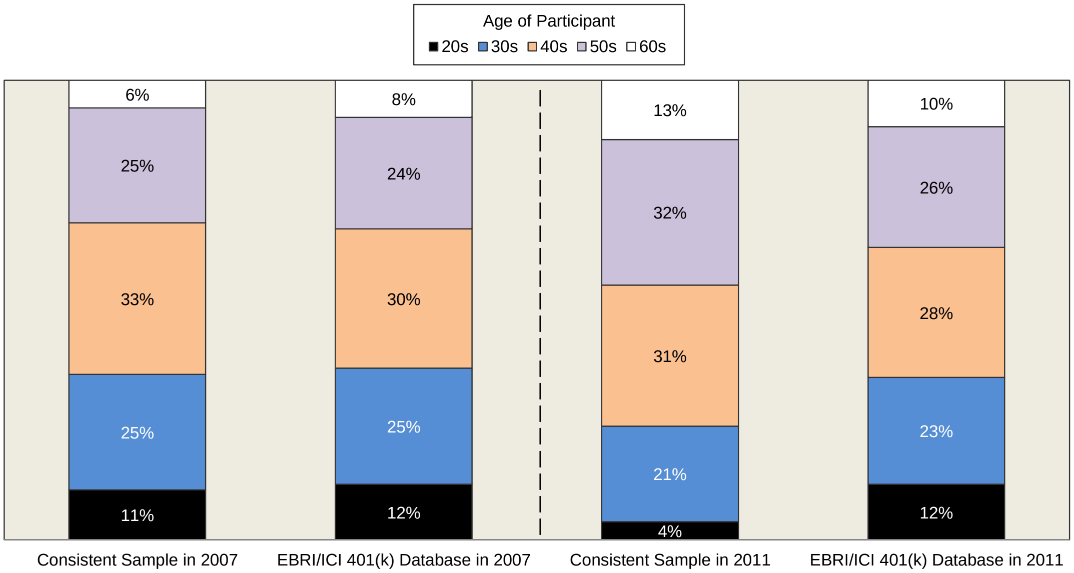
Consistent Participation in 401(k) Plans

About 39 percent, or 8.6 million, of the 401(k) participants with accounts at the end of 2007 in the EBRI/ICI 401(k) database had accounts at the end of each year from 2007 through 2011.[5] These 8.6 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 2007. However, by year-end 2011, these participants had grown older, accrued longer job tenures, and accumulated larger account balances compared with participants in the year-end 2011 cross section.

Age and Tenure of Consistent Participants

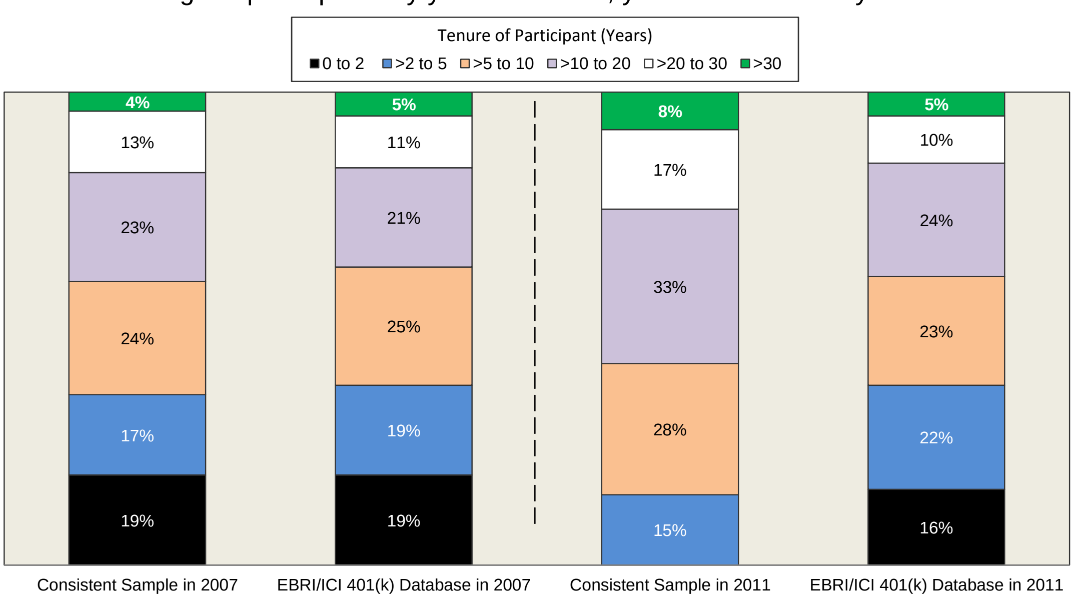
At year-end 2007, the consistent group was similar in age to the participants in the entire EBRI/ICI database. For example, 36 percent of the participants in the consistent sample were in their 20s or 30s in 2007, compared with 37 percent of the 21.8 million participants in the entire database (Figure 1).[6] Thirty-three percent of the participants in the consistent sample were in their 40s in 2007, while 30 percent of participants in the entire database were in their 40s.

