## PERSPECTIVE

## Web-only Edition

Vol. $6 /$ No. $1 A$
January 2000

Perspective is a series
of occasional papers published by the Investment Company Institute, the national association of the American investment company industry.

John Rea,
executive editor;
Craig Tyle,
executive editor;
Sue Duncan,
managing editor.

1401 H Street, NW
Suite 1200
Washington, DC 20005
www.ici.org

> Appendix: $401(k)$ Plan Asset Allocation, Account Balances, and Loan Activity in 1997

by Sarah Holden, Jack VanDerhei, and Carol Quick ${ }^{1}$

## OVERVIEW

The Employee Benefit Research Institute (EBRI) ${ }^{2}$ and the Investment Company Institute (ICI) ${ }^{3}$ have collaborated during the past three years in the collection of data on participants in $401(\mathrm{k})$ plans. In this collaborative effort, known as the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project, EBRI and ICI have collected data from some of their members that
serve as plan recordkeepers and administrators. The data include demographic information, annual contributions, plan balances, asset allocation, and loan balances.

The January 1999 and January 2000 issues of Perspective reported findings on $401(\mathrm{k})$ plan asset allocation, account balances, and loan activity using data from the EBRI/ICI ParticipantDirected Retirement Plan Data Collection Project for yearend 1996 and yearend 1998, respectively. ${ }^{4}$ The purpose of this appendix is to report findings from the yearend 1997 data. At yearend 1997, the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project database contains 7.1 million active $401(\mathrm{k})$ plan participants in 29,899 plans with $\$ 290$ billion of assets (Figures A1 and A2). The 1997 EBRI/ICI database accounts for 12 percent of all $401(\mathrm{k})$ plans, 21 percent of all $401(\mathrm{k})$ participants, and about 24 percent of the assets held in $401(\mathrm{k})$ plans. ${ }^{5}$

[^0]
## SUMMARY

The results for yearend 1997 are broadly similar to those for yearend 1996 and yearend 1998. The figures in this appendix are similar in content and organization to those presented in the January 2000 Perspective article. For more complete discussions of the information, please refer to the Perspective articles.

## Asset Allocation

$\Rightarrow$ For all 401(k) participants in the 1997 EBRI/ICI database, almost three-quarters of plan balances are invested directly or indirectly in equity securities (Figures A4 and A5). ${ }^{6,7}$ Specifically, 48.1 percent of total plan balances are invested in equity funds, 18.7 percent in company stock, 12.7 percent in guaranteed investment contracts (GICs), 8.4 percent in balanced funds, 6.3 percent in bond funds, 4.7 percent in money funds, and 0.1 percent in other stable value funds.
$>$ The asset allocation of participants' account balances varies with age. Younger participants' assets tend to be more concentrated in equity fund investments, while older participants invest more heavily in fixed-income assets (Figure A5).
$\Rightarrow$ Investment options offered by $401(\mathrm{k})$ plan sponsors influence participants' asset allocation (Figure A6). ${ }^{8}$
$>$ Asset allocation does not vary significantly across plan size for plans offering the basic investment options of equity, balanced, bond, and money funds (Figure A7). When GICs, company stock, or both, are added to the basic options, asset allocation varies with plan size.
$\downarrow$ Employer contributions in the form of company stock affect participants' asset allocation behavior (Figure A8). ${ }^{9}$ Participants in plans in which the employer contribution is required to be invested in company stock have a higher percentage of their self-directed account balances in company stock and lower percentages invested in equity funds and
balanced funds, compared with participants in plans with no employer-directed contributions.

- The allocation of plan balances to equity funds varies across participant groups. Indeed, about 27 percent of participants have more than 80 percent of their account balances invested in equity funds, while about 28 percent hold no equity funds at all (Figure A9). However, about 55 percent of those participants with no equity funds have exposure to equity securities through balanced funds or company stock (Figure A10). As a result, overall equity-related investments of those holding no equity funds are 43.8 percent ${ }^{10}$ of plan balances (Figure A11).


## Account Balances

- The average account balance (net of plan loans) for all participants was $\$ 41,156$ at yearend 1997, which is 10 percent higher than the average account balance at yearend 1996. The median account balance was $\$ 11,873$ at yearend 1997. The reported account balances represent retirement assets in the $401(\mathrm{k})$ plan at the participant's current employer. Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included in this analysis.
- Nearly one-half of participants have account balances of less than $\$ 10,000$ in the $401(\mathrm{k})$ plan of their current employer, while 11 percent have balances greater than $\$ 100,000$ (Figure A13). ${ }^{11}$ Those individuals with account balances of less

[^1]than $\$ 10,000$ are primarily young workers or workers with short tenures at their current employers (Figures A14, A15, A16, A17, and A18). In contrast, those with account balances in excess of $\$ 100,000$ are primarily older workers or workers with long tenure.

