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401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2002

by Sarah Holden, ICI, and Jack VanDerhei, Temple University and EBRI Fellow

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Issue Brief

- This *Issue Brief* examines asset allocation, account balance, and loan activity of a large and representative group of 401(k) plan participants as of year-end 2002 using data gathered by the Employee Benefit Research Institute (EBRI) and the Investment Company Institute (ICI) in their collaborative effort known as the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. The EBRI/ICI 401(k) database is the most comprehensive source of 401(k) plan participant-level data available to date, containing 15.5 million active 401(k) plan participants in 46,310 plans with $618.6 billion in assets.
- The average asset allocation of 401(k) participants to equity securities continued to move lower in the 2002 EBRI/ICI database, reflecting the performance of the equity markets. Nevertheless, equity securities remained the bulk (62 percent) of 401(k) plan assets.
- Analysis of the portion of account balances held in equity funds among participants with accounts at the end of each year from 1999 through 2002 suggests that most participants did not actively change their asset allocations between 1999 and 2002.
- Participants' allocations to company stock remained in line with previous years. About half of the participants in the EBRI/ICI year-end 2002 database are in plans that offer company stock as an investment option. More than half of the participants in these plans held 20 percent or less of their account balances in company stock, including 35 percent who held none. On the other hand, about 14 percent of the participants in these plans held more than 80 percent of their account balances in company stock.
- The average account balance among participants who consistently held accounts since 1999 declined 7.9 percent in 2002 and 10.0 percent since 1999. The change in a participant's account balance is a result of contributions, investment returns, withdrawals, borrowing, and loan repayments.
- The average account balance tended to increase in 2002 for young participants and those with lower tenure. These participants tend to have lower balances and contributions are large relative to these balances. For example, the average account balance rose 4.3 percent in 2002 for participants in their 20s who had an account since 1999.
- The average account balance for older and longer tenure participants tended to decline in 2002, as investment returns are more significant than contributions because their account balances tend to be larger. For example, the average account balance fell 10.0 percent in 2002 among participants in their 60s who had an account since 1999. However, participants in their 60s also have a higher propensity to take withdrawals.
- Despite the continuing volatility in financial markets and generally weak economic conditions, 401(k) plan participants' loan activity in 2002 was essentially unchanged from earlier years. Only 17 percent of eligible participants had outstanding loans at the end of 2002. In addition, for those with outstanding loans at the end of 2002, the level of the unpaid balance represented 16 percent of the account balance, net of the unpaid loan balance.

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Overview and Summary

The Employee Benefit Research Institute (EBRI)[1] and the Investment Company Institute (ICI)[2] in a collaborative effort have gathered annual data on 401(k) participants since 1996 from a wide variety of 401(k) plan record keepers.[3] This *Issue Brief* provides an update on asset allocation, account balance, and loan activity as of year-end 2002.[4] In addition, this update provides a unique opportunity to observe how a large and representative sample of 401(k) participants has fared during several years of slow economic growth and a severe bear market in stocks that caused broad market indexes to decline nearly 40 percent between year-end 1999 and year-end 2002.[5]

Data gathered for year-end 2002 show that while the portion of 401(k) balances invested in equities has declined, 401(k) plan participants do not appear to have made significant changes to their asset allocation or made changes in their loan activity. Furthermore, while broad equity market indexes fell 22 percent in 2002, continuing contributions into 401(k) plans and diversified asset allocation generally muted the impact of the poor market performance on participants' account balances. Among participants with accounts since year-end 1999, the average account balance fell 7.9 percent in 2002 and declined a total of 10.0 percent between year-end 1999 and year-end 2002.

The principal findings as of year-end 2002 are as follows:

Asset Allocation

- The average asset allocation of 401(k) participants to equity securities continued to move lower in the 2002 EBRI/ICI database, reflecting the performance of the equity markets. Nevertheless, equity securities remained the bulk (62 percent) of 401(k) plan assets.
- Analysis of the portion of account balances held in equity funds[6] among participants with accounts at the end of each year from 1999 through 2002 suggests that most participants did not actively change their asset allocations between 1999 and 2002.
- The poor stock market performance does not seem to have affected other asset allocation patterns. For example, younger participants still tend to hold a higher portion of their accounts in equity assets and older participants invest more in fixed-income assets.
- Participants' allocations to company stock remained in line with previous years. About half of the participants in the EBRI/ICI year-end 2002 database are in plans that offer company stock as an investment option. More than half of the participants in these plans held 20 percent or less of their account balances in company stock, including 35 percent who held none. On the other hand, about 14 percent of the participants in these plans held more than 80 percent of their account balances in company stock.

Sarah Holden is senior economist, Research Department at the Investment Company Institute (ICI), and Jack VanDerhei, Temple University, is research director of the Employee Benefit Research Institute (EBRI) Fellows Program. Special thanks to Luis Alonso, research associate at EBRI, who managed the database. In addition, thanks to Stefan Kimball at ICI, who assisted in preparing the graphics. This report is being published simultaneously by the Investment Company Institute as an ICI *Perspective*. Any views expressed in this report are those of the authors and should not be ascribed to the officers, trustees, or other sponsors of EBRI, EBRI-ERF, or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

Account Balances

- The average account balance[7] among participants who consistently held accounts since 1999 declined 7.9 percent in 2002 and 10.0 percent since 1999. The change in a participant's account balance is a result of contributions, investment returns, withdrawals, borrowing, and loan repayments.
- The average account balance tended to increase in 2002 for young participants and those with lower tenure. These participants tend to have lower balances and contributions are large relative to these balances. For example, the average account balance rose 4.3 percent in 2002 for participants in their 20s who had an account since 1999.
- The average account balance for older and longer tenure participants tended to decline in 2002, as investment returns are more significant than contributions because their account balances tend to be larger. For example, the average account balance fell 10.0 percent in 2002 among participants in their 60s who had an account since 1999. However, participants in their 60s also have a higher propensity to take withdrawals.

Plan Loans

- Despite the continuing volatility in financial markets and generally weak economic conditions, 401(k) plan participants' loan activity in 2002 was essentially unchanged from earlier years. Only 17 percent of eligible participants had outstanding loans at the end of 2002. In addition, for those with outstanding loans at the end of 2002, the level of the unpaid balance represented 16 percent of the account balance, net of the unpaid loan balance, little changed from recent years.
- Loan activity varies with age, tenure, salary, and account balance.

The EBRI/ICI Database

Source and Type of Data

Several EBRI and ICI members provided records on active participants in 401(k) plans they administered for year-end 2002. These plan administrators include mutual fund companies, insurance companies, and consulting firms. Although the EBRI/ICI project has collected data from 1996 through 2002, the universe of data providers varies from year to year. Thus, aggregate figures in this report generally should not be used to estimate time trends, unless this report indicates otherwise. 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 participant date of birth, from which an age cohort is assigned; participant 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.

Investment options are grouped into eight categories.[9] Equity funds consist of pooled investments primarily investing in stocks. These funds include 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, and balanced funds are pooled accounts invested in both stocks and bonds. Company stock

Figure 1

EBRI/ICI Database: 401(k) Plan Characteristics, by Number of Plan Participants, 2002

Number of Plan Participants	Total Plans	Total Participants	Total Assets	Average Account Balance
1 to 10	7,786	49,261	$1,358,021,056	$27,568
11 to 25	12,212	210,417	$4,655,591,912	$22,126
26 to 50	9,072	327,262	$7,484,260,892	$22,869
51 to 100	6,390	453,687	$11,002,269,366	$24,251
101 to 250	5,213	818,907	$21,119,909,414	$25,790
251 to 500	2,289	803,130	$20,845,474,292	$25,955
501 to 1,000	1,319	922,033	$28,304,197,467	$30,698
1,001 to 2,500	1,041	1,609,723	$54,079,960,434	$33,596
2,501 to 5,000	448	1,577,083	$58,758,299,436	$37,258
5,001 to 10,000	258	1,777,850	$72,631,475,411	$40,854
>10,000	282	6,959,832	$338,351,355,734	$48,615
All	46,310	15,509,185	$618,590,815,415	$39,885

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

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)[10] and other stable value funds[11] 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.[12]

Distribution of Plans, Participants, and Assets by Plan Size

The 2002 EBRI/ICI database contains 46,310 401(k) plans with $618.6 billion of assets and 15,509,185 participants (Figure 1).[13] Most of the plans in the database are small, measured by the number of plan participants or by total plan assets.[14] Forty-three percent of the plans in the database have 25 or fewer participants, and 33 percent have 26 to 100 participants. In contrast, only 4 percent of the plans have more than 1,000 participants. However, participants and assets are concentrated in large plans. For example, 77 percent of participants are in plans with more than 1,000 participants, and these same plans account for 85 percent of all plan assets.

Asset Allocation

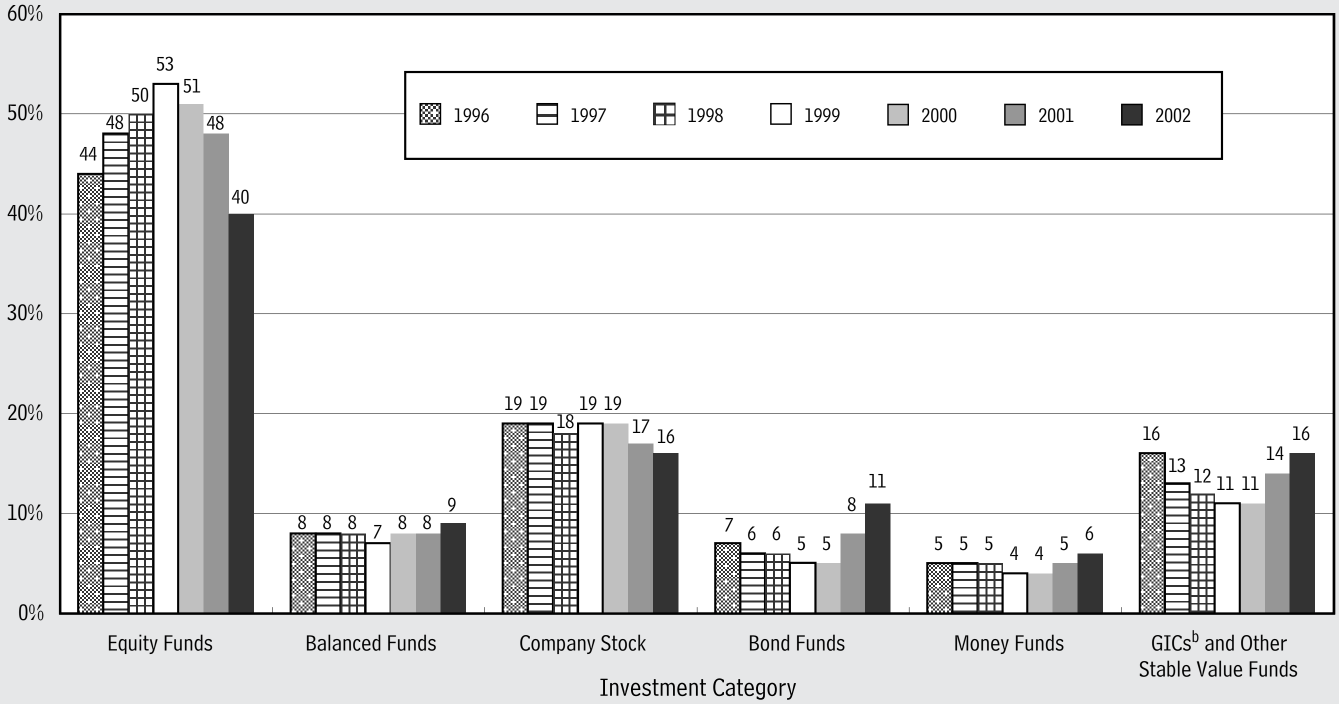
On average, participants in the 2002 EBRI/ICI database had 62 percent of plan balances invested directly or indirectly in equity securities—the sum of equity funds, company stock, and the equity portion of balanced funds.[15] Forty percent of their account balances are invested in equity funds, 16 percent in company stock, and 9 percent in balanced funds (Figure 2).[16]

Investment performance likely explains the bulk of the changes in 401(k) plan 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 1996 through 1999 before moving down through 2002 (Figure 3). However, at the margin, the EBRI/ICI databases are able to identify a small number of 401(k) plan participants who appear to have actively changed their asset allocations.

The 2002 EBRI/ICI database represents a snapshot of the asset allocation of a wide cross-section of 401(k) plan participants' accounts at year-end 2002. Thus, the aggregate average asset allocation presented reflects the entrance and exit of plans and participants. When trying to discern participant behavior over time, it is important to narrow the analysis to a consistent group of participants present in consecutive years in the database.

Figure 2

401(k) Plan Average Asset Allocation, 1996–2002
(percentage of total assets)[a]



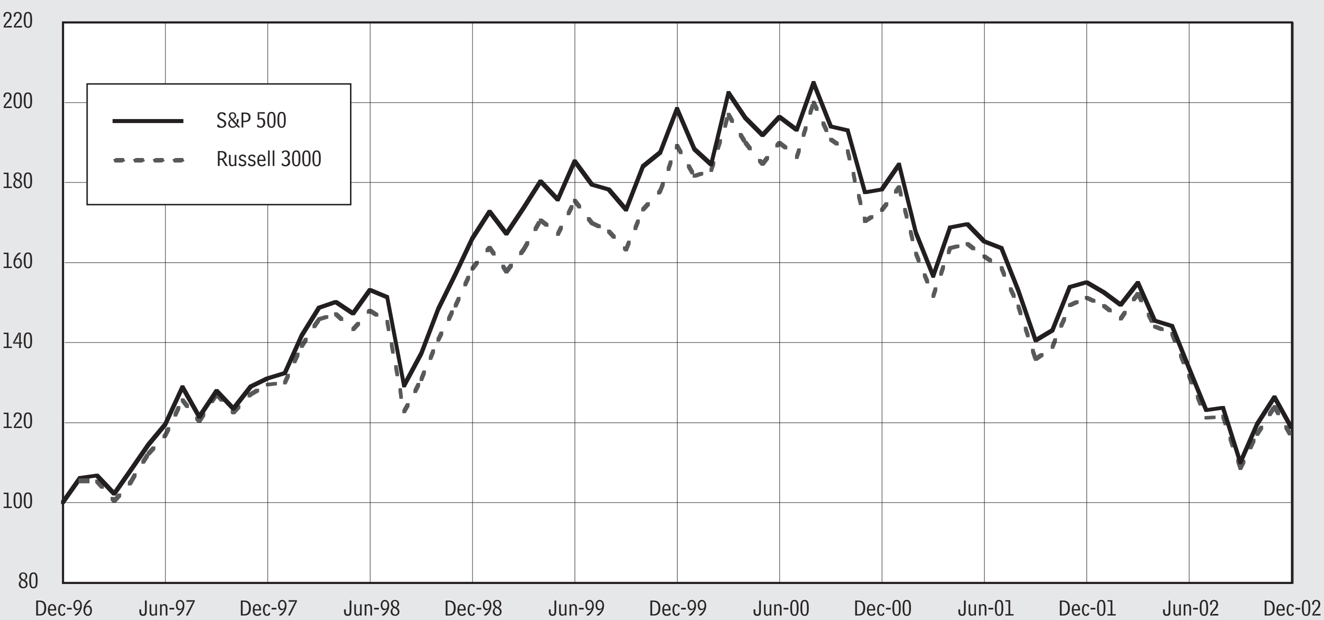
Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

[a] Minor investment options are not shown.

[b] Guaranteed investment contracts.

