# Employee participation in savings and thrift plans, 1993

*Data from the 1993 Employee Benefits Survey were used to determine the relationship between selected savings and thrift plan provisions and employee participation in such plans*

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Household economic well-being depends on both income and net worth. Net worth (assets less liabilities) measures a household's financial position at a given point in time. An increase in net worth over time indicates progress toward meeting goals such as a comfortable retirement or funding a child's education. Active saving (not consuming all of one's income) contributes to increased net worth. Examples of active saving include investing in financial assets, such as savings accounts, stocks, bonds, and mutual funds; acquiring real property, such as a home; and investing in a business. Another factor contributing to household net worth is passive (inadvertent) saving, such as an increase in the market value of a home or in stock holdings over time or the receipt of an inheritance.

Data from the Federal Reserve Board's Survey of Consumer Finances show that between 1989 and 1992, mean real family net worth rose 11.7 percent (from $197,200 to $220,300), while median family net worth remained about the same (around $52,000).[1] The composition of assets held by families also changed during the 1989–92 period. The proportion of families owning retirement accounts, which include individual retirement accounts (IRA's), Keogh accounts, and employer-sponsored defined contribution plans, increased from 35.4 percent to 39.3 percent. The median value of these accounts (in 1992 dollars) went from $11,200 to $15,000, an increase of nearly 34 percent. These changes reflect, in part, a shift in employer-provided plans from traditional defined benefit plans to defined contribution plans.[2]

While income has been found to have a positive effect on active saving and change in net worth, pension coverage also appears to be important. Research using data from the Panel Study of Income Dynamics found that, even after controlling for the effects of other factors, the number of company pensions reported by heads of households and their spouses was positively associated with active saving and increase in net worth.[3]

Since the Employee Retirement Income Security Act of 1974 was passed, there has been a trend away from pension coverage under defined benefit plans and toward defined contribution plans.[4] During the mid-1980's, the trend toward defined contribution plans accelerated as 401(k) plans became increasingly common; the shift can now be characterized as a shift from both defined benefit and non-401(k) defined contribution plans to 401(k) plans. In 1985, 26 percent of full-time workers in medium and large private establishments participated in 401(k) plans, compared with 80 percent in defined benefit plans. By 1993, 42 percent of full-time workers participated in 401(k) plans, compared with 56 percent in defined benefit plans.[5]

The main focus of this article is the relationship between savings and thrift plan provisions and employee participation in such plans. First, savings and thrift plan provisions will be discussed in detail. Then, research using data from the 1993 Employee Benefits Survey of Medium and Large Private Establishments will be described.

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## Savings and thrift plans

Savings and thrift plans are the most prevalent type of defined contribution plan. Data from the 1993 BLS Employee Benefits Survey show that 29 percent of full-time employees in medium and large private establishments participated in a savings and thrift plan with an employer matching contribution, compared with 13 percent in deferred profit-sharing plans and 8 percent in money purchase plans. Almost all (99 percent) of the savings and thrift plan participants were in 401(k) plans, where employee contributions are made with pretax dollars.[6]

All savings and thrift plans require a *basic employee contribution*, which is subject to the employer's matching contribution.[7] Most plans also permit a *voluntary employee contribution*, which is a contribution by the employee in excess of the maximum amount matched by the employer. For example, in 1993, the most common matching provision was for an employer to match half of an employee's contribution, up to the first 6 percent of earnings.[8] If an employee contributes 8 percent of earnings, the employer adds 3 percent (half of the first 6 percent of earnings), for a total contribution of 11 percent to the employee's account. If, on the other hand, an employee contributes 4 percent of earnings (less than the maximum basic employee contribution), the employer will add 2 percent, for a total contribution of 6 percent to the employee's account.