## Plan Loans

- Fifty-six percent of the plans (Figure A22), ${ }^{12}$ accounting for 79 percent of the participants, offer loans to plan participants. The probability of a plan sponsor offering plan loans to its employees increases with plan size. Indeed, about 92 percent of plans with more than 10,000 participants offer a loan provision, while less than onehalf of plans with 10 or fewer participants do so.
- Among participants eligible for loans, only 18 percent have outstanding loans at the end of 1997. Loan activity varies with age, job tenure, and account balance (Figures A23, A24, and A25). Participants between the ages of 30 and 59 are more likely to borrow than older or younger workers. Similarly, individuals with very short or long job tenures are less likely than other participants to have a loan outstanding. Finally, participants with account balances of less than $\$ 10,000$ tend to borrow less frequently.
$\Rightarrow$ For those with outstanding loans at the end of 1997, the level of the unpaid balance represents 15 percent of the account balance, net of the unpaid loan balance (Figures A26, A27, and A28).


## THE EBRI/ICI DATABASE

## Source and Type of Data

Plan administrators that are either EBRI or ICI members provided records on active participants in $401(\mathrm{k})$ plans they administered in 1996, 1997, and 1998. These administrators include mutual fund companies, insurance companies, consulting firms, and investment management companies. The universe of plan administrators varies from year to year, thus these aggregate figures should not be used to estimate time trends. Records were encrypted to conceal the identity of employers and employees but were coded so that both could be tracked over multiple years.

Data provided for each participant include participant date of birth, from which an age cohort is assigned; participant date of hire, from which a tenure range is assigned; outstanding loan balance; funds in participants' 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. ${ }^{13}$ Plan balances are constructed as the sum of participant balances. Plan size is estimated as the sum of active participants in the plan, and, as such, does not necessarily represent the total number of employees at the sponsoring firm.

Investment options are grouped into nine categories. Equity funds consist of pooled investments primarily investing in stocks. These funds include equity mutual funds, bank collective trusts, life insurance separate accounts, and other pooled investments. Similarly, bond funds are any pooled account primarily invested in bonds, and balanced funds are pooled accounts invested in both stocks and bonds. Company stock is equity in the plan's sponsor (the employer). Money funds consist of those funds designed to maintain a stable share price. Guaranteed investment contracts (GICs) are insurance company products that guarantee a specific rate of return on the invested capital over the life of the contract. Other stable value funds include synthetic GICs ${ }^{14}$ or similar instruments. The "other fund" category is the residual for other investments such as real estate funds. The final category consists of funds that could not be identified. ${ }^{15}$

Figures presenting the 1997 data follow.

[^2]
## EBRI/ICI Database: 401(k) Plan Characteristics by Number of Plan Participants, 1997

| Number of Plan Participants | Total <br> Plans | Total <br> Participants | Total Assets | Average Account Balance |
| :---: | :---: | :---: | :---: | :---: |
| 1 to 10 | 6,526 | 44,742 | \$929,941,287 | \$20,785 |
| 11 to 25 | 8,421 | 155,049 | 2,724,753,384 | 17,573 |
| 26 to 50 | 5,357 | 219,548 | 4,126,179,644 | 18,794 |
| 51 to 100 | 3,638 | 295,182 | 6,439,321,527 | 21,815 |
| 101 to 250 | 2,903 | 482,649 | 11,634,334,766 | 24,105 |
| 251 to 500 | 1,219 | 436,474 | 12,136,663,998 | 27,806 |
| 501 to 1,000 | 753 | 539,449 | 17,618,651,680 | 32,660 |
| 1,001 to 2,500 | 610 | 956,610 | 34,496,902,129 | 36,062 |
| 2,501 to 5,000 | 247 | 875,462 | 34,099,111,155 | 38,950 |
| 5,001 to 10,000 | 127 | 891,682 | 41,857,247,968 | 46,942 |
| $>10,000$ | 98 | 2,159,571 | 124,353,377,628 | 57,582 |
| All | 29,899 | 7,056,418 | 290,416,485,166 | 41,156 |

