

# An Analysis of Frozen Defined Benefit Plans



**Pension Benefit Guaranty Corporation**  
December 21, 2005

# An Analysis of Frozen Defined Benefit Plans

## Summary

While a number of high-profile pension plan terminations have received widespread attention in recent years, a related and equally important issue is the degree to which companies that sponsor ongoing pension plans are “freezing” benefits. Until now, the available data on plan freezes came primarily from client surveys conducted by benefits consulting firms. The surveys do not adopt a uniform methodology or definition of the term “freeze,” which can mean closing the plan to new entrants or ceasing accruals for some or all plan participants. Additional anecdotal evidence on plan freezes is available from news accounts of well-known companies that have frozen their plans in recent years, such as Verizon, IBM, Motorola, Sears and NCR.

To gain a more complete and accurate picture of plan freezes, the Pension Benefit Guaranty Corporation analyzed the most recently available comprehensive data provided by plan sponsors themselves. These data come from the 2003 Form 5500 “Annual Return/Report of Employee Benefit Plan” that each company sponsoring a tax-qualified defined benefit pension plan must file with the Internal Revenue Service, the Department of Labor, and the PBGC. The Form 5500 asked whether or not the employer’s pension plan was “hard-frozen,” meaning no participants were accruing *any* new benefits under the plan. According to the 2003 Form 5500s, 9.4 percent of the single-employer defined benefit pension plans insured by the PBGC were hard-frozen. For perspective, most of these hard-frozen plans were small plans with fewer than 100 participants, with the result that only 2.5 percent of the participants in PBGC-insured plans were affected by these plan freezes.

## Background

Traditional defined benefit pension plans, based on years of service and either final salary or a flat-dollar benefit formula, provide a stable source of retirement income to supplement Social Security. The number of private-sector defined benefit plans reached a peak of 112,000 in the mid-1980s. At that time, about one-third of American workers were covered by defined benefit plans. The number of plans now stands at about 30,000.

In recent years, many employers have chosen not to adopt defined benefit plans, and others have chosen to terminate their existing defined benefit plans. From 1986 to 2004, 101,000 single-employer plans with about 7.5 million participants were terminated. In about 99,000 of these terminations, the plans had enough assets to purchase annuities in the private sector to cover all benefits earned by workers and retirees (a “standard termination”). In the remaining 2,000 cases, companies with underfunded plans shifted their pension liabilities to the PBGC.

In contrast to the dramatic reduction in the total number of plans, the total number of participants in PBGC-insured single-employer plans has increased. In 1980, there were about 28 million covered participants; by 2004 this number had increased to about 35 million. However, these numbers mask the downward trend in the defined benefit system because they include not only active workers but also retirees, surviving spouses and separated vested participants. The latter three categories reflect past coverage patterns in defined benefit plans. A better forward-looking measure is the trend in the number of active participants, who continue to accrue benefits. That number is moving downward. In 1985, there were about 22 million active participants in single-employer defined benefit plans. By 2002, the number had declined to 17 million. At the same time, the number of inactive participants has been growing. In 1985, inactive participants accounted for only 28 percent of total participants in single-employer defined benefit plans, a number that has grown to about 50 percent today.

Plan terminations are one reason for the decline in active participants. Plan freezes are another. Some plans are frozen because the sponsor falls on hard economic times and decides to temporarily freeze its plans to reduce the contributions it is required to pay into them. Other plans are frozen because the sponsor wants to cover its workers under a defined contribution or hybrid plan and does not want to terminate or convert the old plan. Still others are frozen after one company acquires another, and the plans of the two companies cannot easily be merged.

As noted, a plan can be frozen in several ways. It can be closed to new entrants so that only those in the plan at a point in time continue to accrue benefits. The plan can be frozen for some, but not all, participants. Such a partial freeze could be based on age, tenure, job classification or plant location. Under a hard freeze, no participant accrues any further benefits based on either job tenure or compensation growth. Under a soft freeze, benefits are generally not increased for additional tenure but are increased for compensation growth.

## Available Studies on Plan Freezes

The decline in the equities markets starting in 2000 and the continued longer-term decline in interest rates have combined with other factors to reduce funding levels in many plans. A number of these plans have become so underfunded that their sponsors are required to make relatively high minimum contributions to bring funding back up to acceptable levels. Reports from benefit consulting firms suggest that the sponsors of many underfunded plans would like to terminate their plans but cannot afford to purchase annuities from a private-sector insurer to cover benefits. These reports also indicate that many sponsors have taken actions, or are thinking about taking actions, to reduce the burdens of their plans by closing them to new entrants or freezing accruals for some or all active participants.

