

## Appendix: Additional Figures for the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project for Year-End 2005

### INTRODUCTION

The August 2006 issue of *Perspective* covers the year-end 2005 data gathered by the Employee Benefit Research Institute (EBRI)<sup>1</sup> and the Investment Company Institute (ICI)<sup>2</sup> in their collaborative effort—the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.<sup>3</sup> This Appendix provides supplementary tables and charts for the August 2006 *Perspective*.

### EBRI/ICI 401(k) DATABASE

#### *Source and Type of Data*

Several EBRI and ICI members provided records on active participants in 401(k) plans for which they keep records at year-end 2005. These plan recordkeepers include mutual fund companies, insurance companies, and consulting firms. Although the EBRI/ICI project has collected data from 1996 through 2005, the universe of data providers varies from year to year. In addition, the sample of plans using a given provider can change. Thus, aggregate figures in this report generally should not be used to estimate time trends, unless otherwise indicated. 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 group 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.<sup>4</sup> 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*

Investment options are grouped into eight categories.<sup>5</sup> 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)<sup>6</sup> and other stable value funds,<sup>7</sup> 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.<sup>8</sup>

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

The 2005 EBRI/ICI database contains 47,256 401(k) plans with \$1,026 billion in assets and 17.6 million participants (Figure A1). Most of the plans in the database are small, whether as measured by the number of plan participants or by total plan assets. Forty-three percent of the plans in

the database have 25 or fewer participants, and 32 percent have 26 to 100 participants. In contrast, only 5 percent of the plans have more than 1,000 participants. However, participants and assets are concentrated in large plans. For example, 78 percent of participants are in plans with more than 1,000 participants, and these same plans account for

**FIGURE A1**

#### **EBRI/ICI DATABASE: 401(k) PLAN CHARACTERISTICS BY NUMBER OF PLAN PARTICIPANTS, 2005**

Number of Plan Participants	Total Plans	Total Participants	Total Assets	Average Account Balance
1 to 10	9,167	54,646	\$2,431,046,268	\$44,487
11 to 25	11,254	193,601	7,941,984,120	41,022
26 to 50	8,553	310,290	12,805,837,417	41,271
51 to 100	6,492	461,515	19,271,062,438	41,756
101 to 250	5,527	873,675	37,895,033,677	43,374
251 to 500	2,499	887,742	37,668,385,919	42,432
501 to 1,000	1,449	1,023,477	48,203,226,395	47,098
1,001 to 2,500	1,181	1,835,891	90,317,741,514	49,196
2,501 to 5,000	567	1,996,660	107,751,347,083	53,966
5,001 to 10,000	262	1,841,701	115,642,547,815	62,791
>10,000	305	8,104,351	545,677,696,569	67,331
All	47,256	17,583,549	1,025,605,909,213	58,328

*Note: The median account balance at year-end 2005 is \$19,398.*

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

84 percent of all plan assets. Because most of the plans have a small number of participants, the asset size for many plans is modest. About 20 percent of the plans have assets of \$250,000 or less, and another 34 percent have plan assets between \$250,001 and \$1,250,000 (Figure A2).

### **Relationship of EBRI/ICI Database Plans to the Universe of All 401(k) Plans**

The 2005 EBRI/ICI database is a representative sample of the estimated universe of 401(k) plans. Brady and Holden

(July 2006) estimates 401(k) plans held \$2,443 billion in assets at year-end 2005, and the EBRI/ICI database represents about 42 percent of 401(k) plan assets. The year-end 2005 EBRI/ICI database also covers about 37 percent of the universe of 401(k) plan participants and 11 percent of all 401(k) plans.<sup>9,10</sup> The distribution of assets, participants, and plans in the EBRI/ICI database for 2005 is similar to that reported for the universe of plans as estimated by Cerulli Associates (Figure A3).

**FIGURE A2**

#### **EBRI/ICI DATABASE: 401(k) PLAN CHARACTERISTICS BY PLAN ASSETS, 2005**

Total Plan Assets	Total Plans	Total Participants	Total Assets	Average Account Balance
\$0 to \$250,000	9,536	110,205	\$1,022,317,177	\$9,277
>\$250,000 to \$625,000	8,508	181,414	3,549,419,656	19,565
>\$625,000 to \$1,250,000	7,461	268,872	6,747,113,831	25,094
>\$1,250,000 to \$2,500,000	6,611	387,522	11,797,939,079	30,445
>\$2,500,000 to \$6,250,000	6,460	736,100	25,592,273,119	34,767
>\$6,250,000 to \$12,500,000	3,245	810,939	28,584,000,616	35,248
>\$12,500,000 to \$25,000,000	2,066	920,319	36,068,156,505	39,191
>\$25,000,000 to \$62,500,000	1,571	1,502,635	61,002,703,568	40,597
>\$62,500,000 to \$125,000,000	724	1,457,641	63,135,631,727	43,314
>\$125,000,000 to \$250,000,000	460	1,692,283	81,760,565,689	48,314
>\$250,000,000	614	9,515,619	706,345,788,245	74,230
All	47,256	17,583,549	1,025,605,909,213	58,328

*Note: The median account balance at year-end 2005 is \$19,398.*

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

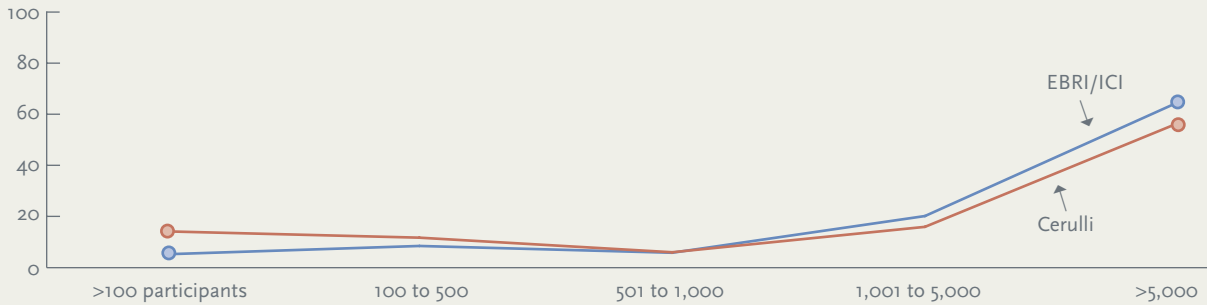
FIGURE A3

### EBRI/ICI DATABASE REPRESENTS WIDE CROSS-SECTION OF 401(k) UNIVERSE

401(k) plan characteristics by number of participants: EBRI/ICI database vs. Cerulli estimates for all 401(k) plans, 2005

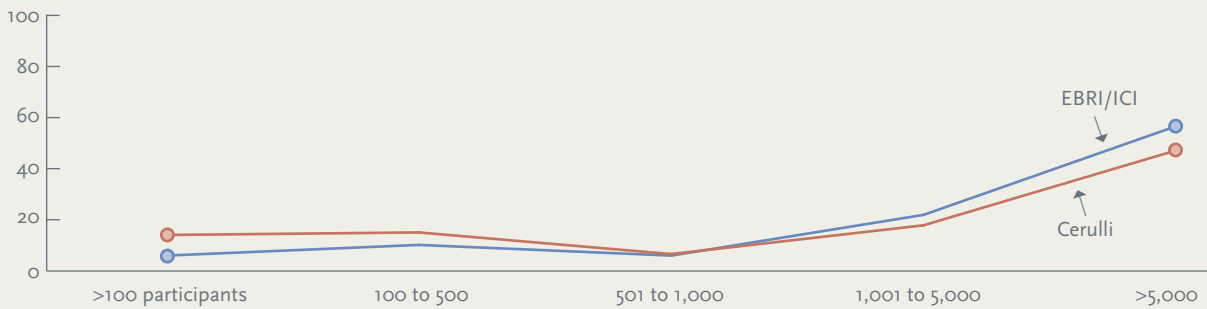
#### Plan Assets

(percent of plan assets)



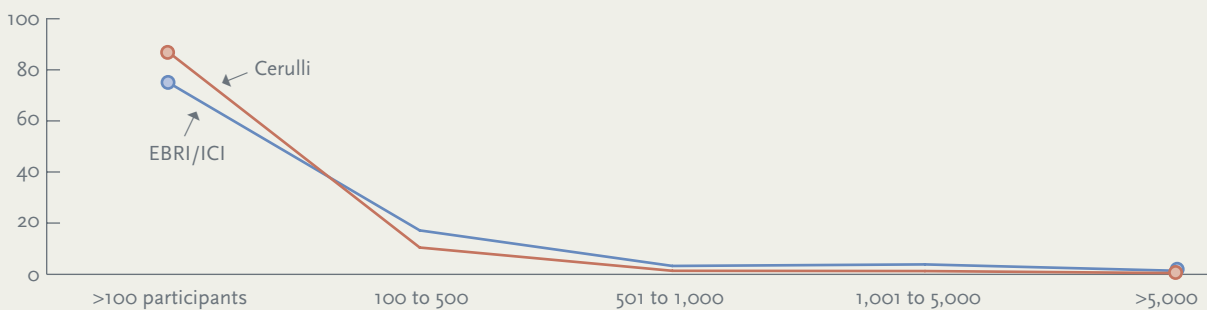
#### Participants

(percent of participants)



#### Plans

(percent of plans)



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

### The Typical 401(k) Plan Participant

Participants in 401(k) plans cover wide ranges of age and tenure. Fifty-six percent of participants are in their thirties or forties, while 11 percent of participants are in their twenties and 8 percent are in their sixties (Figure A4). The median age of the participants in the 2005 EBRI/ICI database is 44 years, the same as in the 2004 EBRI/ICI database. Thirty-three percent of the participants have five or fewer years of tenure, while 7 percent have more than 30 years of tenure. The median tenure at the current employer is eight years, compared with seven years in 2004. Salary information available for a subset of participants indicates that the median annual salary among that group is \$28,781.<sup>11</sup>

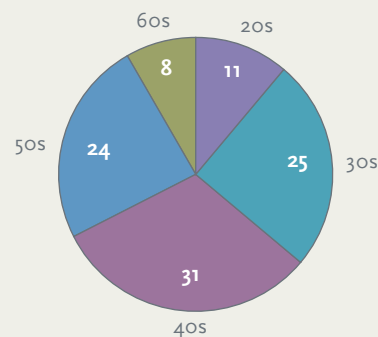
### CHANGES IN 401(k) PARTICIPANTS' ACCOUNT BALANCES

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. 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 2005. Analyzing a group of consistent participants removes the effect of participants and plans entering and leaving the database (and/or 401(k) universe) on the overall average.<sup>12</sup> About one-third, or 3.5 million, of the participants with accounts at the end of 1999 had accounts at the end of each year from 1999 through 2005.

FIGURE A4

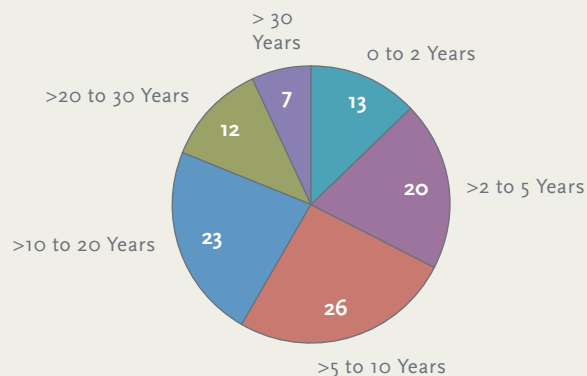
### PERCENTAGE OF 401(k) PLAN PARTICIPANTS BY AGE OR TENURE, 2005

By Age



Median Age: 44 Years

By Tenure



Median Tenure: 8 Years

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

The average 401(k) account balance of this group of consistent participants edged down less than ½ percent from 1999 to 2000, declined another 1 percent in 2001,

fell 7 percent in 2002, then increased 30 percent in 2003, almost 16 percent in 2004, and nearly 10 percent in 2005 (Figure A5).<sup>13</sup> For many participants, diversification of

**FIGURE A5**

**PERCENTAGE CHANGE IN AVERAGE ACCOUNT BALANCES AMONG 401(k) PARTICIPANTS PRESENT FROM YEAR-END 1999 THROUGH YEAR-END 2005<sup>1</sup> BY AGE AND TENURE<sup>2</sup>**

Age Group <sup>2</sup>	Tenure (years) <sup>2</sup>	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	1999 to 2005
20s	All	81.0	43.3	18.8	60.0	31.8	22.2	694.5
	>5 to 10	89.3	46.9	19.9	61.2	32.5	22.7	773.7
30s	All	12.9	10.3	-0.8	46.8	24.6	16.9	164.3
	>5 to 10	30.4	21.9	6.1	54.1	28.4	20.0	300.4
	>10 to 20	4.4	3.4	-5.8	41.0	21.3	14.0	98.4
40s	All	2.4	0.6	-6.9	35.8	19.3	12.9	75.3
	>5 to 10	20.3	14.0	2.3	47.2	25.8	18.4	207.4
	>10 to 20	1.0	-0.3	-8.0	35.5	19.0	12.5	68.1
	>20 to 30	-0.6	-2.5	-8.8	31.4	16.7	10.7	49.9
50s	All	-0.1	-1.6	-7.7	29.9	15.9	9.8	50.0
	>5 to 10	20.9	13.2	3.2	43.4	25.5	18.4	201.0
	>10 to 20	2.4	1.0	-7.3	32.1	18.4	12.3	68.4
	>20 to 30	-1.0	-3.4	-8.7	28.4	14.9	9.1	40.5
	>30	-4.0	-3.8	-9.0	26.6	12.5	5.7	26.6
60s	All	-4.9	-4.3	-8.9	21.1	8.7	2.6	12.0
	>5 to 10	20.6	13.1	3.0	38.4	22.6	14.6	173.4
	>10 to 20	3.2	(*)	-6.1	26.8	14.8	8.2	52.6
	>20 to 30	-2.2	-3.6	-8.4	21.8	9.6	3.4	19.3
	>30	-8.6	-6.5	-10.5	18.1	5.4	-0.7	-5.4
All <sup>1</sup>	All	-0.3	-1.1	-7.3	30.0	15.6	9.6	50.5

(\*) less than +/- 0.05 percent

<sup>1</sup> The analysis is based on a sample of 3.5 million participants with account balances at the end of each year from 1999 through 2005.

