

# SUSPENDING THE EMPLOYER 401(K) MATCH

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## Introduction

Charles Schwab & Co.'s decision in March 2003 to suspend its matching contribution to its 401(k) plan made headlines. But Schwab is not the only company to suspend the employer match. This *issue in brief* looks at the nature of the employer match in 401(k) plans, the role that the match plays in individual participation and contribution decisions, the extent to which firms are cutting back on their matching 401(k) contributions, and the implications of the cutbacks for individuals and the plans themselves.

## The Employer Match in 401(k) Plans

Matching contributions are a common feature of 401(k) plans. This is because plan participation and contributions are voluntary. Workers must decide whether or not to participate and how much to contribute, which is very different from traditional pensions where eligible workers are covered automatically and the employer makes contributions on their behalf. Because the plan's tax benefits are especially valuable to high-paid employees with high marginal tax rates, the government was concerned that only high-paid employees would join. Thus, the Internal Revenue Code requires that 401(k) plans meet a special non-discrimination test to ensure that lower-paid as well as higher-paid workers join the plan. The employer's matching contribution is an important tool to ensure broad participation and ample contributions.

Although employers are not obligated to make contributions to 401(k) plans, the vast majority of participants — 91 percent — belong to plans that offer a match.<sup>1</sup> The probability of a company match increases with plan size, but a match is fairly prevalent across the board (see Table 1).

The employer match consists of two components: the percentage of the employee contribution that the employer will match (the match rate); and the percentage of the employee's earnings on which the match will be provided (the match level). The most common employer match is 50 cents for each dollar contributed by the employee (the match rate) with the match ending when employee contributions

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<sup>1</sup> Holden and VanDerhei (2001).

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equal 6 percent of earnings (the match level).<sup>2</sup> Beyond 6 percent, plans often permit employees to make unmatched pre-tax contributions up to the legislated limit. In 2001, the median employee contribution was 6 percent of earnings and the median employer match was 3 percent of earnings.

**Table 1.** Percent of Plans with Employer Match by Plan Size, 2001

Plan size (participants)	Percent of plans with match
1-49	92.7
50-199	88.1
200-999	97.4
1,000-4,999	95.9
5,000 and more	97.1

Source: Profit/Sharing 401(k) Council of America (2002).

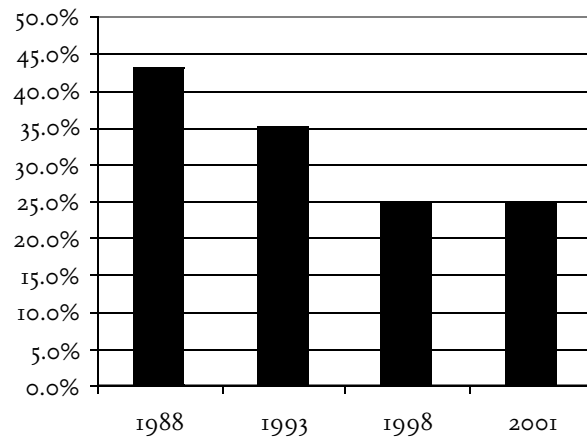
## Impact of Employer Match on Participation and Contributions

The voluntary nature of 401(k) plans means that people have to decide whether or not to participate and how much to contribute. Even before some employers decided to suspend their match, participation was far from universal. In 2001, data from the Federal Reserve's Survey of Consumer Finances (SCF) show that about 26 percent of workers eligible to participate in a 401(k) plan chose not to do so (Figure 1). Non-participation had been on a declining trend during the 1990s, but worsened slightly with the onset of the recession in March 2001.

Those who choose to participate in a 401(k) plan must then decide how much to contribute. Participants are not required to contribute any minimum amount, but they are constrained by maximum limits. Congress established these limits to ensure that employer plans are used for retirement and not tax avoidance and that high-income workers do not benefit unduly from the tax preferences accorded 401(k) plans. In 2001, the effective maximum on elective contributions was the lesser of 25 percent of earnings or \$10,500.<sup>3</sup>

<sup>2</sup> This combination of match rate and match level is equal to an effective match of 3 percent of earnings.

**Figure 1.** Non-Participation Rates in 401(k) Plans



Source: Data for 1988 and 1993 are based on the Current Population Survey (Munnell, Sundén, and Taylor (2002)); 1998 and 2001 data are based on authors' calculations from the Survey of Consumer Finances.