A number of benefit consulting firms and actuarial organizations conducted studies from 2003 through 2005 that touched on the frozen plan issue. These studies all have shortcomings, however. Those conducted by the consulting firms are generally based solely on a review of plans serviced by the consultant. Those by the actuarial organizations are more broadly based but response rates are low and respondents are self-selected.

None of the studies are based on a random sample of all plans or on data available from all plans. This means the results cannot be projected to the entire population of plans or to the plans insured by PBGC. In addition, the definition of “freeze” varies across these studies, and, when reporting results, the studies tend to combine frozen plans with plans with other characteristics such as plans whose sponsors are considering a freeze or plans that have terminated. This makes it difficult to determine how many plans were frozen at a point in time and difficult to compare the results of the various studies. Also, the studies do not report why the freeze was implemented.

The most often cited study of frozen plans was released by the Aon Corporation in the fall of 2003.<sup>1</sup> Aon’s actuaries looked at more than 1,000 private-sector defined benefit client plans and found that 15 percent of the plans were frozen to one degree or another. It also reported that the sponsors of another 6 percent of plans were actively considering freezing their plan. Neither the level of freeze nor the year the freeze was implemented was specified for the plans that were frozen, and there has been no published follow-up to determine if the sponsors who were considering freezing their plans actually did so.<sup>2</sup>

In January 2004, Mercer Human Resources Consulting reported the results of a study that looked at changes in plan characteristics over the past three years for 170 client plans.<sup>3</sup> The study found that 6.5 percent of the plans had been frozen during the previous three years, 6 percent had been closed to new entrants, 9 percent would be frozen within the following six months, and a freeze was under consideration by another 6 percent. The study did not report on the extent of the freeze for the frozen plans or how many plans might have been frozen before the 3-year look-back period. Again, there has been no follow-up report on whether the planned freezes actually occurred.

In 2003, the American Academy of Actuaries asked its members to report on the extent of freezes in client plans.<sup>4</sup> The Academy received voluntary responses from

---

<sup>1</sup> Aon press release, “Aon Study: Pension plan freezes moving to forefront; more possible without changes to funding rules,” October 29, 2003.

<sup>2</sup> Aon is conducting a follow-up study but is still gathering data at this time.

<sup>3</sup> Mercer Human Resources Consulting, “Coping with the Economy: Survey on retirement programs,” no date but cited in a Mercer Investment Consulting press release, “US employers look to reduce retirement plan costs,” January 22, 2004.

<sup>4</sup> American Academy of Actuaries, Enrolled Actuaries Report, “GAO Studies Frozen Plans,” pages 5-6, Spring 2004.

232 Enrolled Actuaries who worked on 4,659 mostly small plans. Of these plans, 9 percent were frozen prior to 2000, 11 percent since 2000 and 7 percent were closed to new entrants. Sponsors of 8 percent were considering freezing their plans. The extent of the freeze was not reported.

Towers Perrin conducted studies in 2003 and 2004 that included questions about plan freezes, but the Towers analysts combined frozen plans with plans having other characteristics when reporting their results.<sup>5</sup> In the 2003 study, for example, they reported that 27 percent of sponsors had either frozen their plan, were considering freezing their plan, or had either reduced plan benefits or were planning to reduce benefits. The 2004 benefits study of 134 leading multinational corporations (only 42 percent of which were headquartered in North America) found that 20 percent had frozen or eliminated their pension plans and 12 percent expected to take one of these two actions within the next 12 to 18 months.

Hewitt Associates looked at the plans of about 200 large companies in 2003 and 2004.<sup>6</sup> However, the focus of the studies was on companies that were considering freezing their plans or closing them to new entrants. The Hewitt studies did not report the percentage of plans that had already been frozen.

In March 2005, the Society of Actuaries published the results of a survey conducted for them by Mathew Greenwald and Associates in September 2004.<sup>7</sup> The survey, which was sent to the 2,500 employers in the United States with the largest work forces, contained some information on plan freezes. Only 342 employers responded and 100 of these were public sector organizations. Of these 342 employers, 264 sponsored one or more defined benefit pension plans. Seventy of the sponsors (27 percent) had frozen at least one plan.<sup>8</sup> However, 66 of these 70 employers continued to sponsor at least one ongoing defined benefit plan. The study did not differentiate between frozen plans in the private versus public sector. It reported that 5 percent of the active participants in the private-sector plans and 3 percent of those in the public-sector plans were in plans that had been frozen.