<sup>2</sup> Age and tenure groups are based on participant age and tenure at year-end 2005.

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

assets and ongoing contributions helped to temper the impact of the equity markets on their 401(k) account balances. All told, from year-end 1999 to year-end

2005, the average account balance among the group of consistent participants increased 50 percent, rising from \$67,785 at year-end 1999 to \$102,014 at year-end 2005 (Figure A6).<sup>14</sup>

**FIGURE A6**

**AVERAGE ACCOUNT BALANCES AMONG 401(k) PARTICIPANTS PRESENT FROM YEAR-END 1999 THROUGH YEAR-END 2005<sup>1</sup> BY AGE AND TENURE,<sup>2</sup> 1999–2005**

Age Group <sup>2</sup>	Tenure (years) <sup>2</sup>	1999	2000	2001	2002	2003	2004	2005
20s	All	\$3,042	\$5,507	\$7,892	\$9,378	\$15,003	\$19,781	\$24,169
	>5 to 10	2,787	5,275	7,750	9,291	14,975	19,847	24,349
30s	All	19,267	21,748	23,996	23,806	34,948	43,555	50,930
	>5 to 10	11,160	14,556	17,738	18,823	29,009	37,242	44,684
	>10 to 20	29,846	31,162	32,225	30,367	42,810	51,919	59,200
40s	All	52,402	53,635	53,953	50,231	68,203	81,352	91,848
	>5 to 10	19,432	23,367	26,627	27,248	40,118	50,458	59,731
	>10 to 20	55,628	56,209	56,062	51,557	69,848	83,093	93,488
	>20 to 30	85,068	84,561	82,410	75,155	98,771	115,232	127,530
50s	All	85,174	85,072	83,722	77,285	100,359	116,349	127,766
	>5 to 10	21,580	26,100	29,544	30,499	43,737	54,883	64,955
	>10 to 20	63,965	65,493	66,133	61,333	81,029	95,907	107,700
	>20 to 30	120,696	119,539	115,432	105,393	135,304	155,407	169,616
	>30	120,919	116,043	111,645	101,564	128,622	144,741	153,063
60s	All	125,811	119,611	114,465	104,323	126,372	137,407	140,957
	>5 to 10	22,515	27,156	30,709	31,645	43,796	53,713	61,561
	>10 to 20	69,619	71,855	71,877	67,469	85,535	98,197	106,210
	>20 to 30	135,435	132,497	127,767	117,072	142,596	156,287	161,585
	>30	187,817	171,611	160,460	143,648	169,681	178,918	177,646
All <sup>1</sup>	All	67,785	67,585	66,834	61,939	80,506	93,085	102,014

<sup>1</sup> The analysis is based on a sample of 3.5 million participants with account balances at the end of each year from 1999 through 2005.

<sup>2</sup> Age and tenure groups are based on participant age and tenure at year-end 2005.

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

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
- withdrawals, borrowing, and loan repayments.

A sense of the relationship among the three factors can be seen in the change in average account balances among participants grouped by age and tenure. In the group of 3.5 million consistent participants, participants who were younger or had fewer years of tenure experienced the largest increases in average account balances between

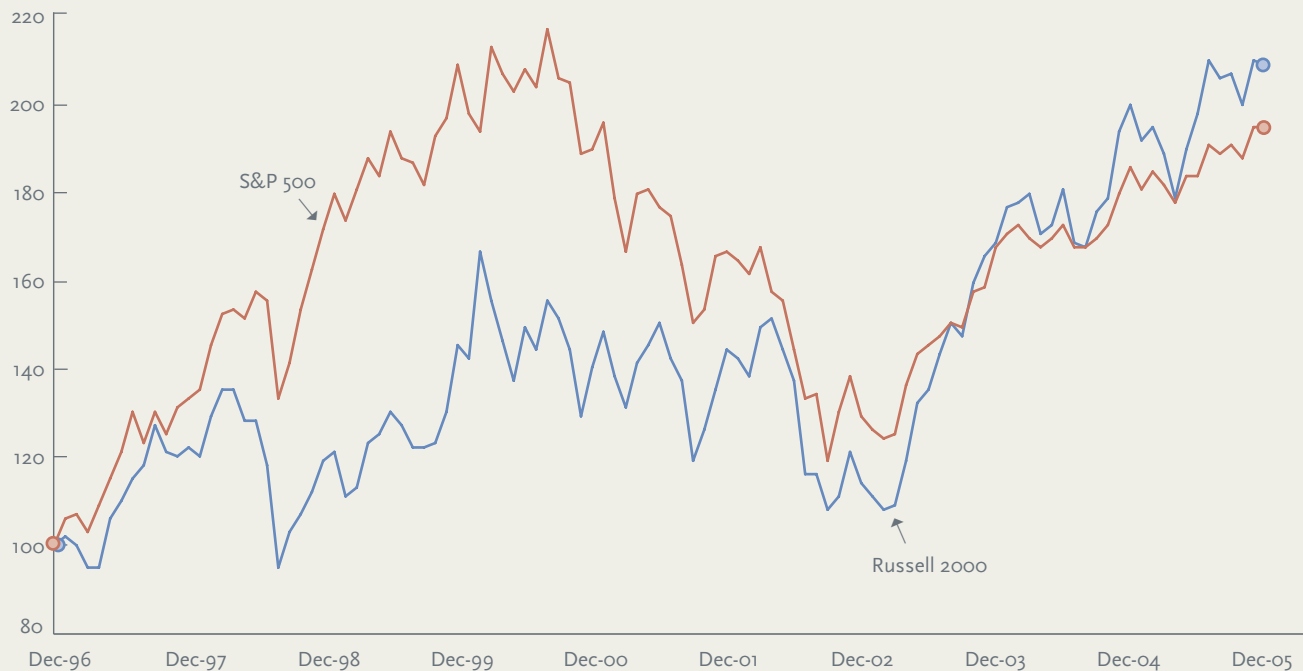
year-end 1999 and year-end 2005. For example, the average account balance of participants in their twenties rose 695 percent between the end of 1999 and the end of 2005 (Figure A5). Because younger participants' account balances tend to be small (Figure A6), contributions produce significant growth in them.

In contrast, the average account balance of older participants or those with longer tenures showed more modest growth (Figure A7). For example, the average account balance of participants in their sixties increased 12 percent between year-end 1999 and year-end 2005 (Figure A5). Annual contributions generally provide a minor boost to these large account balances compared with investment returns. In addition, participants in their sixties have a higher propensity to make withdrawals.<sup>15</sup>

**FIGURE A7**

**DOMESTIC STOCK MARKET CONTINUES RECOVERY FROM BEAR MARKET**

*Domestic stock market indexes,<sup>1</sup> month-end level,<sup>2</sup> December 1996 to December 2005*



<sup>1</sup> The S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. The Russell 2000 Index measures the performance of the 2,000 smallest U.S. companies (based on total market capitalization) included in the Russell 3000 Index (which tracks the 3,000 largest U.S. companies).

<sup>2</sup> All indexes are set to 100 in December 1996.

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



## YEAR-END 2005 SNAPSHOT OF AVERAGE AND MEDIAN ACCOUNT BALANCES

The EBRI/ICI database for any given year captures a snapshot of the account balances at year-end, which reflects the entrance of new plans and new participants and the exit of participants who retire or change jobs. At

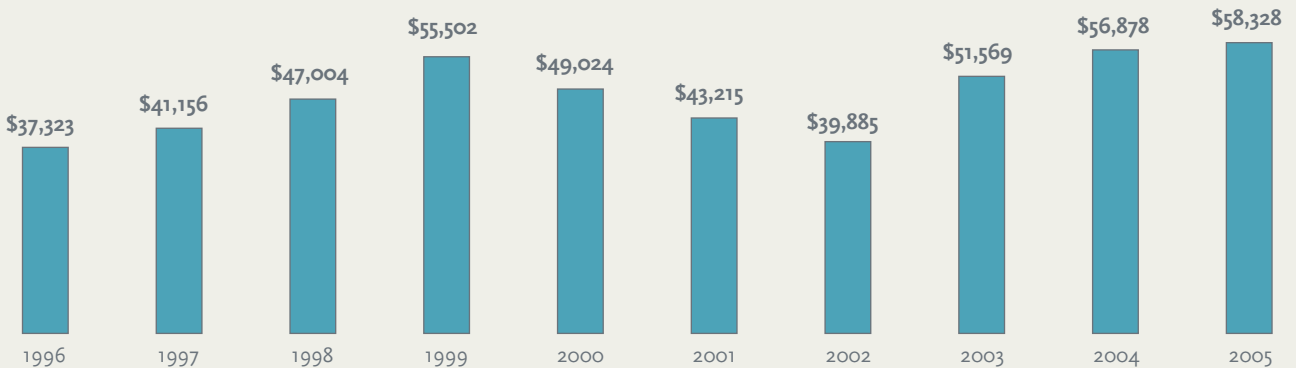
year-end 2005, the average account balance was \$58,328 and the median account balance was \$19,398 (Figure A8). Because of the changing composition of the universe over time, it is not correct to construe the change in average or median account balance for the entire database as the experience of “typical” 401(k) plan participants.

FIGURE A8

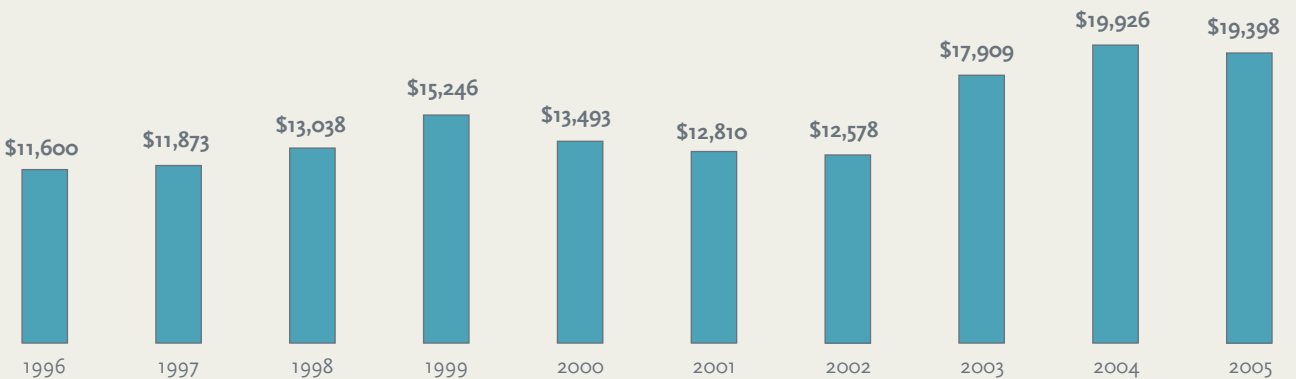
### SNAPSHOT OF YEAR-END ACCOUNT BALANCES

401(k) plan participant account balances,<sup>1</sup> 1996–2005<sup>2</sup>

#### Average



#### Median



<sup>1</sup> Account balances are participant account balances held in 401(k) plans at the participants' current employers and are net of plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

<sup>2</sup> The sample of participants changes over time.