Figure 3

Domestic Stock Market Indexes, December 1996–December 2002[a]
(month-end level)[b]



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

[a] The S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. The Russell 3000 measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

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

Figure 4

Changes in Participants' Investment in Equity Funds, 1999–2002

(percentage of participants[a])

		Percentage of Account Balance Invested in Equity Funds							
		Percentage in 2002							
		None	1–20	21–40	41–60	61–80	81–99	100	Total in 1999[b]
Percentage in 1999	None	**21.5%**	2.0%	0.7%	0.5%	0.4%	0.3%	0.5%	25.9%
	1–20	0.7	**3.4**	1.0	0.4	0.2	0.1	0.1	5.9
	21–40	0.8	**2.4**	**3.7**	1.1	0.4	0.2	0.1	8.6
	41–60	1.0	1.0	**4.0**	**5.3**	1.2	0.4	0.3	13.2
	61–80	0.9	0.7	1.2	**5.0**	**5.1**	1.0	0.5	14.5
	81–99	0.8	0.5	0.6	1.1	**3.9**	**4.3**	0.8	12.1
	100	2.2	0.7	0.6	1.0	1.3	1.8	**12.2**	19.9
	Total in 2002[c]	27.9	10.7	11.8	14.5	12.5	8.1	14.4	100.0

Sum of participants shown in bold type: 71 percent of participants

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a] Sample of 5.3 million participants with account balances at the end of each year from 1999 through 2002.
[b] Percentages across the row may not add to total because of rounding.
[c] Percentages in column may not add to total because of rounding.

Changes in Asset Allocation Over Time

This section examines changes in asset allocation of a group of participants who held accounts at the end of each year from 1999 through 2002. Analyzing a consistent group of participants removes the effect of participants and plans entering and leaving on the overall average asset allocation. About half, or 5.3 million, of the participants with accounts at year-end 1999 had accounts in each consecutive year through year-end 2002. The relative returns of the different investment categories, ongoing contributions into the various investment categories, and rebalancing of account balances among the investment categories by participants influence asset allocation of account balances. Previous research has indicated that most 401(k) participants do not make changes to their asset allocations during any given year,[17] in line with having a long-term investment horizon.

In comparing the asset allocations of the 5.3 million participants with account balances at year-end 1999—near the peak of the stock market—and year-end 2002, this analysis finds that few participants appear to have made or experienced extreme changes in their asset allocations. Detailed transaction information is not available; thus, this report infers participant asset allocation activity using the year-end snapshots of their accounts.

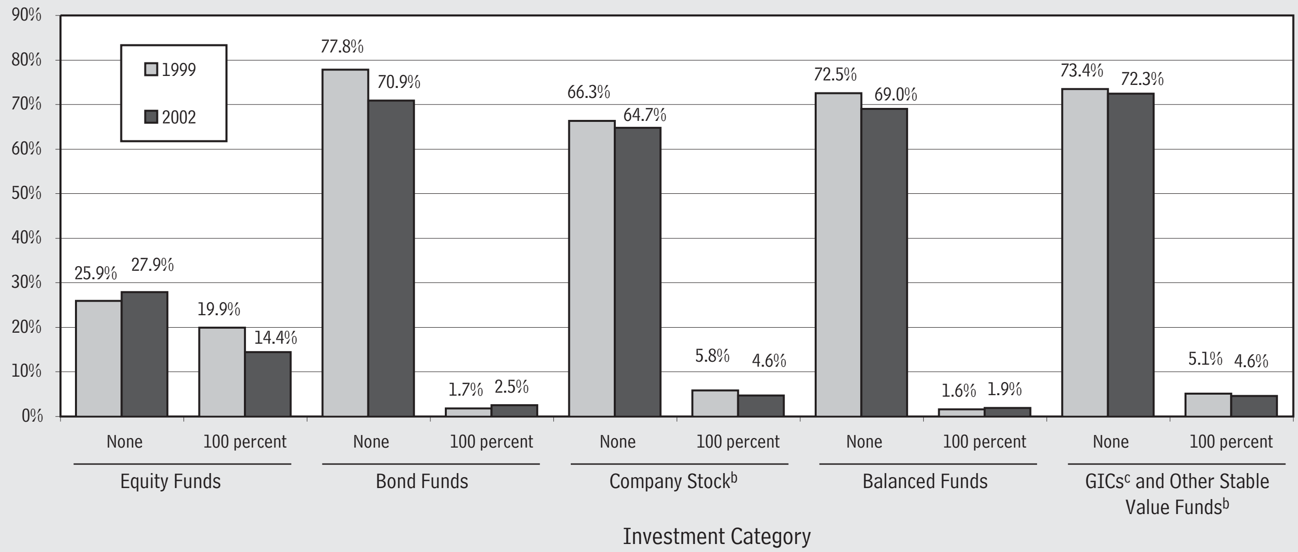
To examine the changes in asset allocation, participants are placed into seven groups based on the percentage of their account balance invested in equity funds at year-end 1999. The seven groups corresponding to the percentages invested in equity funds are: none, 1 percent to 20 percent, 21 percent to 40 percent, 41 percent to 60 percent, 61 percent to 80 percent, 81 percent to 99 percent, and 100 percent (Figure 4). The participants within each of these groups are then grouped according to the percentage of their account balance invested in equity funds at year-end 2002, using the same seven ranges.

Within this system of cross-classification, a percentage along the diagonal shows the share of participants who remain within the same equity fund asset allocation grouping in 2002 that they occupied in 1999. The figures above the diagonal represent 401(k) plan participants who are in a higher equity fund allocation grouping in 2002 compared with 1999. Likewise, participants below the diagonal are in a lower equity fund allocation grouping in 2002 compared with 1999. Because equity returns in aggregate were negative over this time period, many of the participants below the diagonal may have had their equity allocations decreased due to market returns rather than as a result of any action on their part. The bold-type numbers cover the allocation ranges that would likely result from the equity market returns experienced during that time period in the absence of any participant action.[18] The bulk

Figure 5

CHANGES IN ALL OR NOTHING 401(K) PLAN PARTICIPANT ASSET ALLOCATION, BY INVESTMENT TYPE, 1999 AND 2002

(PERCENTAGE OF PARTICIPANTS[a])



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

[a] Includes the 5.3 million participants with accounts at the end of each year from 1999 through 2002. A given participant may be counted in multiple investment categories. For example, a participant who is 100 percent invested in equities will be counted as "none" in each of the other investment categories.

[b] Not all participants are offered these investment options. See Figure A4 in the Appendix.

[c] Guaranteed investment contracts.

Figure 6

AVERAGE ASSET ALLOCATION OF 401(K) ACCOUNTS, BY PARTICIPANT AGE, 2002

(PERCENTAGE OF ACCOUNT BALANCES)

Age Cohort	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs[a] and Other Stable Value Funds	Company Stock	Other	Unknown	Total[b]
20s	50.5%	11.0%	9.1%	6.9%	7.3%	13.6%	0.7%	0.9%	100%
30s	51.4	9.8	8.6	5.2	7.4	15.9	0.9	0.7	100
40s	44.4	9.7	9.7	5.7	11.4	17.6	1.0	0.5	100
50s	37.3	9.1	11.5	6.4	17.5	16.6	1.1	0.4	100
60s	30.3	8.0	13.7	7.3	26.7	12.7	1.0	0.4	100
All	40.3	9.2	10.9	6.2	15.8	16.1	1.0	0.5	100

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

[a] Guaranteed investment contracts.

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

(71.0 percent) of participants fall into the bold-typed numbers (Figure 4).

However, some participant action can be discerned by studying the cases of a change from either a zero percent (none) or 100 percent allocation to any other allocation. For example, at year-end 1999, 25.9 percent of participants held no equity funds (Figure 4). At year-end 2002, 21.5 percent of participants continued to hold no equity funds, but 4.4 percent of participants were holding equity funds in 2002 when they held none in 1999. Conversely, the asset allocation to equity funds changed for 6.4 percent of participants from holding equity funds in 1999 to holding none in 2002. On net, the percentage of participants with no allocation to equity funds edged up only slightly between 1999 and 2002.

Similarly, there was a small decline in the percentage of participants allocating 100 percent of their accounts to equity funds (Figure 4). At year-end 1999,

Figure 7

Average Asset Allocation of 401(k) Accounts, by Investment Options, 2002

(percentage of account balances[a])

Investment Options Offered by Plan	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs[b] and Other Stable Value Funds	Company Stock
Equity, Bond, Money, and/or Balanced Funds	54.8%	12.3%	19.1%	11.1%		
Equity, Bond, Money, and/or Balanced Funds, and GICs[b] and/or Other Stable Value Funds	45.3	11.4	8.1	4.6	29.1%	
Equity, Bond, Money, and/or Balanced Funds, and Company Stock	37.9	6.2	15.9	9.3		29.6%
Equity, Bond, Money, and/or Balanced Funds, and Company Stock, and GICs[b] and/or Other Stable Value Funds	32.1	8.2	5.3	2.7	26.5	24.1

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a] Minor investment options are not shown; therefore, row percentages will not add to 100 percent.
[b] Guaranteed investment contracts.

19.9 percent of participants held 100 percent of their accounts in equity funds. At year-end 2002, 12.2 percent of participants continued to hold 100 percent of their accounts in equity funds. In addition, 2.2 percent of participants had increased their allocation to equity funds to 100 percent at year-end 2002 from lower allocations at year-end 1999. On net, the percentage of participants with their full account allocated to equity funds edged down between 1999 and 2002.

In sum, despite the ongoing bear market in equities, there is no evidence of a significant shift by a large percentage of participants away from their year-end 1999 allocations. In addition, the percentage of participants holding either none or 100 percent of their account balances in any particular investment option has changed little, except for equity funds and bond funds (Figure 5). The share of participants holding all of their accounts in equity funds decreased slightly, while the share completely eschewing bond funds edged down.

Asset Allocation by Age at Year-End 2002

As also shown in previous years, the EBRI/ICI database for year-end 2002 finds that participant asset allocation varies considerably with age (Figure 6).[19] Younger participants tend to favor equity funds, while older participants are more likely to invest in fixed-income securities such as bond funds, GICs, and other stable value funds, or money funds. On average, participants in their 20s had 51 percent of their account balances invested in equity funds, compared with about 30 percent of account balances for participants in their 60s. Participants in their 20s held only about 23 percent of their accounts in fixed-income securities (bond funds, GICs, and other stable value funds, and money funds combined), while those in their 60s invested 48 percent of their accounts in these assets. The tendency of younger participants to favor equity funds and older participants to favor fixed-income securities holds up even when accounting for investment options offered by the 401(k) plan sponsor.

Allocations to company stock continue to show a more mixed pattern by age. Participants in their 20s had about 14 percent of their plan balances in company stock, while participants in their 40s had 18 percent, and participants in their 60s had 13 percent.

Asset Allocation by Investment Options

The mix of investment options offered by a plan sponsor significantly affects the asset allocation of the participants in a plan. Figure 7 divides all of the plans in the year-end 2002 EBRI/ICI database into four combinations of investment offerings,[20] starting with a base group consisting of plans that do not offer company stock, GICs, or other stable value funds.[21] Participants in these plans—which generally offer equity funds, bond funds, money funds, and balanced funds as investment options—had the highest allocation to equity funds. Participants in plans that offer GICs and/or other stable value funds as an investment option allocated a smaller share of their assets to bond and money market funds than the base group, and had lower allocations to equity funds as well. Alternatively, participants in plans that

Figure 8

ASSET ALLOCATION DISTRIBUTION OF PARTICIPANT ACCOUNT BALANCE TO COMPANY STOCK IN 401(K) PLANS WITH COMPANY STOCK,[a] BY AGE, 2002 (PERCENTAGE OF PARTICIPANTS)[b]

Age Cohort	Percentage of Account Balance Invested in Company Stock: Zero	1–10%	>10–20%	>20–30%	>30–40%	>40–50%	>50–60%	>60–70%	>70–80%	>80–90%	>90–100%
20s	40.4%	8.4%	8.1%	7.5%	6.5%	6.1%	4.6%	3.1%	2.1%	1.5%	11.5%
30s	35.3	11.4	9.4	8.1	6.7	5.9	4.5	3.3	2.5	2.0	10.8
40s	33.5	13.9	9.4	7.8	6.6	5.7	4.4	3.3	2.5	2.1	10.9
50s	33.1	15.7	9.2	7.4	6.0	5.2	3.9	3.0	2.4	2.0	12.1
60s	36.8	16.7	8.0	6.1	4.7	4.1	3.1	2.3	2.1	1.8	14.1
All	35.1	13.3	9.1	7.6	6.3	5.5	4.2	3.1	2.4	2.0	11.5

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a] Includes the 7.4 million participants in plans with company stock.
[b] Row percentages may not add to 100 percent because of rounding.

Figure 9

ASSET ALLOCATION DISTRIBUTION OF 401(K) PARTICIPANT ACCOUNT BALANCE TO EQUITY FUNDS, BY AGE, 2002 (PERCENTAGE OF PARTICIPANTS)

Age Cohort	Percentage of Account Balance Invested in Equity Funds: Zero	1–10%	>10–20%	>20–30%	>30–40%	>40–50%	>50–60%	>60–70%	>70–80%	>80–90%	>90–100%
20s	36.5%	3.0%	3.7%	4.7%	5.2%	7.1%	5.9%	6.0%	6.3%	4.1%	17.6%
30s	27.6	3.8	4.0	5.1	5.7	7.6	6.6	6.9	7.0	5.0	20.8
40s	29.4	5.0	4.7	5.6	6.0	7.7	6.5	6.4	6.2	4.3	18.2
50s	33.8	5.9	5.1	5.8	6.0	7.4	6.0	5.5	5.1	3.5	15.8
60s	43.0	6.5	5.1	5.4	5.2	6.1	4.7	4.1	3.6	2.5	13.9
All	32.1	4.7	4.5	5.3	5.7	7.4	6.2	6.1	5.9	4.1	17.9

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: Row percentages may not add to 100 percent because of rounding.

offer company stock, but no stable value products, as an investment option had dramatically lower allocations to equity funds and balanced funds than the base group. Finally, in those plans that offer both company stock and stable value products, company stock appears to have displaced equity and balanced fund holdings, and GICs and other stable value funds appear to have displaced other fixed-income investments. These effects tend to occur across all age groups of participants.[22]

Distribution of Participants' Company Stock Allocations by Age

Participants' allocations to company stock remained in line with previous years. About half (or 7.4 million) of the 401(k) participants in the year-end 2002 EBRI/ICI database are in plans that offer company stock as an investment option. Among these participants, 35 percent held none and 58 percent held 20 percent or less of their account balances in company stock (Figure 8). On the other hand, about 14 percent had more than 80 percent of their account balances invested in company stock.