More recently, Watson Wyatt released the results of a study on the status of defined benefit plans in the Fortune 1000 companies for 2001 through 2004.<sup>9</sup> The study found that the percentage of companies with a frozen or terminated plan increased from 5 percent (34 plans) in 2001 to 11 percent (71 plans) in 2004. The study did not

---

<sup>5</sup> Towers Perrin HR Services, “Back to the Future: Redefining Retirement in the 21<sup>st</sup> Century, The 2003 Retirement Study” and “Managing Employee Benefits Globally: Today’s increasingly disciplined approach,” Worldwide Benefits Management Survey, November 2004.

<sup>6</sup> Hewitt Associates LLC, “Survey Findings—Current Retirement Plan Challenges: Employer Perspectives, 2003,” December 2003, and “Survey Findings: Hot Topics in Retirement, 2005,” January 2005.

<sup>7</sup> Mathew Greenwald and Associates, Inc., “Society of Actuaries’ Survey on the Prevalence of Traditional and Hybrid Defined Benefit Pension Plans: Report of Findings,” March 2005.

<sup>8</sup> The freeze definition used was a “hard freeze.”

<sup>9</sup> Watson Wyatt Worldwide press release, “More Companies Froze, Terminated Pension Plans in 2004, Watson Wyatt Analysis Finds,” June 22, 2005.

indicate (1) how this percentage was distributed between frozen and terminated plans; (2) when the frozen plans were frozen; (3) what type of freeze was being measured; or (4) whether all, or just some, of the plans of an individual company were frozen or terminated.

## PBGC Analysis of the Form 5500 Data<sup>10</sup>

In 2002, a new frozen plan question was added to the Form 5500, the report pension plans are required to file annually with the IRS, the Department of Labor, and the PBGC.<sup>11</sup> This new question requires defined benefit pension plans to indicate whether “as of the last day of the plan year, the plan provides that no participant will get any new benefit accrual (whether because of service or compensation).” In short, it asks if the plan is frozen under a “hard freeze” definition. However, processing problems for this question on the 2002 Form 5500s limited the usefulness of the frozen plan data for this year.

The value of the Form 5500 frozen-plan question is somewhat limited in the current context because not all plan freezes are hard freezes. A plan closed to new entrants that allows those already in the plan to continue to accrue benefits does not meet this definition. Neither does a plan that freezes benefit accruals for some participants but not all (a “partial freeze”). A plan that freezes service accruals for all active participants but allows benefits to increase with the growth in participants’ wages (a “soft freeze”) also fails to conform to the hard freeze definition. News reports on plans that are being closed to new entrants or frozen for only certain classes of workers suggest that these other types of freezes are relatively common. However, at the moment, there are no data available that can be used to determine how common they actually are.

It generally takes about two years from the beginning of a plan year for the Form 5500 data to become available to federal agencies. As a result, 2003 is the latest year for which complete Form 5500 data are available. At the moment, completed 2003 Form 5500 filings are available for more than 95 percent of the PBGC-insured single-employer plans. The data presented in the following section are based on the available 2003 data.

---

<sup>10</sup> In 2005, the PBGC began receiving information about plan freezes implemented during the reporting year from the reports that plan sponsors file with the agency under section 4010 of ERISA. However, not all plan sponsors are required to file such reports—in 2004, for example, only 1,108 plans out of roughly 30,000 filed with the PBGC. In addition, the plans that file do not represent a random sample of the defined benefit pension universe; therefore, the results regarding plan freezes cannot be extrapolated to the system as a whole. With that said, the section 4010 filings received by the PBGC for 2004 indicated that sponsors of about 8 percent of the reporting plans had either frozen benefit accruals to some degree or closed the plan to new entrants during the reporting period.

<sup>11</sup> The data on the number of plans and participants presented in the following pages will differ slightly from the 2003 numbers in PBGC’s “Pension Insurance Data Book.” The source of the “Data Book” plan and participant numbers is PBGC’s premium filings, not the Form 5500s. Differences in filing due dates, processing times, and definitions of participants are the primary sources of these slight disparities.