Figure 1
Consistent Sample Was Older Than All Participants in EBRI/ICI 401(k) Database at Year-End 2011
Percentage of participants by age, year-end 2007 and year-end 2011



Source: EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: The EBRI/ICI 401(k) database contains 21.8 million 401(k) plan participants at year-end 2007 and 24.0 million at year-end 2011. The consistent sample consists of 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011. 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 2011
Percentage of participants by years of tenure, year-end 2007 and year-end 2011



Source: EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: The EBRI/ICI 401(k) database contains 21.8 million 401(k) plan participants at year-end 2007 and 24.0 million at year-end 2011. The consistent sample consists of 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011. Components may not add to 100 percent because of rounding.

Thirty-one percent of the participants in the consistent sample were in their 50s or 60s, compared with 32 percent of participants in the EBRI/ICI database overall.

The tenure composition of the consistent sample also was similar to the tenure composition of 401(k) participants in the year-end 2007 EBRI/ICI 401(k) database.[7] For example, 36 percent of the consistent sample had five or fewer years of tenure in 2007, compared with 38 percent of participants in the entire EBRI/ICI 401(k) database (Figure 2). Seventeen percent of the consistent sample had more than 20 years of tenure in 2007, as did 16 percent of the participants in the entire EBRI/ICI 401(k) database.

As expected, the consistent participants who were followed over the four-year period tended to be older and to have longer tenure by year-end 2011, compared with the broader base of 401(k) participants in the EBRI/ICI 401(k) database. Participants in the consistent sample, by definition, had a minimum tenure of four years in 2011 (the length of time for the longitudinal analysis), with 15 percent having five or fewer years of tenure, 28 percent having between five and 10 years of tenure, 33 percent having between 10 and 20 years of tenure, and 25 percent having more than 20 years of tenure (Figure 2). In contrast, in the entire EBRI/ICI 401(k) database in 2011, 38 percent of participants had five or fewer years of tenure, 23 percent had between five and 10 years of tenure, 24 percent had between 10 and 20 years of tenure, and 15 percent had more than 20 years of tenure.

At year-end 2011, the consistent sample was also older, on average, than the 24.0 million participants in the entire EBRI/ICI 401(k) database. For example, only 4 percent of the participants in the consistent group were in their 20s and 21 percent were in their 30s (Figure 1). In the entire EBRI/ICI 401(k) database at year-end 2011, 12 percent of participants were in their 20s and 23 percent were in their 30s. Thirty-two percent of the consistent sample were in their 50s and 13 percent were in their 60s, compared with 26 percent and 10 percent, respectively, in the entire database.

Consistent Participants Have Accumulated Sizable 401(k) Account Balances

The trends in the consistent group's account balances highlight the accumulation effect of ongoing 401(k) participation. At year-end 2011, 13.0 percent of the consistent group had more than $200,000 in their 401(k) accounts at their current employers, while another 15.0 percent had between $100,000 and $200,000 (Figure 3). In contrast, in the broader EBRI/ICI 401(k) database, 7.5 percent had accounts with more than $200,000, and 9.2 percent 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 2011, the average 401(k) account balance of the consistent group was $94,482, 60 percent larger than the average account balance of $58,991 among participants in the entire EBRI/ICI 401(k) database. The median 401(k) account balance among the consistent participants was $42,082 at year-end 2011, about two-and-a-half times the median account balance of $16,649 of participants in the entire EBRI/ICI 401(k) database.

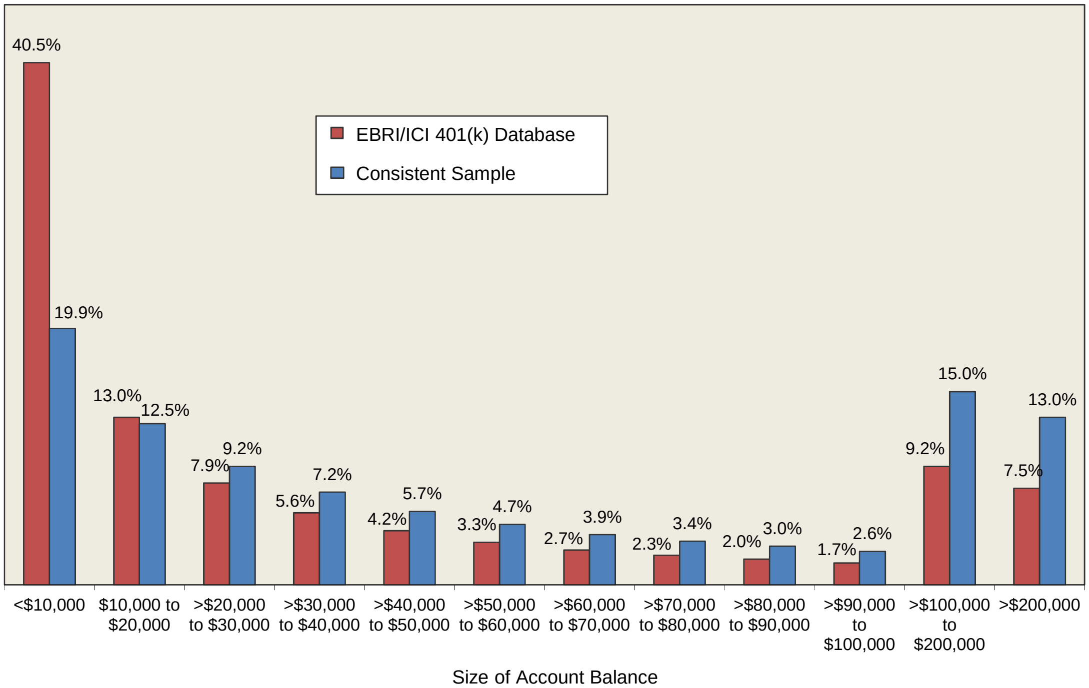
401(k) account balances varied with both age and tenure among the consistent group of participants, as they do in the cross-sectional EBRI/ICI 401(k) database. Younger participants or those with shorter job tenure tended to have smaller account balances, while older participants or those with longer job tenure tended to have higher account balances. For example, in the consistent group, participants in their 20s at year-end 2011 had an average account balance of $19,392, compared with an average of $135,008 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.

