

RESEARCH PERSPECTIVE

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401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2005

KEY FINDINGS

- Consistent participation in 401(k) plans helps account balances grow. The average account balance increased 50 percent among 401(k) participants who held accounts from 1999 to 2005, even though one of the worst bear markets for stocks since the Great Depression occurred during that period. Among the group of consistent 401(k) plan participants, the average account rose from \$67,785 at year-end 1999 to \$102,014 by year-end 2005. The median account balance (or midpoint, with half above and half below) among this consistent group also grew, more than doubling between 1999 and 2005 to \$54,591.
- The bulk of 401(k) plan assets remains invested in equity securities. On average, at year-end 2005, about two-thirds of 401(k) plan participants' assets are invested in equity securities through equity funds, the equity portion of balanced funds, and company stock. The percentage of assets invested in equities has varied narrowly (62 percent to 77 percent) over the past 10 years.
- Lifecycle and lifestyle funds continued to grow in popularity, especially among new hires. Recently hired 401(k) plan participants in their twenties currently hold a higher percentage of their 401(k) accounts in lifestyle, lifecycle, and other balanced funds than did their peers in 1998.
- Company stock as a percentage of 401(k) plan assets continued to fall in 2005. Recently hired 401(k) participants contributed to this trend; they are less likely to hold company stock and tend to hold lower concentrations of their accounts in company stock.
- Most 401(k) participants approaching retirement age do not have a loan from their 401(k) plans outstanding. Ninety percent of 401(k) plan participants in their sixties do not have outstanding loans from their 401(k) plans. Among the 10 percent of participants in their sixties that do have a loan outstanding, the loan is small relative to the participant's remaining account balance.

EBRI, ICI MAINTAIN LARGEST 401(k) PARTICIPANT DATABASE

Over the past two decades, 401(k) plans have grown to be the most common type of employer-sponsored retirement plan in the United States, and now serve

as the most popular defined contribution (DC) plan, as measured by number of participants and assets. In 2005, 47 million American workers were active 401(k) plan participants. By year-end 2005, 401(k) plan assets had grown to represent 17 percent of

all retirement assets, with \$2.4 trillion in assets.² In an ongoing collaborative effort, the Employee Benefit Research Institute (EBRI)³ and the Investment Company Institute (ICI)⁴ collect annual data on millions of 401(k) plan participants as a means to accurately portray how these participants manage their accounts.⁵

This report serves as an update of ICI and EBRI's ongoing research into 401(k) plan participants' activity through year-end 2005. The report includes two sections: the first focuses on account balance information for participants who consistently maintained accounts between 1999 and 2005; the second provides a snapshot of all 401(k) participants at year-end 2005, and reviews their account balances, asset allocations, and loan activity.

EBRI, ICI LOOK AT 3.5 MILLION CONSISTENT 401(k) PARTICIPANTS

About one-third of the participants with 401(k) plan accounts at the end of 1999⁷ —3.5 million individuals—maintained these accounts at the end of each year from 1999 through 2005. An examination of this subgroup of consistent participants helps to more reliably portray the

About the EBRI/ICI Database

The EBRI/ICI Participant-Directed Retirement Plan Data Collection Project is the largest, most representative repository of information about individual 401(k) plan participant accounts. As of December 31, 2005, the EBRI/ICI database includes statistical information about:

- 17.6 million 401(k) plan participants, in
- 47,256 employer-sponsored 401(k) plans, holding
- \$1.0 trillion in assets.

The 2005 EBRI/ICI database covers approximately 37 percent of the universe of 401(k) plan participants, 11 percent of plans, and 42 percent of 401(k) plan assets.

The EBRI/ICI project is unique because of its inclusion of data provided by a wide variety of plan recordkeepers and, therefore, portrays the activity of participants in 401(k) plans of varying sizes—from very large corporations to small businesses—with a variety of investment options.

growth of 401(k) plan account balances over time than do point-in-time snapshots of *all* 401(k) plan participants. More specifically, focusing on consistent participants removes variations in average account balances caused by participants and plans entering and leaving the EBRI/ICI database.⁸

Average Account Balance Grows 10 Percent in 2005
In any given year, three factors contribute to changes in a participant's account balance:

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

Among 401(k) plan participants who have had accounts since at least year-end 1999, the average account balance increased 50 percent in the past six years, rising from \$67,785 at year-end 1999 to \$102,014 by year-end 2005 (Figure 1).9 In 2005, the average account balance among this group of participants increased 10 percent, due in part to positive equity market returns. The median account balance (or midpoint, with half above and half below) among this consistent group also grew, more than doubling between 1999 and 2005 to \$54,591.