## Results

### Plan size

More than 9 percent of PBGC-insured single-employer plans (more than 2,700 of the 29,000 plans for which 2003 data are available) were hard-frozen in 2003. As shown in Table 1, small plans were more likely to be frozen than larger plans. Ten percent of plans with fewer than 1,000 participants were hard-frozen. The percentage of frozen plans decreased as the size of the plan increased. Only 2 percent of the plans with 5,000 or more participants were hard-frozen.

Table 1. Percentage of PBGC-Insured Single-Employer Plans That Had a Hard Freeze in Place in 2003, by Plan Size

Plan Size	Percent Hard-Frozen	Group's Percentage of All Plans
Less than 100	10.1	65.2
100 – 999	9.5	23.4
1,000 – 4,999	6.2	7.7
5,000 or more	2.2	3.6
Total Percent	9.4	100.0

### Participants in hard-frozen plans

The percentage of participants in hard-frozen plans, 2.5 percent, is substantially smaller than the percentage of plans that are frozen. (See Table 2.) This is understandable given that small plans are more than four times as likely to be hard-frozen as large plans. As with the percentage of frozen plans, the percentage of participants in frozen plans declines as plan size increases. More than 12 percent of participants in plans with fewer than 100 participants were in hard-frozen plans, but only 1 percent of participants in large plans of 5,000 or more participants had their benefit accruals frozen.

The percentage of active participants who are in hard-frozen plans (less than 2 percent) is even smaller than the percentage of all participants in these plans. This could be due to an accounting anomaly. Once a plan is frozen, the plan's administrator might no longer consider the company's employees to be active participants. The administrator might count them as separated vested participants instead. On the other hand, if the sponsor froze the plan because of financial hardship, it might very well have implemented a reduction-in-force, which would move active participants into the separated vested

participant category. While not shown in the table, about one-third of the participants in frozen plans are listed as active participants and 40 percent as separated vested participants. In plans that are not frozen, about half the participants are reported to be active participants and 25 percent as separated vested participants.

**Table 2. Percentage of All Participants and All Active Participants in Hard-Frozen PBGC-Insured Single-Employer Plans in 2003, by Plan Size**

Plan Size	Percent of All Participants	Percent of All Active Participants
Less than 100	12.5	8.1
100 – 999	9.1	6.5
1,000 – 4,999	6.2	3.7
5,000 or more	1.0	0.7
Total Percent	2.5	1.8

#### Type of single-employer plan

The plans PBGC insures may base benefits on a percentage of the participants’ compensation or on a flat-dollar amount, or they may be hybrid plans. Currently there is much uncertainty about whether Cash Balance plans, the primary type of hybrid plan, meet all the conditions to be judged a “qualified” plan. Many of the plans rumored to be frozen or whose sponsors are rumored to be considering freezing their plans are hybrid plans. Table 3 shows that, in 2003, hybrid plans were less likely to have been hard-frozen (6 percent) than either pay-based plans (9 percent) or flat-dollar plans (10 percent).<sup>12</sup> The uncertainty that surrounds hybrid plans has not yet resulted in a strong move toward freezing them. Sponsors of hybrid plans appear to be adopting a wait-and-see-what-the-Congress-will-do attitude.

<sup>12</sup> Most hybrid plans were created by converting a traditional defined benefit plan to a hybrid plan. In many converted Cash Balance plans, the benefits that had been accrued under the traditional plans were converted to an opening account balance for the Cash Balance plan. All benefits will be paid from these accounts. In other Cash Balance plans, the benefits accrued under the traditional plans were frozen and the Cash Balance accounts began with a \$0 balance. The benefits that will be paid from these plans will combine the frozen benefits from the traditional plans and the account balances from the Cash Balance plans. Even though the benefits from the traditional component of these plans were frozen, the active participants continue to accrue benefits from the Cash Balance component, so these plans should not be characterized as frozen plans.

Table 3. PBGC-Insured Single-Employer Plans With a Hard Freeze in 2003, by Type of Plan

Type of Plan	Percent Hard-Frozen	Group's Percentage of All Plans
Pay-Based	8.8	80.9
Flat-Dollar	9.6	15.0
Hybrid	5.7	5.8
Not Reported	24.9	3.2
Total	9.4	100.0

Note 1: Group's Percentages add to more than 100 percent (104.9 percent) primarily because a number of plans reported being both a hybrid plan and also either a pay-based or flat-dollar plan.

Note 2: The percentage of plans that were hybrid plans in 2003 is higher here than reported in the "Pension Insurance Data Book 2004" because the "Data Book's" numbers are based on conditions at the beginning of 2003. The data in Table 3 are, for the most part, based on conditions at the end of 2003.