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

FIGURE A2
EBRI/ICI Database: 401(k) Plan Characteristics by Plan Assets, 1997

| Total Plan Assets | Total Plans | Total Participants | Total Assets | Average Account Balance |
| :---: | :---: | :---: | :---: | :---: |
| \$0 to \$250,000 | 13,171 | 252,109 | \$1,432,220,912 | \$5,681 |
| > \$250,000 to \$625,000 | 5,623 | 229,992 | 2,566,456,648 | 11,159 |
| > \$625,000 to \$1,250,000 | 3,383 | 226,217 | 3,330,325,701 | 14,722 |
| $>$ \$1,250,000 to \$2,500,000 | 2,496 | 275,005 | 4,795,307,991 | 17,437 |
| > \$2,500,000 to \$6,250,000 | 2,265 | 470,223 | 9,416,462,395 | 20,026 |
| $>$ \$6,250,000 to \$12,500,000 | 1,038 | 384,376 | 9,434,077,495 | 24,544 |
| > \$12,500,000 to \$25,000,000 | 667 | 503,083 | 11,846,717,421 | 23,548 |
| > \$25,000,000 to \$62,500,000 | 625 | 789,460 | 24,669,129,724 | 31,248 |
| > \$62,500,000 to \$125,000,000 | 289 | 743,750 | 25,937,496,574 | 34,874 |
| $>$ \$125,000,000 to \$250,000,000 | 163 | 711,921 | 28,363,144,624 | 39,840 |
| > \$250,000,000 | 179 | 2,470,282 | 168,625,145,680 | 68,261 |
| All | 29,899 | 7,056,418 | 290,416,485,166 | 41,156 |

## 401(k) Plan Characteristics by Number of Participants:

EBRI/ICI Database vs. Cerulli Estimates for All 401(k) Plans, 1997
(percent)




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

FIGURE A4

## Average Asset Allocation for All Plan Balances, 1997

(percent)


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

## FIGURE A5

Average Asset Allocation by Age, 1997
(percent of account balances)

| Age <br> Cohort | Equity <br> Funds | Balanced <br> Funds | Bond <br> Funds | Money <br> Funds | Guaranteed <br> Investment <br> Contracts | Other <br> Company <br> Stock | Stable <br> Value Funds | Other | Unknown | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20s | 59.1 | 8.5 | 5.0 | 4.6 | 5.7 | 15.9 | 0.1 | 0.7 | 0.5 | 100 |
| 30 s | 55.5 | 8.4 | 4.9 | 4.0 | 6.8 | 19.3 | 0.0 | 0.7 | 0.5 | 100 |
| 40 s | 50.4 | 8.5 | 5.4 | 4.4 | 9.6 | 20.5 | 0.1 | 0.6 | 0.5 | 100 |
| 50 s | 46.7 | 8.5 | 6.5 | 4.5 | 13.6 | 18.9 | 0.1 | 0.5 | 0.5 | 100 |
| 60s | 37.5 | 8.0 | 8.9 | 5.8 | 23.9 | 14.8 | 0.3 | 0.4 | 0.5 | 100 |
| All | 48.1 | 8.4 | 6.3 | 4.7 | 12.7 | 18.7 | 0.1 | 0.6 | 0.5 | 100 |

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

FIGURE A6
Average Asset Allocation by Age and Investment Options, 1997
(percent of account balances)

|  | Equity <br> Funds | Balanced Funds | Bond <br> Funds | Money Funds | Guaranteed Investment Contracts | Company Stock |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL AGES COMBINED |  |  |  |  |  |  |
| Investment Options |  |  |  |  |  |  |
| Equity, Bond, Money, \& Balanced Funds | 65.7 | 14.0 | 10.0 | 9.4 |  |  |
| Equity, Bond, Money, \& Balanced Funds, \& GICs | 56.5 | 9.4 | 3.7 | 4.0 | 24.4 |  |
| Equity, Bond, Money, \& Balanced Funds, \& Company Stock | 39.7 | 5.9 | 13.3 | 5.9 |  | 33.9 |
| Equity, Bond, Money, \& Balanced Funds, \& GICs, \& Company Stock | 41.3 | 7.0 | 1.7 | 2.1 | 20.4 | 26.6 |

PLANS WITH NO COMPANY STOCK OR GUARANTEED INVESTMENT CONTRACTS
Age

| 20s | 73.0 | 11.2 | 7.6 | 7.4 |
| :--- | ---: | ---: | ---: | ---: |
| 30 s | 71.9 | 12.6 | 7.8 | 6.9 |
| 40 s | 67.9 | 14.0 | 9.1 | 8.2 |
| 50s | 62.6 | 15.1 | 10.9 | 10.2 |
| 60s | 52.4 | 15.8 | 15.2 | 15.2 |

PLANS WITH GUARANTEED INVESTMENT CONTRACTS

| 14.9 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 20s | 67.5 | 8.0 | 3.6 | 3.6 | 16.2 |
| 40s | 66.2 | 8.5 | 3.5 | 3.3 | 20.4 |
| 50s | 60.7 | 9.5 | 3.7 | 3.7 | 2.7 |
| 60s | 54.4 | 10.1 | 3.7 | 4.0 | 3.9 |