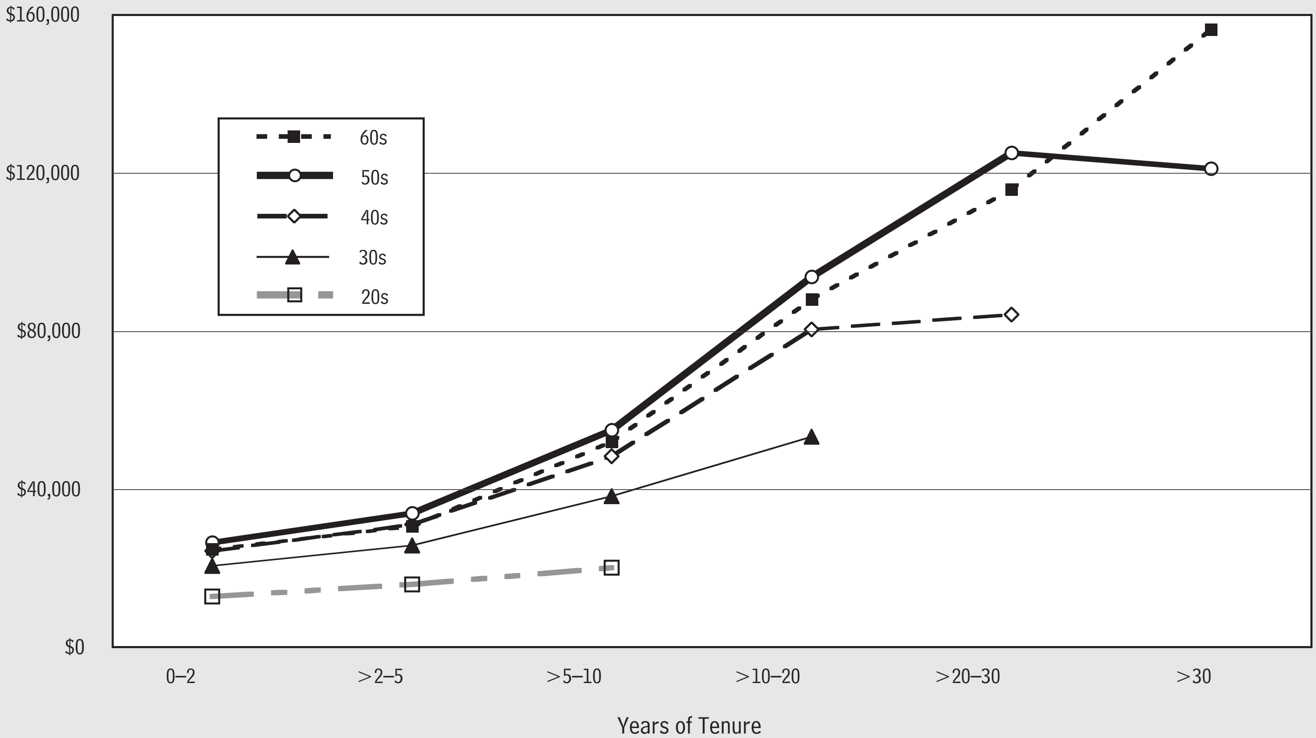
Distribution of Participants' Equity Fund Allocations by Age

Among individual participants, the allocation of account balances to equity funds varies widely around the average of 40 percent for all participants in the 2002 EBRI/ICI database. Indeed, about 22 percent of partici-

Figure 10

AVERAGE 401(K) ACCOUNT BALANCE AT YEAR-END 2002, BY AGE AND TENURE,[a] AMONG PARTICIPANTS PRESENT FROM YEAR-END 1999 THROUGH YEAR-END 2002[b,c]

(DOLLARS)



Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a] Age and tenure cohorts are based on participant age and tenure at year-end 1999.
[b] Sample of 5.3 million participants with account balances at the end of each year from 1999 through 2002.
[c] Data are from Figure 12.

pants had more than 80 percent of their account balances invested in equity funds, while 32 percent held no equity funds at all (Figure 9). The percentage of participants holding no equity funds tends to increase with age.[23] For example, about 37 percent of participants in their 20s had no equity fund investments, compared with 43 percent of participants in their 60s. However, in aggregate, about 52 percent of participants with no equity fund balances had exposure to the stock market through company stock or balanced funds.[24]

Account Balances

Using administrative records, the EBRI/ICI database reports the account balance held in the 401(k) plan at the participant's current employer.[25] Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included in this analysis. Furthermore, account balances are net of unpaid loan balances. In addition, the EBRI/ICI database for any given year captures a snapshot of the account balances at year-end and thus reflects the entrance of new plans and new participants and the exit of participants who retire or change jobs. When analyzing account balances, it is important to recognize the combined effects of actions of participants present in consecutive years in the database as compared with the effects of entry and exit of plans and participants from the database.

Relationship of Age and Tenure to Account Balances

In each year of the EBRI/ICI database and among the participants with account balances at the end of each year from 1999 through 2002, there tends to be a positive correlation between age and account balance and likewise there is a positive correlation between tenure and account balance (Figure 10).[26, 27] The accumulation that

Figure 11

Change in Average Account Balances Among 401(k) Participants Present From Year-End 1999 Through Year-End 2002,[a] by Age and Tenure[b]

Age Cohort[b]	Tenure (Years)[b]	1999–2000	2000–2001	2001–2002	1999–2002
20s	All	26.2%	19.3%	4.3%	57.1%
	0–2	54.0	32.9	11.1	127.3
	>2–5	18.5	14.7	1.7	38.3
	>5–10	8.3	6.9	–3.3	11.9
30s	All	4.1	2.8	–6.2	0.5
	0–2	32.3	20.4	4.9	67.2
	>2–5	10.3	7.6	–2.5	15.7
	>5–10	1.3	0.8	–8.0	–6.0
	>10–20	–1.0	–1.5	–9.4	–11.7
40s	All	0.2	–0.8	–7.9	–8.5
	0–2	28.3	18.0	4.6	58.4
	>2–5	10.3	6.9	–2.0	15.5
	>5–10	2.2	0.7	–7.1	–4.5
	>10–20	–1.8	–2.5	–9.7	–13.5
	>20–30	–2.1	–3.0	–8.9	–13.6
50s	All	–3.3	–3.2	–9.0	–14.8
	0–2	28.0	17.6	5.3	58.4
	>2–5	12.0	7.3	–1.0	19.0
	>5–10	4.1	1.0	–6.1	–1.3
	>10–20	–0.8	–2.4	–8.6	–11.6
	>20–30	–4.2	–4.7	–9.9	–17.7
	>30	–9.5	–6.1	–11.5	–24.8
60s	All	–6.9	–5.6	–10.0	–21.0
	0–2	21.5	14.5	3.9	44.6
	>2–5	11.2	5.7	–1.8	15.5
	>5–10	2.9	–0.5	–6.8	–4.5
	>10–20	–1.7	–3.7	–8.7	–13.6
	>20–30	–6.0	–6.3	–10.5	–21.1
	>30	–10.0	–7.1	–11.0	–25.6
All[a]	All	–0.9	–1.3	–7.9	–10.0

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a] Sample of 5.3 million participants with account balances at the end of each year from 1999 through 2002.
[b] Age and tenure cohorts are based on participant age and tenure at year-end 1999.

a participant's account balance represents reflects the sum of three factors over time: contributions; investment returns; and withdrawals, borrowing, and loan repayments. The magnitude of each of these factors relative to the size of the account balance influences the change in account balance experienced by the participant.

Changes in Account Balances

This section examines the change in account balances of a group of participants who held accounts at the end of each year from 1999 through 2002. Analyzing a consistent group of participants removes the effect of participants and plans entering and leaving the database (and/or 401(k) universe) on the overall average. About half, or 5.3 million, of the participants with accounts at

Figure 12

Average Account Balances Among 401(k) Participants Present From Year-End 1999 Through Year-End 2002,[a] by Age and Tenure[b]

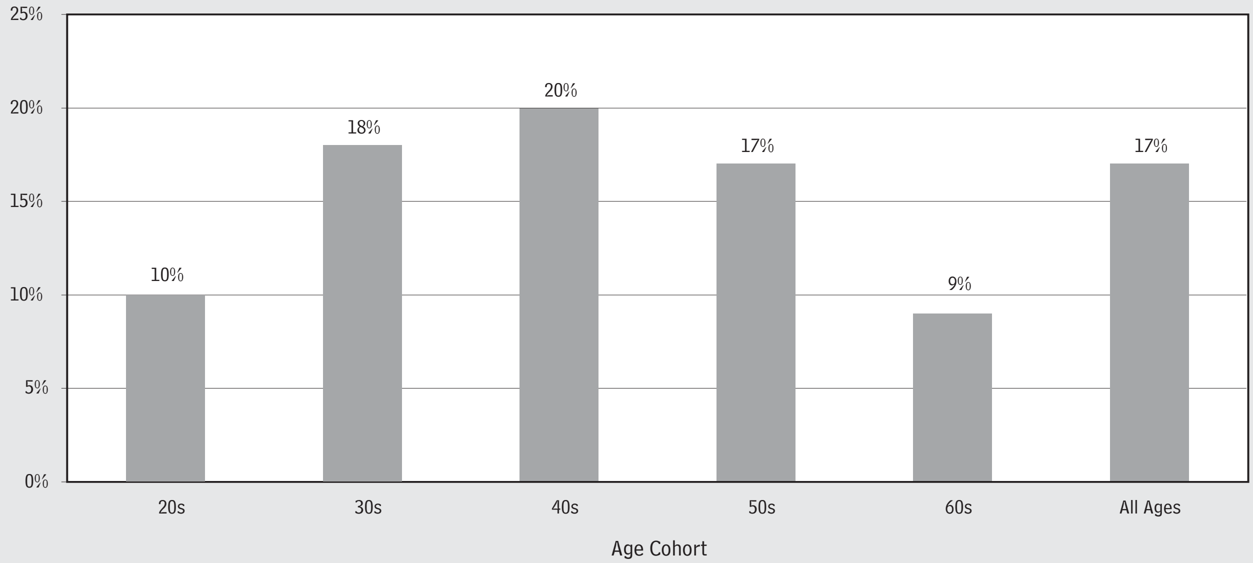
Age Cohort[b]	Tenure (Years)[b]	1999	2000	2001	2002
20s	All	$9,571	$12,074	$14,409	$15,035
	0–2	5,596	8,619	11,454	12,720
	>2–5	11,386	13,496	15,474	15,742
	>5–10	17,861	19,337	20,670	19,988
30s	All	35,112	36,559	37,596	35,282
	0–2	12,234	16,180	19,488	20,450
	>2–5	22,114	24,390	26,250	25,583
	>5–10	40,492	41,029	41,374	38,066
	>10–20	60,163	59,557	58,650	53,112
40s	All	66,702	66,854	66,299	61,033
	0–2	15,314	19,654	23,187	24,265
	>2–5	26,765	29,519	31,558	30,919
	>5–10	50,493	51,600	51,954	48,241
	>10–20	92,802	91,161	88,926	80,279
	>20–30	97,251	95,167	92,286	84,046
50s	All	103,626	100,241	97,030	88,332
	0–2	16,615	21,261	24,993	26,315
	>2–5	28,341	31,746	34,069	33,719
	>5–10	55,471	57,753	58,343	54,769
	>10–20	105,779	104,903	102,358	93,522
	>20–30	151,840	145,485	138,658	124,924
	>30	160,917	145,555	136,657	120,987
60s	All	134,964	125,601	118,522	106,689
	0–2	17,101	20,781	23,802	24,735
	>2–5	26,342	29,301	30,970	30,419
	>5–10	54,346	55,935	55,662	51,883
	>10–20	101,733	99,981	96,294	87,904
	>20–30	146,685	137,928	129,254	115,687
	>30	209,900	188,880	175,542	156,180
All[a]	All	64,074	63,470	62,646	57,668

Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
[a] Sample of 5.3 million participants with account balances at the end of each year from 1999 through 2002.
[b] Age and tenure cohorts are based on participant age and tenure at year-end 1999.

the end of 1999 had accounts at the end of each year from 1999 through 2002.

The average 401(k) account balance of this consistent group of participants edged down about 1 percent from 1999 to 2000, declined another 1.3 percent in 2001, and then fell 7.9 percent in 2002 (Figure 11). All told, from year-end 1999 (near the peak of the stock market) to year-end 2002 (the third year of the bear market), the average account balance among these participants fell 10.0 percent, from $64,074 at year-end 1999 to $57,668 at year-end 2002 (Figure 12). From year-end 1999 to year-end 2002, the S&P 500 total return index fell about 38 percent. However, the change in a participant's account balance is the sum of three factors: new contributions by the participant and/or the employer; total investment return on account balances, which depends on the performance of financial markets and on the allocation of assets in the individual's account; and

Figure 13
Percentage of Eligible 401(k) Participants With Loans, by Age, 2002



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

withdrawals, borrowing, and loan repayments.

A sense of the relationship among the three components can be seen in the change in average account balances by age and tenure group. In our consistent group of 5.3 million participants, the average account balances of participants who were younger or had fewer years of tenure tended to increase between year-end 1999 and year-end 2002. For example, the average account balance of participants in their 20s rose about 57 percent between the end of 1999 and the end of 2002 (Figure 11). The growth in assets among those in their 20s reflects the greater importance, in percentage terms, of contributions than other factors because these participants' account balances tend to be small compared with typical contributions.

In contrast, the average account balance tended to fall for older participants with longer tenures. For example, the average account balance of participants in their 60s with more than 30 years of tenure fell 25.6 percent between year-end 1999 and year-end 2002 (Figure 11). The decline in assets reflects the greater importance of investment returns because their account balances tend to be large relative to their annual contributions. In addition, participants in their 60s have a higher propensity to make withdrawals.[28]

Plan Loans

Characteristics of Participants with Outstanding Loans

Most participants in 401(k) plans are in plans offering borrowing privileges.[29] In the 2002 EBRI/ICI database, 84 percent of participants are in plans offering loans. However, as has been the case for the seven years that the EBRI/ICI databases have tracked 401(k) plan participants' loan activity, few participants had loans outstanding. At year-end 2002, only 17 percent of those eligible for loans had loans outstanding (Figure 13).

As shown in previous years, loan activity varies with age, tenure, salary, account balance, and plan size. 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 (Figures 13 and 14). 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 (Figure 14). Furthermore, only 11 percent of participants with account balances of less than $10,000 had loans outstanding.[30]

Figure 14

Percentage of Eligible 401(k) Participants With Loans From the Plan, by Age, Tenure, or Account Size, 1996, 1999, and 2002

	1996	1999	2002
All	18%	18%	17%
Age Cohort			
20s	12	11	10
30s	20	20	18
40s	22	22	20
50s	17	18	17
60s	9	9	9
Tenure (years)			
0–2	6	5	4
>2–5	15	13	12
>5–10	24	23	21
>10–20	27	28	26
>20–30	25	27	25
>30	13	17	15
Account Size			
<$10,000	12	11	11
$10,000–$20,000	26	24	22
>$20,000–$30,000	26	26	22
>$30,000–$40,000	25	26	23
>$40,000–$50,000	24	26	23
>$50,000–$60,000	24	25	22
>$60,000–$70,000	23	25	22
>$70,000–$80,000	26	24	22
>$80,000–$90,000	23	24	21
>$90,000–$100,000	22	23	21
>$100,000	21	19	17

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

Figure 15

Loan Balances as a Percentage of 401(k) Account Balances for Participants With Loans, by Age, Tenure, or Account Size, 1996, 1999, and 2002

	1996	1999	2002
All	16%	14%	16%
Age Cohort			
20s	30	25	28
30s	22	18	22
40s	16	14	16
50s	12	11	12
60s	10	9	10
Tenure (years)			
0–2	27	24	27
>2–5	24	22	25
>5–10	23	18	23
>10–20	15	13	16
>20–30	11	10	11
>30	7	9	10
Account Size			
<$10,000	39	37	37
$10,000–$20,000	32	30	31
>$20,000–$30,000	28	26	28
>$30,000–$40,000	23	23	25
>$40,000–$50,000	22	20	22
>$50,000–$60,000	19	18	20
>$60,000–$70,000	16	16	18
>$70,000–$80,000	16	14	16
>$80,000–$90,000	14	13	15
>$90,000–$100,000	13	12	13
>$100,000	7	7	7

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

Average Loan Balances

Among participants with outstanding loans at the end of 2002, the average unpaid balance was $6,659.[31] Again, similar to other years of analysis, loan balances as a percentage of account balances (net of the unpaid loan balance) for participants with loans was 16 percent at year-end 2002 (Figure 15). In addition, the same as in other years, there is variation around this average with age (lower the older the participant), tenure (lower the higher the tenure of the participant), and account balance (lower the higher the account balance).