### Funding level of frozen plans

On average, frozen plans are less well funded than unfrozen plans. Table 4 compares the current-liability-funded status of frozen and unfrozen plans.<sup>13</sup> Almost half the frozen plans, but only a third of the unfrozen plans, had current-liability-funded ratios of less than 80 percent. Another quarter of each type of plan was between 80 and 100 percent funded on a current liability basis. Because plans are almost always better funded on a current liability basis than on a termination basis, it is safe to assume that in 2003 more than 75 percent of the frozen plans and more than 60 percent of unfrozen plans were underfunded on a termination basis.

The poor funded condition of many of the frozen plans would appear to provide credible support for the notion that sponsors of many frozen plans would like to terminate them but cannot currently afford to do so. Indeed, more than 20 percent of the frozen plans reported in 2003 that a decision had been made to terminate them. Such a termination decision was reported for only 7 percent of the unfrozen plans. Certainly, for many of these underfunded plans, it would be very costly for the sponsor to make a contribution large enough to close the plan out with a standard termination. Nevertheless, while a large percentage of frozen plans were underfunded in 2003, one cannot necessarily conclude that the majority of the sponsors of

<sup>13</sup> Current liabilities are a proxy for the plan's accrued liabilities at a point in time. They are generally smaller than the plan's termination liabilities, a measure of what it would cost the sponsor to close out the plan by purchasing annuities for all participants. Because the liabilities are the denominator in the funded ratio, a smaller measure of liabilities will yield a higher reported funded ratio. Thus, a plan's current-liability-funded ratio will generally be higher than its termination-funded ratio.

frozen plans actually want to terminate these plans. Plans are frozen for a variety of reasons, and sponsors may find certain advantages to maintaining a frozen plan, even if it is fully funded on a termination basis.<sup>14</sup>

Table 4. Current-Liability-Funded Ratios of Frozen and Unfrozen Plans, 2003

Funded Ratio	Frozen Plans	Unfrozen Plans
Less than 60 percent	15.0	8.3
60 – 79 percent	33.1	26.6
80 – 99 percent	25.2	26.0
100 percent or better	16.6	28.9
Missing	10.1	10.1
Total	100.0	100.0
Percent of All Plans	9.4	90.6

As shown in Table 5, small frozen plans were more likely than larger plans to be very poorly funded. Almost 20 percent of small plans were less than 60 percent funded on a current liability basis, whereas less than 10 percent of larger plans were this poorly funded. However, another 20 percent of small frozen plans were very well funded and had assets that at least equaled the plans' current liabilities. A smaller percentage of the larger plans were this well funded. (Small plans have fewer reporting requirements than larger plans and were much more likely to be missing the data needed to determine their funded ratios.)

Table 5. Percent of Frozen Plans, by Funded Ratio and Plan Size, 2003

Funded Ratio	Plan Size			
	Less than 100	100 – 999	1,000 – 4,999	5,000 or more
Less than 60%	17.4	10.1	5.0	8.7
60 – 79%	26.8	46.0	57.9	47.8
80 – 99%	22.4	33.2	27.9	21.7
100% or better	19.6	9.2	8.6	17.4
Missing	13.7	1.6	0.7	4.3
Total	100.0	100.0	100.0	100.0
Percent of All Frozen Plans	70.4	23.6	5.1	0.8

<sup>14</sup> Sponsors may be reluctant to terminate a frozen plan that is significantly overfunded because the asset reversion tax would prevent them from recovering a substantial portion of the plan's surplus assets.

## Sponsors of multiple plans

Companies sponsoring two or more plans represent about 6 percent of all companies sponsoring PBGC-insured single-employer plans.<sup>15</sup> (See Table 6.) These companies sponsor about 15 percent of the single-employer plans PBGC insures. Companies sponsoring multiple plans are more likely to have hard-frozen at least one of their plans than are companies that sponsor only one plan (15 percent versus 10 percent). However, a smaller percentage of plans of these multiple plan sponsors have been frozen (8 percent) than plans of sponsors of only one plan (10 percent). Among those sponsors of multiple plans that froze at least one plan, two-thirds froze only one plan while 25 percent (but just 4 percent of all multiple plan sponsors) froze all the plans the company sponsored.