One advantage of a 401(k) plan is that employee contributions can be made on a pretax basis. On such a basis, the employee's taxable income is reduced by the amount of the contribution. For example, an employee making $25,000 a year who contributes 5 percent ($1,250) to a savings and thrift plan reduces the amount on which income taxes are levied to $23,750. Taxes are deferred, however, not eliminated: when the employee begins withdrawing funds from the plan, taxes must be paid on the pretax contributions, any employer matching contributions, and any earnings on these contributions.

In 1996, the maximum amount an employee can contribute to a savings and thrift plan on a pretax basis is $9,500. Section 415 of the Internal Revenue Code also limits the total amount that can be credited to an employee's savings and thrift plan in any given year to 25 percent of the employee's pay or $30,000, whichever is smaller.[9] Included in the total are employee pretax and posttax contributions, employer matching contributions, and forfeitures of the nonvested benefits of participants who incur a break in service. An employer may use forfeitures to make up part of the guaranteed matching contribution or may allocate them among participants' accounts in addition to matching the employee's contribution.

*Vesting.* Pension plan participants usually gain nonforfeitable and nonrevocable (vested) rights to benefits after meeting specific requirements. The Employee Retirement Income Security Act of 1974 requires any pension plan, whether defined benefit or defined contribution, to adopt a vesting schedule that meets one of the following standards: *5-year cliff vesting*, in which no vesting occurs until participants have completed 5 years of service, at which time they are 100 percent vested; and *graduated (graded) vesting*, in which the employee is 20 percent vested after 3 years of service and 20 percent vested for each subsequent year of service, with full vesting reached after 7 years of service. These rules apply only to employer contributions to a single-employer pension plan; employee contributions and any earnings on them are immediately vested.[10]

In 1993, graduated vesting applied to 33 percent of savings and thrift plan participants. Cliff vesting was required of 29 percent of participants, with virtually all vested after 5 years. Thirty-four percent of savings and thrift plan participants were vested immediately upon joining their plans.[11]

*Investment of contributions.* Most savings and thrift plans have more than one investment choice. Among the offerings are bond funds, company stock, common stock funds, government securities, guaranteed investment contracts issued by insurance companies, and money market funds. A participant can usually direct his or her own contribution, but may not always be able to choose how the employer's contribution will be allocated.

In 1993, the number of investment choices ranged from two to seven or more, with four the most common. Eighty-six percent of savings and thrift plan participants could decide where their contributions would be invested. Fifty-six percent could decide where their employer's contributions would be invested.[12]

*Withdrawals and loans.* Prior to payout at retirement, or because of disability or termination of employment, many savings and thrift plan participants are allowed to withdraw some

**Table 1. Employee participation in savings and thrift plans, by presence or absence of employer matching contribution, medium and large private establishments, 1993**

[In percent]

| Plan | All employees | Professional, technical, and related employees | Clerical and sales employees | Blue-collar and service employees |
|---|---|---|---|---|
| All plans | 69 | 73 | 75 | 62 |
| Employer matching contribution | 80 | 83 | 81 | 77 |
| No employer matching contribution | 51 | 56 | 59 | 44 |

or all of their employer's contributions.[13] In 1993, 29 percent of savings and thrift plan participants were able to withdraw their employer's contribution for any reason, while 18 percent could make withdrawals only for hardship reasons, such as medical or educational expenses.[14]

As an alternative to withdrawals, employees may be able to borrow from their savings and thrift plans. In 1993, 45 percent of participants were allowed to borrow from their accounts.[15] Loans have become more available since 1985, when less than 20 percent of savings and thrift plan participants could borrow from their accounts.[16]

Table 2. **Employee participation in savings and thrift plans, by plan feature, medium and large private establishments, 1993**