The 401(k) account balances of these participants have increased since 1999, generally because of contributions they and their employers made and because of stock market appreciation since 2002. For example, contributions made toward the end of the bear market and invested in broad equity market funds have increased nearly 50 percent in value.¹⁰

While these average account balances provide a broad snapshot, they do not reveal the wide range of individual participants' experiences. In the consistent 401(k) participant group, younger participants (or those with fewer years of tenure at their current employer) experienced the largest increases in average account balances between year-end 1999 and year-end 2005. For example, the average account balance of participants in their twenties increased 695 percent between the end of 1999 and the end of 2005 (Figure 2). This dramatic

FIGURE 1

401(k) ACCOUNT BALANCES INCREASE FOR THIRD CONSECUTIVE YEAR

401(k) account balances1 among 401(k) participants present from year-end 1999 through year-end 2005,2 1999-2005



¹Account 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.

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

AVERAGE ACCOUNT BALANCES FOR ALL AGE GROUPS EXCEED 1999 LEVELS IN 2005 Average account balances among 401(k) participants present from year-end 1999 through year-end 2005¹ by age, 1999–2005

Age Group ²	1999	2000	2001	2002	2003	2004	2005
20s	\$3,042	\$5,507	\$7,892	\$9,378	\$15,003	\$19,781	\$24,169
30s	19,267	21,748	23,996	23,806	34,948	43,555	50,930
40s	52,402	53,635	53,953	50,231	68,203	81,352	91,848
50s	85,174	85,072	83,722	77,285	100,359	116,349	127,766
60s	125,811	119,611	114,465	104,323	126,372	137,407	140,957
All ¹	67,785	67,585	66,834	61,939	80,506	93,085	102,014

¹Figure analyzes sample of 3.5 million 401(k) plan participants with account balances at the end of each year from 1999 through 2005.

²Figure analyzes sample of 3.5 million participants with account balances at the end of each year from 1999 through 2005.

² Age group is based on participant age at year-end 2005.

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

increase reflects the strong impact of contributions on account balances for this age group. Because their initial account balances tend to be small, contributions produce significant account-balance growth in a relatively short time span.¹¹

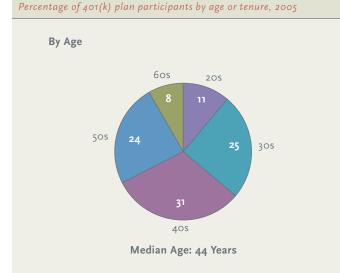
In contrast, the average account balance of older participants (particularly those with longer tenures) showed much slower growth. For participants in their sixties, the average account balance rose 12 percent between year-end 1999 and year-end 2005 (Figure 2). Annual contributions generally provide a minor boost to large account balances, compared with the impact

of investment returns. In addition, participants in their sixties have a higher propensity to make withdrawals.¹² Nevertheless, even for these older participants, continued contributions throughout the bear market helped to mitigate the impact of the equity market decline on their account balances.

EBRI/ICI DATABASE COVERS MORE THAN 17 MILLION 401(k) PARTICIPANTS IN 2005

The year-end 2005 EBRI/ICI database, which includes information for 17.6 million 401(k) plan participants' accounts in 47,256 plans with more than \$1.0 trillion in

FIGURE 3 MORE THAN ONE-THIRD OF 401(k) PARTICIPANTS ARE IN THEIR 20S OR 30S OR HAVE SHORT JOB TENURE



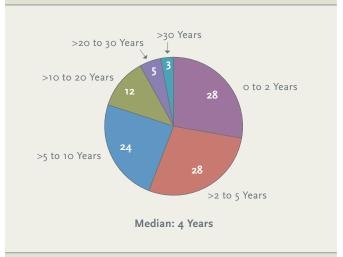


Note: Components may not add to 100 percent because of rounding. Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

FIGURE 4

MORE THAN HALF OF PARTICIPANTS WITH SMALL ACCOUNTS ARE NEW TO THEIR JOBS

Percentage of participants with a 401(k) account balance less than \$10,000¹ by tenure,² 2005



¹At year-end 2005, 6.6 million, or 37 percent of, participants have account balances less than \$10,000.

²Job tenure is generally years working at current employer, and thus may overstate years of participation in the 401(k) plan.

assets, allows for an accurate present-day snapshot of 401(k) plan participants.¹³

Account Balances Rise with Age, Tenure

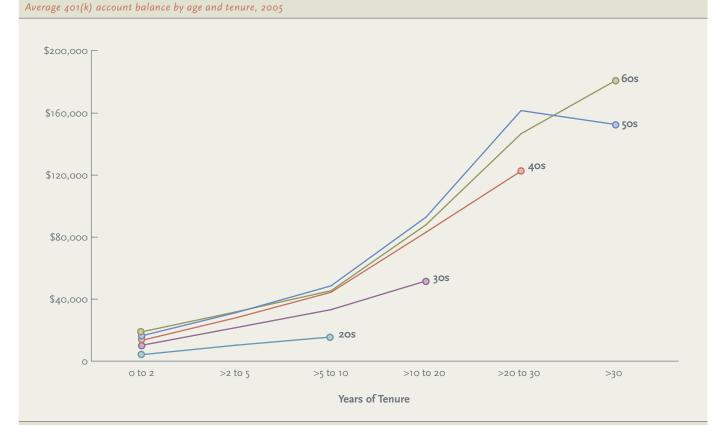
The average account balance for 401(k) plan participants at year-end 2005 is \$58,328. Half of the participants in the database have account balances less than \$19,398 (the median account balance), while half hold more. Although many observers wonder whether these accumulations will serve as a source of significant income for retirees, 14 such concerns fail to consider how aggregate account balances can prove misleading.