Data from the 2001 SCF indicate that less than 10 percent of participants who did join a 401(k) plan contributed the maximum amount (Table 2). Hitting the maximum was closely related to earnings: virtually no participants earning less than \$60,000 contribute the maximum compared to 53 percent of those earning \$100,000 or more.

A number of studies have explored the factors that affect the participation and contribution decisions that employees make regarding their

**Table 2.** Percent of Participants Making Maximum Employee Contributions

Earnings	Percent of participants making maximum employee contributions
Less than \$20,000	0.1
20,000-39,999	0.5
40,000-59,999	2.5
60,000-79,999	12.6
80,000-99,999	17.2
100,000 and more	53.0
All	8.4

Source: Authors' calculations from 2001 Survey of Consumer Finances.

<sup>3</sup> The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) raised the contribution limits to \$11,000 in 2002 and, with further increases in \$1,000 increments, to \$15,000 in 2006. After 2006, the limits will be indexed for inflation in \$500 increments. EGTRRA also eliminated the limit of 25 percent of the participant's earnings.

401(k) plans. As suggested above, individual characteristics such as income, age, and education are important determinants of both participation and contributions. But plan characteristics are also important, and the existence of an employer match is a key attribute. (The ability for employees to borrow against assets in their 401(k) account also increases both participation and contributions.) The presence of an employer match produces a large initial return on the employee's contribution and supplements the advantages of tax deferral.

Results from statistical analyses that relate the participation decision to individual characteristics and plan design consistently show that the presence of an employer match makes it much more likely that employees will participate.<sup>4</sup> In a survey of eligible workers who chose not to participate, 80 percent reported that they would likely enroll in the plan if it offered a match or a better match.<sup>5</sup> Interestingly, while the presence of an employer match affects the decision to participate, the level of the match seems to be less important. For example, one study looked at employee participation and contributions for 12,000 salaried and non-union hourly workers in a medium-sized manufacturing firm between 1988 and 1991. During this period, the match rate increased from 25 percent on the first 6 percent of employee contributions to over 100 percent and then disappeared entirely in the final year. The substantial variation in the match rate produced almost no change in the participation rate of employees over the four-year period.<sup>6</sup> On the other hand, a study of about 250,000 employees in 1995 found that each 10 percentage point increase in the match increased the probability of 401(k) participation by 3 percentage points.<sup>7</sup>

On the contribution side, the relationship between the employer match and employee contributions is theoretically ambiguous. The employee's response to the employer match depends on whether the "income effect" or "substitution effect" dominates. That is, employees may decrease their contributions in response to an employer match because they need to contribute less to reach their overall savings goal (the income effect). Or, they may increase their contributions because they get a greater return on each dollar contributed (the substitution effect). For example, suppose a firm, which previously did not match contributions, decides to match 50 percent of the

employee's contribution up to 6 percent of earnings. Some employees might lower their contribution rates, because they need to contribute less on their own to reach the same overall contribution level. Other employees might increase their contributions up to 6 percent, because they receive an extra 50 cents in contributions for each dollar they contribute. Hence, the theoretical outcome is ambiguous and needs to be determined empirically.

We looked at this issue using the nationally representative sample from the 1998 Survey of Consumer Finances.<sup>8</sup> We found that the presence of an employer match increases the contribution rate by almost one percentage point of earnings — a substantial effect given that the median contribution rate is 6 percent of earnings. As with earlier studies, however, we found that the size of the employer match does not encourage further contributions *once the match exists*. In fact, a larger match affects contributions somewhat negatively (that is, the income effect dominates), though the effect is small.<sup>9</sup>

In short, the empirical studies confirm one's intuition that the presence of an employer match encourages both participation and contributions. The level of the match, however, seems much less important for both the participation and contribution decisions.

## Companies Suspend their Employer Match

As the economic boom of the 1990s faded, some employers decided to reduce or suspend their matching contributions. One survey reports that the average employer match declined from 3.3 percent of earnings in 1999 to 2.5 percent in 2001 (Table 3).<sup>10</sup>

**Table 3.** Company Contributions as a Percent of Participants' Annual Payroll

Year	Company contributions as a percent of payroll
1997	3.2
1998	3.3
1999	3.3
2000	2.5
2001	2.5

Source: Profit/Sharing 401(k) Council of America (2002).