[In percent]

| Plan feature | All employees | Professional, technical, and related employees | Clerical and sales employees | Blue-collar and service employees |
|---|---|---|---|---|
| **Employer matching contribution** | | | | |
| Any percent | 80 | 83 | 81 | 77 |
| 2.00 or less | 74 | 77 | 74 | 70 |
| Between 2.01 and 4.00 | 84 | 86 | 85 | 81 |
| Between 4.01 and 5.00 | 80 | 88 | 82 | 70 |
| Greater than 5.00 | 80 | 83 | 77 | 79 |
| **Vesting** | | | | |
| Immediate | 79 | 84 | 82 | 73 |
| Not immediate | 80 | 81 | 80 | 78 |
| **Withdrawal of employer contributions** | | | | |
| Allowed | 81 | 84 | 82 | 78 |
| Not allowed | 79 | 81 | 81 | 75 |
| **Loans** | | | | |
| Allowed | 78 | 82 | 79 | 74 |
| Not allowed | 82 | 83 | 83 | 79 |
| **Employee can direct own contribution** | | | | |
| Yes | 80 | 83 | 81 | 77 |
| No | 80 | 88 | 82 | 75 |
| **Employee can direct employer's contribution** | | | | |
| Yes | 80 | 83 | 81 | 77 |
| No | 79 | 83 | 81 | 75 |
| **Number of investment choices** | | | | |
| Employee contribution: | | | | |
| Two | 79 | 86 | 79 | 76 |
| Three | 81 | 83 | 83 | 77 |
| Four | 81 | 83 | 82 | 79 |
| Five or more | 77 | 79 | 77 | 79 |
| Employer contribution: | | | | |
| Two | 81 | 85 | 81 | 77 |
| Three | 81 | 84 | 84 | 79 |
| Four | 82 | 82 | 84 | 82 |
| Five or more | 78 | 82 | 78 | 73 |

## Employee participation

Participating in savings and thrift and other employer-provided defined contribution plans can strengthen an employee's financial security in retirement. Workers who understand the need to save for retirement, how much to save, and the risk-return tradeoff among investment choices may be more apt than others to participate. Also, the provisions of a particular plan, such as the employer's matching rate, the number of investment choices, and the method of vesting might affect employee participation.

Data from the 1993 Employee Benefits Survey of Medium and Large Private Establishments were used to examine the relationship between selected savings and thrift plan provisions and employee participation in such plans. The sample consisted of employees in savings and thrift plans allowing pretax contributions that were also matched by the employer.[17]

Table 1, page 18, compares the participation rates of employees in the study sample with employees in plans without any employer matching contributions. As the table shows, 80 percent of employees offered a plan with an employer matching contribution chose to participate in the plan. Participation ranged from 77 percent for blue-collar workers to 81 percent for clerical workers to 83 percent for professional workers. For plans with no employer matching contribution, the overall participation rate was 51 percent. The highest rate was for clerical workers (59 percent), the lowest for blue-collar workers (44 percent). Participation among professional workers was 56 percent.[18]

While some plans vary the amount of the employer matching contribution, those based on a fixed percentage of employee contributions are the most common. As table 2 shows, among plans with a percentage match, the highest participation rates were generally in plans with an effective match of greater than 2 percent of the employee's salary.[19] Given the earlier observation that participation was higher for workers whose plans had an employer match than for workers whose plans did not, it would appear that the fact that there is an employer contribution, and not the size of the contribution, is a more powerful inducement to participation. Research on 401(k) plans provides support for this conclusion.[20]

For the sample as a whole, participation in plans providing for immediate vesting of the employer's contribution was similar to that in plans with other types of vesting. And participation rates in plans that prohibit withdrawal of the employer's contribution were similar to those in plans allowing such withdrawals.

Plans with loan provisions had slightly lower participation rates than plans without loan provisions. Other studies have uncovered conflicting findings regarding the relationship between loan provisions and participation.[21]

For the sample as a whole, participation rates were similar for plans in which an employee could direct his or her contribution and for plans in which an employee had no control over where the contribution was to be invested. For professional workers, participation was slightly higher in plans not allowing an employee to direct his or her contribution. Also, participation did not differ between plans in which the employee could direct the employer's contribution and plans in which the employee could not.