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

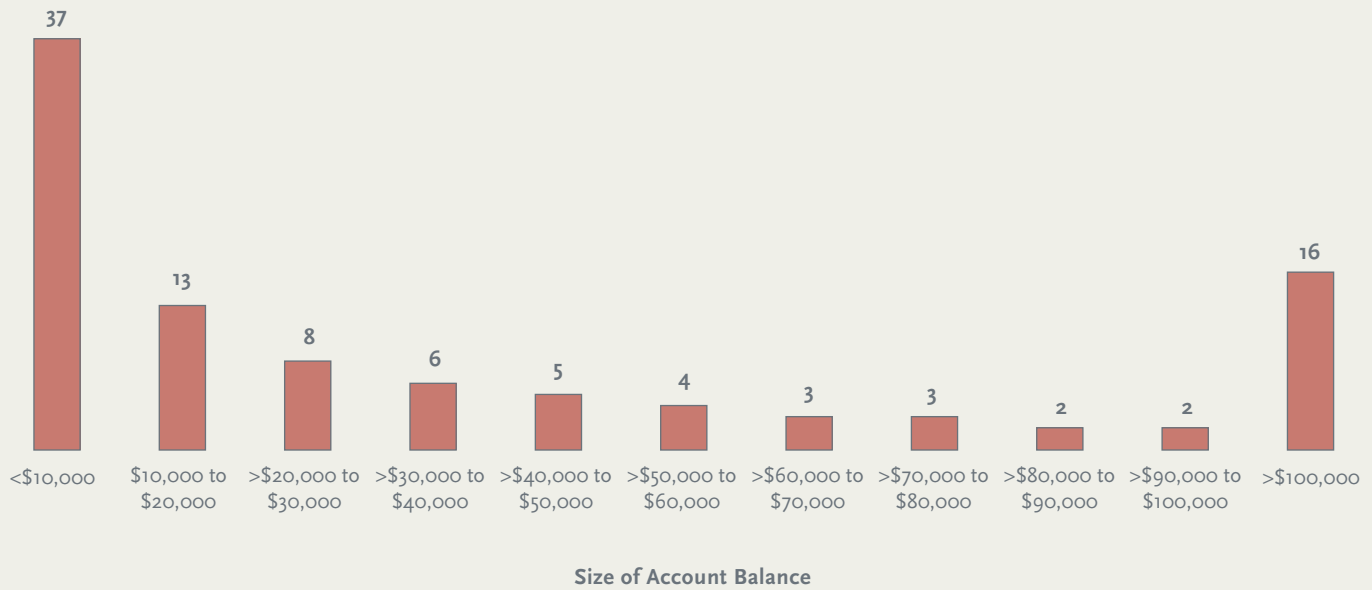
There is wide variation in 401(k) plan participants' account balances around the average of \$58,328 at year-end 2005. Nearly three-quarters of the participants in the 2005 EBRI/ICI database have account balances that are lower than the average. Indeed, 37 percent of participants have account balances of less than \$10,000, while 16 percent of participants have account balances greater than \$100,000

(Figure A9). 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.

**FIGURE A9**

**DISTRIBUTION OF 401(k) ACCOUNT BALANCES BY SIZE OF ACCOUNT BALANCE**

*Percent of participants with account balances in specified ranges, 2005*



*Note: Percentages do not add to 100 percent because of rounding.*

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

### Relationship of Age and Tenure to Account Balances

There is a positive correlation between age and account balance among participants in the 2005 EBRI/ICI database.<sup>16</sup> Examination of the age composition of account balances finds that 51 percent of participants with account balances of less than \$10,000 are in their twenties or thirties (Figure A10). Similarly, of those with account balances greater than \$100,000, more than one-half are in their fifties or sixties. 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.

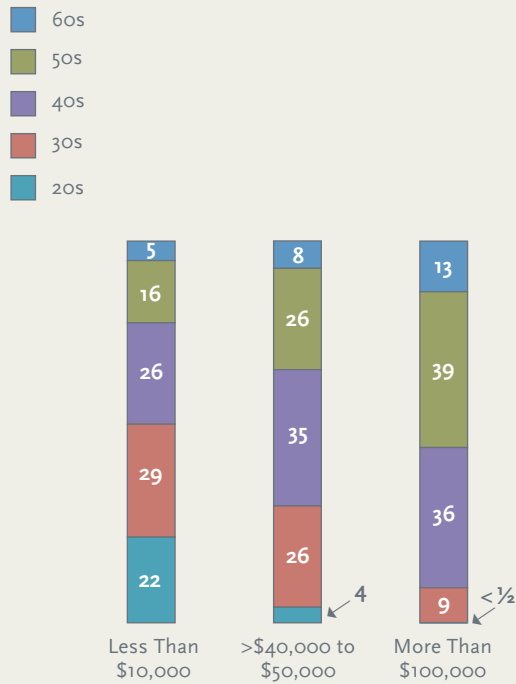
In addition, they are less likely to have rollovers from a previous job's plan in their current plan accounts.

There is a positive correlation between account balance and tenure among participants in the 2005 EBRI/ICI database. The participant's tenure with the employer serves as a proxy for length of participation in the 401(k) plan.<sup>17</sup> Indeed, 56 percent of those participants with account balances of less than \$10,000 have five or fewer years of tenure, while 80 percent of those participants with account balances greater than \$100,000 have more than 10 years of tenure (Figure A11).<sup>18</sup>

**FIGURE A10**

#### AGE COMPOSITION OF SELECTED 401(k) ACCOUNT BALANCE CATEGORIES

Percent of participants with account balances in specified ranges, 2005

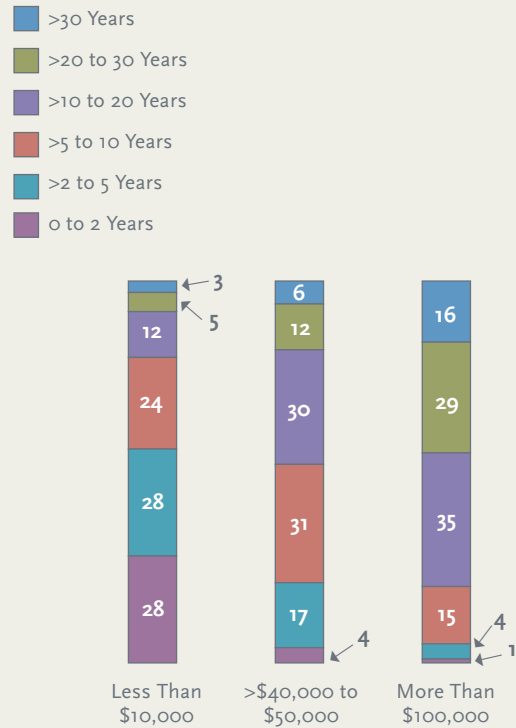


Note: Percentages may not add to 100 percent because of rounding.  
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

**FIGURE A11**

#### TENURE COMPOSITION OF SELECTED 401(k) ACCOUNT BALANCE CATEGORIES

Percent of participants with account balances in specified ranges, 2005



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

As discussed in the August 2006 *Perspective*, 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 sixties with up to two years of tenure is \$19,033, compared with \$180,988 for participants in their sixties

with more than 30 years of tenure (Figure A12). Similarly, the average account balance of participants in their forties with up to two years of tenure is \$13,516, compared with \$122,555 for participants in their forties with more than 20 years of tenure. The increase in account balance as tenure increases tends to be largest for participants in their fifties and sixties.

**FIGURE A12**

**ACCOUNT BALANCES INCREASE WITH AGE AND TENURE**

*Average 401(k) account balance by age and tenure, 2005*

Age Group	Tenure (years)					
	0 to 2	>2 to 5	>5 to 10	>10 to 20	>20 to 30	>30
20s	\$4,366	\$10,510	\$15,799			
30s	10,383	21,821	33,394	\$51,861		
40s	13,516	28,154	44,585	83,208	\$122,555	
50s	16,462	31,479	48,700	92,939	161,477	\$152,475
60s	19,033	31,960	45,567	88,037	146,597	180,988

*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*

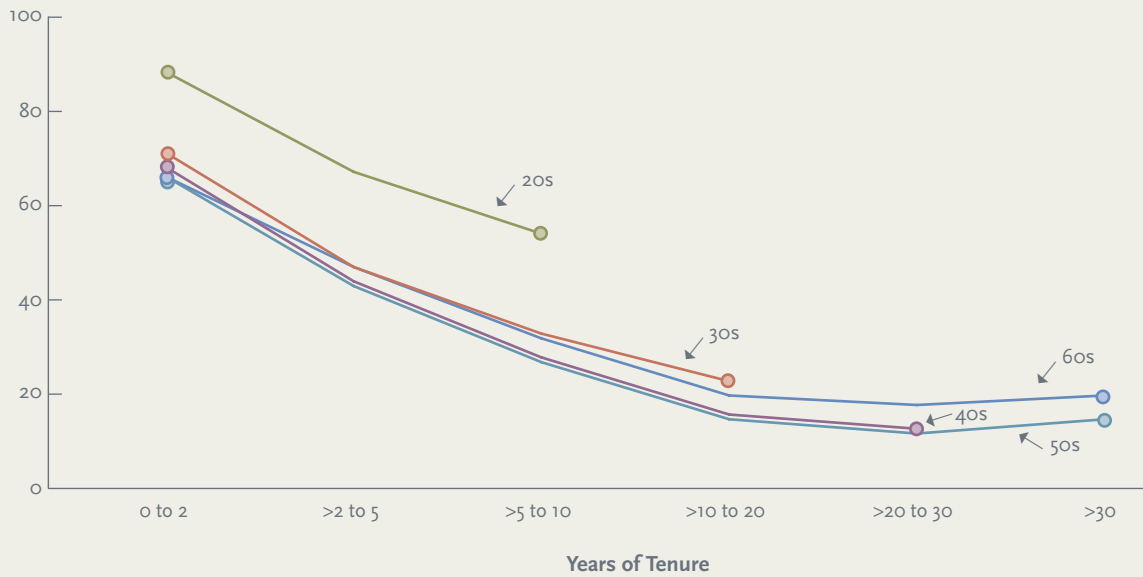
The distribution of account balances underscores the effects of age and tenure on account balances. In a given age group, fewer years of tenure means a higher percentage of participants with account balances of less than \$10,000. For example, 88 percent of participants with account balances of less than \$10,000 in their twenties with two or fewer years of tenure have account balances of less than \$10,000, compared with

54 percent of participants in their twenties with between five and 10 years of tenure (Figure A13). Older workers display a similar pattern. For example, 66 percent of participants in their sixties with two or fewer years of tenure have account balances of less than \$10,000. In contrast, only about 19 percent of those in their sixties with more than 20 years of tenure have account balances of less than \$10,000.<sup>19</sup>

**FIGURE A13**

**401(k) ACCOUNT BALANCES LESS THAN \$10,000 BY PARTICIPANT AGE AND TENURE**

*Percent of participants with account balances less than \$10,000 at year-end 2005*



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

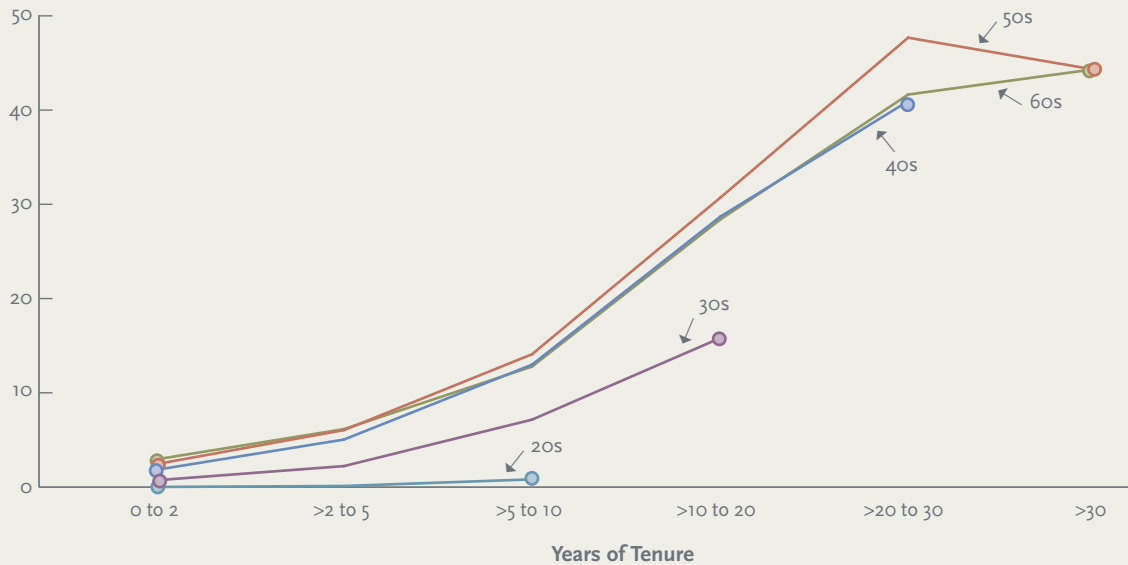
In a given age group, longer tenure means a higher percentage of people with account balances greater than \$100,000. For example, about 9 percent of participants in their sixties with 10 or fewer years of tenure have account balances in excess of \$100,000 (Figure A14).