PLANS WITH COMPANY STOCK

| 30 s | 43.9 | 6.2 | 7.2 | 5.5 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 30 s | 44.5 | 6.2 | 7.9 | 5.1 | 36.0 |
| 40 s | 41.6 | 6.2 | 10.0 | 5.8 |  |
| 50 s | 38.9 | 5.9 | 14.6 | 5.9 |  |
| 60 s | 31.5 | 5.4 | 24.2 | 35.4 |  |

PLANS WITH COMPANY STOCK AND GUARANTEED INVESTMENT CONTRACTS

| 20 s | 49.7 | 7.9 | 1.5 | 2.0 | 9.0 | 29.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30s | 46.2 | 7.1 | 1.5 | 1.8 | 11.0 | 31.4 |
| 40s | 42.3 | 7.0 | 1.6 | 2.0 | 15.2 | 31.0 |
| 50s | 42.1 | 7.2 | 1.8 | 2.1 | 20.7 | 25.4 |
| 60 s | 34.8 | 6.7 | 1.8 | 2.8 | 35.5 | 18.0 |

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

FIGURE A7
Average Asset Allocation by Plan Size and Investment Options, 1997
(percent of account balances)

| Plan Size by Number of Participants | Equity <br> Funds | Balanced Funds | Bond Funds | Money Funds | Guaranteed Investment Contracts | Company Stock |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL PLANS |  |  |  |  |  |  |
| 1 to 100 | 64.2 | 7.3 | 7.1 | 5.7 | 13.8 | 0.5 |
| 101 to 500 | 62.2 | 10.7 | 7.9 | 6.9 | 9.4 | 1.4 |
| 501 to 1,000 | 57.5 | 11.9 | 7.0 | 6.9 | 10.1 | 5.1 |
| 1,001 to 5,000 | 51.5 | 12.0 | 5.2 | 6.4 | 12.6 | 11.0 |
| $>5,000$ | 42.2 | 6.3 | 6.4 | 3.3 | 13.4 | 27.3 |
| All | 48.1 | 8.4 | 6.3 | 4.7 | 12.7 | 18.7 |

PLANS WITH NO COMPANY STOCK OR GUARANTEED INVESTMENT CONTRACTS

| 1 to 100 | 68.4 | 10.7 | 10.2 | 10.1 |
| :--- | ---: | ---: | ---: | ---: |
| 101 to 500 | 66.9 | 13.0 | 10.6 | 9.0 |
| 501 to 1,000 | 65.0 | 13.1 | 10.8 | 9.3 |
| 1,001 to 5,000 | 64.5 | 15.0 | 9.4 | 10.0 |
| $>5,000$ | 65.1 | 15.0 | 10.3 | 8.7 |
| All | 65.7 | 14.0 | 10.0 | 9.4 |

PLANS WITH GUARANTEED INVESTMENT CONTRACTS

| 1 to 100 | 63.4 | 4.5 | 6.0 | 4.0 | 20.5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 101 to 500 | 58.1 | 7.2 | 4.8 | 22.9 |  |
| 501 to 1,000 | 54.0 | 11.9 | 3.5 | 4.2 | 25.5 |
| 1,001 to 5,000 | 53.6 | 11.3 | 2.9 | 4.0 | 26.2 |
| $>5,000$ | 55.1 | 10.1 | 2.5 | 4.1 | 26.0 |
| All | 56.5 | 9.4 | 3.7 | 4.0 | 24.4 |

PLANS WITH COMPANY STOCK

| 1 to 100 | 15.8 | 4.1 | 6.4 | 19.9 | 53.8 |
| :--- | :--- | ---: | :--- | ---: | :--- |
| 101 to 500 | 48.0 | 10.4 | 8.5 | 10.7 | 20.6 |
| 501 to 1,000 | 49.2 | 11.0 | 6.6 | 9.8 | 9.2 |
| 1,001 to 5,000 | 46.9 | 10.5 | 6.3 | 4.7 | 22.5 |
| $>5,000$ | 37.1 | 4.3 | 15.7 | 5.9 | 37.0 |
| All | 39.7 | 5.9 | 13.3 | 33.9 |  |