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Appendix

The Appendix is available through EBRI's Web site at www.ebri.org

Endnotes

[1] The Employee Benefit Research Institute is a nonprofit, nonpartisan, public policy research organization, which does not lobby or take positions on legislative proposals.

[2] The Investment Company Institute is the national association of the U.S. investment company industry. Its membership includes 8,673 open-end investment companies ("mutual funds"), 588 closed-end investment companies, 106 exchange-traded funds, and six sponsors of unit investment trusts. Its mutual fund members manage assets of approximately $6.8 trillion, accounting for approximately 95 percent of total industry assets, and represent more than 90 million individual shareholders.

[3] In this effort, known as the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project, EBRI and ICI have collected data from some of their members that serve as plan record keepers and administrators. The data include demographic information, annual contributions, plan balances, asset allocation, and loan balances.

[4] The 2002 EBRI/ICI database contains 15.5 million active 401(k) plan participants in 46,310 plans with $618.6 billion in assets. The EBRI/ICI data are unique because they cover a wide variety of plan administrators and record keepers and, therefore, a wide range of plan sizes offering a variety of investment alternatives. This update extends previous findings from the project for 1996 through 2001. For year-end 2001 results, see Holden and VanDerhei (March 2003). Results for earlier years are available in earlier *EBRI Issue Briefs*, which can be obtained on EBRI's Web site at www.ebri.org. Poterba (May 2003) and Utkus (February 2003) are other recent studies of 401(k) plan participants; references for other earlier studies are included in the previous EBRI/ICI research updates.

[5] For example, the S&P 500 was down 22.1 percent in 2002, after falling 11.9 percent in 2001 and falling 9.1 percent in 2000 (see Ibbotson Associates, 2003). The Russell 3000 fell about 21.5 percent in 2002, after falling 11.5 percent in 2001 and 7.5 percent in 2000.

[6] "*Funds*" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated (see pages 4–5 for definitions of the investment categories used in this report).

[7] The reported account balance represents retirement assets in the 401(k) plan at the participant's current employer. Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included in this analysis.

[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] 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 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, May 2001). In addition, the preliminary analysis found that 401(k) participants are not naive—that is, when faced with "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.

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

[11] 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.

[12] Some administrators supplying data were unable to provide complete asset allocation detail on certain pooled asset classes for one or more of their clients. Only plans in which at least 90 percent of all plan

assets could be identified were included in the final EBRI/ICI database.

[13] For a comparison of the distribution of plans, participants, and assets in the EBRI/ICI database with the universe of 401(k) plans, see the Appendix (Figure A1). The Appendix is available at www.ebri.org.

[14] For the distribution of plans, participants, and assets by plan assets see the Appendix (Figure A2).

[15] At the end of 2002, approximately 60 percent of balanced mutual fund assets are invested in equities (see Investment Company Institute, *Quarterly Supplemental Data)*.

[16] Unless otherwise indicated, all asset allocation averages are expressed as a dollar-weighted average.

[17] For example, Investment Company Institute (Spring 2000) finds that 81 percent of 401(k) plan households surveyed made no allocation changes in the 12 months preceding the survey (August 1997 through September 1998). In addition, Investment Company Institute (March 2001) finds that 89 percent of equity mutual fund shareholders in defined contribution plans made no redemptions or redemption exchanges in 1998. Furthermore, Choi et al. (December 2001) find that 401(k) participants rarely make changes after the initial point of enrollment. An analysis of changes in asset allocation among EBRI/ICI 401(k) plan participants to equity funds between 1996 and 1998 is presented in Holden, VanDerhei, and Quick (January/February 2000).

[18] The width of the ranges was selected based on approximations of the impact of aggregate asset returns on hypothetical portfolios of various asset compositions, using major market averages for each asset class.

[19] Participants in their 20s hold approximately 2 percent of the total assets in the 2002 EBRI/ICI database; participants in their 30s hold 13 percent; participants in their 40s hold 34 percent; participants in their 50s hold 37 percent; and participants in their 60s hold the remaining 14 percent of the total assets. For the distribution of participants by age or tenure see the Appendix (Figure A3).

[20] For convenience, minor investment options are not shown.

[21] See the Appendix (Figure A4) for the distribution of plans, participants, and assets by investment options.

[22] See the Appendix (Figure A5). In addition, Figure A6 presents asset allocation by salary and investment options and Figure A7 presents asset allocation by plan size and investment options.

[23] The percentage of participants holding no equity funds also tends to increase with tenure (see the Appendix, Figure A8).

[24] See the Appendix (Figures A9 and A10).

[25] For the update of the analysis of account balances at year-end 2002 see the Appendix. Figure A11 presents a comparison of the median and average account balances in the EBRI/ICI databases from 1996 to 2002 and Figure A12 presents the distribution of 401(k) account balances by size of account balance at year-end 2002.

[26] See discussion of these observed correlations in the Appendix (Figures A13, A14, A15, A16, and A17). Figure A15 is similar to Figure 10 except it covers all 15.5 million participants in the year-end 2002 EBRI/ICI database rather than the consistent subset of 5.3 million participants in Figure 10.

[27] The analysis of "Relationship Between Account Balances and Salary" that typically appears in the EBRI/ICI year-end updates has been included in the Appendix (Figures A18, A19, and A20). Results for year-end 2002 are essentially similar to earlier years' results.

[28] For statistics indicating the higher propensity of withdrawals among participants in their 60s, see Holden and VanDerhei (November 2002—Appendix).

[29] See "Availability and Use of Plan Loans by Plan Size" in the Appendix for explanation of EBRI/ICI data on plan loans (Figure A21). In addition, for the analysis of loan activity by plan size see the Appendix (Figures A22 and A23).

[30] See the Appendix (Figures A24 and A25) for loan activity by salary.

[31] The median loan balance outstanding is $3,700 at year-end 2002.

Employee Benefit Research Institute
2121 K Street, NW, Suite 600, Washington, DC 20037-1896
voice (202) 659-0670
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Appendix: Additional Figures for the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project for Year-End 2002

by Sarah Holden, ICI, and Jack VanDerhei,[1] Temple University and EBRI Fellow

Overview and Summary

The September 2003 *EBRI Issue Brief* covers the year-end 2002 data gathered by the Employee Benefit Research Institute (EBRI)[2] and the Investment Company Institute (ICI)[3] in their collaborative effort—the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.[4] This Appendix provides supplementary tables and charts for the September 2003 *EBRI Issue Brief.*

The EBRI/ICI Database

Relationship of Database Plans to the Universe of Plans

The 2002 EBRI/ICI database appears to be a representative sample of the estimated universe of 401(k) plans. ICI (June 2003) estimates 401(k) plans held $1,540 billion in assets at year-end 2002 and the EBRI/ICI database represents about 40 percent of 401(k) plan assets. The distribution of assets, participants, and plans in the EBRI/ICI database for 2002 is similar to that reported for the universe of plans estimated by Cerulli Associates (Figure A1).[5]

Distribution of Plans, Participants, and Assets by Plan Size

The 2002 EBRI/ICI database contains 46,310 401(k) plans with $618.6 billion of assets and 15,509,185 participants (Figure A2). Because most of the plans have a small number of participants, the asset size for many plans is modest. About 31 percent of the plans have assets of $250,000 or less, and another 36 percent have plan assets of between $250,001 and $1,250,000.

The Typical 401(k) Plan Participant

Participants in 401(k) plans cover wide ranges of age and tenure. Sixty percent of participants are in their 30s or 40s, while 11 percent of participants are in their 20s and 7 percent are in their 60s (Figure A3). The median age of the participants in the 2002 EBRI/ICI database is 43, the same as in 2001. Thirty-eight percent of the participants have five or fewer years of tenure, while 6 percent have more than 30 years of tenure. The median tenure at the current employer is seven years, one year longer than the median tenure in the 2001 EBRI/ICI database. Salary information available for a subset of participants indicates that the median annual salary among that group is $27,153.[6]

Asset Allocation

Asset Allocation and Investment Options

The investment options[7] that participants are offered by a plan sponsor significantly affect how participants allocate their 401(k) assets. Figure A4 presents the distribution of plans, participants, and assets by four combinations of investment offerings. The first category is the base group that consists of plans that do not offer company stock, guaranteed investment contracts (GICs), or other stable value funds. Almost 29 percent of participants in the 2002 EBRI/ICI database are in these plans—which generally offer equity funds, bond funds, money funds, and balanced funds as investment options. Another 24 percent of participants are in plans that offer GICs and/or other stable value funds as an investment option, in addition to the base options. Alternatively, almost 18 percent of participants are in plans that offer company stock but no stable value products, while the remaining 30 percent of participants are offered both company stock and stable value products, in addition to the base options.

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

Holden and VanDerhei (September 2003) discusses the impact of investment options on participants' asset allocations in aggregate. Figure A5 presents the analysis of asset allocation by investment option and also by age of participant.

Salary information is available for a subset of participants in the 2002 EBRI/ICI database.[8] Because asset allocation is influenced by the investment options available to participants, Figure A6 presents asset allocation by salary range and by investment option.

Participant asset allocation also varies with plan size (Figure A7, 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. A portion of this trend occurs because few small plans offer company stock as an investment option. For example, less than 1 percent of participants in small plans are offered company stock as an investment option, while 71 percent of participants in plans with more than 5,000 participants are offered company stock as an investment option. Thus, to analyze the potential effect of plan size, the remaining panels of Figure A7 group plans by investment option and plan size.

Distribution of Equity Fund Allocations and Participant Exposure to Equities

On average, 40 percent of participant account balances are allocated to equity funds in the year-end 2002 EBRI/ICI database (Figure A7, top panel). However, individual asset allocations vary widely across participants. For example, 32 percent of participants hold no equity funds, while 22 percent of participants hold more than 80 percent of their balances in equity funds (Figure A8). Furthermore, the percentage of participants holding no equity funds tends to increase with age. In contrast, the percentage of participants holding no equity funds tends to fall as salary increases.

Participants with no equity fund balances may still have exposure to the stock market through company stock or balanced funds. Indeed, 52 percent of participants with no equity funds have investments in either company stock or balanced funds (Figure A9). As a result, many participants with no equity funds have exposure to equity-related investments through company stock and/or balanced funds (Figure A10).

Account Balances

Average and Median Account Balances

The EBRI/ICI database is constructed from administrative records of 401(k) plans. 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 this analysis. Furthermore, account balances are net of unpaid loan balances. In addition, the EBRI/ICI database for any given year captures a snapshot of the account balances at year-end and thus reflects the entrance of new plans and new participants and the exit of participants who retire or change jobs. At year-end 2002, the average account balance was $39,885 and the median account balance was $12,578 (Figure A11).[9] Because of the changing composition of the universe over time, it is not correct to construe the change in average or median account balance for the entire database as the experience of "typical" 401(k) plan participants.[10, 11]

There is wide variation in 401(k) plan participants' account balances around the average of $39,885 at year-end 2002. About three-quarters of the participants in the 2002 EBRI/ICI database have account balances that are lower than the average. Indeed, 45 percent of participants have account balances of less than $10,000, while 10 percent of participants have account balances greater than $100,000 (Figure A12). The variation in account balances partly reflects the effects of participant age, tenure, contribution behavior, rollovers from other plans, asset allocation, withdrawals, loan activity, and employer contribution rates. Information in the EBRI/ICI database can be used to examine the relationship between account balances and age, tenure, and salary of participants.

Relationship of Age and Tenure to Account Balances

There is a positive correlation between age and account balance among participants in the 2002 EBRI/ICI database.[12] Examination of the age composition of account balances finds that 53 percent of participants with account balances of less than $10,000 are in their 20s or 30s (Figure A13). Similarly, of those with account balances greater than $100,000, more than half are in their 50s or 60s. 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 job's plan in their current plan accounts.

There is a positive correlation between account balance and tenure among participants in the 2002 EBRI/ICI database. The participant's tenure with the employer serves as a proxy for length of participation in the 401(k) plan.[13] Indeed, 60 percent of participants with account balances of less than $10,000 have five or fewer years of tenure, while 90 percent of participants with account balances greater than $100,000 have more than 10 years of tenure (Figure A14).[14]

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 60s with up to two years of tenure is $17,892, compared with $146,211 for participants in their 60s with more than 30 years of tenure (Figure A15). Similarly, the average account balance of participants in their 40s with up to two years of tenure is $11,112, compared with $79,333 for participants in their 40s with more than 20 years of tenure. The increase in account balance as tenure increases tends to be largest for participants in their 50s and 60s.

The distribution of account balances underscores the effects of age and tenure on account balances. In a given age group, fewer years of tenure means a higher percentage of participants with account balances of less than $10,000. For example, 89 percent of participants in their 20s with two or fewer years of tenure have account balances of less than $10,000, compared with 66 percent of participants in their 20s with between five and 10 years of tenure (Figure A16). Older workers display a similar pattern. For example, 69 percent of participants in their 60s with two or fewer years of tenure have account balances of less than $10,000. In contrast, only about 21 percent of those in their 60s with more than 20 years of tenure have account balances of less than $10,000.[15]

In a given age group, longer tenure means a higher percentage of people with account balances greater than $100,000. For example, about 4 percent of participants in their 60s with 10 or fewer years of tenure have account balances in excess of $100,000 (Figure A17). However, about 32 percent of participants in their 60s with between 20 and 30 years of tenure with their current employer have account balances greater than $100,000. The percentage increases to 39 percent for participants in their 60s with more than 30 years of tenure.

Relationship Between Account Balances and Salary

This section examines how the ratio of 2002 account balances to 2002 salary varies with age, tenure, and salary.[16] The ratio of participant account balances to salary is positively correlated with age and tenure. Participants in their 60s, having had more time to accumulate assets, tend to have higher ratios, while those in their 20s have the lowest ratios (Figure A18).

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 20s, the ratio tends to increase slightly with salary for low-to-moderate salary groups (Figure A19). However, at high salary levels the ratio tends to decline somewhat. A similar pattern occurs among participants in their 60s (Figure A20).[17]

Plan Loans

Availability and Use of Plan Loans by Plan Size

Fifty-one percent of the plans for which loan data are available in the 2002 EBRI/ICI database offer a plan loan provision to participants (Figure A21).[18] The loan feature is more commonly associated with large plans (measured by the number of participants in the plan). Ninety-two percent of plans with more than 10,000 participants include a loan provision, compared with 35 percent of plans with 10 or fewer participants. Finally, participants in smaller plans that offer loans tend to be less likely to have taken out a loan than participants in larger plans (Figure A22). Loan ratios vary only slightly when participants are grouped based on the size of their 401(k) plans (measured by the number of plan participants; Figure A23).

Loan Activity by Salary

Loan activity varies with salary. Participants earning between $40,001 and $100,000 are more likely to have a loan outstanding than those earning more or less (Figure A24). Among participants with a loan outstanding, loan ratios tend to decrease as salary increases, falling from 18 percent for participants earning $40,000 or less to 10 percent for participants earning in excess of $100,000 (Figure A25).

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Endnotes

[1] Sarah Holden, senior economist, Research Department at the Investment Company Institute (ICI) and Jack VanDerhei, Temple University, Employee Benefit Research Institute (EBRI) Fellow. Special thanks to Luis Alonso, research associate at EBRI, who managed the database. In addition, thanks to Stefan Kimball at ICI who assisted in preparing the graphics.