An examination of the relationship between the number of investment choices and participation in a given plan showed that, with one exception, the lowest rates tended to be in plans allowing five or more choices of where an employee could direct either his or her own or the employer's contribution. Otherwise, there was no consistent pattern for the sample as a whole or for the occupational groups studied.

These findings indicate that other factors may be influencing the decision to participate. For example, employee participation in 401(k) plans has been found to increase with income level.[22] This may be one reason for increased participation among professional workers, who tend to have higher salaries than the other two groups.[23] It does not, however, explain why clerical and sales workers have higher participation rates than blue-collar and service workers, whose average pay levels are greater.

Job tenure,[24] age,[25] and education[26] have all been found to have a positive influence on participation in 401(k) plans, even after accounting for income and other factors. Possibly, differences in job tenure, age, and education may have accounted for some of the difference in participation rates among the three occupational groups.

The foregoing analysis shows that more research needs to be done on the factors influencing participation in savings and thrift and other 401(k) plans. The influence of factors such as income, age, and education, as well as job tenure, needs to be taken into consideration in future research.

Additional insight may be gained by examining the interrelationships among the provisions of the various plans. It is possible that different combinations of features would produce different results. Understanding relative worker preferences for the various characteristics of savings and thrift and other 401(k) plans could assist employers wishing to design these plans to encourage maximum employee participation. Research employing a model such as the Participant Preference Model[27] could provide the needed information. □

## Footnotes

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[1] The Survey of Consumer Finances' definition of "family" is close to the Census Bureau's definition of "household." Both definitions include married couples and single individuals. (See Arthur Kennickell and Martha Starr-McCluer, "Changes in family finances from 1989 to 1992: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, vol. 80, no. 10, October 1994, pp. 861–82.)

[2] Among surveyed families with at least one worker, the proportion having any type of pension from both current and previous jobs was similar in both years (55.9 percent in 1989 and 56.5 percent in 1992). The proportion having defined contribution plans, however, rose from 26.5 percent to 30.7 percent. By contrast, coverage of worker families by traditional defined benefit plans declined from 48.8 percent to 45.1 percent. (See Kennickell and Starr-McCluer, "Changes in family finances.")

[3] For additional information, see James N. Morgan and F. Thomas Juster, "The saving behavior of American families, 1984–1989," in Robert N. Mayer, ed., *Enhancing Consumer Choice: Proceedings of the Second International Conference on Research in the Consumer Interest* (Columbia, MO, American Council on Consumer Interests, 1990), pp. 289–304.

[4] In defined benefit plans, predetermined formulas are used to calculate retirement benefits, which are usually based on salary and number of years of service. In defined contribution plans, an account is set up for each participating employee. Generally the employer, and often the employee as well, make fixed, or defined, contributions to the account. Benefits are not predetermined, but depend on contributed amounts and any investment earnings.

[5] Some workers have coverage under both a 401(k) and a defined benefit plan. For more information on this double coverage, see *Employee Benefits in Medium and Large Firms, 1985*, Bulletin 2262 (Bureau of Labor Statistics, 1986); and *Employee Benefits in Medium and Large Private Establishments, 1993*, Bulletin 2456 (Bureau of Labor Statistics, 1994).

[6] For additional information on participation in defined contribution plans, see *Employee Benefits in Medium and Large Private Establishments, 1993.*

[7] Not all employers make matching contributions. For example, unpublished data from the 1993 Employee Benefits Survey show that 26 percent of full-time workers participating in savings and thrift plans did not receive a matching contribution from their employer.

[8] While straight percentage matches were the most common, about 18 percent of participants in plans with matching provisions received employer contributions varying by length of service, amount of employee contribution, or company profits. (See *Employee Benefits in Medium and Large Private Establishments, 1993.*)

[9] For more information on this part of the Internal Revenue Code, see "IRS Issues 1996 Adjustments to Limits for Qualified Plans." *BNA Pension & Benefits Reporter*, vol. 22, no. 42, Oct. 23, 1995, pp. 2322–2323.