Figure 3
Distribution of 401(k) Account Balances by Size of Account Balance
Percentage of participants with account balances in specified ranges, 2011



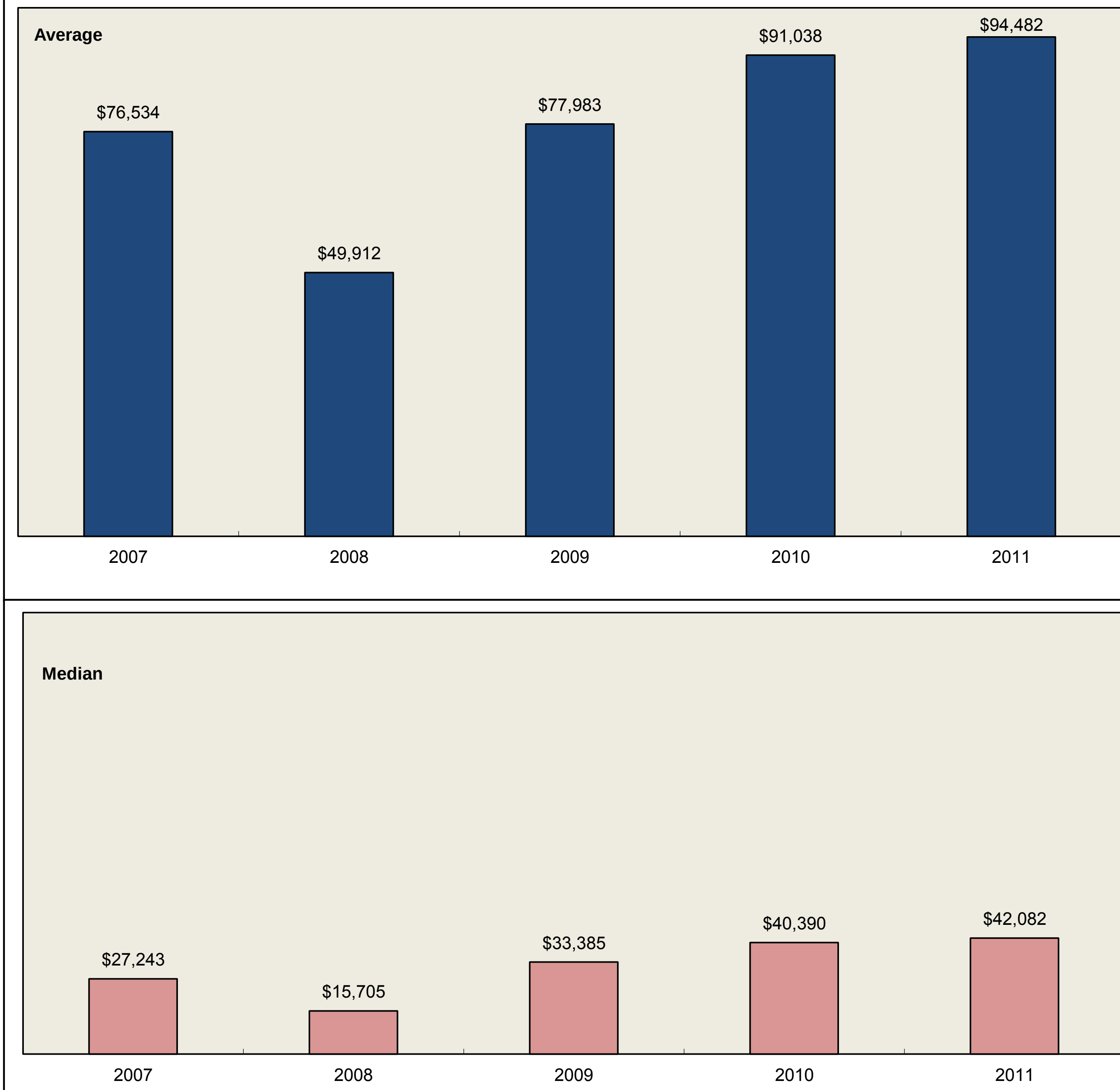
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: At year-end 2011, the average account balance among all 24.0 million 401(k) plan participants was $58,991; the median account balance was $16,649. Percentages do not add to 100 percent because of rounding.

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 relative to a larger one. On the other hand, investment returns of a given percentage produce larger dollar increases (or decreases) when compounded on a larger asset base.