Most importantly, these aggregate averages are based on accounts held by participants of varying ages and job tenures, and many of these individuals are years away from retirement and have only just started saving for retirement. Young workers or those just starting out at their current jobs typically have small account balances because they have not had the time to accumulate significant balances.

Calculating an *average* account balance blends the experiences of 17.6 million diverse 401(k) plan participants, and young participants or those with short job tenure constitute a sizeable portion of the participants in the EBRI/ICI database. More than one-third of participants at year-end 2005 are in their twenties or thirties, and one-third have five or fewer years of tenure (Figure 3). The majority of participants with an account balance less than \$10,000 have been at their current employers five years or less (Figure 4).

Second, since 401(k) plans were introduced relatively recently (about 25 years ago), 15 even older and longer-tenured employees could have participated in a 401(k) plan for, at most, about half of their careers. Nevertheless, on average, participants in their sixties with more than 30 years of job tenure have accumulated the more substantial sum of \$180,988 in their 401(k) accounts at year-end 2005 (Figure 5). 16

FIGURE 5 ACCOUNT BALANCES INCREASE WITH AGE AND TENURE



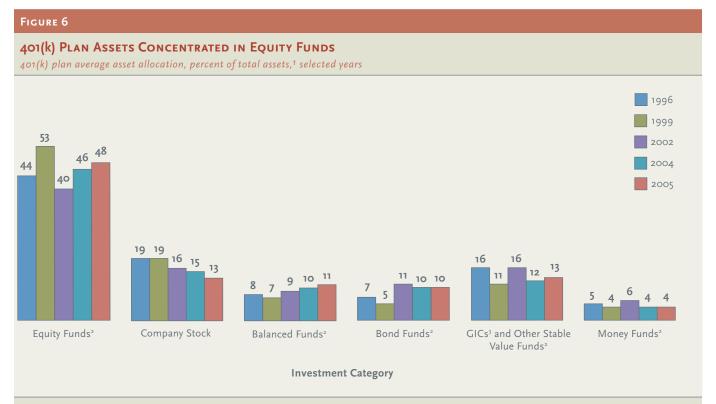
Note: The average account balance among all 17.6 million 401(k) plan participants is \$58,328; the median account balance is \$19,398. Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Bulk of 401(k) Plan Assets Invested in Equities

Consistent with a long-term investment horizon, 401(k) plan participants tend to be heavily invested in equity securities. At year-end 2005, equity securities—equity funds, the equity portion of balanced funds, 17 and company stock—represent about two-thirds (68 percent) of 401(k) plan participants' assets. 18 The largest portion (48 percent) of 401(k) plan participants' account balances is invested

in equity funds, on average (Figure 6).^{19,20} Altogether, average asset allocations of 401(k) plan participants are little changed in 2005 from 2004.²¹

As observed in prior years, younger 401(k) plan participants still tend to hold a higher portion of their accounts in equities than older participants, who tend to invest more in fixed-income assets such as bond funds, GICs (guaranteed investment contracts) and other stable



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

² "Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

³GICs are guaranteed investment contracts.

value funds, or money funds. On average, participants in their twenties hold the bulk of their accounts in equity securities in 2005; 52 percent of their account balances are invested in equity funds, compared with about 38 percent of account balances for participants in their sixties (Figure 7).²² Participants in their twenties hold only about 20 percent of their accounts in fixed-income securities (bond funds, GICs and other stable value funds, and money funds combined), while those in their sixties allocate 39 percent of their assets to these investments.²³ Allocations to company stock continue to be relatively similar across age groups. Participants in their twenties

have a little more than 10 percent of their 401(k) plan account balances in company stock as do participants in their sixties, while those in their forties have close to 14 percent.

Among individual participants, the allocation of account balances to equities (equity funds, company stock, and the equity portion of balanced funds) varies widely around the average of 68 percent for all participants in the 2005 EBRI/ICI database. Indeed, 40 percent of participants have more than 80 percent of their account balances invested in equities, while 15 percent hold no equities at all in 2005 (Figure 8).

FIGURE 7

401(k) PLAN ASSET CONCENTRATION IN EQUITIES DECREASES WITH PARTICIPANT AGE

Average asset allocation of 401(k) accounts by participant age, percent of assets, 1 2005

Age Group	Equity Funds	Company Stock	Balanced Funds	Fixed-Income Securities ²
20s	51.9	10.4	15.5	20.2
30s	57.6	11.4	11.6	17.2
40s	52.9	13.6	10.9	20.2
50s	45.3	13.7	11.0	27.6
60s	37.8	11.1	10.2	38.6
All	47.9	12.9	10.9	26.0

¹Minor investment categories are not shown; therefore, row percentages do not add to 100 percent.