However, about 41 percent of participants in their sixties with between 20 and 30 years of tenure with their current employer have account balances greater than \$100,000. The percentage increases to 44 percent for participants in their sixties with more than 30 years of tenure.

**FIGURE A14**

**401(k) ACCOUNT BALANCES GREATER THAN \$100,000 BY PARTICIPANT AGE AND TENURE**

*Percent of participants with account balances greater than \$100,000 at year-end 2005*



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

### Relationship Between Account Balances and Salary

Participants' account balances vary not only with age and tenure, but also with salary. Figure A15 reports the account balances of current long-tenure participants at their current employers' 401(k) plans. Retirement savings held at previous employers or amounts rolled over to IRAs are not included in the analysis. To capture as long a savings history as possible, only long-tenure participants are included in this analysis. However, it is important to note that the tenure variable is the time that individuals have been at their current jobs and may not reflect their length of participation in 401(k) plans (particularly among older

participants as 401(k) plans were only introduced about 25 years ago).<sup>20</sup>

Older, longer-tenure, and higher income participants tend to have higher account balances, which are important for meeting their retirement income-replacement needs. For long-tenure participants in their twenties with \$20,000 to \$40,000 in salary in 2005, the median account balance was \$6,660. For long-tenure participants in their twenties earning more than \$100,000, the median account balance was \$46,331 (Figure A15). Among long-tenure participants in their sixties with \$20,000 to \$40,000 in salary in 2005, the median account balance was \$59,415. For long-tenure

**FIGURE A15**

#### **MEDIAN ACCOUNT BALANCE<sup>1</sup> AMONG LONG-TENURE<sup>2</sup> PARTICIPANTS BY AGE AND SALARY, 2005**

Salary Range	Participant Age Group				
	20s	30s	40s	50s	60s
\$20,000 to \$40,000	\$6,660	\$24,049	\$51,316	\$70,161	\$59,415
>\$40,000 to \$60,000	15,412	36,721	65,152	84,763	82,284
>\$60,000 to \$80,000	30,760	63,863	104,153	133,300	128,471
>\$80,000 to \$100,000	39,444	97,755	161,553	202,567	198,595
>\$100,000	46,331	135,513	248,792	315,482	315,595

<sup>1</sup> Account balances are based on administrative records and cover the account balance at the 401(k) plan participant's current employer. Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included. Account balances are net of loan balances.

<sup>2</sup> Long-tenure participants are used in this analysis to capture as long a work and savings history as possible (see footnote 1). The tenure variable tends to be years with the current employer rather than years of participation in the 401(k) plan. Particularly among older participants, job tenure may not reflect length of participation in the 401(k) plans; the regulations for 401(k) plans were introduced only about 25 years ago.

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

participants in their sixties earning more than \$100,000, the median account balance was \$315,595.

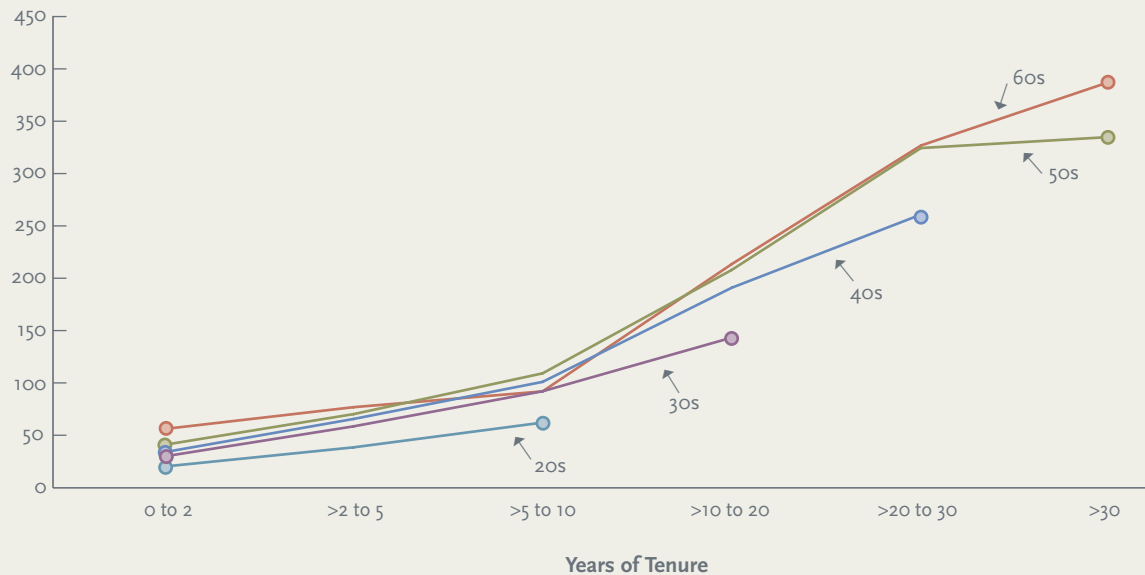
The ratio of participant account balance to salary is positively correlated with age and tenure.<sup>21</sup> Participants in their sixties, having had more time to accumulate assets, tend to have higher ratios, while those in their twenties have the lowest ratios (Figure A16).

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 twenties, the ratio tends to increase slightly with salary for low-to-moderate salary groups (Figure A17). However, at high salary levels the ratio tends to decline somewhat. A similar pattern occurs among participants in their sixties (Figure A18).<sup>22</sup>

**FIGURE A16**

**RATIO OF 401(k) ACCOUNT BALANCE TO SALARY BY AGE AND TENURE**

Percent, 2005



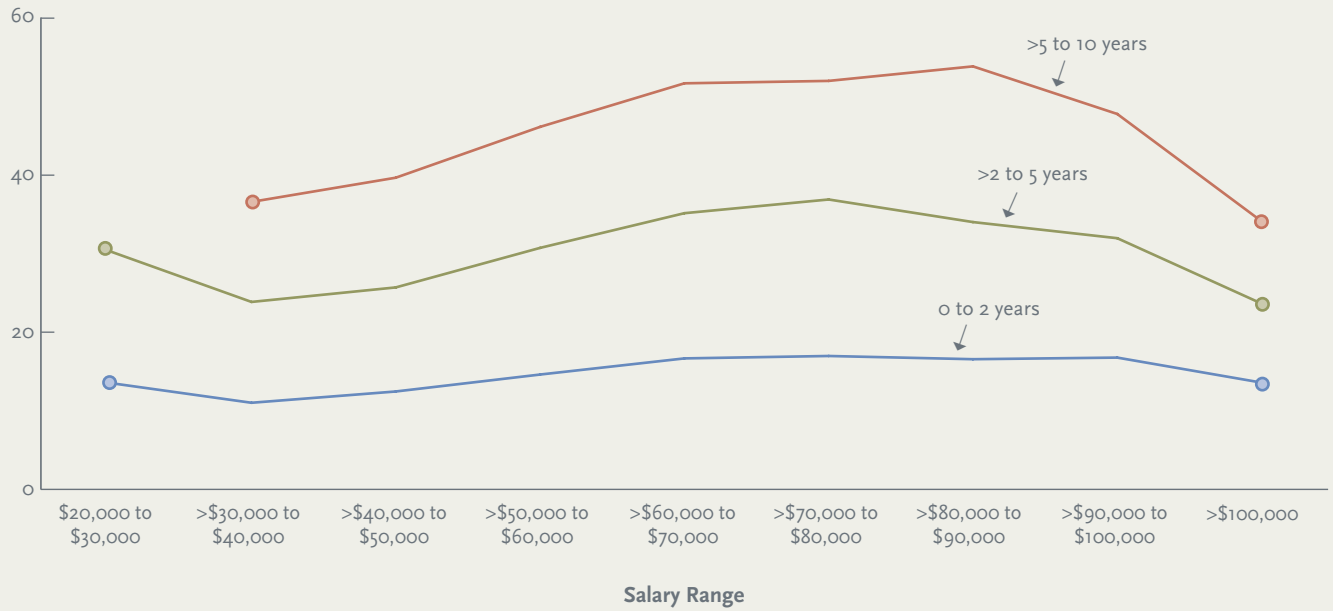
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project



FIGURE A17

**RATIO OF 401(k) ACCOUNT BALANCE TO SALARY FOR PARTICIPANTS IN THEIR TWENTIES BY TENURE**

Percent, 2005

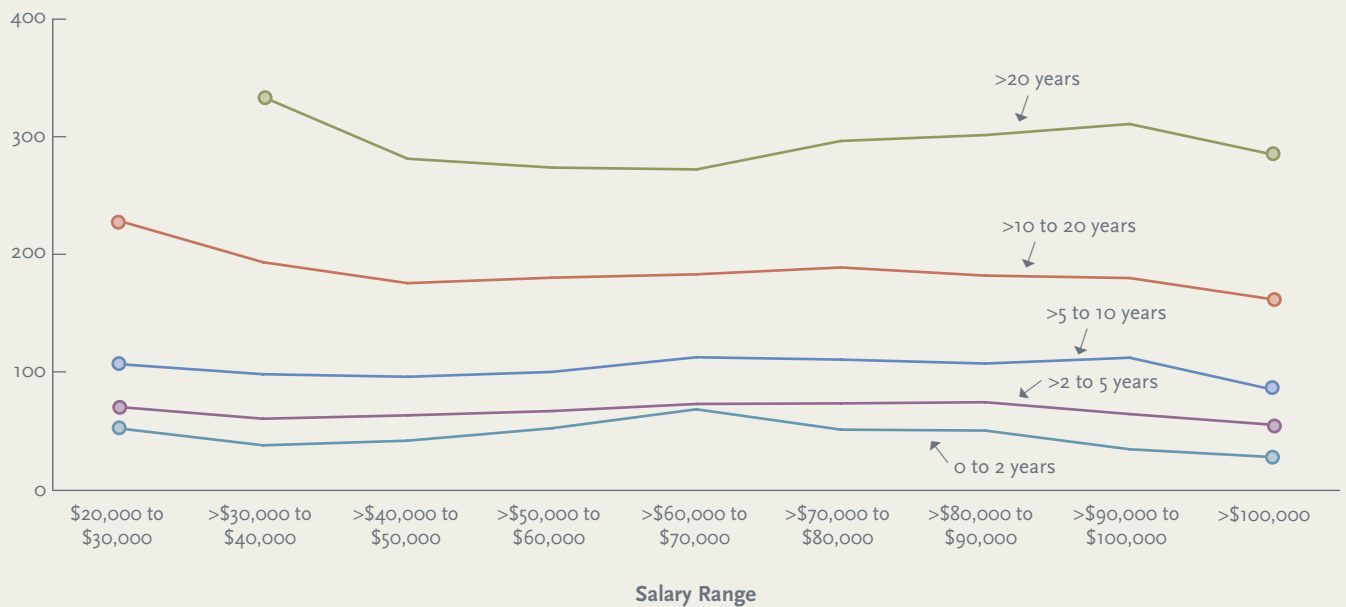


Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

FIGURE A18

**RATIO OF 401(k) ACCOUNT BALANCE TO SALARY FOR PARTICIPANTS IN THEIR SIXTIES BY TENURE**

Percent, 2005



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

## YEAR-END 2005 SNAPSHOT OF ASSET ALLOCATION

Consistent with a long-term investment horizon, 401(k) plan participants are heavily invested in equity securities. At year-end 2005, nearly half (48 percent) of 401(k) plan participants' account balances are invested in equity funds, on average (Figure A19). Altogether, equity securities—equity funds, the equity portion of balanced funds,<sup>23</sup> and company stock—represent about two-thirds of 401(k) plan participants' assets. As in previous years, the EBRI/ICI database for year-end 2005 finds that participant asset allocations vary considerably with age.<sup>24</sup> 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.

## Asset Allocation and Investment Options

The investment options that participants are offered by a plan sponsor significantly affect how participants allocate their 401(k) assets. Figure A20 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, GICs, or other stable value funds. Twenty-six percent of participants in the 2005 EBRI/ICI database are in these plans—which generally offer equity funds, bond funds, money funds, and balanced funds as investment options. Another 27 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, 14 percent of participants are in plans that offer company

**FIGURE A19**

### AVERAGE ASSET ALLOCATION OF 401(k) ACCOUNTS BY PARTICIPANT AGE

Percent of account balances,<sup>1</sup> 2005

Age Group	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs <sup>2</sup> and Other Stable Value Funds	Company Stock	Other	Unknown	Total <sup>1</sup>
20s	51.9	15.5	8.8	4.4	7.0	10.4	1.5	0.4	100
30s	57.6	11.6	8.2	3.1	5.9	11.4	1.8	0.4	100
40s	52.9	10.9	8.5	3.1	8.6	13.6	2.0	0.3	100
50s	45.3	11.0	10.1	3.7	13.8	13.7	2.2	0.2	100
60s	37.8	10.2	12.2	4.3	22.1	11.1	2.1	0.1	100
All	47.9	10.9	9.7	3.6	12.7	12.9	2.1	0.2	100

<sup>1</sup> Row percentages may not add to 100 percent because of rounding.