PLANS WITH COMPANY STOCK AND GUARANTEED INVESTMENT CONTRACTS

| 1 to 100 | 42.6 | 10.9 | 3.9 | 4.3 | 14.4 | 20.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101 to 500 | 46.5 | 8.0 | 2.1 | 2.2 | 21.9 | 16.6 |
| 501 to 1,000 | 45.6 | 7.9 | 1.5 | 1.4 | 23.0 | 19.6 |
| 1,001 to 5,000 | 39.1 | 10.6 | 2.0 | 2.6 | 23.1 | 21.6 |
| >5,000 | 41.6 | 6.3 | 1.6 | 2.0 | 19.8 | 27.8 |
| All | 41.3 | 7.0 | 1.7 | 2.1 | 20.4 | 26.6 |

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

## FIGURE A8

Impact of Company Stock on Asset Allocation by Age, 1997
(percent of account balances)

|  |  |  | Guaranteed |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Cohort | Equity | Balanced | Bond | Money | Investment | Company <br> Contracts |

PLANS WITH EMPLOYER-DIRECTED AND PARTICIPANT-DIRECTED BALANCES

| 20s | 30.5 | 4.7 | 0.5 | 1.4 | 4.7 | 58.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30s | 26.6 | 4.4 | 0.6 | 1.5 | 5.4 | 61.5 |
| 40s | 23.4 | 5.0 | 1.1 | 2.7 | 6.2 | 61.4 |
| 50s | 23.7 | 5.9 | 1.5 | 4.1 | 9.1 | 55.6 |
| 60s | 22.5 | 6.3 | 3.0 | 7.5 | 17.0 | 43.8 |
| All | 24.0 | 5.3 | 1.4 | 3.5 | 8.4 | 57.2 |
| Participant-Directed Balances Only |  |  |  |  |  |  |
| 20s | 46.2 | 7.1 | 0.7 | 2.0 | 6.9 | 37.0 |
| 30s | 43.7 | 7.1 | 1.0 | 2.3 | 8.7 | 36.9 |
| 40s | 37.6 | 7.9 | 1.7 | 4.3 | 9.9 | 38.3 |
| 50s | 34.7 | 8.4 | 2.3 | 6.0 | 12.6 | 35.7 |
| 60s | 28.9 | 8.0 | 3.9 | 9.8 | 21.4 | 27.8 |
| All | 36.5 | 7.9 | 2.1 | 5.3 | 12.4 | 35.6 |

PLANS WITH COMPANY STOCK INVESTMENT OPTION BUT NO EMPLOYER-DIRECTED CONTRIBUTIONS

| Total Balances |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 s | 47.8 | 11.6 | 2.5 | 5.1 | 6.5 | 25.2 |
| 30s | 46.0 | 10.4 | 2.8 | 4.4 | 7.5 | 27.5 |
| 40s | 41.1 | 10.4 | 3.3 | 5.1 | 10.0 | 28.9 |
| 50s | 37.9 | 11.2 | 3.8 | 5.8 | 13.2 | 27.1 |
| 60s | 29.9 | 11.0 | 4.2 | 9.6 | 20.9 | 23.7 |
| All | 39.4 | 10.7 | 3.4 | 5.9 | 12.1 | 27.2 |

Note: Minor investment in other stable value funds and "other" are not shown; therefore, row percentages will not add to 100 percent. Employer-directed balances are invested in the plan sponsor's company stock.
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

## FIGURE A9

Asset Allocation Distribution of Participant Account Balances to Equity Funds by Age and Tenure, 1997
(percent of participants)

|  | Zero | $\mathbf{< 2 0 \%}$ | $\mathbf{2 0 \%}$ to $\mathbf{8 0 \%}$ | $\mathbf{> 8 0 \%}$ | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| TOTAL | 28.0 | 6.1 | 38.8 | 27.1 | 100.0 |
| AGE COHORT |  |  |  |  |  |
| 20s | 26.6 | 3.7 | 37.3 | 32.4 | 100.0 |
| 30s | 24.2 | 5.5 | 40.2 | 30.2 | 100.0 |
| 40s | 26.9 | 6.7 | 40.2 | 26.2 | 100.0 |
| 50s | 30.1 | 7.4 | 38.7 | 23.9 | 100.0 |
| 60s | 42.9 | 7.8 | 31.7 | 17.6 | 100.0 |
|  |  |  |  |  |  |
| TENURE (years) |  |  |  |  |  |
| 0 to 2 | 22.2 | 3.8 | 39.3 | 35.7 | 100.0 |
| >2 to 5 | 25.7 | 6.5 | 39.9 | 30.4 | 100.0 |
| $>5$ to 10 | 27.7 | 8.0 | 30.2 | 25.6 | 100.0 |
| $>10$ to 20 | 30.3 | 8.7 | 37.8 | 21.9 | 100.0 |
| $>20$ to 30 | 34.1 | 8.5 | 32.4 | 20.2 | 100.0 |
| $>30$ | 40.9 |  |  | 18.3 | 100.0 |