Table 6. Characteristics of Companies That Sponsor Only One PBGC-Insured Single-Employer Plan and Companies That Sponsor Multiple Plans, 2003

Percent of:	Sponsors of One Plan	Sponsors of Multiple Plans
All sponsors	93.6	6.4
All plans	84.6	15.4
All frozen plans	86.5	13.5
Sponsors' plans that are frozen	9.6	8.2
Sponsors freezing any plans	9.6	15.0
Sponsors freezing only one plan	9.6	9.7
Sponsors freezing all plans	9.6	3.6

## Industry

Certain industries are more likely to have hard-frozen plans than others, as shown in Table 7. Plans in the Fabricated Metal Products (16%), Apparel and Textile Products (16%), Rubber and Plastics (12%), Primary Metals (12%), and Retail Trade (12%) industries are the most likely to be hard-frozen. Plans in the Utilities (3%), Motor Vehicles (5%), and Finance, Insurance and Real Estate (6%) industries are the least likely to be hard-frozen.

<sup>15</sup> This figure is based on plans sponsored by unique employer identification numbers (EINs). Some companies, especially controlled groups, have several different EINs. In this section, each unique EIN is assumed to represent a separate company.

Table 7. Percentage of PBGC-Insured Single-Employer Plans That Had a Hard Freeze in Place in 2003, by Industry

Industry	Percent Hard-Frozen	Industry's Percentage of All Plans
Agriculture, Mining and Construction	9.1	8.4
Manufacturing	10.1	26.9
Apparel and Textile Products	15.9	1.0
Chemicals and Allied Products	7.6	2.3
Fabricated Metal Products	16.1	4.6
Food and Tobacco Products	8.5	2.4
Machinery and Computer Equip.	12	3.3
Motor Vehicles	4.6	1.1
Primary Metals	12.3	1.6
Rubber and Plastics	12.4	1.4
Other Manufacturing	10.2	9.2
Transportation and Public Utilities	7.2	3.6
Air Transportation	12.1	0.2
Other Transportation	9.5	2
Public Utilities	2.7	1.3
Wholesale Trade	11.8	7.2
Retail Trade	12.3	5.1
Finance, Insurance and Real Estate	5.6	17.4
Services	8.9	31.4
Total	9.4	100

#### Collective bargaining status

One would suppose that collectively bargained plans are much less likely to be frozen because either the negotiating employees' group must agree to the freeze or the sponsor must be in bankruptcy and receive permission from the bankruptcy court to freeze the plan. However, the 2003 Form 5500 data suggest this is not the case as far as hard-frozen plans are concerned. Seven percent of the collectively bargained plans were hard-frozen compared with 10 percent of the non-collectively bargained plans.

## Conclusions

The data indicate that almost one out of every ten single-employer pension plans insured by PBGC were hard-frozen as of the 2003 plan year. Most of the hard-frozen plans are small plans. Only 2.5 percent of all participants and fewer than 2 percent of the active participants in all PBGC-insured single-employer plans are affected by these hard freezes.

From PBGC's perspective and from a company's financial perspective, the freezing of benefit accruals has little short-term impact. Plans continue to pay premiums based on the number of participants in the plan even though the companies' workers (the active participants) are no longer accruing benefits. Companies with frozen plans are still required to make the minimum required contributions to the plan. Because the companies' workers are not accruing new benefits that have to be funded, over time it should be somewhat easier for the sponsors of underfunded frozen plans to fully fund their plans.

From a longer-term perspective, freezing plans and closing them to new entrants could have a significant effect on the defined benefit system. The data indicate that sponsors are more likely to have made a decision to terminate frozen plans than unfrozen plans. This, combined with the closing of the frozen plans to new entrants, even for those that do not terminate, suggests that the growth rate for total insured participants will slow or perhaps even reverse itself. This will cause PBGC's flat-rate premium income to be less than it would be if the plans had not been frozen or closed to new entrants. If the funding levels of the frozen plans improve, the PBGC's variable-rate premium income could also be reduced, making it more difficult for PBGC to recover from its current negative net financial position. PBGC's anticipated claims should also be smaller because of the improved funding in these plans, however.

The findings of this study show that the significant changes taking place in the defined benefit system are more widespread than indicated by the long-term and continuing decline in the number of defined benefit plans. And even the results of this study do not show the full extent of the decline in the defined benefit system. While we know that nearly 10 percent of the remaining PBGC-insured plans were hard-frozen as of 2003, an unknown number of additional plans have been frozen to a lesser degree or closed to new entrants, and these numbers have almost certainly increased in the past two years.