[10] Multiemployer plans may also use 10-year cliff vesting, in which participants have no vested rights to employer contributions until they have

completed 10 years of service, after which they become 100 percent vested. For additional information on vesting, see *Fundamentals of Employee Benefit Programs*, 4th ed. (Employee Benefit Research Institute, 1990), pp. 30–31.

[11] For more information on vesting provisions in savings and thrift plans, see *Employee Benefits in Medium and Large Private Establishments, 1993.*

[12] See *Employee Benefits in Medium and Large Private Establishments, 1993.*

[13] Many pretirement withdrawals not only are taxable, but also are subject to a 10-percent early withdrawal penalty. For more information, see *Fundamentals of Employee Benefit Programs*, pp. 79–80.

[14] For more information on withdrawals, see *Employee Benefits in Medium and Large Private Establishments, 1993.*

[15] For more information on loans and borrowing, see *Employee Benefits in Medium and Large Private Establishments, 1993.*

[16] For more information, see *Employee Benefits in Medium and Large Private Establishments, 1991*, Bulletin 2422 (Bureau of Labor Statistics, 1993).

[17] Although the 1993 survey contained information on employee participation in pretax plans with no employer matching contributions, information on the provisions of those plans was unavailable.

[18] The 1993 Current Population Survey (CPS) provides information on participation rates among private wage and salary workers in 401(k)-type plans. Unpublished data from the April 1993 CPS show that participation among all workers was 66 percent and was similar for clerical workers (65 percent). The highest participation rate was for professional workers (75 percent), the lowest for blue-collar workers (59 percent).

[19] Although the employee contribution to be matched by the employer is stated as up to a certain percent of the employee's salary, the employer's matching percentage can range from 1 percent to 100 percent of the employee's contribution. For example, suppose two employees participate in plans with a maximum employer matching contribution of 4 percent of the employee's salary. If the first employee's plan provides a 50-percent employer matching rate, then that employee's 4-percent salary contribution would result in an effective employer matching contribution of 2 percent. If the second employee's plan provides a 100-percent match, then that employee's 4-percent contribution would result in an effective 4-percent employer matching contribution. For the purposes of this analysis, the effective matching rate was used.

[20] For additional information, see Leslie E. Papke, "Participation in and Contributions to 401(k) Pension Plans: Evidence from Plan Data," *Journal of Human Resources*, vol. 30, no. 2 (Spring 1995), pp. 311–25; and *401(k) Plan Hot Topics, 1993* (Lincolnshire, IL, Hewitt and Associates, 1993).

[21] For example, Hewitt and Associates [(*401(k) Plan Hot Topics, 1993*)] found higher participation rates for plans with loan provisions, whereas a General Accounting Office study titled *401(k) Plans: Participation and Deferral Rates by Plan Features and Other Information* [GAO/Pemd–88–15BR (General Accounting Office, 1988)] found lower participation rates for plans with loan provisions.

[22] After controlling for the effects of other factors, researchers have found that family income has a positive effect on participation in 401(k) plans. For example, in 1988, only 21 percent of eligible employees with family income of $5,000 or less contributed to a 401(k) plan, compared with 74 percent of those with a family income of $50,000 or more. See Emily S. Andrews, "The Growth and Distribution of 401(k) Plans," in John A. Turner and Daniel J. Beller, eds., *Trends in Pensions, 1992* (Department of Labor, 1992), pp. 149–76.

[23] For information about salary differences among occupations, see "Employer Costs for Employee Compensation—March 1995," USDL: 95–225 (U.S. Department of Labor, June 22, 1995).

[24] Participation rates for workers with 5 or more years of job tenure were consistently over 70 percent. For more information, see Andrews, "Growth and Distribution of 401(k) Plans."

[25] An analysis of 1988 CPS data revealed that 34 percent of eligible workers under 25 participated in a 401(k) plan, compared with 72 percent of workers between 45 and 65. For more information, see Andrews, "Growth and Distribution of 401(k) Plans."