All told, from year-end 2007 through year-end 2011, the average account balance among the group of consistent participants increased by more than 20 percent, rising from $76,534 at year-end 2007 to $94,482 at year-end 2011 (Figures 4 and 5). This translates into a compound annual average growth rate of 5.4 percent over the four-year period. The median account balance (or midpoint, with half above and half below) among this consistent group also grew, rising 54 percent from $27,243 in 2007 to $42,082 in 2011 (a compound annual average growth rate of 11.5 percent).

Among the consistent group, there was a wide range of individual participant experience, often influenced by the relationships among the three factors mentioned above: contributions, investment returns, and withdrawal/loan activity. As a result, participants who were younger or had fewer years of tenure experienced the largest percentage increases in average account balance between year-end 2007 and year-end 2011. For example, the average account balance of participants in their 20s rose 295.5 percent (a 41.0 percent compound annual average growth rate) between the end of 2007 and the end of 2011 (Figures 5 and 6). Because younger participants' account balances tended to be small (Figure 5), their contributions produced significant percentage growth in their account balances.

Figure 4
401(k) Account Balances[a] Among 401(k) Participants Present from Year-End 2007 Through Year-End 2011[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 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011.

Figure 5
Average Account Balances Among 401(k) Participants Present from Year-End 2007 Through Year-End 2011[a] by Age and Tenure[b]

Age Group[b]	Tenure (years)[b]	2007	2008	2009	2010	2011
20s	All	$4,903	$4,932	$11,586	$16,654	$19,392
	>2 to 5	3,165	3,917	11,212	16,669	19,712
	>5 to 10	6,516	6,126	13,481	19,147	22,445
30s	All	25,075	17,223	32,274	41,265	44,897
	>2 to 5	11,476	8,817	20,443	27,524	30,783
	>5 to 10	22,241	15,525	31,169	40,644	44,947
	>10 to 20	43,695	28,488	49,302	61,086	65,373
40s	All	62,318	39,459	66,063	79,604	83,690
	>2 to 5	21,937	14,729	30,404	38,958	42,500
	>5 to 10	38,964	24,982	46,616	58,142	62,472
	>10 to 20	77,887	47,776	80,979	96,825	101,560
	>20 to 30	122,453	77,632	118,952	139,314	144,439
50s	All	107,358	69,593	107,090	124,539	129,508
	>2 to 5	26,758	18,175	35,750	45,115	49,508
	>5 to 10	45,379	29,655	53,182	65,397	70,753
	>10 to 20	92,277	57,634	94,119	110,620	115,916
	>20 to 30	174,295	110,623	167,017	190,771	196,019
	>30	196,487	131,027	187,214	213,064	219,701
60s	All	130,398	85,739	123,085	135,350	135,008
	>2 to 5	31,181	21,352	38,387	46,241	49,705
	>5 to 10	48,035	31,805	54,617	64,875	68,471
	>10 to 20	97,081	61,425	95,687	107,837	109,550
	>20 to 30	181,019	115,871	165,758	179,677	177,385
	>30	235,633	157,024	212,880	227,525	222,851
All[a]	All	76,534	49,912	77,983	91,038	94,482

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project
[a] The analysis is based on a sample of 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011.
[b] Age and tenure groups are based on participant age and tenure at year-end 2011.

Figure 6
Percent Change in Average Account Balances Among 401(k) Participants Present from Year-End 2007 Through Year-End 2011[a] by Age and Tenure[b]

Age Group[b]	Tenure (years)[b]	2007–2008	2008–2009	2009–2010	2010–2011	2007–2011	Compound Annual Growth Rate, 2007–2011
20s	All	0.6%	134.9%	43.7%	16.4%	295.5%	41.0%
	>2 to 5	23.8	186.2	48.7	18.3	522.9	58.0
	>5 to 10	-6.0	120.1	42.0	17.2	244.4	36.2
30s	All	-31.3	87.4	27.9	8.8	79.1	15.7
	>2 to 5	-23.2	131.9	34.6	11.8	168.2	28.0
	>5 to 10	-30.2	100.8	30.4	10.6	102.1	19.2
	>10 to 20	-34.8	73.1	23.9	7.0	49.6	10.6
40s	All	-36.7	67.4	20.5	5.1	34.3	7.7
	>2 to 5	-32.9	106.4	28.1	9.1	93.7	18.0
	>5 to 10	-35.9	86.6	24.7	7.4	60.3	12.5
	>10 to 20	-38.7	69.5	19.6	4.9	30.4	6.9
	>20 to 30	-36.6	53.2	17.1	3.7	18.0	4.2
50s	All	-35.2	53.9	16.3	4.0	20.6	4.8
	>2 to 5	-32.1	96.7	26.2	9.7	85.0	16.6
	>5 to 10	-34.7	79.3	23.0	8.2	55.9	11.7
	>10 to 20	-37.5	63.3	17.5	4.8	25.6	5.9
	>20 to 30	-36.5	51.0	14.2	2.8	12.5	3.0
	>30	-33.3	42.9	13.8	3.1	11.8	2.8
60s	All	-34.2	43.6	10.0	-0.3	3.5	0.9
	>2 to 5	-31.5	79.8	20.5	7.5	59.4	12.4
	>5 to 10	-33.8	71.7	18.8	5.5	42.5	9.3
	>10 to 20	-36.7	55.8	12.7	1.6	12.8	3.1
	>20 to 30	-36.0	43.1	8.4	-1.3	-2.0	-0.5
	>30	-33.4	35.6	6.9	-2.1	-5.4	-1.4
All[a]	All	-34.8	56.2	16.7	3.8	23.5	5.4

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project
[a] The analysis is based on a sample of 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011.
[b] Age and tenure groups are based on participant age and tenure at year-end 2011.