[2] The Employee Benefit Research Institute is a nonprofit, nonpartisan, public policy research organization, which does not lobby or take positions on legislative proposals.

[3] The Investment Company Institute is the national association of the U.S. investment company industry. Its membership includes 8,673 open-end investment companies ("mutual funds"), 588 closed-end investment companies, 106 exchange-traded funds (ETFs), and six sponsors of unit investment trusts. Its mutual fund members manage assets of approximately $6.8 trillion, accounting for approximately 95 percent of total industry assets, and represent more than 90 million individual shareholders.

[4] In this effort, EBRI and ICI have collected data from some of their members that serve as plan record keepers and administrators. The data include demographic information, annual contributions, plan balances, asset allocation, and loan balances.

[5] The latest U.S. Department of Labor (Winter 2001–2002) estimate of the universe of 401(k)- type plans is for plan-year 1998. For 1998, it reported 300,593 401(k)-type plans covering 37 million active participants with $1,541 billion in assets.

[6] In some analyses, the subset is restricted to participants earning $20,000 or more. The median salary in that subsample is about $45,112 in 2002.

[7] Investment options are grouped into eight categories. (Account balances are net of loan balances and thus unpaid loan balances are not included in any of the eight asset categories described.) Equity funds consist of pooled investments primarily investing in stocks. These funds include 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, and balanced funds are pooled accounts invested in both stocks and bonds. 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)—insurance company products that guarantee a specific rate of return on the invested capital over the life of the contract—and other stable value funds—synthetic GICs (a portfolio of fixed-income securities "wrapped" with a guarantee to provide benefit payments according to the plan at book value) or similar instruments—are reported as one category, "GICs and other stable value funds." 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. Some administrators supplying data were unable to provide complete asset allocation detail on certain pooled asset classes for one or more of their clients. Only plans in which at least 90 percent of all plan assets could be identified were included in the final EBRI/ICI databases.

[8] On average, asset allocation of participants missing salary information is similar to the asset allocation for those with such information, in aggregate. However, average allocations to balanced funds among participants for whom salary information is available in both groups of plans offering company stock as an investment option are higher than for participant records without salary information. In addition, in plans offering company stock and GICs and/or other stable value funds, the allocation to company stock tends to be higher among participants for whom salary information is available, while their money fund allocations tend to be slightly lower.

[9] A wide range of average account balances is reported for 401(k) type plans. Data for the universe of 401(k)-type plans compiled by the Department of Labor from the Form 5500 for 1998 imply an average account balance (including loan balances as a part of account assets) per *active* participant of $41,520 (U.S. Department of Labor, Winter 2001–2002), a figure that is within 12 percent of the $47,004 average balance estimate from the 1998 EBRI/ICI database. Profit Sharing/401(k) Council of America (2002) suggests that the average account balance (also including loans) for plan sponsors participating in their 2001 survey, which includes profit-sharing and combination plans as well as 401(k) plans, is approximately $70,300.

[10] For an analysis of the change in account balances of the group of participants with accounts at the end of each year from 1999 through 2002, see Holden and VanDerhei (September 2003).

[11] The difference in average account balance between the consistent subset at year-end 2002 ($57,668) and the entire year-end 2002 EBRI/ICI database ($39,885) is explained, in part, by the different tenure composition of the participants. While 38 percent of the participants in the year-end 2002 EBRI/ICI database have five or fewer years of tenure and 18 percent have more than 20 years of tenure (Figure A3), at year-end 2002, only 17 percent of the consistent subset of participants have five or fewer years of tenure and 26 percent have more than 20 years of tenure.

[12] Approximately 1-1/2 percent of the participants in the database had a missing birth date; were younger than 20 years old; or were older than 69 years old. They were not included in this analysis.

[13] Approximately 9 percent of the participants in the database had a missing tenure range and were not included in this analysis. In addition, for one data provider, "years of participation" are used for the tenure variable.

[14] 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-tenure employee a high account balance. There is some discernible evidence of rollover assets among the participants with account balances greater than $100,000 as 1 percent of them have two or fewer years of tenure and 2 percent of them have between two and five years of tenure.

[15] Two possible explanations for the low account balances among this group are: (1) that their employer's 401(k) plan has only recently been established (indeed, 49 percent of all 401(k)-type plans in existence in 1995 were established after 1989 (U.S. Department of Labor, Spring 1999, table B.10), or (2) that the employee only recently joined the plan. In either event, job tenure would not accurately reflect actual 401(k) plan participation.

[16] The ratio of 401(k) account balance (at the current employer) to salary alone is not an indicator of preparedness for retirement. A complete analysis of preparedness for retirement would require estimating projected balances at retirement by also considering retirement income from Social Security, defined benefit plans, IRAs, and other defined contribution plans, possibly from previous employment. For references to such research, see Holden and VanDerhei (January/February 2001). In addition, Holden and VanDerhei (November 2002) develops a model that projects the proportion of an individual's pre-retirement income that *might* be replaced by 401(k) plan accumulations at retirement, under several different projected scenarios.

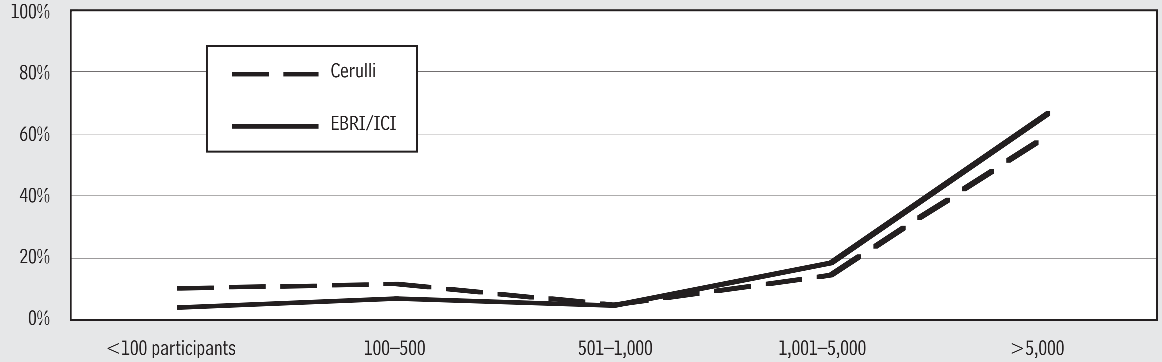
[17] The tendency of the ratio of account balances to salary to peak at higher salary levels and then fall off likely reflects the influence of two competing forces. First, empirical research (see Holden and VanDerhei, October 2001) for a complete discussion of EBRI/ICI findings and others' research on the relationship between contribution rates and salary) 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 constrain these high-income individuals' ability to save. The contribution limits (elective deferral limits in Internal Revenue Code (IRC) Sec. 402(g); total contribution limits in IRC Section 415(c)); and nondiscrimination rules (Actual Deferral Percentage and Actual Contribution Percentage (ADP/ACP) nondiscrimination rules in IRC Secs. 401(k) and 401(m)) aim to assure that employees of all income ranges attain the benefits of the 401(k) plan.

[18] 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 had an outstanding loan balance. This may understate the number of plans offering loans (or participants eligible for loans) because some plans may have offered, but had no participant take out, a plan loan. It is likely that this omission is small as the U.S. General Accounting Office (October 1997) finds that more than 95 percent of 401(k) plans that offer loans had at least one plan participant with an outstanding loan.

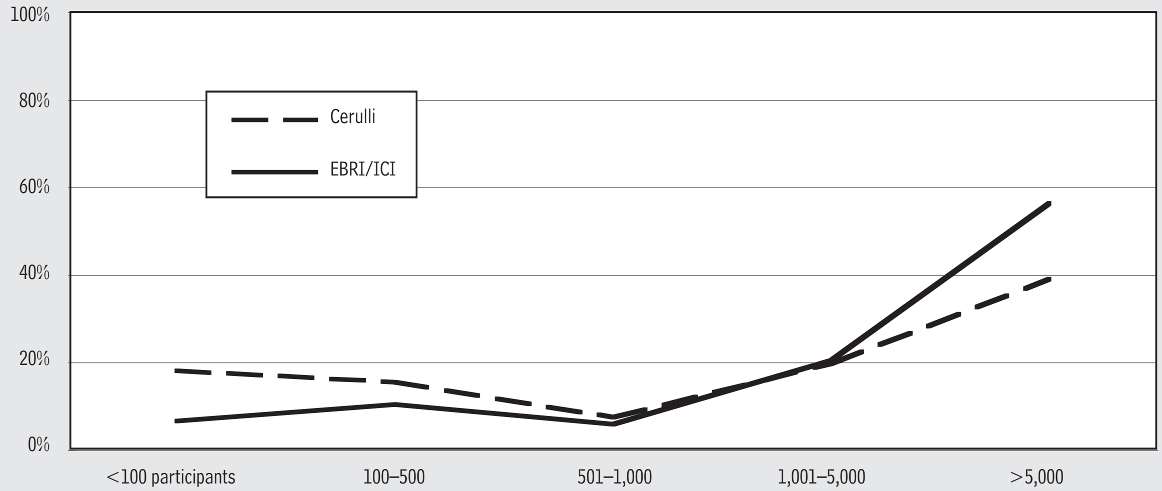
Figure A1

401(K) PLAN CHARACTERISTICS BY NUMBER OF PARTICIPANTS: EBRI/ICI DATABASE VS. CERULLI ESTIMATES FOR ALL 401(K) PLANS, 2002

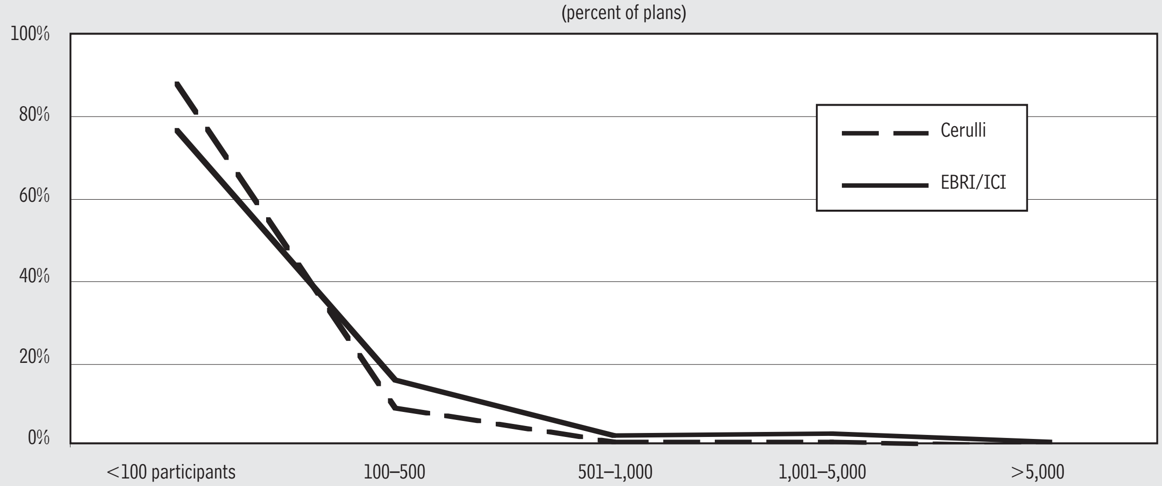
Plan Assets
(percentage of plan assets)



Participants
(percentage of participants)



Plans
(percent of plans)



Sources: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project, Cerulli Associates.

Figure A2

EBRI/ICI Database: 401(k) Plan Characteristics, by Plan Assets, 2002

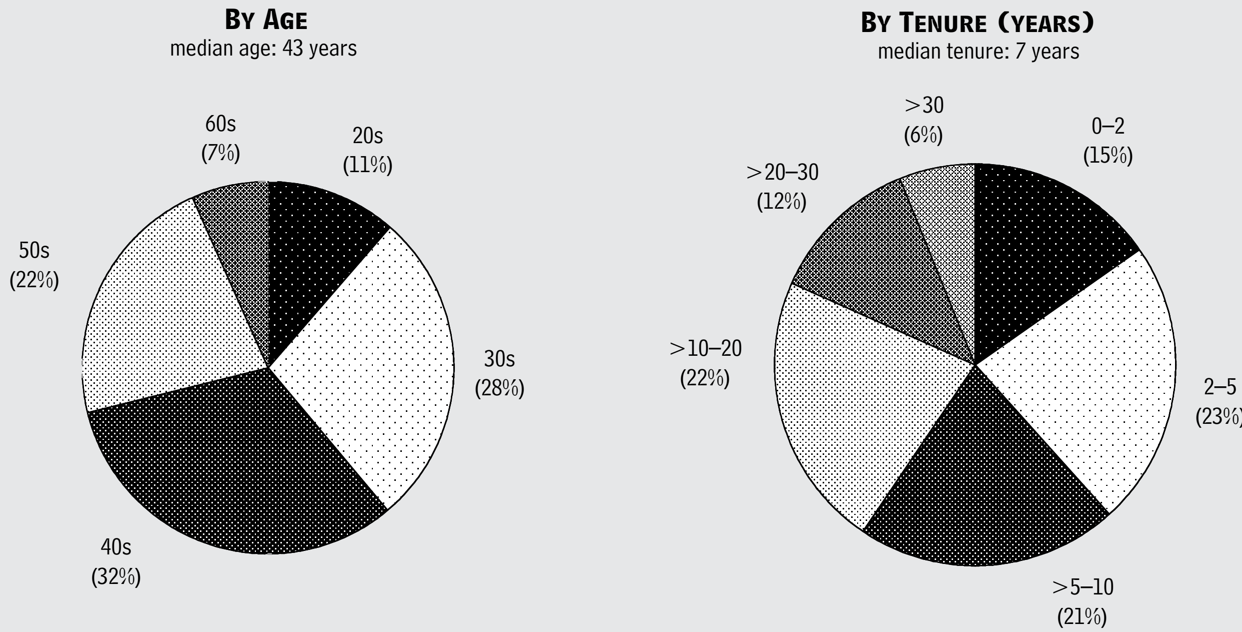
Total Plan Assets	Total Plans	Total Participants	Total Assets	Average Account Balance
$0–$250,000	14,526	226,729	$1,680,902,739	$7,414
>$250,000–$625,000	10,202	333,405	4,167,035,431	12,498
>$625,000–$1,250,000	6,600	403,056	5,859,426,485	14,538
>$1,250,000–$2,500,000	4,918	461,354	8,754,302,312	18,975
>$2,500,000–$6,250,000	4,547	821,006	17,928,054,508	21,837
>$6,250,000–$12,500,000	2,071	791,773	18,218,791,484	23,010
>$12,500,000–$25,000,000	1,246	821,882	21,714,104,882	26,420
>$25,000,000–$62,500,000	997	1,422,818	39,411,701,647	27,700
>$62,500,000–$125,000,000	474	1,304,680	41,310,229,583	31,663
>$125,000,000–$250,000,000	313	1,550,565	54,034,467,883	34,848
>$250,000,000	416	7,371,917	405,511,798,460	55,008
All	46,310	15,509,185	618,590,815,415	39,885

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

Figure A3

401(k) Participants, by Age or Tenure, 2002

(percentage of participants)[a]



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

[a] Percentages may not add to 100 percent because of rounding.

Figure A4

Distribution of 401(k) Plans, Participants, and Assets, by Investment Options, 2002

(percentage of total)[a]

Investment Options Offered by Plan	Plans	Participants	Assets
Equity, Bond, Money, and/or Balanced Funds	42.7%	28.6%	20.6%
Equity, Bond, Money, and/or Balanced Funds, and GICs[b] and/or Other Stable Value Funds	54.6	23.5	17.6
Equity, Bond, Money, and/or Balanced Funds, and Company Stock	1.2	17.6	21.5
Equity, Bond, Money, and/or Balanced Funds, and Company Stock, and GICs[b] and/orOther Stable Value Funds	1.6	30.4	40.3

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

[a] Column percentages may not add to 100 percent because of rounding.