## FIGURE A10

Percentage of Participants with Equity Exposure But No Equity Fund Balances by Age and Tenure, 1997

|  | Percentage with Company <br> Stock and/or Balanced Funds |
| :--- | :---: |
| AGE COHORT |  |
| 20s | 47.5 |
| 30s | 56.7 |
| 40s | 58.6 |
| 50s | 58.6 |
| 60s | 46.1 |
| All | 54.7 |
|  |  |
| TENURE (years) |  |
| 0 to 2 | 44.6 |
| $>2$ to 5 | 43.4 |
| $>5$ to 10 | 50.0 |
| $>10$ to 20 | 57.7 |
| $>20$ to 30 | 62.2 |
| $>30$ | 57.3 |
| All | 54.7 |
| Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project |  |

FIGURE A11
Average Asset Allocation for Participants with No Equity Fund Balances by Age and Tenure, 1997
(percent of account balances)

|  | Balanced Funds | Bond <br> Funds | Money Funds | Guaranteed Investment Contracts | Company Stock | Other <br> Stable Value Funds | Other | Unknown | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE COHORT |  |  |  |  |  |  |  |  |  |
| 20s | 12.8 | 8.1 | 16.7 | 18.2 | 42.1 | 0.3 | 1.5 | 0.6 | 100.0 |
| 30s | 10.8 | 7.7 | 12.5 | 19.1 | 47.5 | 0.1 | 1.6 | 0.8 | 100.0 |
| 40s | 9.9 | 8.1 | 11.2 | 23.0 | 45.8 | 0.1 | 1.3 | 0.7 | 100.0 |
| 50s | 9.6 | 9.6 | 10.3 | 29.2 | 39.4 | 0.2 | 1.1 | 0.7 | 100.0 |
| 60s | 8.0 | 12.1 | 10.4 | 43.2 | 24.7 | 0.4 | 0.7 | 0.6 | 100.0 |
| All | 9.4 | 9.5 | 11.1 | 29.7 | 38.2 | 0.2 | 1.1 | 0.7 | 100.0 |

TENURE (years)

| $>2$ to 5 | 16.7 | 9.3 | 19.1 | 23.9 | 27.3 | 0.4 | 3.1 | 0.6 | 100.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $>5$ to 10 | 11.6 | 9.3 | 15.5 | 25.1 | 35.6 | 0.3 | 2.2 | 0.7 | 100.0 |
| $>10$ to 20 | 10.1 | 9.1 | 12.7 | 26.9 | 39.2 | 0.1 | 1.3 | 0.8 | 100.0 |
| $>20$ to 30 | 8.2 | 9.3 | 9.7 | 32.5 | 38.8 | 0.2 | 0.7 | 0.7 | 100.0 |
| $>30$ | 6.5 | 14.4 | 7.5 | 41.2 | 28.9 | 0.2 | 0.5 | 0.9 | 100.0 |
| All | 9.4 | 9.5 | 11.1 | 29.7 | 38.2 | 0.2 | 1.1 | 0.7 | 100.0 |

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

FIGURE A12

## Average Asset Allocation by Salary, 1997

Salary data were not available for a sufficient number of participants and data providers in the 1997 EBRI//CI database.

Estimates for 1998 are presented in the January 2000 Perspective.

## FIGURE A13

Distribution of Account Balances, 1997
(percent of participants with account balances in specified ranges)


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

## FIGURE A14

## Age Composition of Selected

Account Balance Categories, 1997
(percent)


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

 ProjectFIGURE A15
Tenure Composition of Selected
Account Balance Categories, 1997
(percent)


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

## FIGURE A16

Average Account Balance by Age and Tenure, 1997
(dollars)


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

## FIGURE A17

Impact of Age and Tenure on Account Balance, 1997
(percent of participants with account balances of less than $\$ 10,000$ )


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

## FIGURE A18

Impact of Age and Tenure on Account Balance, 1997
(percent of participants with account balances more than $\$ 100,000$ )


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

Ratio of 1997 Account Balance to 1997 Salary for Participants by Age Group and Salary Range

Salary data were not available for a sufficient number of participants and data providers in the $1997 \mathrm{EBRI} / / \mathrm{Cl}$ database.
Estimates for 1998 are presented in the January 2000 Perspective.

## FIGURE A20

Ratio of 1997 Account Balance to 1997 Salary for Participants in Their Sixties by Tenure and Salary Range

Salary data were not available for a sufficient number of participants and data providers in the $1997 \mathrm{EBRI} / I C I$ database.
Estimates for 1998 are presented in the January 2000 Perspective.