In contrast, the average account balance of older participants or those with longer tenures, both of which tended to have larger balances at the beginning of the study period, showed more modest percentage growth (Figure 6). For example, the average account balance of participants in their 60s increased 3.5 percent (a 0.9 percent compound annual average growth rate) between year-end 2007 and year-end 2011. 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, as they approach retirement.[8]

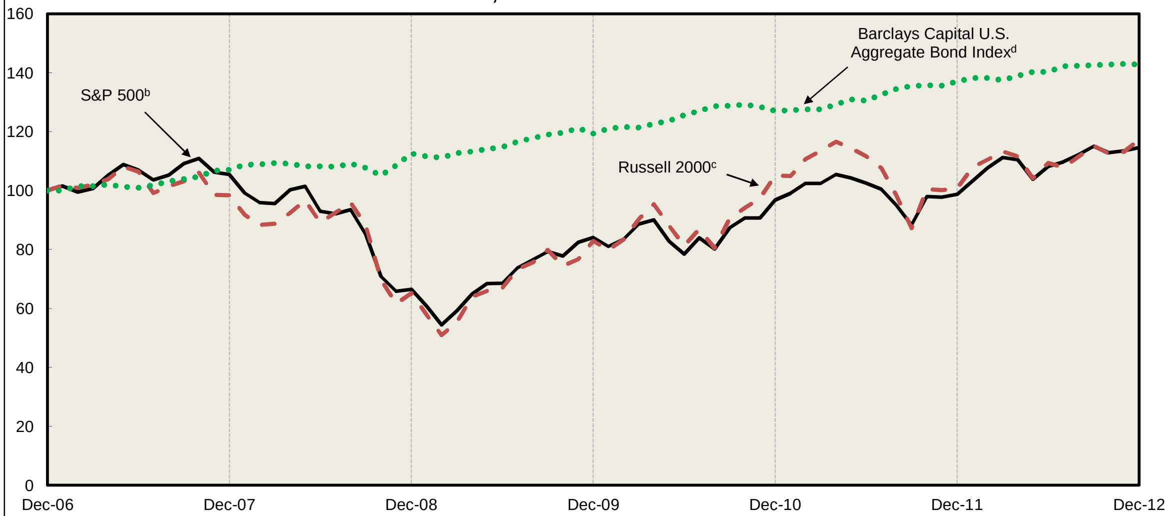
These changes in participant account balances also reflect changes in asset values during the four-year period (Figure 7). Although asset allocation varied with age, and many participants held a range of investments, stock market performance had an impact on these balances because, in large part, 401(k) plan participants' balances tended to be weighted toward equity securities. At year-end 2011, whether looking at the consistent group or the entire EBRI/ICI 401(k) database, altogether, equity securities—equity funds, the equity portion of target date funds, the equity portion of non–target-date balanced funds,[9] and company stock—represented about three-fifths of 401(k) plan participants' assets (Figure 8, lower panel).[10] However, the asset allocation of participants in the 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 and target-date 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.