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

FIGURE 8

ASSET ALLOCATION TO EQUITIES VARIES WIDELY AMONG PARTICIPANTS

Asset allocation distribution of 401(k) participant account balance to equities 1 by age, percent of participants, 2,3 2005

	Percentage of Account Balance Invested in Equities ¹					
Age Group	Zero	1 to 20 percent	>20 to 40 percent	>40 to 60 percent	>60 to 80 percent	>80 percent
20s	18.5	2.6	4.7	8.8	30.8	34.6
30s	13.3	3.1	4.9	9.5	25.6	43.7
40s	13.1	4.1	5.7	10.4	24.3	42.5
50s	14.4	5.9	7.2	11.7	23.5	37.3
60s	19.8	8.3	8.0	11.2	19.9	32.6
All ²	15.0	4.5	5.9	10.3	24.6	39.6

¹Equities include equity funds, company stock, and the equity portion of balanced funds.

² Fixed-income securities include bond funds, GICs (guaranteed investment contracts) and other stable value funds, and money funds.

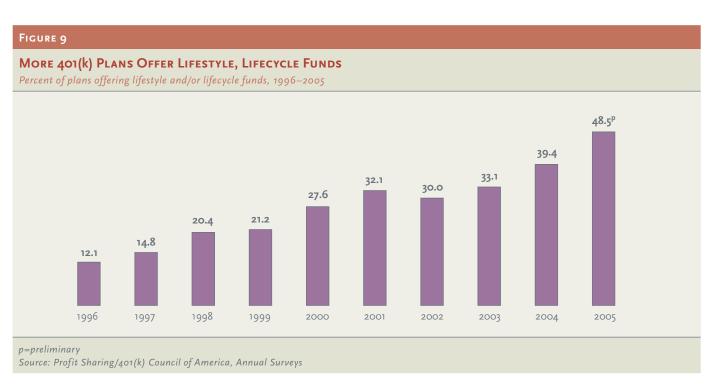
²Participants include the 17.6 million 401(k) plan participants in the year-end 2005 EBRI/ICI database.

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

Lifestyle and Lifecycle Funds Gain Popularity

Lifestyle and lifecycle funds have become increasingly popular in recent years (Figure 9) as plan sponsors have acted to make retirement saving more convenient and easy for participants.²⁴ Some plan sponsors add lifestyle or lifecycle funds to their plans' investment line-up to provide an easy-to-understand and professionally managed investment choice for plan participants who can be overwhelmed by the complex array of choices²⁵ or are too busy to actively manage the asset allocation of their 401(k) accounts on their own.26

Some plan sponsors are increasingly using lifecycle or lifestyle funds as default investment options in automatic enrollment programs,²⁷ which then also add such funds to the plan's investment line-up. Lifestyle funds maintain a predetermined risk level and generally use words such as "conservative," "moderate," or "aggressive" in their names to indicate the fund's risk level. Lifecycle funds follow a predetermined reallocation of risk over time to a specified target date, and typically rebalance their portfolios to become more conservative and income-producing by the target date.



In the EBRI/ICI database, lifestyle and lifecycle funds are included in the balanced fund category and there is an upward trend in balanced fund investing among 401(k) plan participants. Today, more than 40 percent of recently hired participants hold balanced funds, compared with

29 percent of new hires in 1998 (Figure 10).²⁸ Not only are more participants holding balanced funds, more participants are concentrating their asset allocation in balanced funds. For example, among newly hired participants in their twenties holding balanced funds

FIGURE 10 MORE RECENT HIRES HOLD BALANCED FUNDS Percent of recently hired participants holding balanced funds, 1998–2005 50.0 r 45.0 42.8 39.3 40.0 35.4 35.0 33.0 31.3 28.9 29.1 30.0 27.4 25.0 1998 1999 2000 2001 2002 2003 2004 2005

Note: The analysis includes participants with two or fewer years of tenure in the year indicated.

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

in 2005, 41 percent have more than 90 percent of their account in balanced funds; among the comparable group in 1998, 8 percent had such a concentration (Figure 11). This upward trend in usage occurs in all age groups.