[b] Guaranteed investment contracts.

Figure A5

Average Asset Allocation of 401(k) Accounts, by Participant Age and Investment Options, 2002

(percentage of account balances)[a]

	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs[b] and Other Stable Value Funds	Company Stock
ALL AGES COMBINED						
Investment Options						
Equity, Bond, Money, and/or Balanced Funds	54.8%	12.3%	19.1%	11.1%		
Equity, Bond, Money, and/or Balanced Funds, and GICs[b] and/or Other Stable Value Funds	45.3	11.4	8.1	4.6	29.1%	
Equity, Bond, Money, and/or Balanced Funds, and Company Stock	37.9	6.2	15.9	9.3		29.6%
Equity, Bond, Money, and/or Balanced Funds, and Company Stock, and GICs[b] and/or Other Stable Value Funds	32.1	8.2	5.3	2.7	26.5	24.1
PLANS WITHOUT COMPANY STOCK, GICs,[b] OR OTHER STABLE VALUE FUNDS						
Age						
20s	62.0	13.0	13.0	10.2		
30s	64.8	12.0	12.8	8.3		
40s	59.5	12.6	15.9	9.7		
50s	51.3	12.5	21.2	11.9		
60s	41.2	11.9	28.6	15.1		
PLANS WITH GICs[b] AND/OR OTHER STABLE VALUE FUNDS						
20s	54.4	12.1	8.1	5.3	17.7	
30s	57.0	11.8	7.8	4.1	17.4	
40s	50.3	11.9	8.0	4.3	23.7	
50s	42.0	11.3	8.2	4.5	32.5	
60s	33.0	10.3	8.1	5.3	41.9	
PLANS WITH COMPANY STOCK						
20s	44.7	6.9	10.0	9.2		28.4
30s	45.3	6.3	9.8	7.3		30.3
40s	40.1	6.4	12.7	8.6		31.0
50s	35.3	6.4	17.2	10.2		29.8
60s	31.8	5.3	25.1	11.2		25.7
PLANS WITH COMPANY STOCK AND GICs[b] AND/OR OTHER STABLE VALUE FUNDS						
20s	40.8	11.2	5.5	3.2	11.9	26.0
30s	42.3	9.2	5.1	2.3	12.4	27.4
40s	36.2	9.0	5.3	2.5	18.7	27.1
50s	29.9	8.1	5.6	2.8	28.3	24.2
60s	23.9	6.5	4.8	3.2	42.9	17.8

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

[a] Minor investment options are not shown; therefore, row percentages will not add to 100 percent.

[b] Guaranteed investment contracts.

Figure A6

Average Asset Allocation of 401(k) Accounts, by Salary and Investment Options, 2002

(percentage of account balances)[a]

Salary[b]	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs[c] and Other Stable Value Funds	Company Stock
PLANS WITHOUT COMPANY STOCK, GICs,[c] OR OTHER STABLE VALUE FUNDS						
$20,000–$40,000	47.7%	21.9%	18.5%	11.0%		
>$40,000–$60,000	55.4	16.1	18.5	9.3		
>$60,000–$80,000	59.1	13.3	18.3	8.4		
>$80,000–$100,000	60.8	12.8	17.4	8.0		
>$100,000	58.6	11.7	17.3	10.1		
All	54.8	12.3	19.1	11.1		
PLANS WITH GICs[c] AND/OR OTHER STABLE VALUE FUNDS						
$20,000–$40,000	38.9	13.5	8.8	5.5	29.5%	
>$40,000–$60,000	43.1	12.6	9.0	4.4	28.6	
>$60,000–$80,000	44.8	11.2	8.8	3.3	30.4	
>$80,000–$100,000	44.2	11.1	9.3	2.8	31.6	
>$100,000	46.5	11.5	8.3	3.2	28.8	
All	45.3	11.4	8.1	4.6	29.1	
PLANS WITH COMPANY STOCK						
$20,000–$40,000	32.0	7.6	12.2	11.4		36.4%
>$40,000–$60,000	29.5	11.4	13.8	11.6		31.2
>$60,000–$80,000	30.0	12.4	13.2	11.0		29.5
>$80,000–$100,000	30.1	14.6	14.4	11.1		25.6
>$100,000	32.5	12.8	15.0	11.0		25.3
All	37.9	6.2	15.9	9.3		29.6
PLANS WITH COMPANY STOCK AND GICs[c] AND/OR OTHER STABLE VALUE FUNDS						
$20,000–$40,000	24.7	12.6	4.6	1.9	27.3	28.6
>$40,000–$60,000	29.7	11.9	4.6	2.0	25.4	26.1
>$60,000–$80,000	33.4	11.1	4.8	2.1	24.7	23.3
>$80,000–$100,000	35.8	9.9	5.0	1.9	24.0	22.9
>$100,000	33.0	8.9	5.4	1.9	20.7	29.6
All	32.1	8.2	5.3	2.7	26.5	24.1

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

[a] Minor investment options are not shown; therefore, row percentages will not add to 100 percent.

[b] Salary information is available for a subset of participants in the EBRI/ICI database. See text endnote 8.

[c] Guaranteed investment contracts.

Figure A7

Average Asset Allocation of 401(k) Accounts, by Plan Size and Investment Options, 2002

(percentage of account balances)[a]

Plan Size by Number of Participants	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs[b] and Other Stable Value Funds	Company Stock
ALL PLANS						
1–100	46.5%	15.1%	13.1%	10.3%	13.6%	0.2%
101–500	50.2	13.6	14.6	9.7	9.3	0.7
501–1,000	47.4	12.8	15.0	9.0	10.5	3.3
1,001–5,000	44.2	11.2	12.0	8.4	13.9	8.4
>5,000	37.4	7.5	9.8	4.8	17.5	21.6
All	40.3	9.2	10.9	6.2	15.8	16.1
PLANS WITHOUT COMPANY STOCK, GICs,[b] OR OTHER STABLE VALUE FUNDS						
1–100	56.4	13.1	15.7	13.5		
101–500	55.4	13.5	17.7	11.7		
501–1,000	52.7	13.5	20.3	11.1		
1,001–5,000	52.6	14.2	18.7	12.9		
>5,000	56.8	9.3	20.7	8.5		
All	54.8	12.3	19.1	11.1		
PLANS WITH GICs[b] AND/OR OTHER STABLE VALUE FUNDS						
1–100	38.8	16.9	11.1	7.8	24.4	
101–500	43.9	14.1	10.2	6.6	23.4	
501–1,000	44.2	13.1	8.9	5.5	26.7	
1,001–5,000	45.6	11.0	7.2	3.9	30.8	
>5,000	47.6	8.6	6.8	3.1	31.9	
All	45.3	11.4	8.1	4.6	29.1	
PLANS WITH COMPANY STOCK						
1–1003	32.5	9.0	11.3	10.3		36.0
101–500	38.8	10.4	15.8	18.7		14.6
501–1,000	39.5	7.6	13.4	13.8		24.1
1,001–5,000	39.2	8.9	14.2	11.3		25.4
>5,000	37.6	5.6	16.3	8.8		30.7
All	37.9	6.2	15.9	9.3		29.6
PLANS WITH COMPANY STOCK AND GICs[b] AND/OR OTHER STABLE VALUE FUNDS						
1–100	44.1	8.2	8.7	9.7	17.8	7.9
101–500	38.9	12.8	8.1	5.2	23.0	7.9
501–1,000	35.3	12.3	5.6	4.5	26.6	13.7
1,001–5,000	35.0	9.2	5.9	4.6	27.3	15.7
>5,000	31.6	8.0	5.2	2.5	26.5	25.4
All	32.1	8.2	5.3	2.7	26.5	24.1

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

[a] Minor investment options are not shown; therefore, row percentages will not add to 100 percent.

[b] Guaranteed investment contracts.

Figure A8

Asset Allocation Distribution of 401(k) Plan Participant Account Balances to Equity Funds, by Age, Tenure, and Salary, 2002

(percentage of participants)[a]

	Zero	1–20%	>20%–80%	>80%	Total
ALL	32.1%	9.2%	36.6%	22.1%	100%
AGE COHORT					
20s	36.5	6.7	35.1	21.8	100
30s	27.6	7.9	38.8	25.8	100
40s	29.4	9.7	38.4	22.5	100
50s	33.8	11.1	35.8	19.4	100
60s	43.0	11.6	29.0	16.4	100
TENURE (years)					
0–2	35.3	6.7	37.8	20.3	100
>2–5	30.6	7.8	37.3	24.2	100
>5–10	27.6	9.7	38.4	24.4	100
>10–20	29.3	11.3	38.2	21.2	100
>20–30	35.4	12.2	35.2	17.2	100
>30	45.1	11.3	29.1	14.5	100
SALARY					
$20,000–$40,000	37.3	13.1	34.8	14.8	100
>$40,000–$60,000	32.5	12.6	37.8	17.2	100
>$60,000–$80,000	25.2	12.5	42.6	19.7	100
>$80,000–$100,000	23.3	12.0	44.0	20.7	100
>$100,000	20.9	11.9	44.0	23.3	100

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

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

Figure A9

Percentage of 401(k) Plan Participants Without Equity Fund Balances Who Have Equity Exposure, by Age and Tenure, 2002

	Percentage With Company Stock and/or Balanced Funds
AGE COHORT	
20s	49.5%
30s	52.0
40s	52.9
50s	54.0
60s	50.5
All	51.7
TENURE (years)	
0–2	45.4
>2–5	53.6
>5–10	54.5
>10–20	53.9
>20–30	57.2
>30	56.2
All	51.7

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

Figure A10

AVERAGE ASSET ALLOCATION FOR 401(K) PLAN PARTICIPANTS WITHOUT EQUITY FUND BALANCES, BY AGE AND TENURE, 2002

(PERCENTAGE OF ACCOUNT BALANCES)[a]

	Balanced Funds	Bond Funds	Money Funds	GICs[b] and Other Stable Value Funds	Company Stock	Other	Unknown	Total
AGE COHORT								
20s	21.5%	12.6%	20.0%	20.2%	23.6%	1.4%	0.5%	100%
30s	16.7	13.7	15.3	19.5	31.6	2.4	0.5	100
40s	13.1	14.2	13.1	25.9	30.7	2.3	0.5	100
50s	10.2	15.0	11.9	34.3	25.9	2.1	0.4	100
60s	7.4	16.8	11.2	45.0	17.6	1.5	0.3	100
All	10.9	15.1	12.5	33.7	25.2	2.0	0.4	100
TENURE (years)								
0–2	19.8	19.2	23.7	21.8	13.0	0.8	1.6	100
>2–5	20.6	17.5	20.2	19.3	20.1	1.6	0.5	100
>5–10	16.5	16.7	17.6	21.3	25.0	2.3	0.5	100
>10–20	12.3	14.6	14.1	28.7	27.0	2.7	0.3	100
>20–30	9.8	13.5	10.5	35.4	27.9	2.4	0.3	100
>30	6.3	14.3	7.9	48.3	21.5	1.4	0.3	100
All	10.9	15.1	12.5	33.7	25.2	2.0	0.4	100

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

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

[b] Guaranteed investment contracts.

Figure A11

401(K) PLAN PARTICIPANT ACCOUNT BALANCES,[a] 1996–2002[b]

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

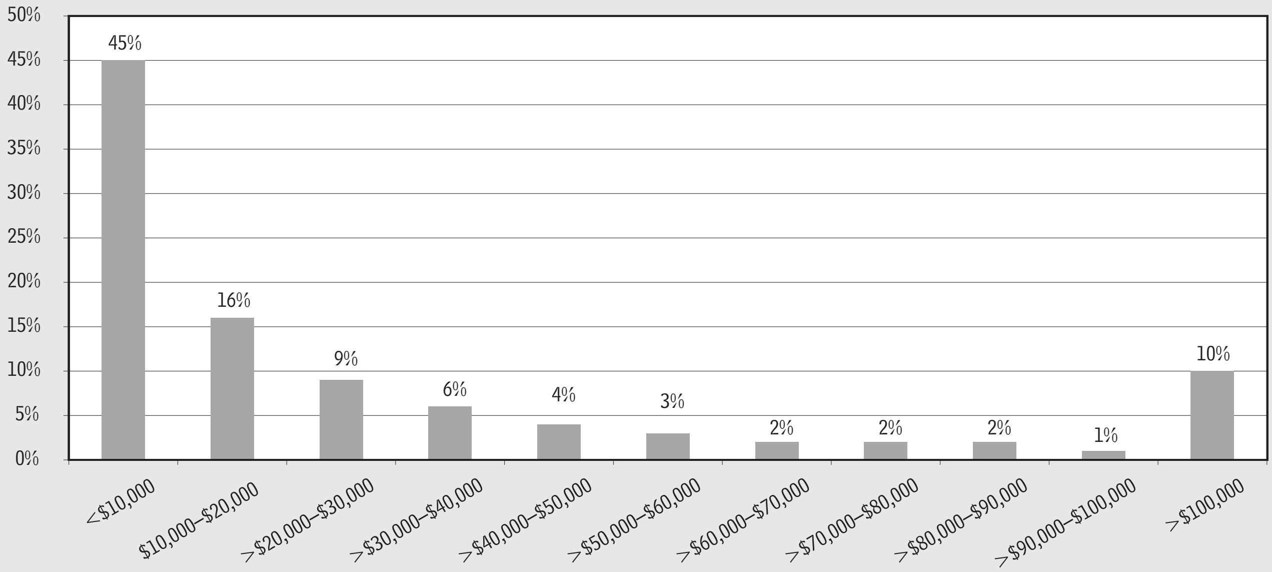
[a] Account balances are participant account balances held in the 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

[b] Sample of participants changes over time.