<sup>7</sup> Clark, Goodfellow, Schieber, and Warwick (2000).

<sup>8</sup> Munnell, Sundén, and Taylor (2002).

<sup>9</sup> This result is not unique. For example, Clark, Goodfellow, Schieber, and Warwick (2000) found a similar pattern.

<sup>10</sup> Profit Sharing/401(k) Council of America (2002).

<sup>4</sup> For example, see Papke (1995); Papke and Poterba (1995); Even and McPherson (2000); Clark and Schieber (1998); Clark, Goodfellow, Schieber, and Warwick (2000); and Choi, Laibson, Madrian, and Metrick. (2001b).

<sup>5</sup> Investment Company Institute (2000).

<sup>6</sup> Kusko, Poterba, and Wilcox (1998).

Since 2001, a number of large companies have announced that they plan to either suspend or discontinue their contributions to their 401(k) plan (Table 4). The Ford Motor Company and DaimlerChrysler suspended their employer match for 2002 and 2003 as part of a cost-cutting program; Goodyear discontinued its match indefinitely. In March 2003, the struggling Charles Schwab & Co. announced that it would suspend its employer match for 2003.<sup>11</sup> Prudential Securities and Textron Inc. followed suit in April 2003.

As noted above, employers are not required to contribute to their 401(k) plans, but most did during the long expansion that ran — almost uninterrupted — from the birth of 401(k) plans in the early 1980s through 2000.<sup>12</sup> With the onset of the recession in 2001, however, many companies came under severe earnings pressure and turned to their 401(k) plans as a way of cutting costs. In 2001, clearly a low-profit year, matching contributions amounted to about 12 percent of firm profits, so suspending the match can have a substantial impact on the bottom line (Table 5).

Table 4. Companies Suspend 401(k) Contributions, 2001-03

Company	Announcement date	Employees affected	Comments
Textron Inc.	April 2003	23,000	Suspended for 2003; will review.
Prudential Securities	April 2003	13,560 <sup>a</sup>	Suspended for 2003; will review.
Charles Schwab & Co.	March 2003	11,630	Suspended for 2003; will review.
El Paso Corp.	January 2003	3,700	Suspended a .75 match, then reinstated at .50 as of July 1, 2003.
Goodyear Tire and Rubber	October 2002	33,000	Discontinued indefinitely.
CMS Energy	July 2002	9,400	Suspended on September 1, 2002; will resume on January 1, 2005.
Tech Data Corp.	April 2002	1,500	Basic match is suspended. A variable match component is effective for the 2003 plan year.
Ford Motor Company	December 2001	45,000	Suspended for 2002 and 2003; will review.
Great Northern Paper	December 2001	1,130	Suspended in 2002; filed for bankruptcy in 2003.
MSX	December 2001	6,000	Discontinued indefinitely.
Lear	December 2001	5,900	Discontinued indefinitely.
DaimlerChrysler	November 2001	15,000	Suspended for 2002 and 2003; will review.
Visteon Corp.	November 2001	9,900	Suspended beginning 2002.
Delphi Automotive Systems Corp.	September 2001	17,000	Suspended in 2002; reinstated in 2003.
General Motors	March and December 2001	50,000	Reduced match from .80 to .60 and .60 to .20, then increased to .50.

Source: Personal conversations with company representatives and sources listed in the Appendix.

<sup>a</sup> Company representatives were either unable or unwilling to release data on the number of employees enrolled in Prudential's 401(k) plan. The number reported is an estimate based on the average percentage of all U.S. workers that participate in 401(k) plans.

<sup>11</sup> Walsh and McGeehan (2003).

<sup>12</sup> Technically, employer-sponsored plans fall into three categories: pensions, profit sharing plans, and stock bonus plans. Pensions include defined benefit plans and money purchase defined contribution plans. Money purchase plans differ from other defined contribution plans in that the sponsor commits to contribute on a fixed basis. Profit sharing plans, which include thrift plans and 401(k) plans, are not considered pension plans because the employer has discretion over contributions.