The increased use of balanced funds among recently hired participants can also be seen in the average 401(k) account asset allocation. For example, at year-end 2005,

19 percent of the account balances of recently hired participants in their twenties is invested in balanced funds, compared with 16 percent in 2004 and about 7 percent among that age group in 1998 (Figure 12). Similarly, at year-end 2005, nearly 17 percent of the account balances of new hires in their sixties is invested in balanced funds, compared with about 16 percent in 2004 and 12 percent in 1998.²⁹

FIGURE 11

RECENTLY HIRED PARTICIPANTS NOW HOLD HIGHER CONCENTRATIONS IN BALANCED FUNDS

Percent of recently hired participants holding balanced fund assets, 1, 2, 1998 and 2005

Percent of recently nirea participants notaing balancea funa assets, 1, 2, 1998 and 2005					
Percentage of Account Balance Invested in Balanced Funds Among Those Holding Balanced Funds					
	1998				
Age Group	>0 to 50 percent	>50 to 90 percent	>90 percent		
20s	84.9%	7.3%	7.8%		
30s	86.0	7.6	6.4		
40s	84.1	8.9	7.0		
50s	81.1	10.7	8.2		
60s	77.0	12.4	10.6		
All	84.5	8.2	7.3		
		2005			
Age Group	>0 to 50 percent	>50 to 90 percent	>90 percent		
20s	47.5%	11.9%	40.6%		
30s	55.5	12.3	32.2		
40s	53.5	12.8	33.6		
50s	50.2	13.4	36.4		
60s	44.2	12.4	43.4		
All	51.5	12.4	36.1		

¹ The analysis includes the 0.4 million recently hired participants (those with two or fewer years of tenure) holding balanced funds in 1998 and the 0.9 million recently hired participants holding balanced funds in 2005.

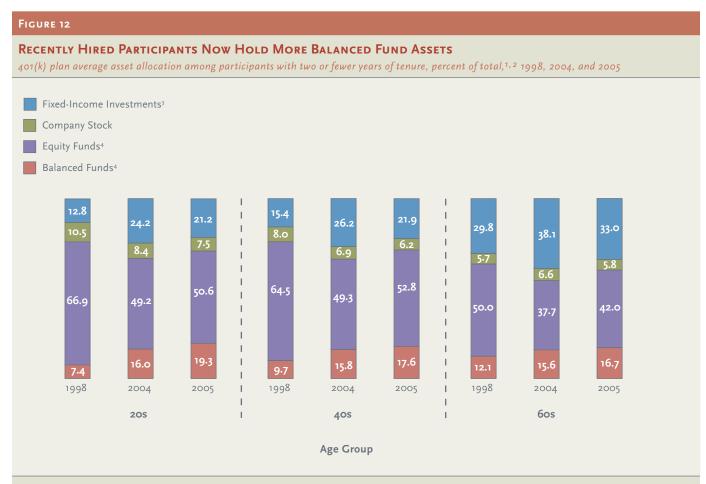
² Row percentages may not add to 100 percent because of rounding.

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

Allocation to Company Stock Declines

The share of company stock in the EBRI/ICI database continued to fall in 2005 to 13 percent of assets at year-end (Figure 6). Although some of the decline since 2000 reflects a drop in stock prices during the 2000–2002 bear market, the share of assets held in company stock in the EBRI/ICI database continued to drop during the stock market's rebound. This suggests changes in plan design and participant behavior.

Not all 401(k) plan participants are in plans that offer company stock as an investment option. To understand trends in participant behavior in regard to company stock, it is important to focus on those 401(k) plan participants that do have access to company stock.³⁰ In addition, focusing on the behavior of recently hired participants draws out information about the impact of current plan design and other contemporaneous factors on individual participants' decisions.



¹Minor investment options are not shown; therefore, column percentages do not add to 100 percent.

²The analysis draws on samples of 1.2 million participants with two or fewer years of tenure in 1998, 1.8 million participants with two or fewer years of tenure in 2004, and 2.2 million participants with two or fewer years of tenure in 2005.

³Fixed-income investments include bond funds, guaranteed investment contracts (GICs) and other stable value funds, and money funds. For a detailed breakdown see Appendix Figure A32.

^{4&}quot;Funds" include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated.

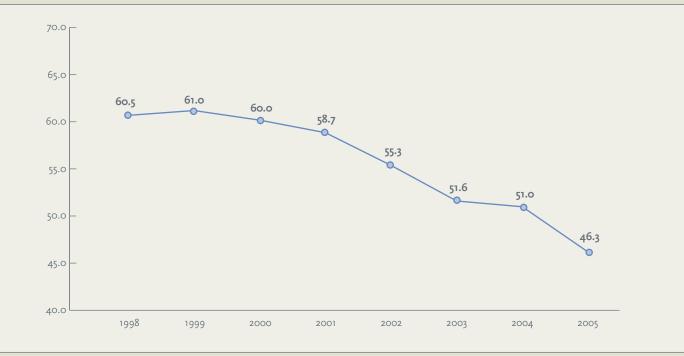
In the EBRI/ICI database, there is a downward trend in company stock investing among recently hired 401(k) plan participants. Today, less than one-half of recently hired participants who are in plans that offer company stock as

an investment option actually hold it, compared with 61 percent of recently hired participants in 1998 (Figure 13).³¹ Not only are fewer recent hires holding company stock, but fewer recent hires are holding high

FIGURE 13

RECENTLY HIRED 401(k) PLAN PARTICIPANTS ARE LESS LIKELY TO HOLD COMPANY STOCK

Percent of recently hired participants offered and holding company stock, 1998–2005



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

concentrations of company stock. For example, among recently hired participants offered company stock as an investment option, a little more than 5 percent of them held more than 90 percent of their account balance in company stock in 2005 (Figure 14). Among the comparable group in 1998, 12 percent had such a concentration. This downward trend in usage and concentration occurs in all age groups.