Figure A12

Distribution of 401(k) Account Balances, by Size of Account Balance, 2002

(percentage of participants with account balances in specified ranges)

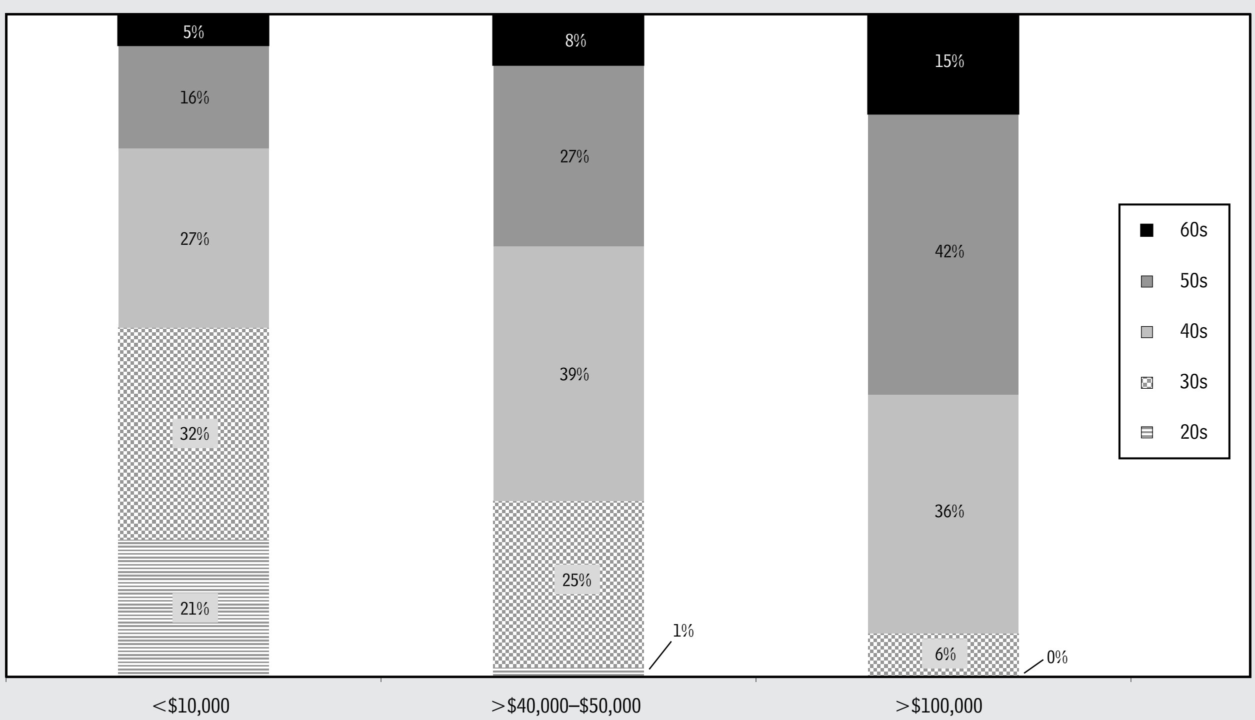


Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Figure A13

Age Composition of Selected 401(k) Account Balance Categories, 2002

(percentage)[a]

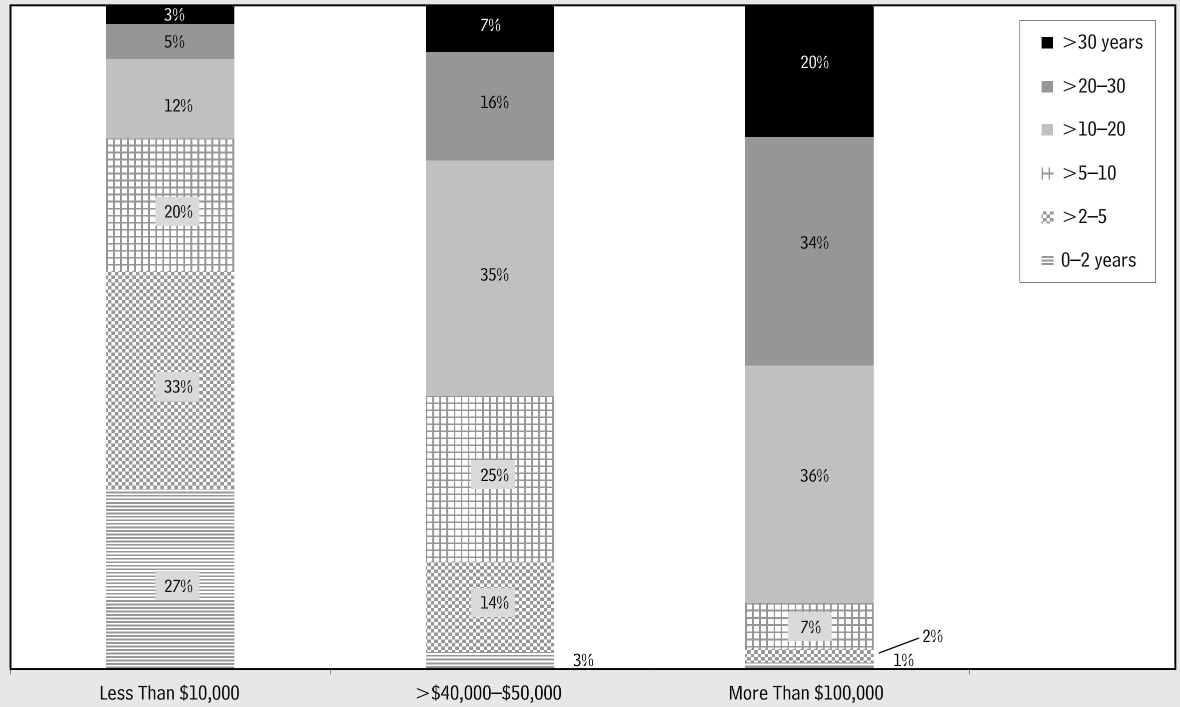


Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

[a] Percentages may not add to 100 percent because of rounding.

Figure A14

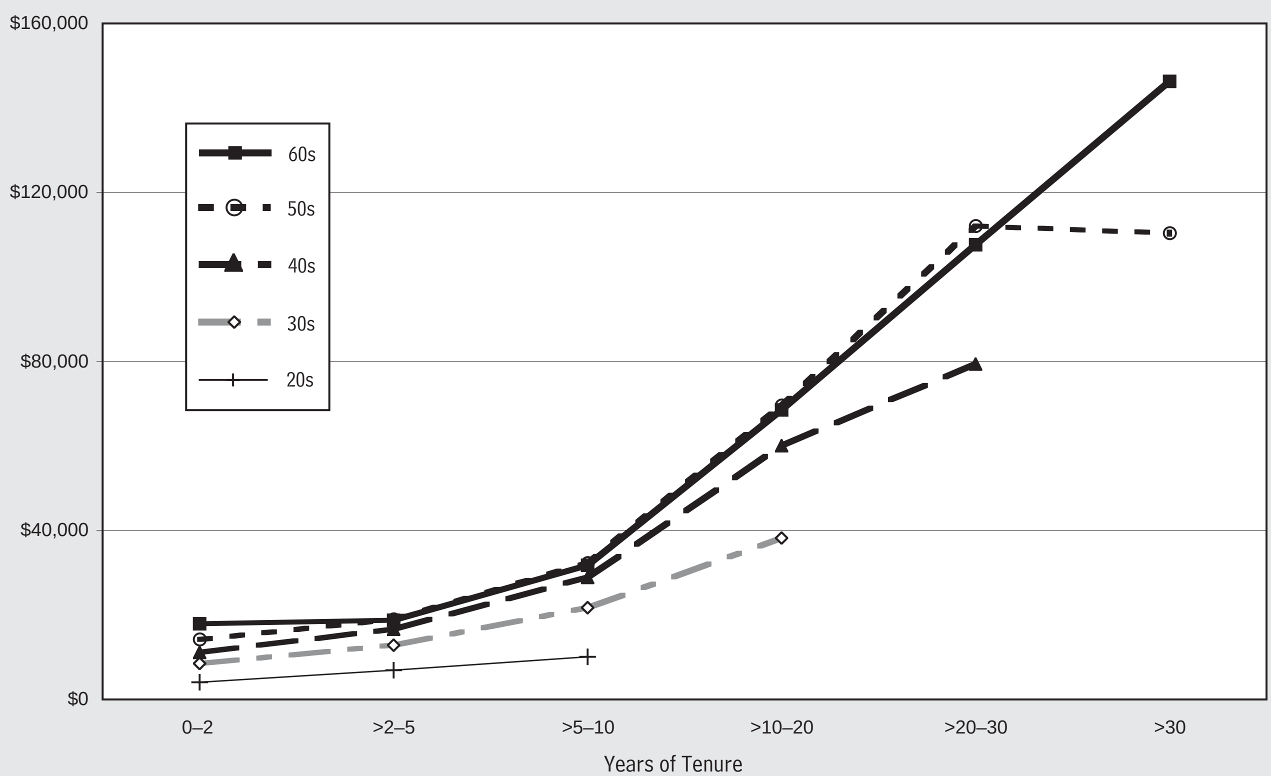
Tenure Composition of Selected 401(k) Account Balance Categories, 2002
(percentage)



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

Figure A15

Average 401(k) Account Balance, by Age and Tenure, 2002
(dollars)

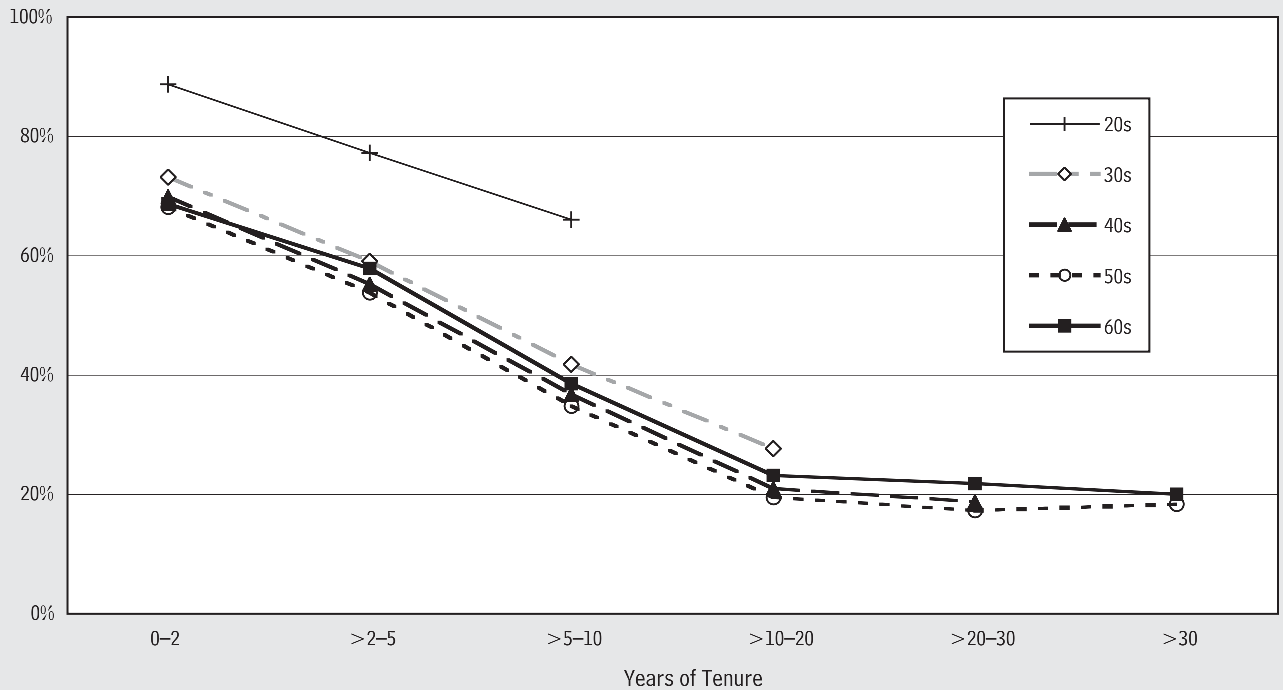


Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Figure A16

401(k) Account Balances Less Than $10,000, by Age and Tenure, 2002

(percentage of participants with account balances less than $10,000)

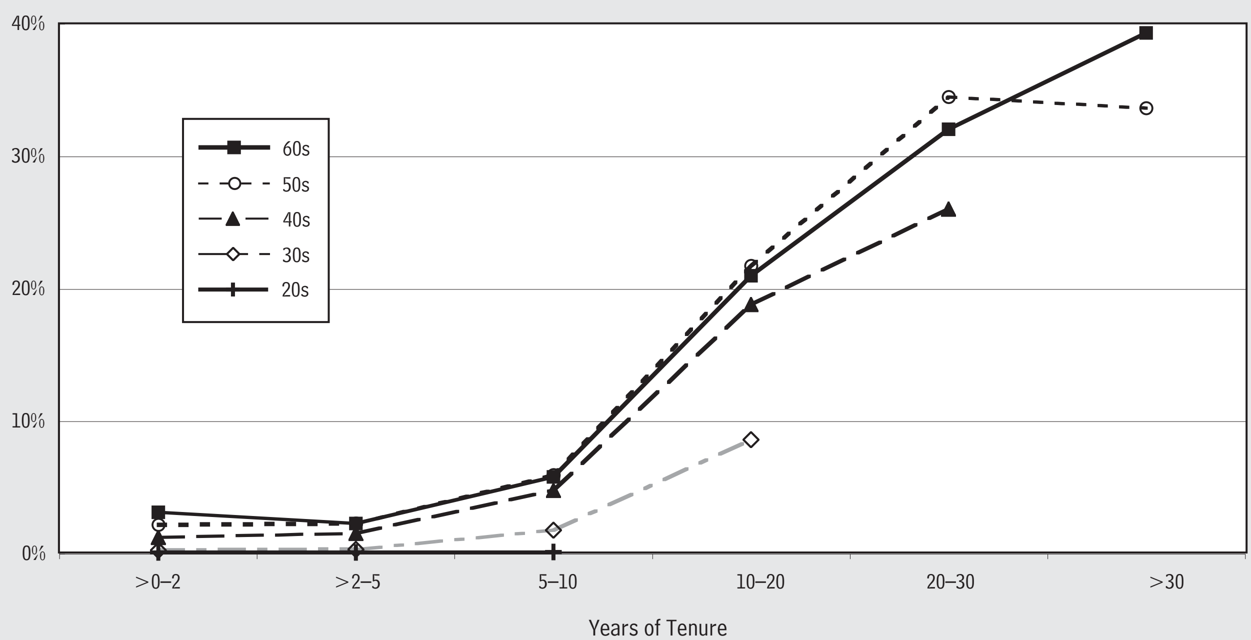


Source: Tabulations from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.

Figure A17

401(k) Account Balances Over $100,000, by Age and Tenure, 2002

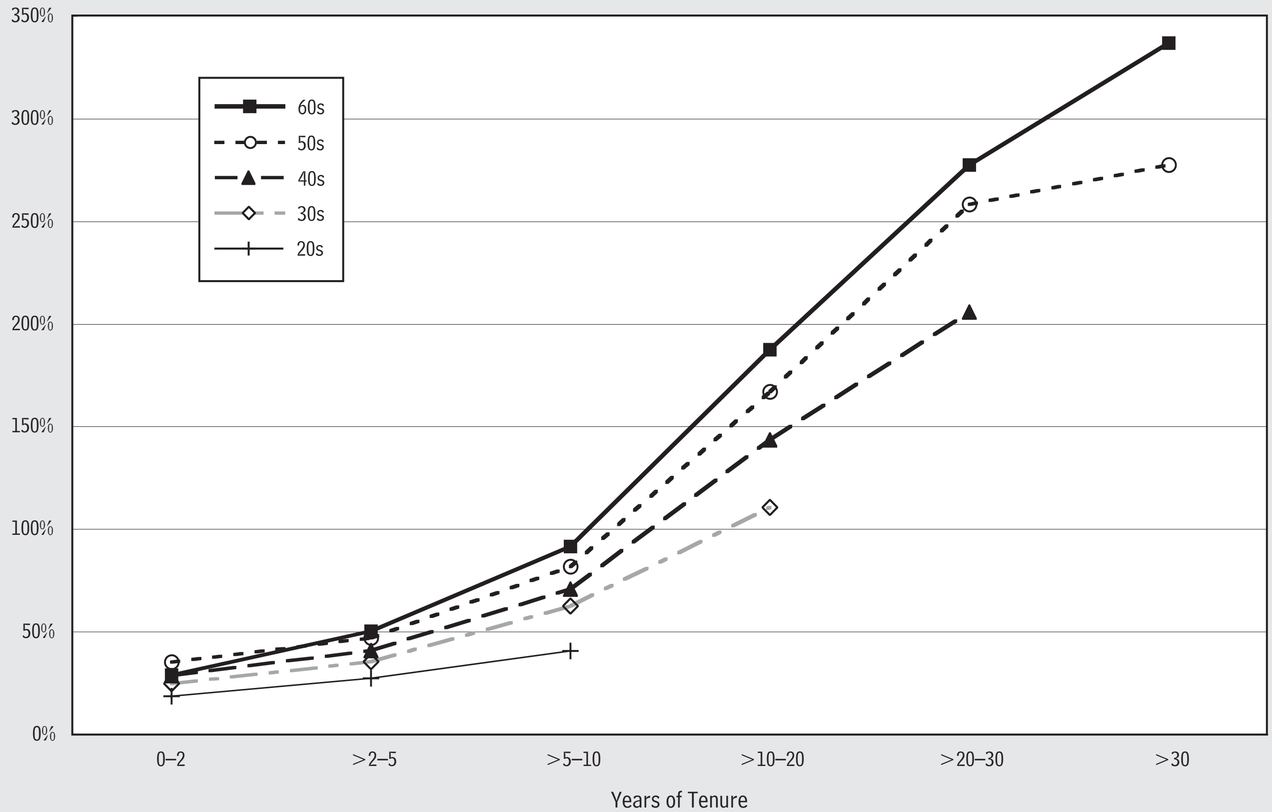
(percentage of participants with account balances over $100,000)