<sup>2</sup> GICs are guaranteed investment contracts.

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

**FIGURE A20**

### DISTRIBUTION OF 401(k) PLANS, PARTICIPANTS, AND ASSETS BY INVESTMENT OPTIONS

Percent of total, 2005

Investment Options Offered by Plan	Plans	Participants	Assets
Equity, Bond, Money, and/or Balanced Funds	42.2	26.0	20.0
Equity, Bond, Money, and/or Balanced Funds, and GICs <sup>1</sup> and/or Other Stable Value Funds	55.0	26.6	20.1
Equity, Bond, Money, and/or Balanced Funds, and Company Stock	1.1	13.8	17.3
Equity, Bond, Money, and/or Balanced Funds, and Company Stock, and GICs <sup>1</sup> and/or Other Stable Value Funds	1.7	33.6	42.6

<sup>1</sup> GICs are guaranteed investment contracts.

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

**FIGURE A21**

**AVERAGE ASSET ALLOCATION OF 401(k) ACCOUNTS BY PARTICIPANT AGE AND INVESTMENT OPTIONS**

*Percent of account balances,<sup>1</sup> 2005*

	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs <sup>2</sup> and Other Stable Value Funds	Company Stock
<b>ALL AGES COMBINED</b>						
<b>Investment Options</b>						
Equity, Bond, Money, and/or Balanced Funds	59.2	14.6	17.8	6.0		
Equity, Bond, Money, and/or Balanced Funds, and GICs <sup>2</sup> and/or Other Stable Value Funds	52.9	13.7	6.3	3.1	20.8	
Equity, Bond, Money, and/or Balanced Funds, and Company Stock	45.5	8.7	15.1	5.4		23.0
Equity, Bond, Money, and/or Balanced Funds, and Company Stock, and GICs <sup>2</sup> and/or Other Stable Value Funds	41.2	8.8	5.4	1.9	20.1	20.8
<b>PLANS WITHOUT COMPANY STOCK, GICs,<sup>2</sup> OR OTHER STABLE VALUE FUNDS</b>						
<b>Age Group</b>						
20s	58.2	20.2	13.7	6.9		
30s	66.3	14.6	12.9	4.7		
40s	64.0	14.2	14.7	5.1		
50s	57.0	14.9	19.0	6.3		
60s	48.3	14.4	26.4	7.8		
<b>PLANS WITH GICs<sup>2</sup> AND/OR OTHER STABLE VALUE FUNDS</b>						
20s	55.1	17.2	6.4	3.6	14.1	
30s	62.0	13.7	5.9	2.7	12.1	
40s	58.5	13.6	6.0	2.8	15.9	
50s	50.8	13.8	6.6	3.0	22.5	
60s	41.8	13.6	6.7	3.6	31.4	
<b>PLANS WITH COMPANY STOCK</b>						
20s	50.7	11.8	11.4	5.6		19.9
30s	54.5	9.1	10.3	4.2		20.9
40s	49.4	8.8	11.6	4.7		23.7
50s	42.5	9.0	16.0	5.8		24.3
60s	37.4	7.7	23.9	6.8		20.6
<b>PLANS WITH COMPANY STOCK AND GICs<sup>2</sup> AND/OR OTHER STABLE VALUE FUNDS</b>						
20s	45.8	13.1	5.8	2.7	10.5	19.9
30s	50.9	9.6	5.5	1.7	9.0	20.7
40s	46.5	9.0	5.4	1.7	13.1	22.1
50s	39.0	8.9	5.7	2.0	21.2	21.4
60s	31.5	7.6	4.8	2.2	34.8	18.0

<sup>1</sup> Minor investment options are not shown; therefore, row percentages will not add to 100 percent. Percentages are dollar-weighted averages.

<sup>2</sup> GICs are guaranteed investment contracts.

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

stock, but no stable value products, while the remaining 34 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**

As discussed above, asset allocation varies with participant age. Thus, Figure A21 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 2005 EBRI/ICI database. Because asset allocation is influenced by the investment options available to participants, Figure A22 presents asset allocation by salary range and by investment option.

**FIGURE A22**

### **AVERAGE ASSET ALLOCATION OF 401(k) ACCOUNTS BY PARTICIPANT SALARY AND INVESTMENT OPTIONS**

*Percent of account balances,<sup>1</sup> 2005*

Salary <sup>2</sup>	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs <sup>3</sup> and Other Stable Value Funds	Company Stock
<b>PLANS WITHOUT COMPANY STOCK, GICs,<sup>3</sup> OR OTHER STABLE VALUE FUNDS</b>						
\$20,000 to \$40,000	52.1	22.0	18.7	5.7		
>\$40,000 to \$60,000	58.3	17.3	18.4	4.7		
>\$60,000 to \$80,000	64.7	12.0	19.3	2.8		
>\$80,000 to \$100,000	64.1	11.7	19.9	2.6		
>\$100,000	61.7	13.5	19.4	3.2		
All	59.2	14.6	17.8	6.0		
<b>PLANS WITH GICs<sup>3</sup> AND/OR OTHER STABLE VALUE FUNDS</b>						
\$20,000 to \$40,000	47.9	13.7	7.1	3.3	24.5	
>\$40,000 to \$60,000	49.7	14.9	6.8	3.0	23.7	
>\$60,000 to \$80,000	51.9	13.8	6.9	2.5	23.9	
>\$80,000 to \$100,000	53.8	12.9	7.0	2.4	23.2	
>\$100,000	56.4	11.6	6.5	2.2	22.1	
All	52.9	13.7	6.3	3.1	20.8	
<b>PLANS WITH COMPANY STOCK</b>						
\$20,000 to \$40,000	45.1	8.6	13.7	6.3		25.5
>\$40,000 to \$60,000	44.7	12.0	15.3	6.0		20.2
>\$60,000 to \$80,000	48.0	11.9	14.9	5.4		17.4
>\$80,000 to \$100,000	47.3	13.2	14.8	5.5		15.6
>\$100,000	47.6	14.0	14.5	5.4		14.6
All	45.5	8.7	15.1	5.4		23.0
<b>PLANS WITH COMPANY STOCK AND GICs<sup>3</sup> AND/OR OTHER STABLE VALUE FUNDS</b>						
\$20,000 to \$40,000	38.3	9.5	5.2	1.1	21.5	24.0
>\$40,000 to \$60,000	39.2	11.7	4.8	1.8	19.6	22.6
>\$60,000 to \$80,000	41.5	11.7	5.0	2.0	18.9	20.2
>\$80,000 to \$100,000	44.7	10.1	5.5	1.7	17.6	19.6
>\$100,000	45.7	9.3	5.3	1.3	16.1	21.1
All	41.2	8.8	5.4	1.9	20.1	20.8

<sup>1</sup> Minor investment options are not shown; therefore, row percentages will not add to 100 percent. Percentages are dollar-weighted averages.

<sup>2</sup> Salary information is available for a subset of participants in the EBRI/ICI database.

<sup>3</sup> GICs are guaranteed investment contracts.

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

FIGURE A23

AVERAGE ASSET ALLOCATION OF 401(k) ACCOUNTS BY PLAN SIZE<sup>1</sup> AND INVESTMENT OPTIONSPercent of account balances,<sup>2</sup> 2005

Plan Size by Number of Participants	Equity Funds	Balanced Funds	Bond Funds	Money Funds	GICs <sup>3</sup> and Other Stable Value Funds	Company Stock
<b>ALL PLANS</b>						
1 to 100	55.3	18.1	10.3	5.7	9.4	0.2
101 to 500	56.0	15.2	12.5	4.9	8.6	0.5
501 to 1,000	54.0	14.2	12.5	4.8	9.1	2.4
1,001 to 5,000	50.4	12.7	11.3	4.5	11.0	7.0
>5,000	45.3	9.2	8.7	2.9	14.2	17.6
All	47.9	10.9	9.7	3.6	12.7	12.9
<b>PLANS WITHOUT COMPANY STOCK, GICs,<sup>3</sup> OR OTHER STABLE VALUE FUNDS</b>						
1 to 100	60.0	16.4	14.4	7.8		
101 to 500	58.9	15.7	17.3	6.3		
501 to 1,000	57.5	15.5	18.5	6.1		
1,001 to 5,000	57.8	15.7	17.5	6.3		
>5,000	61.1	11.9	19.1	5.0		
All	59.2	14.6	17.8	6.0		
<b>PLANS WITH GICs<sup>3</sup> AND/OR OTHER STABLE VALUE FUNDS</b>						
1 to 100	52.0	19.5	7.3	4.0	16.5	
101 to 500	53.6	14.9	6.6	3.2	19.4	
501 to 1,000	53.3	13.7	5.5	2.9	21.3	
1,001 to 5,000	51.0	13.3	5.9	2.8	22.9	
>5,000	54.3	11.7	6.4	2.9	20.9	
All	52.9	13.7	6.3	3.1	20.8	
<b>PLANS WITH COMPANY STOCK</b>						
1 to 100 <sup>4</sup>	27.4	8.9	6.1	7.3		47.6
101 to 500	48.1	12.7	15.3	7.6		14.2
501 to 1,000	46.9	10.6	15.1	6.7		19.6
1,001 to 5,000	46.7	9.9	15.8	5.7		20.8
>5,000	45.0	8.3	14.9	5.2		23.8
All	45.5	8.7	15.1	5.4		23.0
<b>PLANS WITH COMPANY STOCK AND GICs<sup>3</sup> AND/OR OTHER STABLE VALUE FUNDS</b>						
1 to 100	43.5	13.4	6.2	5.3	16.1	6.9
101 to 500	45.2	14.2	6.7	3.2	17.3	7.1
501 to 1,000	42.5	10.8	3.7	3.1	19.4	12.8
1,001 to 5,000	42.1	10.0	5.0	3.0	22.0	13.4
>5,000	41.0	8.6	5.4	1.8	19.9	21.8
All	41.2	8.8	5.4	1.9	20.1	20.8

<sup>1</sup> Plan size is measured by number of plan participants.<sup>2</sup> Minor investment options are not shown; therefore, row percentages will not add to 100 percent. Percentages are dollar-weighted averages.<sup>3</sup> GICs are guaranteed investment contracts.<sup>4</sup> Because few plans fall into this category, these percentages may be heavily influenced by a few outliers.

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

Participant asset allocation also varies with plan size (Figure A23, 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 69 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 A23 group plans by investment option and plan size.

### ***Distribution of Equity Fund Allocations and Participant Exposure to Equities***

On average, 48 percent of participant account balances are allocated to equity funds in the year-end 2005 EBRI/ICI database (Figure A19). However, individual asset allocations vary widely across participants. For example, 33 percent of participants hold no equity funds, while 21 percent of participants hold more than 80 percent of their balances in equity funds (Figures A24 and A25). Furthermore, the percentage of participants holding no equity funds varies with age, with 43 percent of participants in their twenties holding no equity funds, 29 percent of participants in their forties, and 41 percent of participants in their sixties. The percentage of participants holding no equity funds tends to fall as salary increases (Figure A25).

**FIGURE A24**

#### **ASSET ALLOCATION DISTRIBUTION OF 401(k) PARTICIPANT ACCOUNT BALANCE TO EQUITY FUNDS BY AGE**

*Percent of participants,<sup>1,2</sup> 2005*

Age Group	Percentage of Account Balance Invested in Equity Funds										
	Zero	1 to 10	>10 to 20	>20 to 30	>30 to 40	>40 to 50	>50 to 60	>60 to 70	>70 to 80	>80 to 90	>90 to 100
20s	43.0	2.0	2.7	4.0	4.1	5.4	6.6	6.0	6.7	5.2	14.2
30s	30.0	2.7	3.1	4.6	4.9	6.6	7.6	7.4	8.3	6.7	18.1
40s	29.4	3.5	3.7	5.1	5.4	6.9	7.9	7.3	7.9	6.1	16.9
50s	32.7	4.5	4.3	5.6	5.7	7.0	7.7	6.6	6.7	4.8	14.3
60s	41.1	5.6	4.4	5.2	5.1	6.0	6.3	5.1	4.9	3.4	12.8
All	33.3	3.6	3.6	4.9	5.1	6.6	7.5	6.8	7.3	5.6	15.8

<sup>1</sup> The analysis includes the 17.6 million participants in the year-end 2005 EBRI/ICI database.

<sup>2</sup> Row percentages may not add to 100 percent because of rounding.