The decreased use of company stock among recently hired participants is also reflected in the average 401(k) asset allocation of this group. For example, at year-end 2005, 8 percent of the account balances of recently hired participants in their twenties is invested in company stock, compared with 11 percent among that age group in 1998 (Figure 12).³²

FIGURE 14

FEWER NEW PARTICIPANTS HOLD HIGH CONCENTRATIONS IN COMPANY STOCK

Percent of recently hired participants offered company stock holding the percentage of their account balance indicated in company stock, 1998–2005



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

Plans Offering 401(k) Loans Are Common, But Loans Are Rarely Taken

Most 401(k) participants are in plans that offer borrowing privileges.³³ Indeed, research indicates that the presence of a loan feature increases participation and contribution rates in 401(k) plans.³⁴ Yet the loan feature also raises concerns that some plan participants might save and accumulate assets only to then access them prior to retirement. However, as has been the case for the 10 years that the EBRI/ICI database has tracked 401(k) plan participants' loan activity, relatively few participants make use of borrowing privileges. At year-end 2005, only 19 percent of those eligible for loans have loans outstanding (Figure 15). As in previous years, loan activity varies with age, tenure, salary, account balance, and plan size.³⁵ Among 401(k) participants nearing retirement age, only 10 percent have a loan outstanding at year-end 2005.

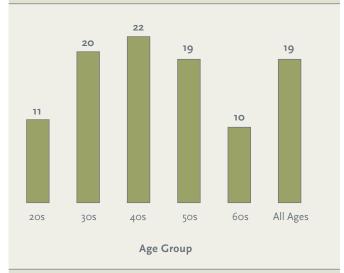
Among participants with outstanding loans at the end of 2005, the average unpaid balance is \$6,821.36 Participants' loan activity in 2005 matches the trends noted in previous years: loan balances as a percentage of account balances (net of the unpaid loan balances) for participants with loans continue to hover around 13 percent.37 In addition, consistent with previous years, there is variation around this average: older participants, longer-tenured

participants, and participants with higher account balances tend to have lower loan ratios. For example, for half of the participants in their sixties that have a loan outstanding, the loan amount is less than 10 percent of their remaining account balance (Figure 16).38

FIGURE 15

SMALL PERCENTAGE OF PARTICIPANTS TAKE LOANS FROM THEIR 401(k) PLANS

Percent of eligible 401(k) participants with loans by participant age, 2005



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

FIGURE 16

LOANS FROM 401(k) PLANS TEND TO BE SMALL

Percent of eligible participants by age, 2005

	Age Group			
Loan as a Percentage of Remaining Account Balance	20 s	40s	60s	All
Zero (No Loan)	89%	78%	90%	81%
1 to 10 percent	3	8	5	7
>10 to 20 percent	2	4	2	4
>20 to 30 percent	2	3	1	2
>30 to 80 percent	4	6	2	5
>80 percent	1	1	(*)	1

(*) less than ½ percent

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

NOTES

- See Cerulli Associates (2005).
- ² See Brady and Holden (July 2006).
- ³ The Employee Benefit Research Institute (EBRI) is a nonprofit, nonpartisan, public policy research organization, which does not lobby or take positions on legislative proposals.
- ⁴ The Investment Company Institute (ICI) is the national association of the U.S. investment company industry. Its membership includes 8,719 open-end investment companies ("mutual funds"), 653 closed-end investment companies, 211 exchange-traded funds, and five sponsors of unit investment trusts. Its mutual fund members manage assets of approximately \$9.225 trillion (representing approximately 98 percent of all assets of U.S. mutual funds); these funds serve approximately 89.5 million shareholders in more than 52.6 million households.
- Other recent updates on 401(k) plan participant and plan sponsor activities include Deloitte LLP, International Foundation, and International Society of Certified Employee Benefit Specialists (2006); Utkus and Young (March 2006); Hewitt Associates (2006); and Fidelity Investments (2005). Other recent research on retirement plan participants includes Agnew (March 2006); Beshears, Choi, Laibson, and Metrick (February 2006); Choi, Laibson, and Madrian (January 2006); Poterba, Raub, Venti, and Wise (January 2006); and Lusardi and Mitchell (2006).
- ⁶ For additional details on the composition of plans, participants, and assets in the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project database, see the Appendix, which is available through ICI's website at:

 www.ici.org/pdf/per12-01_appendix.pdf.