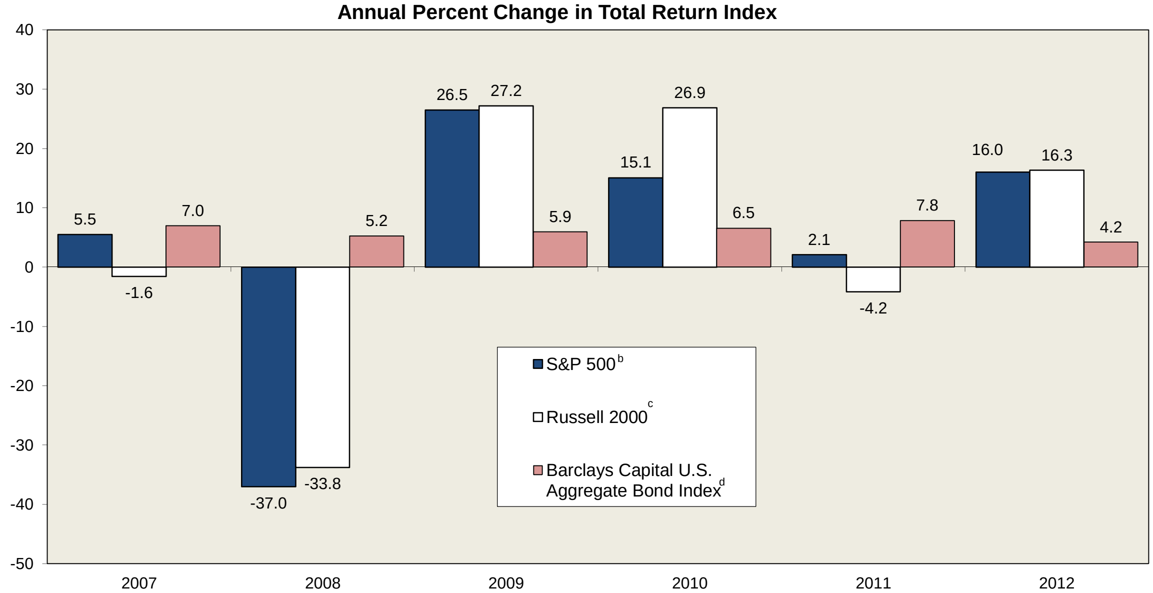
Among individual 401(k) participants in the consistent sample, the allocation of account balances to equities at year-end 2011 varied widely around the average of 61 percent for the consistent group as a whole. At year-end 2011, 38.4 percent of participants in the consistent sample had more than 80 percent of their accounts invested in equities, while 11.8 percent held no equities at all (Figure 9, lower panel). On net, the same percentage of the consistent sample held some equities in 2011 as in 2007. On the other hand, the share of participants in the consistent sample with more than 80 percent of their accounts invested in equities shifted from 42.9 percent of participants at year-end 2007 to 38.4 percent at year-end 2011. The share of consistent participants with more than 80 percent of their 401(k) accounts invested in equities fell more among older participants. For example, among participants in their 20s, the share with more than 80 percent allocated to equities edged up from 57.0 percent at year-end 2007 to 57.8 percent at year-end 2011, while the share among participants in their 60s fell from 29.6 percent to 23.2 percent. Although the financial crisis that occurred during this period[11] may have influenced participants' allocation to equities, some of this movement may have simply been normal reallocation as participants approached retirement.

Stock market returns posted in 2011 varied by the segment of the market held: the S&P 500 total return index increased slightly in 2011 after two years of strong growth following the market turmoil of 2008, while the Russell 2000 Index experienced a slight decline in 2011 (Figure 7). The decline in stock market values in 2008 also pulled 401(k) account balances lower, although diversified portfolios and ongoing contributions[12, 13] helped offset the impact. The average account balance among the consistent group of participants fell 34.8 percent between year-end 2007 and year-end 2008 (Figures 5 and 6), while the S&P 500 total return index fell 37.0 percent and the Russell 2000 Index fell 33.8 percent (Figure 7). Between year-end 2008 and year-end 2011, the S&P 500 total return index climbed 48.6 percent and the Russell 2000 Index rose by 54.6 percent. At the same time, the average account balance among the consistent group of participants increased 89.3 percent between year-end 2008 and year-end 2011 (Figure 4 and 5).

Figure 7
Domestic Stock and Bond Market Indexes

Month-end level,[a] December 2006 to December 2012





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

[a] All indexes are set to 100 in December 2006.

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

Figure 8

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

Percentage of account balances,[a] year-end 2007 and year-end 2011

	Year-End 2007									
Age group[b]	Equity Funds	Target-Date Funds[c]	Non–Target-Date Balanced Funds	Bond Funds	Money Funds	GICs[d, e] and Other Stable-Value Funds	Company Stock[e]	Other	Unknown	Total[a]
20s	48.4	10.6	6.8	5.7	5.5	6.4	13.5	1.8	1.2	100.0
30s	60.7	6.0	6.3	7.1	3.0	4.0	10.7	1.7	0.5	100.0
40s	56.7	5.2	7.3	8.0	3.5	6.0	11.0	1.8	0.5	100.0
50s	47.9	5.9	8.3	9.6	4.5	10.7	10.7	1.9	0.5	100.0
60s	39.8	5.4	8.5	11.8	5.5	17.6	9.0	1.9	0.4	100.0
All consistent sample[b]	49.5	5.5	7.9	9.5	4.3	10.7	10.4	1.8	0.5	100.0
2007 EBRI/ICI 401(k) database[f]	48.2	7.4	8.0	8.3	4.2	10.6	10.6	2.1	0.7	100.0
	Year-End 2011									
Age group[b]	Equity Funds	Target-Date Funds[c]	Non–Target-Date Balanced Funds	Bond Funds	Money Funds	GICs[d, e] and Other Stable-Value Funds	Company Stock[e]	Other	Unknown	Total[a]
20s	37.0	28.6	6.9	7.8	3.1	4.5	9.0	1.2	2.0	100.0
30s	46.6	17.3	6.1	9.6	3.5	4.7	8.8	1.7	1.8	100.0
40s	46.9	12.6	5.8	10.7	4.2	6.5	9.7	2.2	1.4	100.0
50s	37.8	11.3	6.1	13.0	5.6	11.5	10.7	2.8	1.1	100.0
60s	30.8	10.5	6.0	15.5	7.8	17.4	8.7	2.4	0.9	100.0
All consistent sample[b]	39.3	12.0	6.0	12.6	5.6	11.0	9.8	2.4	1.2	100.0
2011 EBRI/ICI 401(k) database[g]	39.2	13.3	7.2	11.9	4.4	10.8	8.2	3.1	1.9	100.0

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 2011. Asset allocation by age group is among the consistent sample of 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011.

[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.