**Table 5.** Company 401(k) Contributions as a Percent of Net Profit by Industry, 2001

Industry	Contributions as a percent of net profit
Durable goods manufacturing	9.4
Nondurable goods manufacturing	18.5
Wholesale and retail trade	12.4
Finance, insurance, and real estate	11.7
Services	15.0
All	11.8

Source: Profit/Sharing 401(k) Council of America (2002).

## Likely Impact on Individuals and Plans

If the presence of an employer match encourages participation and contributions, will the cutback in the employer match see employees dropping out of their plans in droves? Will participants who remain in the plan sharply reduce their contributions? And if they do, will firms run into the non-discrimination provisions because lower-paid workers are more likely to drop out or cut back in response to the suspension of the employer match?

When trying to assess workers' response to changes in plan provisions, one important factor to keep in mind is inertia. This tendency of employees to stay where they are has been demonstrated dramatically with the introduction of automatic enrollment in 401(k) plans. Since 1998, the Internal Revenue Service has allowed firms to automatically enroll all workers who are eligible to participate in the plan. Those who do not want to participate can opt out. A series of studies has looked at the effects of automatic enrollment and found that it significantly increases participation.<sup>13</sup> For example, in one firm that introduced automatic enrollment, the overall participation rate jumped from 49 percent to 86 percent.<sup>14</sup> The changes were even larger for low-income workers. And after three to four years, the vast majority of those automatically enrolled were still participating.

Inertia played an important role in this outcome — people simply stay where they are put.

Inertia suggests that the vast majority of people who are currently enrolled in 401(k) plans will not leave. Instead, the impact is likely to be felt on new enrollment. Evidence from the mid-1990s suggests that participation tends to be about 6 percentage points higher (78 percent versus 72 percent) in firms with an employer match than in those without.<sup>15</sup> Thus, in firms that have permanently discontinued the employee match, we would expect to see a decrease in participation over time. If the suspension of the employer match lasts for only a year or two, then the effect on participation would likely be small.

The larger impact is likely to be on the contribution side. Even if participants do not respond at all, their total contributions will fall significantly with the suspension of the employer match. For example, if total contributions were 9 percent — 6 percent from the employee and 3 percent from the employer — the suspension of the employer match would reduce the total to 6 percent (i.e. it would cut contributions by one third). The empirical studies discussed above and general inertia suggest that employees are unlikely to raise their own contributions to make up for the loss of the employer match. Thus, they will end up with significantly less retirement savings. As new employees enter the plan, they will not only lack the employer match but may also contribute less on their own than they would have if the match were in place. Again, if the suspensions of the employer match last for only a short time, the effects will be modest. If the suspensions end up being permanent, they will have a substantial impact on retirement saving.

One further question is the extent to which the decline in participation and contributions will cause firms to run into the non-discrimination provisions. After all, these provisions underpin employers' enthusiasm for matching contributions in the first place. Currently, employers have two ways to ensure that a 401(k) plan is non-discriminatory: (1) maintain the portion of contributions allocated to highly-compensated participants within the statutory limits; or (2) meet "safe harbor" requirements. The safe harbor alternatives require some form of employer contribution, so they would no longer be available with the suspension of the employer match.<sup>16</sup> As a

<sup>13</sup> See Madrian and Shea (2002); and Choi et al. (2001a) and (2001b).

<sup>14</sup> Madrian and Shea (2002).

<sup>15</sup> EBRI (1994).

<sup>16</sup> Under the Small Business Job Protection Act of 1996, if a plan fulfills the safe-harbor requirement it is automatically considered non-discriminatory. To be a safe-harbor 401(k) plan the employer must meet *one* of the following two conditions:

i) The employer matches 100 percent on the first three percent of pay plus 50 percent of the next 2 percent of pay; or  
 ii) The employer contributes 3 percent of pay to all employees' accounts whether the employee contributes or not.  
 In either case, employer contributions must vest immediately.

result, the non-discrimination determination will rest on tests that compare the amount contributed by highly-compensated employees (those earning more than \$90,000) to that from the non-highly compensated.<sup>17</sup> To the extent that firms are close to the margin, the suspension or elimination of an employer match may cause a reduction in contributions by lower-paid workers such that the plans are no longer in compliance. If a plan fails the non-discrimination test, a share of the highly-compensated employees' contributions must be returned so that the plan meets the requirements.<sup>18</sup> As a result, the contributions of the higher paid as well as the lower paid would be affected by the suspension of the employer match.