This update extends previous findings from the project for 1996 through 2004. For year-end 2004 results, see Holden and VanDerhei (September 2005 and September 2005—Appendix). Results for earlier years are available in earlier issues of *Perspective*. All issues of *Perspective* are available through ICI's website at: www.ici.org/perspective/index.html.

- ⁷ See Holden and VanDerhei (January/February 2001) for the summary of the year-end 1999 results.
- When analyzing the change in account balances over time, it is important to have a consistent sample. Comparing average account balances across different year-end snapshots can lead to false conclusions. For example, the addition of a large number of new plans (arguably a good event) to the database would tend to pull down the average account balance, which could then be mistakenly described as hurting current participants, but actually would tell us nothing about consistently participating workers. Similarly, the aggregate average account balance would tend to be pulled down

- if a large number of older participants happened to retire and roll over their account balances. In addition, changes in the sample of recordkeepers and/or changes in the set of plans for which they keep records can also influence the change in aggregate average account balance. Thus, to ascertain what is happening to 401(k) participants' account balances, a consistent set of participants must be analyzed.
- ⁹ The average account balance (\$102,014) among the 3.5 million consistent participants is higher than the average account balance (\$58,328) among the 17.6 million 401(k) plan participants in the year-end 2005 database because the consistent participants have longer tenure, on average, compared to the entire database (and account balances tend to rise with tenure). Indeed, the minimum tenure in the consistent group at year-end 2005 is six years.
- The S&P 500 total return index increased 49.7 percent between December 2002 and December 2005. The Russell 2000 total return index, which represents the smaller of the large corporations, increased 82.2 percent over the same period (see Appendix Figure A7).
- There tends to be a positive correlation between job tenure and account balance in each of the 10 years covered by the EBRI/ICI database and among the participants in the consistent group (those with account balances at the end of each year from at least 1999 through 2005). Given that age and tenure are often correlated, there also tends to be a positive correlation between age and account balance. See Figure 5 and Appendix Figure A6.
- ¹² For statistics indicating the higher propensity of withdrawals among participants in their sixties, see Holden and VanDerhei (November 2002—Appendix).
- ¹³ The EBRI/ICI data are based on administrative records from a variety of recordkeepers that cover a wide range of plan sizes (see Appendix Figures A1 and A2). For a more detailed description of the database, see the Appendix.
- ¹⁴ For research that examines how 401(k) assets might contribute to retirement income for future retirees, see results from the EBRI/ICI 401(k) Accumulation Projection Model published in Holden and VanDerhei (July 2005, November 2002, and November 2002–Appendix). For additional research references, see Holden and VanDerhei (September 2005).
- ¹⁵ The Revenue Act of 1978 contained a provision that became Internal Revenue Code §401(k). The law went into effect on January 1, 1980, but it was not until November of 1981 that proposed regulations were issued (see Employee Benefit Research Institute (February 2005) and U.S. Internal Revenue Service (November 10, 1981)).

- ¹⁶ It is possible that these older longer-tenured workers accumulated DC plan assets, e.g., possibly in a profit-sharing plan, prior to the introduction of 401(k) plan features. However, generally such DC plan arrangements did not permit employee contributions and often were designed to be supplemental to other employer plans. These participants' account balances that pre-date the 401(k) plan are not included in this analysis, which focuses on 401(k) balance amounts.
- ¹⁷ At year-end 2005, 64 percent of balanced mutual fund assets were invested in equities (see Investment Company Institute, *Quarterly Supplemental Data*).
- ¹⁸ Unless otherwise indicated, all asset allocation averages are expressed as a dollar-weighted average.
- 19 Investment options are grouped into eight categories. Equity funds consist of pooled investments primarily invested 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; which are 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 (which 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) 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. See further discussion in the Appendix.

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 (see Holden and VanDerhei (May 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.

- ²⁰On average, in the year-end 2005 EBRI/ICI database, 48 percent of account balances are invested in equity funds. There is a wide variation in 401(k) plan participants' asset allocation to equity funds: more than one-fifth of the 401(k) participants in the EBRI/ICI database at year-end 2005 hold more than 80 percent of their account balances in equity funds, while about one-third of participants hold no equity funds (see Appendix Figures A24 and A25). However, in aggregate, about 55 percent of participants with no equity fund balances have exposure to the stock market through company stock or balanced funds (see Appendix Figure A26).
- ²¹ Research indicates that in any given year, 401(k) plan participants generally do not rebalance or change the asset allocation in their accounts. For example, Mitchell, Mottola, Utkus, and Yamaguchi (2006) find that 80 percent of 401(k) participants initiated no trades in the two years observed (2003–2004); Hewitt Associates (2006) reports that 11.9 percent of participants in their system made both a transfer and an investment change in 2005; Utkus and Young (March 2006) report that 13 percent of The Vanguard Group's DC plan participants made a trade in 2005 (not counting plan-sponsor-induced investment option changes); and Fidelity Investments (2005) finds 13 percent of DC plan participants in their system made exchanges in 2004. Holden and VanDerhei (September 2003) analyze changes in year-end asset allocations among 5.3 million EBRI/ICI database 401(k) plan participants with accounts at the end of each year from 1999 through 2002. Choi, Laibson, Madrian, and Metrick (July 2004) find that 401(k) plan participants rarely make changes after the initial point of enrollment. Investment Company Institute (March 2001) finds that 89 percent of equity mutual fund shareholders in DC plans made no redemptions or redemption exchanges in 1998. In addition, 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).
- ²² Participants in their twenties hold approximately 2 percent of the total assets in the 2005 EBRI/ICI database; participants in their thirties hold 13 percent; participants in their forties hold 33 percent; participants in their fifties hold 39 percent; and participants in their sixties hold the remaining 14 percent of the total assets.
- ²³ 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. The mix of investment options, particularly the inclusion of company stock and/or GICs and other stable value funds, offered by a plan sponsor significantly affects the asset allocation of the participants in a plan. See Appendix Figures A21 to A23.