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

Figure A18

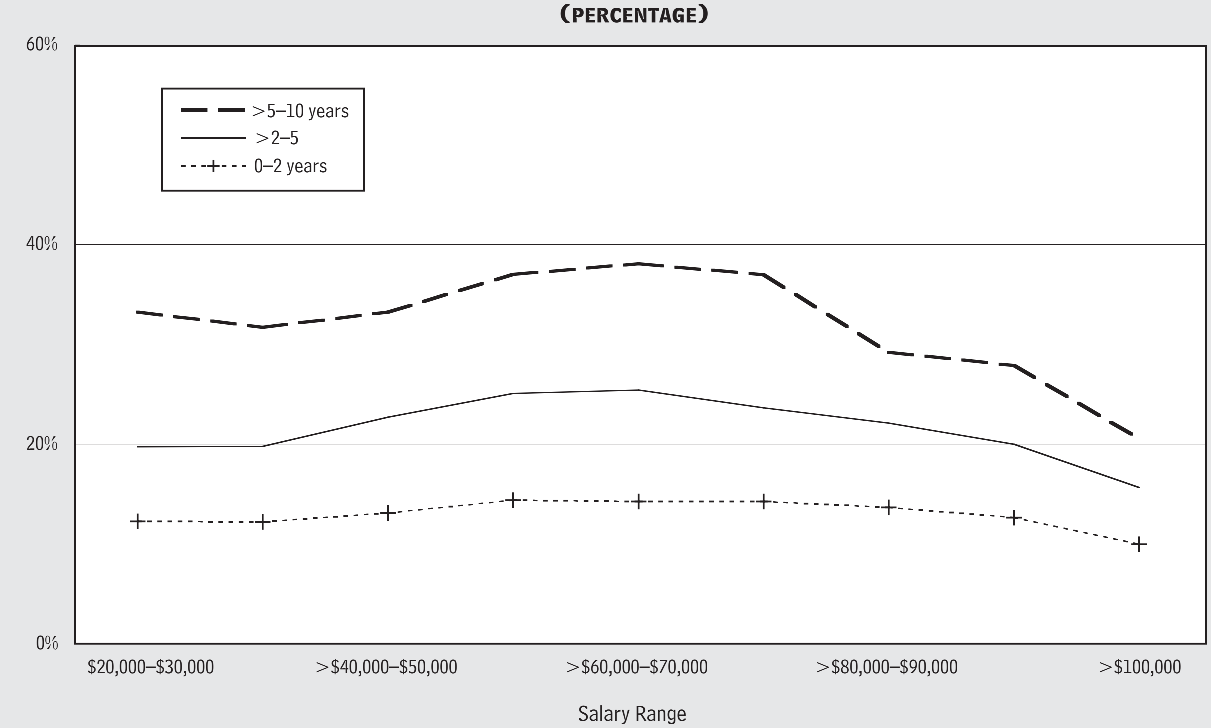
Ratio of 401(k) Account Balance to Salary, by Age and Tenure, 2002
(percentage)



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

Figure A19

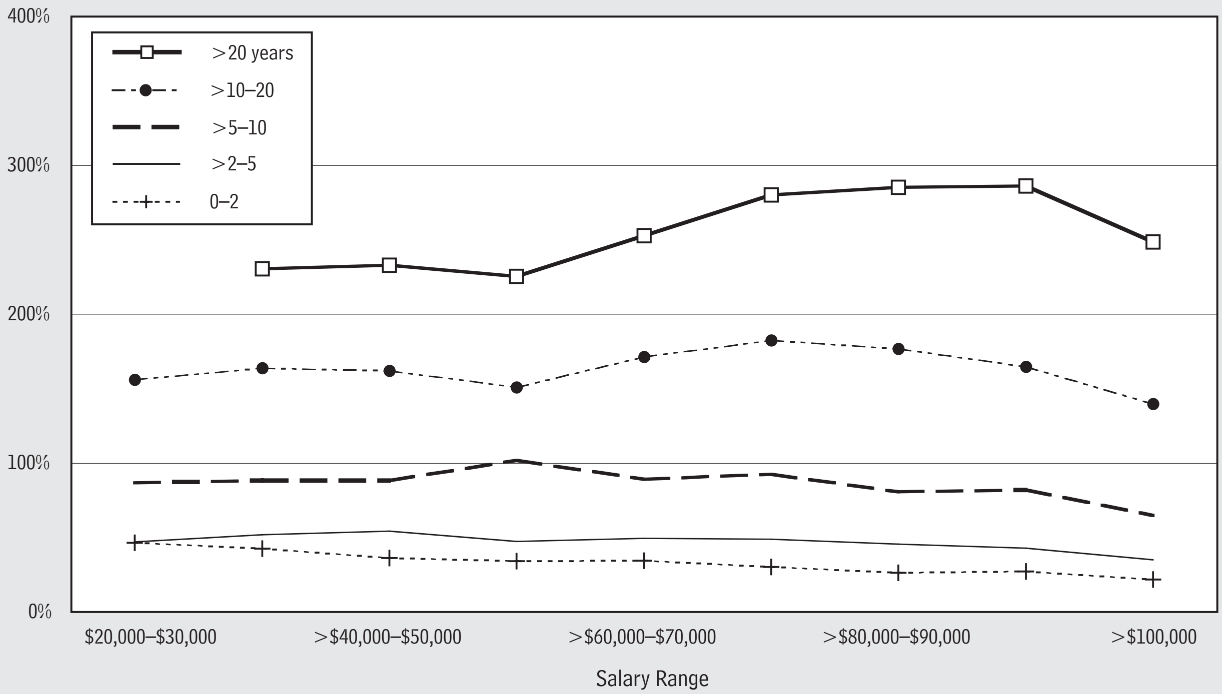
Ratio of 401(k) Account Balance to Salary for Participants in Their 20s, by Tenure, 2002
(percentage)



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

Figure A20

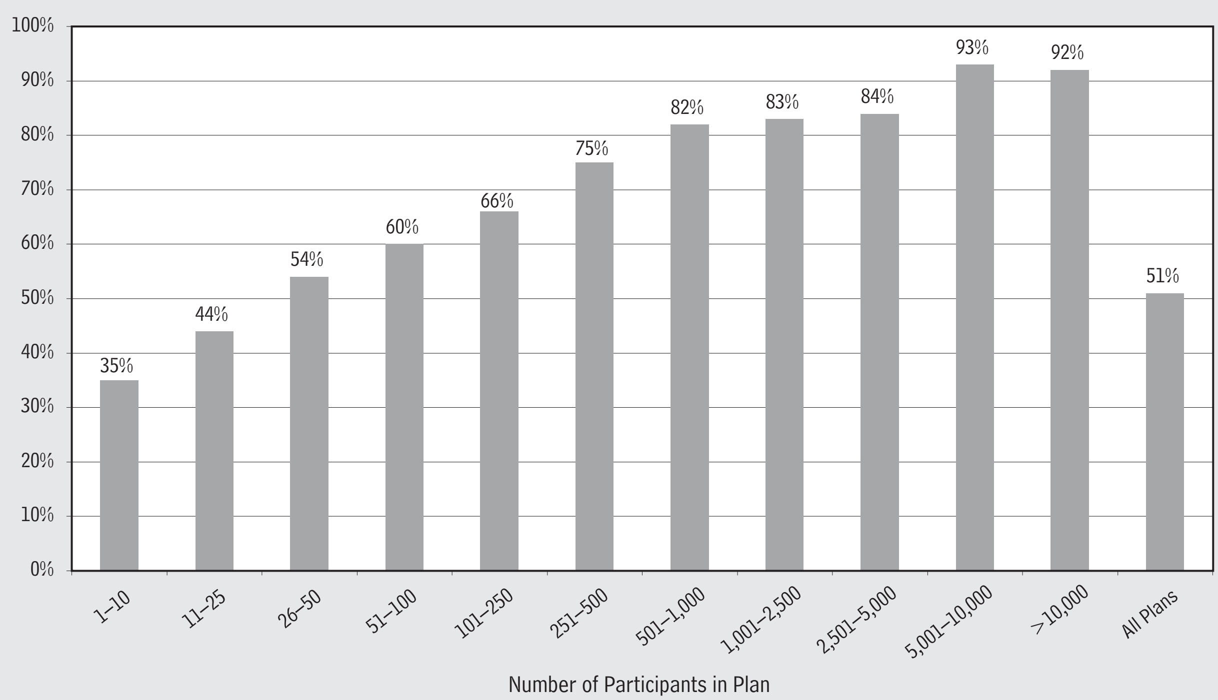
Ratio of 401(k) Account Balance to Salary for Participants in Their 60s, by Tenure, 2002
(percentage)



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

Figure A21

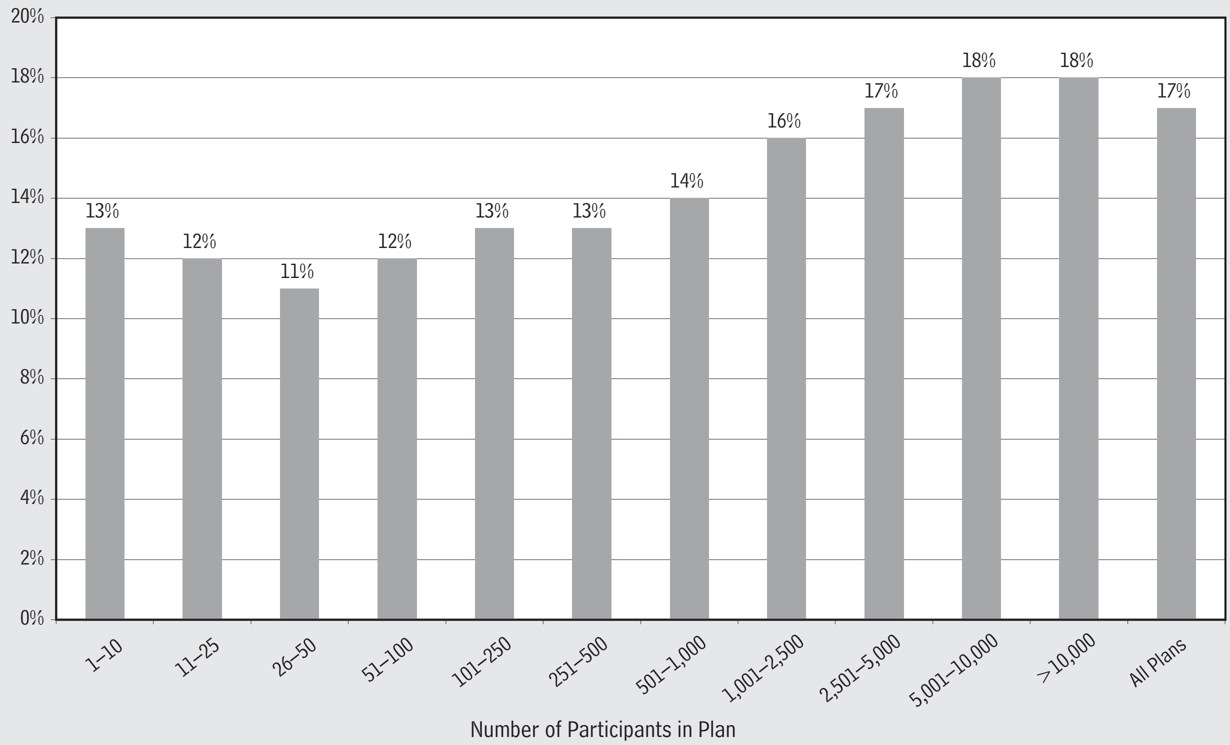
Availability of 401(k) Plan Loans, by Plan Size, 2002
(percentage of plans offering loans)



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

Figure A22

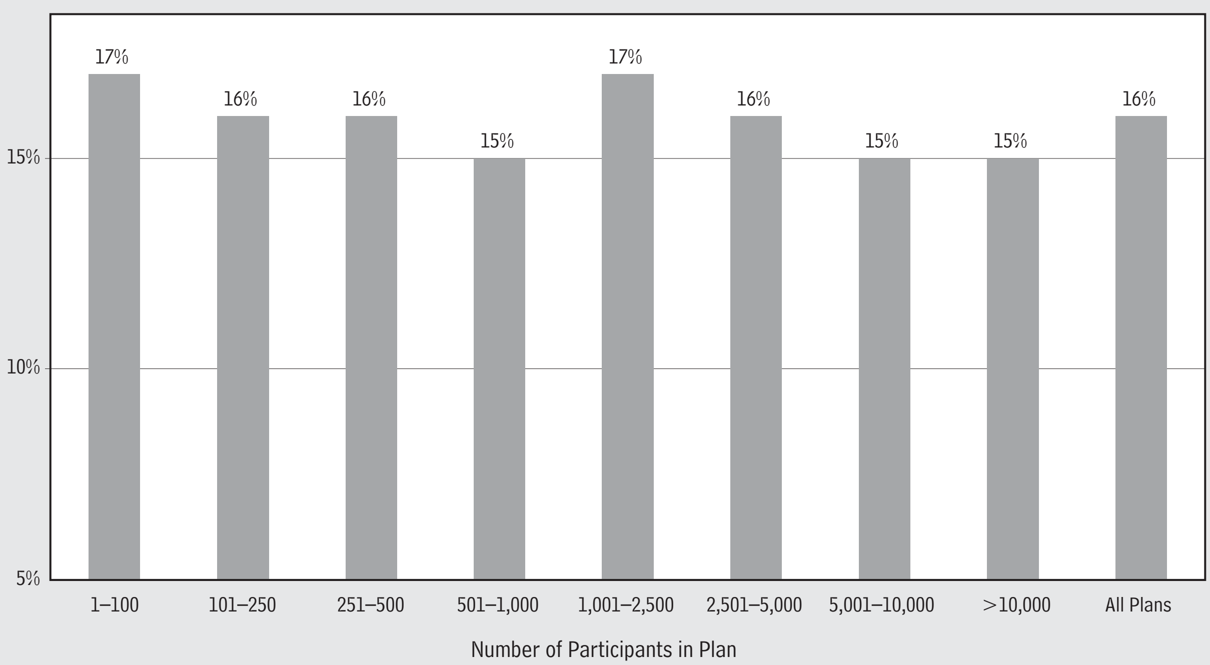
Percentage of Eligible 401(k) Plan Participants With Loans, by Plan Size, 2002



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

Figure A23

Loan Balances as a Percentage of 401(k) Account Balances for Participants With Loans, by Plan Size, 2002



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

Figure A24

Percentage of Eligible 401(k) Plan Participants With Loans, by Salary, 2002

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

Figure A25

Loan Balances as a Percentage of 401(k) Account Balances for Participants With Loans, by Salary, 2002

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