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

**FIGURE A25**

**ASSET ALLOCATION DISTRIBUTION OF 401(k) PLAN PARTICIPANT ACCOUNT BALANCES TO EQUITY FUNDS BY AGE, TENURE, OR SALARY**

*Percent of participants, 2005*

	Percentage of Account Balance Invested in Equity Funds			
	Zero	1 percent to 20 percent	>20 percent to 80 percent	>80 percent
<b>ALL</b>	33.3	7.2	38.2	21.4
<b>AGE GROUP</b>				
20s	43.0	4.7	32.8	19.4
30s	30.0	5.8	39.4	24.8
40s	29.4	7.2	40.5	23.0
50s	32.7	8.8	39.3	19.1
60s	41.1	10.0	32.6	16.2
<b>TENURE (YEARS)</b>				
0 to 2	42.0	3.9	34.6	19.5
>2 to 5	37.6	5.5	37.0	19.9
>5 to 10	28.5	6.9	40.0	24.6
>10 to 20	26.6	8.9	41.5	23.1
>20 to 30	30.6	10.8	40.2	18.4
>30	41.8	11.7	32.2	14.3
<b>SALARY</b>				
\$20,000 to \$40,000	37.6	9.4	37.2	15.8
>\$40,000 to \$60,000	28.8	10.2	42.2	18.8
>\$60,000 to \$80,000	23.4	9.4	45.3	22.0
>\$80,000 to \$100,000	19.7	8.6	48.3	23.5
>\$100,000	16.3	7.8	50.4	25.5

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

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

Participants with no equity fund balances may still have exposure to the stock market through company stock or balanced funds. Indeed, 55 percent of participants with no equity funds have investments in either company stock or balanced funds (Figure A26). For example, 40 percent of participants in their twenties without equity funds hold balanced funds as their only equity investment; 5 percent of participants in their twenties without equity funds hold both balanced funds and company stock; 13 percent have only company stock as their equity investment. Younger and lower tenure participants who do not hold equity funds are more likely to hold balanced funds.

As a result, many participants with no equity funds have exposure to equity-related investments through

company stock and/or balanced funds (Figure A27).

Reflecting recent trends, the average asset allocation to balanced funds is higher among participants who are younger and those with lower tenures.

### ***Distribution of Participants' Balanced Fund Allocation by Age***

There is a wide range of individual 401(k) participants' asset allocation to balanced funds around an average of 11 percent (Figure A19). For example, 63 percent of participants hold no balanced funds, while 9 percent of participants hold more than 80 percent of their accounts in balanced funds (Figure A28).

**FIGURE A26**

### **PERCENTAGE OF 401(k) PLAN PARTICIPANTS WITHOUT EQUITY FUND BALANCES WHO HAVE EQUITY EXPOSURE BY PARTICIPANT AGE OR TENURE, 2005**

	Percentage of Participants Without Equity Funds			
	Company Stock and/or Balanced Funds	Balanced Funds as Only Equity Investment	Both Balanced Funds and Company Stock	Company Stock as Only Equity Investment
<b>AGE GROUP</b>				
20s	57.0	39.8	4.7	12.5
30s	55.8	32.7	5.7	17.4
40s	55.6	28.4	5.9	21.3
50s	55.9	25.1	5.7	25.1
60s	51.9	20.6	4.2	27.0
All	55.1	29.1	5.3	20.6
<b>TENURE (YEARS)</b>				
0 to 2	55.3	41.2	4.8	9.3
>2 to 5	55.3	34.2	5.3	15.8
>5 to 10	56.1	29.2	6.3	20.6
>10 to 20	55.0	23.4	6.3	25.3
>20 to 30	56.1	15.7	5.9	34.5
>30	53.4	9.1	3.5	40.8
All	55.1	29.1	5.3	20.6

*Note: Components may not add to total in first column because of rounding.*

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



**FIGURE A27**

**AVERAGE ASSET ALLOCATION FOR 401(k) PLAN PARTICIPANTS WITHOUT EQUITY FUND BALANCES BY PARTICIPANT AGE OR TENURE**

*Percent of account balances, 2005*

	Balanced Funds	Bond Funds	Money Funds	GICs <sup>1</sup> and Other Stable Value Funds	Company Stock	Other	Unknown	Total <sup>2</sup>
<b>AGE GROUP</b>								
20s	41.3	9.0	13.3	18.0	15.4	2.1	0.6	100
30s	33.7	10.4	10.9	17.8	21.7	4.6	0.6	100
40s	24.4	11.0	9.3	23.3	26.5	4.9	0.4	100
50s	18.6	12.3	8.5	31.4	24.4	4.4	0.2	100
60s	13.5	14.8	7.7	43.3	17.1	3.4	0.1	100
All <sup>3</sup>	20.0	12.4	8.7	31.9	22.2	4.3	0.3	100
<b>TENURE (YEARS)</b>								
0 to 2	45.3	11.8	13.0	17.7	8.5	3.2	0.3	100
>2 to 5	35.4	14.3	14.0	19.3	13.5	2.8	0.4	100
>5 to 10	30.7	11.8	12.3	20.2	19.3	4.9	0.5	100
>10 to 20	22.3	11.5	9.8	26.0	24.5	5.1	0.4	100
>20 to 30	16.0	10.9	7.3	33.4	27.3	4.8	0.2	100
>30	10.2	11.6	5.5	47.3	21.6	3.5	0.1	100
All <sup>3</sup>	20.0	12.4	8.7	31.9	22.2	4.3	0.3	100

<sup>1</sup> GICs are guaranteed investment contracts.

<sup>2</sup> Row percentages may not add to 100 percent because of rounding.

<sup>3</sup> The analysis includes the 5.9 million participants with no equity funds at year-end 2005.

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

**FIGURE A28**

**ASSET ALLOCATION DISTRIBUTION OF 401(k) PARTICIPANT ACCOUNT BALANCE TO BALANCED FUNDS BY AGE**

*Percent of participants,<sup>1,2</sup> 2005*

Age Group	Percentage of Account Balance Invested in Balanced Funds										
	Zero	1 to 10	>10 to 20	>20 to 30	>30 to 40	>40 to 50	>50 to 60	>60 to 70	>70 to 80	>80 to 90	>90 to 100
20s	58.4	5.8	6.0	4.9	2.5	2.1	1.9	1.1	1.1	0.8	15.5
30s	61.6	7.3	6.9	5.8	2.9	2.3	1.9	1.0	1.0	0.7	8.5
40s	62.5	7.2	6.7	6.0	3.2	2.6	2.1	1.1	0.9	0.7	6.9
50s	63.7	6.7	6.2	5.8	3.3	2.7	2.3	1.1	1.0	0.7	6.5
60s	68.6	5.2	4.8	4.8	2.9	2.5	2.1	1.0	0.9	0.7	6.3
All	62.8	6.7	6.3	5.6	3.1	2.5	2.1	1.1	1.0	0.7	8.1

<sup>1</sup> The analysis includes the 17.6 million participants in the year-end 2005 EBRI/ICI database.

<sup>2</sup> Row percentages may not add to 100 percent because of rounding.

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

## Distribution of Participants' Company Stock Allocations by Age

Participants' allocations to company stock remained in line with previous years. About one-half (or 8.3 million) of the 401(k) participants in the 2005 EBRI/ICI database are in plans that offer company stock as an investment option

(Figure A20). Among these participants, nearly 64 percent hold 20 percent or less of their account balances in company stock, including 40 percent who hold none (Figure A29). On the other hand, about 10 percent have more than 80 percent of their account balances invested in company stock.

FIGURE A29

### ASSET ALLOCATION DISTRIBUTION OF PARTICIPANT ACCOUNT BALANCE TO COMPANY STOCK IN 401(k) PLANS WITH COMPANY STOCK BY AGE

Percent of participants,<sup>1,2</sup> 2005

Age Group	Percentage of Account Balance Invested in Company Stock										
	Zero	1 to 10	>10 to 20	>20 to 30	>30 to 40	>40 to 50	>50 to 60	>60 to 70	>70 to 80	>80 to 90	>90 to 100
20s	49.8	8.9	8.4	7.6	5.7	5.1	3.5	1.9	1.4	1.0	6.7
30s	41.2	12.9	9.8	8.4	6.3	5.2	3.7	2.4	1.8	1.4	7.1
40s	37.9	15.0	9.7	8.2	6.2	5.1	3.9	2.7	2.0	1.6	7.8
50s	37.3	16.4	9.3	7.5	5.8	4.7	3.6	2.6	2.0	1.6	9.3
60s	40.0	16.6	7.7	6.1	4.6	3.8	3.0	2.2	1.8	1.7	12.6
All	40.2	14.3	9.2	7.8	5.9	4.9	3.6	2.4	1.9	1.5	8.4

<sup>1</sup> The analysis includes the 8.3 million participants in plans with company stock.

<sup>2</sup> Row percentages may not add to 100 percent because of rounding.

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

### Asset Allocation of Recently Hired Participants

Comparing snapshots of newly hired participants' asset allocations gives us further insight into recent investment allocation activity of 401(k) plan participants. As discussed in the August 2006 *Perspective*, lifestyle and lifecycle funds,<sup>25</sup> which are included in balanced funds, have increased in popularity. More recently hired participants hold balanced funds (Figure 10 in the August 2006 *Perspective* and Figure A30) and recently hired participants are more likely to hold a high concentration of

their accounts in balanced funds (Figure 11 in the August 2006 *Perspective* and Figure A31). In addition, 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 A32). A similar pattern occurs across all age groups. Furthermore, the shift is more dramatic in plans that do not offer company stock or GICs or other stable value funds.

**FIGURE A30**

#### MORE RECENTLY HIRED 401(k) PLAN PARTICIPANTS HOLD BALANCED FUNDS

Percent of recently hired participants holding balanced funds, 1998–2005

Age Group	1998	1999	2000	2001	2002	2003	2004	2005
20s	27.0	28.3	27.1	27.3	32.7	35.1	38.9	43.5
30s	29.0	31.0	28.3	26.5	33.1	36.2	39.8	42.8
40s	30.5	33.6	30.8	27.9	33.7	35.7	39.8	42.1
50s	30.9	34.9	32.1	29.2	33.9	35.5	40.3	43.3
60s	28.4	34.9	33.2	29.1	30.2	30.7	36.3	41.6
All	28.9	31.3	29.1	27.4	33.0	35.4	39.3	42.8

Note: The analysis includes 401(k) plan participants with two or fewer years of tenure in the year indicated.

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

**FIGURE A31**

#### ASSET ALLOCATION DISTRIBUTION OF ACCOUNT BALANCE TO BALANCED FUNDS AMONG RECENTLY HIRED PARTICIPANTS BY AGE

Percent of recently hired participants,<sup>1,2</sup> 2005

Age Group	Percentage of Account Balance Invested in Balanced Funds										
	Zero	1 to 10	>10 to 20	>20 to 30	>30 to 40	>40 to 50	>50 to 60	>60 to 70	>70 to 80	>80 to 90	>90 to 100
20s	56.5	5.2	6.0	4.9	2.4	2.2	2.0	1.1	1.2	0.9	17.7
30s	57.2	5.8	6.8	5.8	2.8	2.5	2.1	1.1	1.2	0.8	13.8
40s	57.9	4.9	6.3	5.8	2.8	2.7	2.3	1.1	1.2	0.8	14.2
50s	56.7	4.4	5.8	5.8	2.8	2.9	2.5	1.1	1.3	0.9	15.7
60s	58.4	3.6	4.8	4.9	2.4	2.6	2.2	0.9	1.2	0.9	18.1
All	57.2	5.2	6.2	5.5	2.7	2.5	2.2	1.1	1.2	0.9	15.4

<sup>1</sup> The analysis includes the 2.2 million participants with two or fewer years of tenure in 2005.

<sup>2</sup> Row percentages may not add to 100 percent because of rounding.