## Conclusion

The onset of the bear market in 2000 and the recession that began in March 2001 have sorely strained 401(k) plan participants. Employees learned the hard way that they were on the hook for investment risk. At the same time, it became clear that the employer match, a valued component of the 401(k) plan, was neither mandatory nor permanent. Thus, employees face the risk not only that their assets can abruptly decline in value but also that their employer can stop contributing. The seriousness of the current suspensions of employer matches will depend on whether more firms follow suit and whether the suspensions are a temporary or permanent phenomenon. If temporary, the effects will probably be modest and must be compared to the impact of other ways the firm could have responded. For example, cutting the employer match may have been an alternative to cutting payrolls by 3 percent. If so, the temporary suspensions may have been the best course. On the other hand, if these suspensions lead to a permanent decline of the employer match, significantly fewer people will participate — especially among the lower paid — and many of those affected will end up with an inadequate retirement income.

## References

- Choi James J., David L. Laibson, Brigitte C. Madrian, and Andrew Metrick. 2001a. "For Better or For Worse: Default Effects and 401(k) Savings Behavior." Working Paper 8651. Cambridge, MA: National Bureau of Economic Research.
- Choi James J., David L. Laibson, Brigitte C. Madrian, and Andrew Metrick. 2001b. "Defined Contribution Pensions, and the Path of Least Resistance." Working Paper 8655. Cambridge, MA: National Bureau of Economic Research.
- Clark, Robert L. and Sylvester J. Schieber. 1998. "Factors Affecting Participation Rates and Contribution Levels in 401(k) Plans." In *Living with Defined Contribution Plans*, edited by Olivia S. Mitchell and Sylvester J. Schieber. Philadelphia, PA: Pension Research Council and the University of Pennsylvania Press.
- Clark, Robert L., Gordon P. Goodfellow, Sylvester J. Schieber, and Drew Warwick. 2000. "Making the Most of 401(k) Plans: Who's Choosing What and Why?" In *Forecasting Retirement Needs and Retirement Wealth*, edited by Olivia S. Mitchell, P. Brett Hammond, and Anna M. Rappaport. Philadelphia, PA: Pension Research Council and the University of Pennsylvania Press.
- EBRI. 1994. "Salary Reduction Plans and Individual Saving for Retirement." *Issue Brief* 155 (November). Washington, D.C.: Employee Benefit Research Institute.
- Even, William E. and David A. Macpherson. 2000. "The Changing Distribution of Pension Coverage." *Industrial Relations* (April).
- Holden, Sarah and Jack VanDerhei. 2001. "Contribution Behavior of 401(k) Plan Participants." *Issue Brief* 238 (October). Washington, D.C.: Employee Benefit Research Institute.
- Investment Company Institute. 2000. *401(k) Plan Participants: Characteristics, Contributions, and Account Activity*. Report 2000.

<sup>17</sup> In order for a non-safe-harbor plan to be non-discriminatory, it must satisfy two criteria:

- i) *Actual Deferral Percentage (ADP)*: The average percentage of salary deferred into the plan for the highly compensated (HC) cannot exceed that for the non-highly compensated (NHC) by more than the allowable percentage. If  $ADP_{NHC}$  is less than 2 percent, then  $ADP_{HC}$  cannot exceed two times  $ADP_{NHC}$ . If  $ADP_{NHC}$  is between 2 percent and 8 percent, then  $ADP_{HC}$  can exceed  $ADP_{NHC}$  plus 2 percent. If  $ADP_{NHC}$  is 8 percent or more, then  $ADP_{HC}$  cannot exceed 1.25 times  $ADP_{NHC}$ .
- ii) *Actual Contributions Percentage*: The sum of employee and employer contributions as a percent of compensation for the highly compensated (HC) cannot exceed that for the non-highly compensated (NHC) by more than the allowable percentage.

<sup>18</sup> In addition to the Internal Revenue Code limits, many plans limit how much highly-compensated employees can contribute, to ensure that the plan will pass the non-discrimination testing without having to return contributions to highly-compensated employees.