- ²⁴Brady and Holden (July 2006) report that lifecycle mutual funds totaled \$70 billion at year-end 2005, an increase of 59 percent over the year, and lifestyle mutual funds totaled \$97 billion at year-end 2005, up 67 percent from a year earlier. Mottola and Utkus (November 2005) report that 63 percent of DC plans recordkept by The Vanguard Group offer lifecycle and/or lifestyle funds; the paper also analyzes participants' use of the funds, as well. Hewitt Associates (2006), Fidelity Investments (2005), Profit Sharing/401(k) Council of America (2005) also discuss lifecycle/lifestyle funds.
- ²⁵ For example, Sethi-Iyengar, Huberman, and Jiang (2004) suggest that participants can feel overwhelmed by too many investment options and Agnew and Szykman (2005) argue that participants experience "information overload." In addition, Investment Company Institute (Spring 2000) finds that 32 percent of nonparticipants indicated confusion over plan features was a "very" or "somewhat" important reason for not participating in their employer's 401(k) plan (multiple reasons could be given). Nevertheless, Mitchell, Utkus, and Yang (October 2005) find that more choice expands participation provided there is not too much complexity in the choices.
- ²⁶ See endnote 21, which summarizes the research indicating the bulk of 401(k) participants do not change asset allocation in any given year.
- ²⁷ For example, Deloitte Consulting LLP, International Foundation, and the International Society of Employee Benefit Specialists (2006) report that 38 percent of surveyed plans doing automatic enrollment used a lifestyle or target retirement date fund as the default investment option in 2005. Deloitte Consulting LLP and *Pensions & Investments* (2005) report that in 2004, only 17 percent of plans with automatic enrollment used a lifestyle or target retirement date fund as the default investment option.
- ²⁸ A similar pattern occurs across all age groups (see Appendix Figure A₃o).
- ²⁹ For more detail by participant age group and investment menu, see Appendix Figure A₃₂.

- ³⁰ At year-end 2005, nearly half (or 8.3 million) of the 401(k) participants in the EBRI/ICI database are in plans that offer company stock as an investment option. Among these participants, about two-thirds hold 20 percent or less of their account balances in company stock, including 40 percent who do not hold company stock at all (see Appendix Figure A29). In contrast, 10 percent have more than 80 percent of their account balances invested in company stock. (Appendix Figure A29 also reports the asset allocation distribution of participant account balances to company stock by age.)
- ³¹ A similar trend occurs across age groups (see Appendix Figure A₃₃).
- ³² See Appendix Figure A₃2. At plans that offer company stock as an investment option (but no GICs or stable value funds), about 13 percent of the year-end 2005 account balances of recently hired participants is invested in company stock, compared with about 18 percent in 2004, and 24 percent among recently hired participants in 1998. At plans that offer both company stock and GICs or stable value funds as investment options, nearly 14 percent of the year-end 2005 account balances of recently hired participants is invested in company stock, compared with 15 percent in 2004, and almost 19 percent among recently hired participants in 1998.
- ³³ In the 2005 EBRI/ICI database, 85 percent of participants are in plans offering loans.
- ³⁴ For example, see Utkus (July 2005); Mitchell, Utkus, and Yang (2005); Holden and VanDerhei (October 2001); Munnell, Sundén, and Taylor (December 2000); and U.S. Government Accountability Office (October 1997).
- 35 For additional loan activity analysis, see the Appendix.
- 36 The median loan balance outstanding is \$3,661 at year-end 2005.
- ³⁷ The median loan amount outstanding as a percentage of remaining account balance is 16 percent.
- ³⁸ The loan amount is calculated as a percentage of the remaining account balance after the loan amount has been withdrawn.

 Generally, participants may borrow the lesser of \$50,000 or one-half of the eligible vested 401(k) account balance. Loan ratios greater than 50 percent are reported in Figure 16 because the loan is calculated as a percentage of the remaining account balance: A loan of one-half of the account balance would produce a ratio of 100 percent.

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