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

FIGURE A32

**AVERAGE ASSET ALLOCATION OF 401(k) ACCOUNTS BY PARTICIPANT AGE AND INVESTMENT OPTIONS AMONG PARTICIPANTS WITH TWO OR FEWER YEARS OF TENURE<sup>1</sup>**

Percent of account balances,<sup>2</sup> 1998, 2004, and 2005

	Equity Funds			Balanced Funds			Bond Funds			Money Funds			GICs <sup>3</sup> and Other Stable Value Funds			Company Stock		
	1998	2004	2005	1998	2004	2005	1998	2004	2005	1998	2004	2005	1998	2004	2005	1998	2004	2005
<b>ALL</b>																		
<b>Age Group</b>																		
20s	66.9	49.2	50.6	7.4	16.0	19.3	5.1	12.0	9.6	4.0	5.7	4.7	3.7	6.5	6.9	10.5	8.4	7.5
30s	67.8	53.1	55.9	8.0	14.7	16.8	5.1	12.9	10.3	4.1	5.0	3.8	3.2	5.3	5.5	9.4	6.9	5.9
40s	64.5	49.3	52.8	9.7	15.8	17.6	5.9	14.1	10.9	5.1	5.7	4.3	4.4	6.5	6.7	8.0	6.9	6.2
50s	60.5	44.2	47.3	11.3	16.6	18.5	6.6	15.4	12.2	5.9	6.6	4.8	6.7	9.1	9.7	6.5	6.2	5.7
60s	50.0	37.7	42.0	12.1	15.6	16.7	8.7	17.0	13.3	7.8	7.1	5.2	13.3	14.0	14.5	5.7	6.6	5.8
All	64.8	48.8	51.7	9.1	15.6	17.7	5.7	13.9	11.0	4.9	5.8	4.4	4.6	7.1	7.4	8.6	6.9	6.1
<b>PLANS WITHOUT COMPANY STOCK, GICs,<sup>3</sup> OR OTHER STABLE VALUE FUNDS</b>																		
20s	77.8	54.4	53.5	7.8	19.0	24.1	7.7	17.0	14.3	4.9	8.3	7.5						
30s	77.9	57.4	59.6	8.4	16.4	19.5	7.2	17.8	14.5	4.8	6.9	5.8						
40s	74.0	53.3	56.7	9.9	17.7	20.5	8.3	19.5	15.3	6.0	8.1	6.7						
50s	70.3	48.0	50.6	11.3	19.4	22.2	10.0	21.4	17.8	6.5	9.6	7.8						
60s	59.4	42.3	44.8	11.8	19.1	20.9	13.5	25.1	20.3	12.2	10.8	8.5						
All	75.0	52.9	55.1	9.3	17.8	20.9	8.2	19.4	15.8	5.7	8.3	6.9						
<b>PLANS WITH GICs<sup>3</sup> AND/OR OTHER STABLE VALUE FUNDS</b>																		
20s	73.4	51.2	52.0	7.3	16.7	20.2	3.9	9.9	6.8	2.9	5.0	3.5	9.1	14.0	14.9			
30s	73.5	55.4	56.4	8.1	15.0	18.1	4.1	10.7	7.3	2.8	4.3	3.0	7.9	11.9	12.3			
40s	69.0	52.4	54.1	9.4	16.0	18.7	5.0	11.8	7.9	3.4	4.6	3.3	9.5	13.4	13.9			
50s	63.6	47.0	49.4	10.2	15.4	18.4	5.9	13.3	9.2	4.6	5.4	3.7	11.9	17.3	17.6			
60s	52.7	38.7	43.9	11.2	13.5	17.3	6.8	13.4	9.5	7.2	5.8	4.8	19.2	27.6	23.5			
All	69.7	51.0	52.8	7.9	15.5	18.6	5.0	11.7	7.9	3.5	4.8	3.4	10.1	14.8	15.0			
<b>PLANS WITH COMPANY STOCK</b>																		
20s	51.8	46.6	51.2	6.1	11.9	15.5	5.0	14.0	12.2	5.4	6.8	5.7				29.5	19.4	15.2
30s	56.0	49.8	55.0	6.6	11.7	14.4	5.3	14.1	12.9	5.2	6.1	4.8				24.6	17.0	12.6
40s	54.4	45.1	51.2	8.2	12.6	14.9	6.5	15.7	14.4	6.4	7.0	5.4				22.6	18.0	13.6
50s	53.2	39.6	44.7	9.8	14.3	17.0	6.9	17.4	17.4	8.6	8.3	6.3				19.4	18.0	13.0
60s	47.2	35.8	42.2	11.1	11.6	14.9	14.3	20.8	23.2	6.4	7.5	5.8				19.3	20.6	12.1
All	54.2	45.6	51.0	7.2	12.4	15.1	6.3	15.5	14.5	6.1	6.9	5.4				24.1	17.9	13.3
<b>PLANS WITH COMPANY STOCK AND GICs<sup>2</sup> AND/OR OTHER STABLE VALUE FUNDS</b>																		
20s	56.2	43.5	46.5	8.2	14.9	16.3	2.3	7.3	6.3	2.5	3.0	2.5	6.7	11.0	10.4	22.0	17.7	15.9
30s	56.3	47.9	52.3	8.9	14.3	14.4	2.6	8.2	7.0	3.3	2.7	1.9	5.9	9.7	9.0	20.6	14.6	12.7
40s	53.8	44.0	48.6	11.0	15.2	15.1	2.8	8.6	7.2	5.0	2.9	2.2	7.8	11.7	10.9	17.3	15.1	13.6
50s	49.3	38.3	43.4	13.8	15.8	15.6	3.3	9.1	7.2	5.3	3.0	2.2	11.8	16.6	16.4	14.5	15.0	13.1
60s	38.0	31.3	37.5	14.3	15.9	12.9	2.6	9.6	6.8	4.9	3.6	2.2	27.8	20.7	24.9	10.7	17.5	14.2
All	54.1	43.4	47.7	10.1	15.0	15.0	2.4	8.4	7.0	2.4	3.0	2.2	10.1	12.4	12.3	18.6	15.4	13.6

<sup>1</sup> The analysis is based 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.

<sup>2</sup> Minor investment options are not shown; therefore, row percentages will not add to 100 percent.

<sup>3</sup> GICs are guaranteed investment contracts.

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

Comparing recently hired participants in 2005 to their similar age groups in 1998 also highlights that asset allocation to company stock and equity funds is lower now compared to 1998, while asset allocation to fixed-income securities tends to increase (Figure A32). Recently hired

401(k) participants are less likely to hold company stock (Figure 13 in the August 2006 *Perspective* and Figure A33) and less likely to hold a high concentration of their account balance in company stock (Figure 14 in the August 2006 *Perspective* and Figure A34).

**FIGURE A33**

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

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

Age Group	1998	1999	2000	2001	2002	2003	2004	2005
20s	60.8	61.1	60.5	58.1	53.9	49.6	49.8	45.4
30s	61.9	62.3	61.6	60.0	57.2	53.3	52.3	47.6
40s	59.8	60.6	59.5	58.8	55.9	52.6	52.0	47.3
50s	57.6	58.8	57.4	57.9	53.9	51.2	49.5	45.2
60s	54.1	55.5	53.6	55.7	51.0	49.5	47.8	43.9
All	60.5	61.0	60.0	58.7	55.3	51.6	51.0	46.3

*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.*

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

**FIGURE A34**

**ASSET ALLOCATION DISTRIBUTION OF RECENTLY HIRED PARTICIPANT ACCOUNT BALANCE TO COMPANY STOCK IN 401(k) PLANS WITH COMPANY STOCK BY AGE**

*Percent of recently hired participants in plans offering company stock as an investment option,<sup>1,2</sup> 2005*

Age Group	Percentage of Account Balance Invested in Company Stock										
	Zero	1 to 10	>10 to 20	>20 to 30	>30 to 40	>40 to 50	>50 to 60	>60 to 70	>70 to 80	>80 to 90	>90 to 100
20s	54.6	7.6	8.2	7.6	5.4	5.0	3.1	1.3	0.9	0.6	5.7
30s	52.4	9.3	9.3	8.4	5.2	4.8	2.9	1.2	0.9	0.5	4.9
40s	52.7	8.4	8.8	8.6	5.3	5.0	3.0	1.3	0.9	0.5	5.6
50s	54.8	8.1	8.3	8.0	4.9	4.7	2.9	1.2	0.8	0.5	5.7
60s	56.1	8.1	7.4	7.3	4.0	4.4	2.8	1.1	0.8	0.5	7.6
All	53.7	8.4	8.6	8.1	5.2	4.9	3.0	1.3	0.9	0.5	5.5

<sup>1</sup> *The analysis includes the 0.9 million participants with two or fewer years of tenure in 2005 and in plans offering company stock as an investment option.*

<sup>2</sup> *Row percentages may not add to 100 percent because of rounding.*

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

## YEAR-END 2005 SNAPSHOT OF 401(k) PLAN LOAN ACTIVITY

### Availability and Use of 401(k) Plan Loans by Plan Size

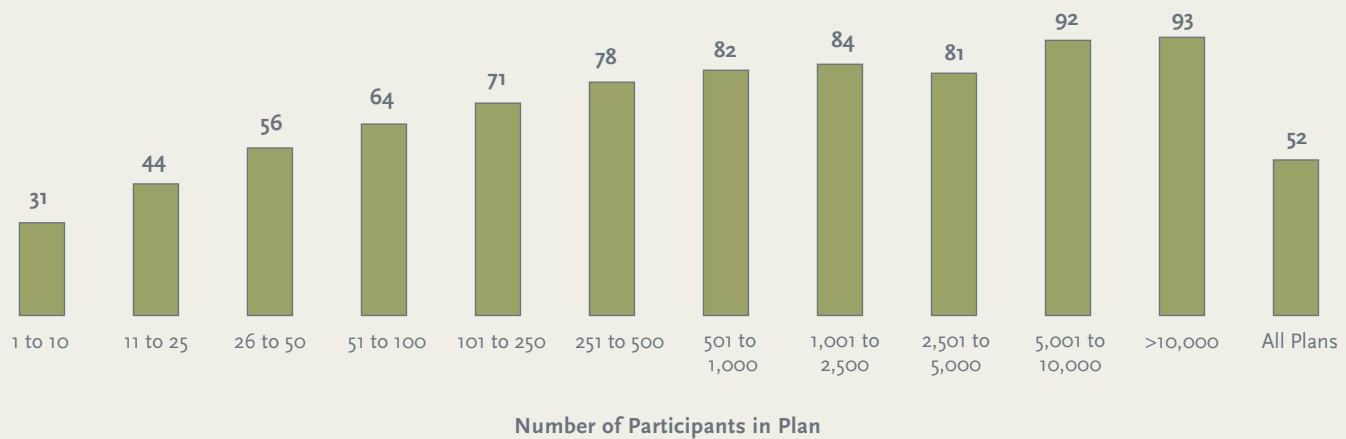
Fifty-two percent of the 401(k) plans for which loan data are available in the 2005 EBRI/ICI database offer a plan loan provision to participants (Figure A35).<sup>26</sup> The loan feature is more commonly associated with large plans (as measured by the number of participants in the plan). Ninety-three percent of plans with more than 10,000

participants include a loan provision, compared with 31 percent of plans with 10 or fewer participants.

There is little variation in participant loan activity by plan size. Participants in smaller plans that offer loans tend to be a little less likely to have taken out a loan than participants in larger plans (Figure A36). Loan ratios vary only slightly when participants are grouped based on the size of their 401(k) plans (as measured by the number of plan participants; Figure A37).

FIGURE A35

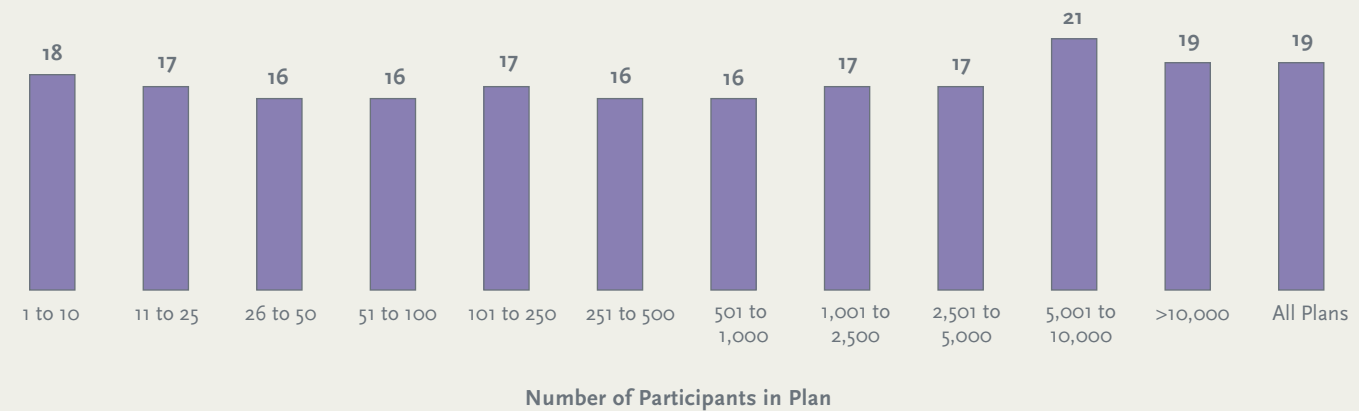
### PERCENTAGE OF 401(k) PLANS OFFERING LOANS BY PLAN SIZE, 2005



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

FIGURE A36

### PERCENTAGE OF ELIGIBLE 401(k) PLAN PARTICIPANTS WITH 401(k) PLAN LOANS BY PLAN SIZE, 2005



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

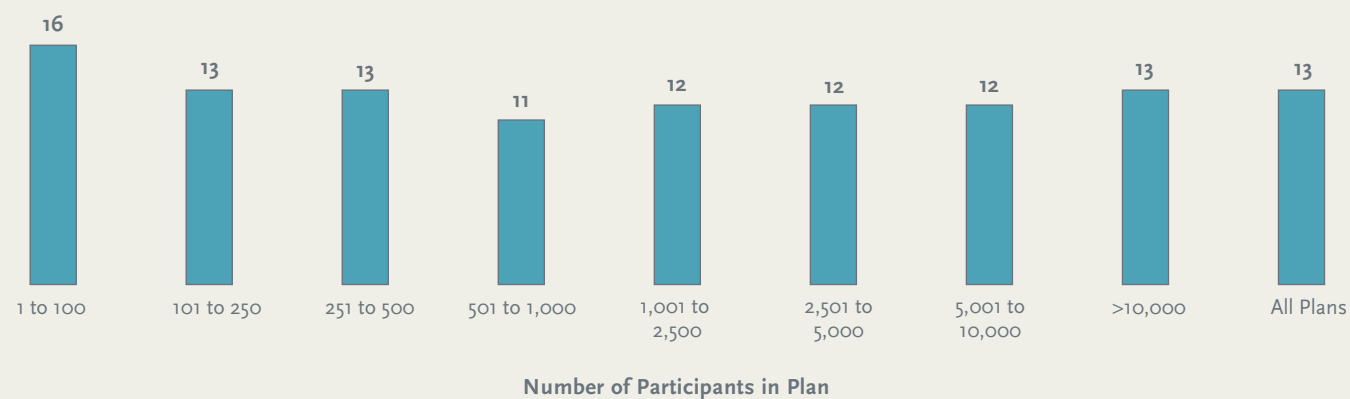
### Characteristics of Participants with Outstanding 401(k) Plan Loans

In the 2005 EBRI/ICI database, 85 percent of participants are in plans offering loans. However, as has been the case for the 10 years that the EBRI/ICI databases have tracked 401(k) plan participants' loan activity, relatively few participants make use of this borrowing privilege. At year-end 2005, only 19 percent of those eligible for loans have 401(k) plan loans outstanding (Figure A38).