[d] GICs are guaranteed investment contracts.

[e] Not all participants are offered this investment option.

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

[g] The year-end 2011 EBRI/ICI 401(k) database represents 24.0 million 401(k) plan 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 and year-end 2011 of 401(k) participant account balance to equities[a] by age; percentage of participants,[b,c]

	Percentage of Account Balance Invested in Equities at Year-End 2007[a]					
Age group[d]	Zero	1–20 percent	>20–40 percent	>40–60 percent	>60–80 percent	>80 percent
20s	14.9	3.5	3.7	5.7	15.2	57.0
30s	10.9	4.1	4.6	7.5	18.0	54.9
40s	10.1	4.8	5.2	8.4	24.0	47.5
50s	11.0	6.3	6.8	15.0	25.0	36.0
60s	14.2	8.1	10.7	18.8	18.5	29.6
All consistent sample[b]	11.8	5.6	6.4	11.5	21.8	42.9
2007 EBRI/ICI 401(k) database[e]	13.2	3.8	5.3	11.2	23.0	43.4
	Percentage of Account Balance Invested in Equities at Yar-End 2011[a]					
Age group[d]	Zero	1–20 percent	>20–40 percent	>40–60 percent	>60–80 percent	>80 percent
20s	10.3	2.8	3.3	6.9	18.9	57.8
30s	9.0	3.7	4.4	8.6	20.4	53.8
40s	9.4	4.9	5.5	10.1	26.8	43.3
50s	11.9	7.7	7.9	18.0	25.7	28.8
60s	17.8	10.4	12.5	20.6	15.5	23.2
All consistent sample[b]	11.8	6.3	7.0	13.4	23.1	38.4
2011 EBRI/ICI 401(k) database[f]	10.8	4.5	6.0	12.8	25.4	40.6

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.

[b] Participants include the 8.6 million 401(k) plan participants with account balances at the end of each year from 2007 through 2011.

[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 2011.

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

[f] The year-end 2011 EBRI/ICI 401(k) database represents 24.0 million 401(k) plan participants.

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, 2011, the EBRI/ICI 401(k) database included statistical information about 24.0 million 401(k) plan participants, in 64,141 employer-sponsored 401(k) plans, holding $1.415 trillion in assets. The 2011 EBRI/ICI 401(k) database covered about 47 percent of the universe of active 401(k) plan participants, 12 percent of plans, and 45 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 permitting the analysis of 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 2011.[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 2011, 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, 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 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 referenced in the fund's name. Non–target-date balanced funds include asset allocation or hybrid funds, in addition to lifestyle funds.[17] Company stock is equity in the 401(k) plan's sponsor (the employer). Money funds consist of those funds designed to maintain a stable share price. Stable-value products, such as 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, 2011, the EBRI/ICI 401(k) database included statistical information on 24.0 million 401(k) plan participants, in 64,141 employer-sponsored 401(k) plans, holding $1.415 trillion in assets (see Holden et al., 2012). Using National Compensation survey data and historical relationships and trends evident in the Form 5500 data, EBRI and ICI estimate the number of active 401(k) participants to be about 51.2 million in 2011 (see endnote 2 in Holden et al., 2012; and U.S. Department of Labor 2013). There were 513,496 401(k) plans in 2011 (see U.S. Department of Labor 2013) and 401(k) plan assets were $3.1 trillion (see Investment Company Institute 2013). The 2011 EBRI/ICI database covered 47 percent of the universe of 401(k) plan participants, 12 percent of plans, and 45 percent of 401(k) plan assets.

[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 Holden and Schrass 2012.

[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. Any time a 401(k) plan sponsor changes service providers, all participants in the plan would be excluded from the consistent sample.

[6] For the report on the year-end 2007 EBRI/ICI 401(k) database, see VanDerhei et al., 2008.

[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 statistics indicating the higher propensity of withdrawals among participants in their 60s, see Holden and VanDerhei 2002. In addition, see The Vanguard Group 2013.

[9] At year-end 2011, 63 percent of non–target-date balanced fund assets were assumed to be invested in equities (see Investment Company Institute, Quarterly Supplementary Data). The allocation to equities in target-date funds varies with the funds' target dates. For target-date funds, investors were assumed to be in a fund whose target date was nearest to their

65th birthday. The equity portion was estimated using the industry average equity percentage for the assigned target-date fund calculated using the Morningstar Lifecycle Allocation Index.

[10] For a description of the investment options, see page 13.

[11] The National Bureau of Economic Research (NBER), which publishes its assessment of U.S. business cycles, indicated that the most recent recession occurred from December 2007 through June 2009. See National Bureau of Economic Research 2010. During this time period, the S&P 500 total return index fell by 35.0 percent.

[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. 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, whether measured in dollar amounts or percentage of salary they contributed.

[13] Data from the ICI Survey of Defined Contribution Plan Recordkeepers find that DC plan participants generally stayed the course through the financial crisis. The vast majority of DC plan participants continued contributing; only a negligible share took withdrawals, and a minority of participants rebalanced either their contribution investment allocations or their account investment allocations. See Holden and Schrass 2013 for DC plan participants' annual activities between 2008 and 2012.