- Kusko, Andrea L., James M. Poterba, and David W. Wilcox. 1998. "Employee Decisions with Respect to 401(k) Plans." In *Living with Defined Contribution Plans*, edited by Olivia S. Mitchell and Sylvester J. Schieber. Philadelphia, PA: Pension Research Council and the University of Pennsylvania Press.
- Madrian, Brigitte C. and Dennis F. Shea. 2002. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." *Quarterly Journal of Economics* 116 (4): 1149-1187.
- Munnell, Alicia H., Annika Sundén, and Catherine Taylor. 2002. "What Determines 401(k) Participation and Contributions?" *Social Security Bulletin* 64 (3).
- Papke, Leslie E. 1995. "Participation and Contributions to 401(k) Pension Plans." *Journal of Human Resources* 30 (2): 311-325.
- Papke, Leslie E. and James M. Poterba. 1995. "Survey Evidence on Employer Match Rates and Employee Saving Behavior in 401(k) Plans." *Economic Letters* 49 (3): 313-317.
- Profit Sharing/401(k) Council of America. 2002. *45<sup>th</sup> Annual Survey of Profit Sharing and 401(k) Plans*.
- U.S. Board of Governors of the Federal Reserve System. 1998 and 2001. *Survey of Consumer Finances*.
- U.S. Bureau of the Census. 1988 and 1993. *Current Population Survey*.
- Walsh, Mary Williams with Patrick McGeehan. 2003. "Schwab to End Match to 401(k)s." *The New York Times* (March 14).
- Dow Jones Newswires. 2003. "Textron Drops 401(k) Match for Non-union Workers." (April 15).
- Financial Executive News. 2002. "Big Players in the Automotive Business Have Cut Back or Completely Eliminated the Fixed Match in their 401(k) Plans." (February).
- Gale Group. 2001. "Automakers Target 401(k) Plans in Current Economic Downturn." *DC Plan Investing* (December 26).
- Geller, Adam. 2003. "More Employers Suspend Contributions to Retirement Accounts to Cut Costs." *Associated Press State & Local Wire* (April 3).
- Goldberg, Laura. 2003. "El Paso Corp. Quashes Company 401(k) Match." *The Houston Chronicle* (February 22).
- Goldberg, Laura. 2003. "El Paso Reinstates 401(k) Matches; CEO Memo Lauds Cost-cutting as Company Faces Proxy Fight." *The Houston Chronicle* (May 15).
- IOMA. 2002. "Managing 401(k) Plans." (January).
- Jacobius, Arleen. 2001. "Disappearing Act: Profit-hungry Companies Take Ax to 401(k) Matches." *Pensions and Investments* (December 10).
- Lagasse, Mary Anne. 2003. "GNP Seeks Bankruptcy Protection: Uncertainty about Future of Mills Worries Workers." *Bangor Daily News* (January 10).
- O'Malley, Chris. 2003. "Schwab Joins Grim Employer Trend towards Curbing 401(k) Match." *The Indianapolis Star* (May 15).
- McCracken, Jeffrey. 2001. "Auto Suppliers Join Trend to Trim 401(k) Plans." *Detroit Free Press* (December 15).
- McCracken, Jeffrey. 2001. "Delphi Joins GM and Chrysler in Cutting Contributions to Some 401(k) Plans." *The Buffalo News* (September 10).
- Prince, Michael. 2001. "Employers Seeing 401(k) Matches as Potential Area to Trim Expenses." *Business Insurance* (December 17).
- Rankin, Joe. 2003. "Crumpling Paper Industry." *Central Maine Morning Sentinel* (January 26).
- Walsh, Mary Williams with Patrick McGeehan. 2003. "Schwab to End Match to 401(k)s." *The New York Times* (March 14).

## Appendix

- Armour, Stephanie. 2002. "Companies Chisel Away at Workers' Benefits." *USA Today* (November 18).
- Associated Press Financial News. 2001. "GM Cuts 401(k) Contribution Again." (December 14).
- Associated Press Financial News. 2002. "GM to Increase 401(k) Matching." (September 27).
- Associated Press State and Regional. 2003. "Great Northern's Debt Exceeds \$100 million." (January 10).
- Chapelle, Tony. 2003. "Match-less 401(k) Is Latest Pru Wrinkle." *Securities Data Publishing* (May 1).
- Crain Communications. 2003. "Awful Precedent." *Pensions and Investments* (January 20).

# CENTER FOR RETIREMENT RESEARCH

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