[26] For more information, see William E. Even and David A. MacPherson, "Why Has the Loss in Pension Coverage Accelerated among Less Educated Workers?" Paper presented at the Allied Social Science Association Meetings, Washington, DC, January 1995.

[27] The Participant Preference Model was developed by J. P. Morgan Investment Management to answer the following questions: Which plan features are most valued by employees and therefore have the greatest impact on employee satisfaction and participation? and How will changes in funds or the addition of new funds affect the allocation of participants' assets? For further information, see Robert Birnbaum, "Understanding Participant Behavior: A Research Based Approach," in Dallas L. Salisbury and Nora Super Jones, eds., *Retirement in the 21st Century...Ready or Not...* (Washington, DC, Employee Benefit Research Institute, 1994), pp. 141–48.

## APPENDIX: Technical notes

Estimates from the Employee Benefits Survey are calculated from data on the characteristics of benefits of employees in selected occupations. Data are collected for a sample of occupations that are selected with a probability proportionate to the size of each occupation's employment within an establishment. Not all occupations within an establishment are surveyed.[1]

For establishments offering savings and thrift plans, data are recorded for each occupation surveyed. Within each such occupation, there may be workers not participating in a savings and thrift plan. One reason is that they were offered a plan but chose not to participate. Another reason is that no plan was offered to employees in their occupation. The nature of the data from the Employee Benefits Survey makes this distinction difficult to discern.

To examine the extent to which each of these reasons played a role in employees' failure to participate in a savings and thrift plan, the data were analyzed using two different assumptions. According to Assumption A, all employees in selected occupations and working in a given establishment were considered to have been offered a plan if at least one employee in that establishment participated in the plan. Of course, it is possible that an establishment offered a savings and thrift plan to salaried workers, but not to hourly workers. In that case, under assumption A, if the selected occupations included both salaried and hourly workers, both worker groups would be shown as being offered a savings and thrift plan. In contrast is Assumption B, under which, if no employees in a selected occupation participated in a plan in a given establishment, then those employees were considered not to have been offered a plan. Comparisons of worker groups under each assumption revealed major differences in participation. For example, the participation rates (percent) of employees in all savings and thrift plans (that is, those with and those without an employer matching contribution) are as shown in the following tabulation:

| | Assumption A | Assumption B |
|---|---|---|
| All employees | 48 | 69 |
| Professional and technical and related employees | 55 | 73 |
| Clerical and sales employees | 54 | 75 |
| Blue-collar and service employees | 39 | 62 |

While the patterns uncovered using each assumption were similar, the participation rates varied widely. Assumption B was chosen for the research reported in this article. The assumption implies that employers vary plans by occupation or offer plans only to certain occupations, which is consistent with Current Population Survey (CPS) data which indicate that there are occupational variations in the proportion of employees offered 401(k)-type plans.[2]

Because this analysis examined the influence of savings and thrift plan provisions on employee participation, imputed data were excluded. Imputation is done when employers do not furnish information on plan participation or plan provisions. For purposes of estimation, the Bureau of Labor Statistics uses data from similar establishments to impute the missing items.[3]

## Footnotes to the appendix

[1] For more information about Employee Benefits Survey methodology, including standard errors, see Appendix A in *Employee Benefits in Medium and Large Private Establishments, 1993*, Bulletin 2456 (Bureau of Labor Statistics, 1994).

[2] For example, unpublished data from the April 1993 CPS show that 35 percent of private wage and salary workers were offered 401(k)-type plans. The offer rates ranged from 25 percent for blue-collar and service workers to 49 percent for professional and technical workers; clerical and service workers had an offer rate of 36 percent.

[3] For more information, see Appendix A in *Employee Benefits in Medium and Large Private Establishments, 1993*. Another examination of employee choice that used data from the Employee Benefits Survey may be found in Michael Bucci and Robert B. Grant, "Health Insurance: Employer Offerings and Employee Choice in Small Private Establishments," *Compensation and Working Conditions*, August 1994, pp. 1–3.