[14] For the complete update from the year-end 2011 EBRI/ICI 401(k) database, see VanDerhei et al., 2012.

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

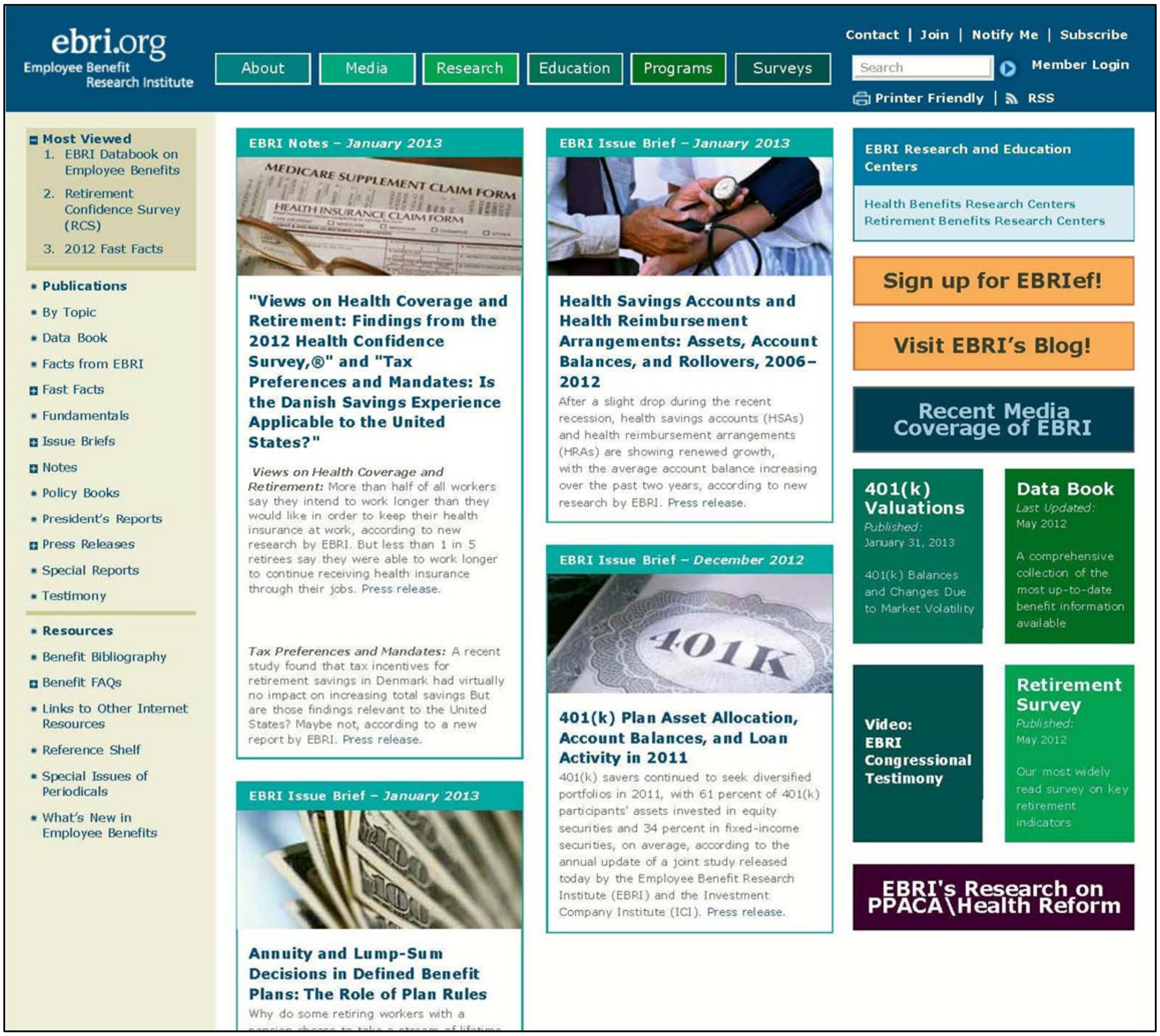
[16] This system of classification does not consider the number of distinct investment options presented to a given participant, but rather, the types of options presented. Preliminary research analyzing 1.4 million participants drawn from the 2000 EBRI/ICI 401(k) database suggests that the sheer number of investment options presented does not influence participants. On average, participants had 10.4 distinct options but, on average, chose only 2.5 (see Holden and VanDerhei 2001). 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. Plan Sponsor Council of America 2012 indicates that in 2011, the average number of investment fund options available for participant contributions was 19 among the 840 plans surveyed. Aon Hewitt 2012 indicates an average of 20 investment options in 2011. Deloitte Consulting LLP, International Foundation of Employee Benefit Plans, and the International Society of Certified Employee Benefit Specialists 2013 report that the average number of funds offered by the 401(k) plan sponsors responding to that question in their survey was 19 in 2012. PLANSPONSOR Magazine's 2012 Defined Contribution Survey of 5,930 plan sponsors indicated that a median of 16 fund options were offered (an average of 17.6), while a median of 4 (an average of 4.7) were actually held by participants.

[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–target-date 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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For more information, contact Nevin Adams, nadams@ebri.org, 202/775-6329.

You can reserve your place for both events at http://tinyurl.com/ott6f98

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