## FIGURE A21

Ratio of 1997 Account Balance to 1997 Salary for Participants in Their Twenties by Tenure and Salary Range

Salary data were not available for a sufficient number of participants and data providers in the $1997 \mathrm{EBRI} / / \mathrm{Cl}$ database.
Estimates for 1998 are presented in the January 2000 Perspective.

FIGURE A22
Availability of Plan Loans by Number of Participants, 1997
(percent of plans offering loans)


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

FIGURE A23
Percentage of Eligible Participants with Loans by Age, 1997


[^3]Percentage of Eligible Participants with Loans by Tenure, 1997


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

FIGURE A25
Percentage of Eligible Participants with Loans by Account Balance, 1997


[^4]FIGURE A26
Loan Ratios for Participants with Loans by Age, 1997
(percent)


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

## FIGURE A27

Loan Ratios for Participants with Loans by Tenure, 1997
(percent)


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

## FIGURE A28

Loan Ratios for Participants with Loans by Account Balance, 1997
(percent)


Back issues of Perspective, written by Institute staff, leading scholars, and other contributors, address public policy issues of importance to mutual funds and their shareholders. Contact the Institute's Public Information Department at 202/326-5945 for more information. All issues of Perspective are also available on the Institute's website; for an online index of issues, see http://www.ici.org/economy/perspective.html.

Vol. 1, No. 1, July 1995:

Vol. 1, No. 2, November 1995:
Vol. 2, No. 1, January 1996:

Vol. 2, No. 2, March 1996:

Vol. 2, No. 3, April 1996:
Vol. 2, No. 4, May 1996:

Vol. 2, No. 5, June 1996:

Vol. 2, No. 6, December 1996:

Vol. 3, No. 1, March 1997:
Vol. 3, No. 2, June 1997:
Vol. 3, No. 3, July 1997:
Vol. 3, No. 4, August 1997:

Vol. 3, No. 5, December 1997:

Vol. 4, No. 1, March 1998:

Vol. 4, No. 2, June 1998:

Vol. 4, No. 3, November 1998:
Vol. 5, No. 1, January 1999:

Vol. 5, No. 2, February 1999:
Vol. 5, No. 3, March 1999:

Vol. 5, No. 4, September 1999:
Vol. 5, No. 5, December 1999:

Vol. 6, No. 1, January 2000:
"Mutual Fund Shareholder Response to Market Disruptions"
"Improving Mutual Fund Risk Disclosure"
"Mutual Fund Regulation: Forging a New Federal and State Partnership"
"Mutual Fund Shareholder Activity During U.S. Stock Market Cycles, 1944-95"
"The Coming Crisis in Social Security"
"Investing the Assets of the Social Security Trust Funds in Equity Securities: An Analysis" "Helping America Save for the Future"
"U.S. Emerging Market Funds: Hot Monev or Stable Source of Investment Capital?"
"Mutual Fund Developments in 1996"
"Growth and Development of Bond Mutual Funds"
"Continuing a Tradition of Integrity"
"Selected Issues in International Taxation of Retirement Savings"
"Stock Markets, Economic Development, and Capital Control Liberalization"
"Mutual Fund Developments in 1997"
"U.S. Emerging Market Equity Funds and the 1997 Crisis in Asian Financial Markets"
"Trends in the Ownership Cost of Equity Mutual Funds"
"401(k) Plan Asset Allocation, Account Balances, and Loan Activity"
"Mutual Fund Developments in 1998"
"Total Shareholder Cost of Bond and Money Market Mutual Funds"
"Mutual Fund Costs, 1980-1998"
"Operating Expense Ratios, Assets, and Economies of Scale in Equity Mutual Funds"
"401 (k) Plan Asset Allocation, Account Balances, and Loan Activity in 1998"

Richard Marcis, Sandra West, Victoria Leonard-Chambers

Paul Schott Stevens, Amy Lancellotta
Matthew P. Fink

John D. Rea, Richard Marcis
Dr. John B. Shoven
Lawrence J. White

Sen. J. Robert Kerrey,
Jon S. Fossel, Matthew P. Fink
John D. Rea

Brian K. Reid
Brian K. Reid
Barry P. Barbash, Don Powell, Matthew P. Fink
Paul Schott Stevens

Ross Levine

Brian K. Reid, Samuel Ankrah, Kimberlee Millar

Mitchell A. Post, Kimberlee Millar

John D. Rea, Brian K. Reid
Jack VanDerhei, Russell Galer, Carol Quick, John D. Rea

Brian K. Reid, Kimberlee Millar
John D. Rea, Brian K. Reid

John D. Rea, Brian K. Reid, Travis Lee
John D. Rea, Brian K. Reid, Kimberlee W. Millar
Sarah Holden, Jack VanDerhei, Carol Quick