As in previous years, loan activity varies with age, tenure, account balance, and salary. Of those participants in plans offering loans, the highest percentages of participants with outstanding loan balances are among participants in their thirties, forties, or fifties. In addition, participants with five or fewer years of tenure or with more than 30 years of tenure are less likely to use the loan provision than other participants. Only 12 percent of participants with account balances of less than \$10,000 had loans outstanding (Figure A38).

FIGURE A37

#### LOAN BALANCES AS A PERCENTAGE OF 401(k) ACCOUNT BALANCES FOR PARTICIPANTS WITH 401(k) PLAN LOANS BY PLAN SIZE, 2005



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

## Average Loan Balances

Among participants with outstanding loans at the end of 2005, the average unpaid balance was \$6,821.<sup>27</sup> 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 13 percent at year-end 2005 (Figure A39). In addition, the same as in previous years, there is variation around this average with age

**FIGURE A38**

### PERCENTAGE OF ELIGIBLE PARTICIPANTS WITH 401(k) LOANS BY PARTICIPANT AGE, TENURE, ACCOUNT SIZE, OR SALARY, 1996, 2000, AND 2005

	1996	2000	2005
<b>ALL</b>	18	18	19
<b>AGE GROUP</b>			
20s	12	11	11
30s	20	19	20
40s	22	21	22
50s	17	17	19
60s	9	9	10
<b>TENURE (YEARS)</b>			
0 to 2	6	5	5
>2 to 5	15	14	14
>5 to 10	24	23	22
>10 to 20	27	26	26
>20 to 30	25	26	24
>30	13	16	17
<b>ACCOUNT SIZE</b>			
<\$10,000	12	11	12
\$10,000 to \$20,000	26	23	26
>\$20,000 to \$30,000	26	25	27
>\$30,000 to \$40,000	25	25	26
>\$40,000 to \$50,000	24	25	25
>\$50,000 to \$60,000	24	24	24
>\$60,000 to \$70,000	23	24	23
>\$70,000 to \$80,000	26	23	22
>\$80,000 to \$90,000	23	23	21
>\$90,000 to \$100,000	22	22	20
>\$100,000	21	18	16
<b>SALARY RANGE</b>			
\$40,000 or less	18	17	19
>\$40,000 to \$60,000	20	23	26
>\$60,000 to \$80,000	18	23	24
>\$80,000 to \$100,000	17	21	22
>\$100,000	14	16	16

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

**FIGURE A39**

### LOAN BALANCES AS A PERCENTAGE OF 401(k) ACCOUNT BALANCES FOR PARTICIPANTS WITH LOANS BY PARTICIPANT AGE, TENURE, ACCOUNT SIZE, OR SALARY, 1996, 2000, AND 2005

	1996	2000	2005
<b>ALL</b>	16	14	13
<b>AGE GROUP</b>			
20s	30	30	24
30s	22	20	19
40s	16	15	13
50s	12	11	10
60s	10	9	8
<b>TENURE (YEARS)</b>			
0 to 2	27	24	23
>2 to 5	24	25	21
>5 to 10	23	21	19
>10 to 20	15	14	13
>20 to 30	11	10	9
>30	7	8	8
<b>ACCOUNT SIZE</b>			
<\$10,000	39	39	35
\$10,000 to \$20,000	32	32	29
>\$20,000 to \$30,000	28	28	25
>\$30,000 to \$40,000	23	24	22
>\$40,000 to \$50,000	22	21	20
>\$50,000 to \$60,000	19	19	18
>\$60,000 to \$70,000	16	17	16
>\$70,000 to \$80,000	16	15	15
>\$80,000 to \$90,000	14	14	14
>\$90,000 to \$100,000	13	13	13
>\$100,000	7	7	7
<b>SALARY RANGE</b>			
\$40,000 or less	17	19	18
>\$40,000 to \$60,000	17	16	16
>\$60,000 to \$80,000	15	13	13
>\$80,000 to \$100,000	14	12	11
>\$100,000	14	10	9

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



(lower the older the participant), tenure (lower the higher the tenure of the participant), account balance (lower the higher the account balance), and salary (lower the higher the participant's salary).

## NOTES

- <sup>1</sup> The Employee Benefit Research Institute (EBRI) is a nonprofit, nonpartisan, public policy research organization, which does not lobby or take positions on legislative proposals.
- <sup>2</sup> 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 (ETFs), and five sponsors of unit investment trusts. Its mutual fund members manage assets of approximately \$9.225 trillion (representing approximately 98 percent of total industry assets); these funds serve approximately 89.5 million individual shareholders in more than 52.6 million households.
- <sup>3</sup> In this effort, EBRI and ICI have collected data from some of their members that serve as plan recordkeepers. The data include demographic information, annual contributions, plan balances, asset allocation, and loan balances.
- <sup>4</sup> Account balances are net of unpaid loan balances. Thus, unpaid loan balances are not included in any of the eight asset categories described.
- <sup>5</sup> 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 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.
- <sup>6</sup> GICs are insurance company products that guarantee a specific rate of return on the invested capital over the life of the contract.
- <sup>7</sup> 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.
- <sup>8</sup> 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.
- <sup>9</sup> Estimates for the number of 401(k) participants and plans are from Cerulli (2005).
- <sup>10</sup> The latest U.S. Department of Labor, Employee Benefits Security Administration (July 2006) estimate of the universe of 401(k)-type plans is for plan-year 2002. For 2002, preliminary estimates indicate there were 388,204 401(k)-type plans covering 43.2 million active participants with \$1,573 billion in assets.
- <sup>11</sup> This median is calculated across all participants for which salary information is available, which includes participants who are part time or have worked for only part of the year. In some analyses, the subset is restricted to participants earning \$20,000 or more. The median salary in that sample is about \$46,987.
- <sup>12</sup> 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 set of consistent participants must be analyzed.
- <sup>13</sup> For example, the S&P 500 total return index rose 4.9 percent in 2005, 10.9 percent in 2004, and 28.7 percent in 2003; after falling 22.1 percent in 2002, 11.9 percent in 2001, and 9.1 percent in 2000 (see Ibbotson Associates (2006)). The Russell 2000 total return index increased 4.6 percent in 2005, 18.3 percent in 2004, and 47.3 percent in 2003; after declining 20.5 percent in 2002, edging up 2.5 percent in 2001, and falling 3.0 percent in 2000.
- <sup>14</sup> For further discussion, see the August 2006 *Perspective*.
- <sup>15</sup> For statistics indicating the higher propensity of withdrawals among participants in their sixties, see Holden and VanDerhei (November 2002—Appendix).

<sup>16</sup> Approximately 1½ 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.

<sup>17</sup> Approximately 5 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.

<sup>18</sup> 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 4 percent of them have between two and five years of tenure (Figure A11).

<sup>19</sup> 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.

<sup>20</sup> 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.

<sup>21</sup> 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 DC plans, possibly from previous employment. For recent references to such research, see Holden and VanDerhei (July 2005).

<sup>22</sup> 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) suggest 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) Section 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 Sections 401(k) and 401(m)) aim to assure that employees of all income ranges attain the benefits of the 401(k) plan.

<sup>23</sup> At year-end 2005, 64 percent of balanced mutual fund assets were invested in equities (see Investment Company Institute, *Quarterly Supplemental Data*).

<sup>24</sup> 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.

<sup>25</sup> 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. For additional discussion of lifestyle/lifecycle funds, see Brady and Holden (July 2006).

<sup>26</sup> Plan-specific information on loan provisions is available for the majority of the plans in the sample (including virtually all of the small plans). Some plans without this information are classified as having a loan provision if any participant in the plan has an outstanding loan balance. This may understate the number of plans offering loans (or participants eligible for loans) because some plans may have offered, but had no participant take out, a plan loan. It is likely that this omission is small as the U.S. Government Accountability 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.

<sup>27</sup> The median loan balance outstanding is \$3,661 at year-end 2005.

## REFERENCES

*Bloomberg Data*. New York, NY: Bloomberg, L.P.

Brady, Peter, and Sarah Holden. "The U.S. Retirement Market, in 2005," *ICI Research Fundamentals*, Vol. 15, No. 5, Washington, DC: Investment Company Institute, July 2006.

Cerulli Associates. "Retirement Markets 2005," *Cerulli Quantitative Update*, Boston, MA: Cerulli Associates, Inc., 2005.

Holden, Sarah, and Jack VanDerhei. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2005." *ICI Research Perspective*, Vol. 12, No.1, and *EBRI Issue Brief*, No. 296. Washington, DC: Investment Company Institute and Employee Benefit Research Institute, August 2006.

Holden, Sarah, and Jack VanDerhei. "The Influence of Automatic Enrollment, Catch-Up, and IRA Contributions on 401(k) Accumulations at Retirement," *ICI Perspective*, Vol. 11, No. 2, and *EBRI Issue Brief*, No. 283, Washington, DC: Investment Company Institute and Employee Benefit Research Institute, July 2005.

Holden, Sarah, and Jack VanDerhei. "Can 401(k) Accumulations Generate Significant Income for Future Retirees?" *ICI Perspective*, Vol. 8, No. 3, and *EBRI Issue Brief*, No. 251, Washington, DC: Investment Company Institute and Employee Benefit Research Institute, November 2002.

Holden, Sarah, and Jack VanDerhei. "Appendix: EBRI/ICI 401(k) Accumulation Projection Model," *ICI Perspective*, Vol. 8, No. 3A, Washington, DC: Investment Company Institute, November 2002—Appendix.

Holden, Sarah, and Jack VanDerhei. "Contribution Behavior of 401(k) Plan Participants." *ICI Perspective*, Vol. 7, No. 4, and *EBRI Issue Brief*, No. 238. Washington, DC: Investment Company Institute and Employee Benefit Research Institute, October 2001.

Holden, Sarah, and Jack VanDerhei. "The Impact of Employer-Selected Investment Options on 401(k) Plan Participants' Asset Allocations: Preliminary Findings," *Working Paper prepared for The Center for Pension and Retirement Research (CPRR) Current Pension Policy Issues Conference, at Miami University, Oxford, OH, June 8–9, 2001: Draft, May 2001*.

Ibbotson Associates. *SBBI (Stocks, Bonds, Bills, and Inflation) 2006 Yearbook: Market Results for 1926–2005*. Chicago, IL: Ibbotson Associates, 2006.

Investment Company Institute. *Quarterly Supplemental Data*. Washington, DC: Investment Company Institute.

*Russell 2000 Index*. Tacoma, WA: Frank Russell Company.

*S&P 500 Index*. New York, NY: Standard & Poor's.

U.S. Department of Labor, Employee Benefits Security Administration (EBSA). *Private Pension Plan Bulletin, Abstract of 2002 Form 5500 Annual Reports*. Washington, DC: July 2006.

U.S. Department of Labor, Pension and Welfare Benefits Administration (now Employee Benefits Security Administration (EBSA)). *Private Pension Plan Bulletin, Abstract of 1995, Form 5500 Annual Reports*. Washington, DC: Spring 1999.

U.S. Government Accountability Office (GAO; formerly General Accounting Office). "401(k) Pension Plans: Loan Provisions Enhance Participation But May Affect Income Security for Some," *Letter Report*, 10/01/97, GAO-HEHS-98-5, Washington, DC, October 1997.

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