[^5]
[^0]:    ${ }^{1}$ Sarah Holden, Senior Economist, Research Department at ICI; Jack VanDerhei, Temple University, EBRI Fellow; Carol Quick, Research Associate at EBRI. Special thanks to Janet Thompson-Conley at ICI, who prepared the figures.
    ${ }^{2}$ The Employee Benefit Research Institute is a nonprofit, nonpartisan, public policy research organization, which does not lobby or take positions on legislative proposals.
    ${ }^{3}$ The Investment Company Institute is the national association of the American investment company industry. Its membership includes
    7,932 open-end investment companies ("mutual funds"), 495 closed-end investment companies, and eight sponsors of unit investment
    ${ }^{3}$ The Investment Company Institute is the national association of the American investment company industry. Its membership includes
    7,932 open-end investment companies ("mutual funds"), 495 closed-end investment companies, and eight sponsors of unit investment trusts. Its mutual fund members have assets of about $\$ 6.2$ trillion, accounting for approximately 95 percent of total industry assets, and have more than 78.7 million individual shareholders.
    ${ }^{4}$ All issues of Perspective are available on ICI's website at www.ici.org/economy/perspective.html.
    ${ }^{5}$ Cerulli Associates estimates that there were $246,723401(\mathrm{k})$ plans in 1997 , covering 33.5 million participants and holding $\$ 1,212$ billion in assets. (See Cerulli Associates, Inc. "Market Update: The $401(\mathrm{k})$ Industry." The Cerulli Report, Boston, MA: Cerulli Associates, September 1999). Figure A3 compares the distribution of plans, participants, and assets in the 1997 EBRI/ICI database with the universe of $401(\mathrm{k})$ plans estimated by Cerulli Associates.

[^1]:    ${ }^{6}$ Unless otherwise indicated, all asset allocation averages are expressed as dollar-weighted averages.
    ${ }^{7}$ Equity-related investments are estimated as the sum of holdings of equity funds, company stock, and 60 percent of amounts in balanced funds. At yearend 1997, approximately 60 percent of balanced mutual fund assets are invested in equities. (Please see Investment Company Institute Quarterly Supplemental Data.)
    ${ }^{8}$ The base group consisting of plans that offer equity, balanced, bond, and money funds as investment options (but do not offer company stock or GICs) represent 26 percent of participants in the 1997 EBRI/ICI database and 17 percent of plan assets. Plans offering the basic investment options and GICs represent 29 percent of participants and 19 percent of assets. Plans offering the basic investment options and company stock represent 18 percent of participants and 24 percent of assets. Plans offering the basic investment options and GICs and company stock represent 27 percent of participants and 40 percent of assets.
    ${ }^{9}$ Source of contribution (employer versus employee) can be matched to fund information for a subset of the data providers in our sample. Of these plans in the 1997 EBRI/ICI database for which the appropriate data are available, less than 0.5 percent require employer contributions to be invested in company stock. However, most of the plans with this feature are large, covering 12 percent of participants and 19 percent of plan assets (in the subset).
    ${ }^{10}$ Estimated as the sum of the 38.2 percent of account balances invested in company stock and 60 percent of the 9.4 percent of account balances invested in balanced funds.
    ${ }^{11}$ Approximately 0.6 percent of the participants in the 1997 database had a birth date that was missing and were not included in the age analyses. Approximately 13 percent of the participants in the database had a tenure range that was missing and were not included in the tenure analyses. In addition, for one data provider, "years of participation" are used for the tenure variable.

[^2]:    ${ }^{12}$ Plan-specific information on loan provision 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 method 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 any omission is small as the U.S. General Accounting Office finds that more than 95 percent of $401(\mathrm{k})$ plans that offer loans had at least one plan participant with an outstanding loan. (See U.S. General Accounting Office, " $401(\mathrm{k})$ Pension Plans: Loan Provisions Enhance Participation But May Affect Income Security for Some," Letter Report, 10/01/97, GAO-HEHS-98-5, Washington, DC, 1997.)
    ${ }^{13}$ Account balances are net of unpaid loan balances. Thus, unpaid loan balances are not included in any of the nine asset categories described.
    ${ }^{14}$ A synthetic GIC consists 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.
    ${ }^{15}$ 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 with at least 90 percent of plan assets identified were included in the final EBRI/ICI databases.

[^3]:    Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

[^4]:    Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

[^5]:     sources are not necessarily those of the Institute. If you have questions or comments about this material, please contact the source directly.

    Copyright © 2000 by the Investment Company Institute

