

July 2008

# DEFINED BENEFIT PENSIONS

Plan Freezes Affect  
Millions of  
Participants and May  
Pose Retirement  
Income Challenges





Highlights of [GAO-08-817](#), a report to congressional addressees

### Why GAO Did This Study

Private defined benefit (DB) pension plans are an important source of retirement income for millions of Americans. However, from 1990 to 2006, plan sponsors have voluntarily terminated over 61,000 sufficiently funded single-employer DB plans. An event preceding at least some of these terminations was a so-called plan “freeze”—an amendment to the plan to limit some or all future pension accruals for some or all plan participants. Available information that the government collects about frozen plans is limited in scope and may not be recent. GAO conducted a stratified probability sample survey of 471 single-employer DB plan sponsors out of a population of 7,804 (with 100 or more total plan participants) to gather more timely and detailed information about frozen plans. We have prepared this report under the Comptroller General’s authority as part of our ongoing reassessment of risks associated with the Pension Benefit Guaranty Corporation’s (PBGC) single-employer pension insurance program, which, in 2003, we placed on our high-risk list of programs that need broad-based transformations and warrant the attention of Congress and the executive branch. Frozen DB plans have possible implications for PBGC’s long-term financial position. This report examines (1) the extent to which DB pension plans are frozen and the characteristics of frozen plans; and (2) the implications of these freezes for plan participants, plan sponsors, and the PBGC.

To view the full product, including the scope and methodology, click on [GAO-08-817](#). To view the survey results click on [GAO 08-818SP](#). For more information, contact Barbara Bovbjerg, at (202) 512-7215 or [bovbjergb@gao.gov](mailto:bovbjergb@gao.gov).

## DEFINED BENEFIT PENSIONS

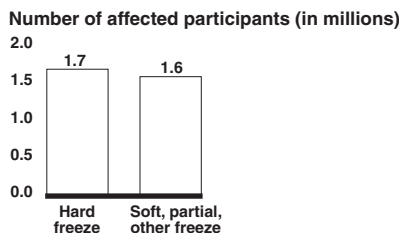
### Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges

#### What GAO Found

Frozen plans are fairly common today, with about half of all sponsors in our study population having one or more frozen DB plans. Overall, about 3.3 million active participants in our study population, who represent about 21 percent of all active participants in the single-employer DB system, are affected by a freeze. The most common type of freeze is a hard freeze—a freeze in which all future benefit accruals cease—which accounts for 23 percent of plans in our study population; however, an additional 22 percent of plans are frozen in some other way. Larger sponsors (i.e. those with 10,000 or more total participants) are significantly less likely than smaller sponsors to have implemented a hard freeze, with only 9 percent of plans under a hard freeze among larger sponsors compared with 25 percent of plans under a hard freeze among smaller sponsors. The vast majority of sponsors with frozen plans in our study population, 83 percent, have alternative retirement savings arrangements for these affected participants, but 11 percent of sponsors do not. (An additional 6 percent of sponsors froze plans under circumstances that preclude a replacement plan.) Plan sponsors cited many reasons for freezing their largest plans but most often noted two: the impact of annual contributions on their firm’s cash flows and the unpredictability of plan funding. Sponsors of frozen plans generally expressed a degree of uncertainty about the anticipated outcome for their largest plan, but sponsors whose largest plan was hard frozen were significantly more likely to anticipate plan termination as the likely plan outcome.

The implications of a freeze vary for sponsors, participants, and PBGC. For plan sponsors, while hard freezes appear to indicate an increased likelihood of plan termination, a rise in plan terminations has yet to materialize. For participants, a freeze generally implies a reduction in anticipated future retirement benefits, though this may be somewhat or entirely offset by increases in other benefits or a replacement retirement-savings plan. However, because the replacement plans offered to affected participants most frequently are defined contribution, the investment risk and responsibility for saving are shifted to employees. Finally, plan freezes may potentially improve PBGC’s net financial position, but the degree to which it is accompanied by sponsor efforts to improve plan funding is unclear. In any event, the shrinking of the single-employer pension insurance program plan base seems likely to continue.

**Estimated Number of Active Participants Affected by Sponsors’ Largest Plan Freeze, by Freeze Type**



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

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## Abbreviations

CB	collective bargaining
CUSIP	Committee on Uniform Securities Identification Procedures
DB	defined benefit
DC	defined contribution
EIN	employee identification number
PBGC	Pension Benefit Guaranty Corporation

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United States Government Accountability Office  
Washington, DC 20548

July 21, 2008

Congressional Addressees

The number of private defined-benefit (DB) plans, an important source of retirement income for millions of Americans, has declined substantially over the past two decades.<sup>1</sup> For example, plan sponsors voluntarily terminated over 61,000 sufficiently funded single-employer DB plans from 1990 to 2006.<sup>2</sup> An event preceding at least some of these terminations was a so-called plan “freeze”—an amendment to the plan to limit some or all future pension accruals for some or all plan participants. Over the last five years, a number of large, high profile employers have announced their intention to freeze one or more of their DB plans. These larger plans represent a significant portion of plan liabilities and participants in the private DB pension system.

In 2003, when asked to determine the number of frozen DB plans, we reported that reliable and timely data on DB plan freezes were not generally available.<sup>3</sup> Since that report, additional studies have been published, including two from the Pension Benefit Guaranty Corporation (PBGC), the federal corporation that insures private DB pension plans.<sup>4</sup> PBGC’s studies analyze plan freezes using information submitted by DB pension plan sponsors on the Form 5500 Annual Return/Report of

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<sup>1</sup>Employers may voluntarily sponsor DB plans, defined contribution (DC) plans, or both for their employees. DB plans promise to provide a benefit that is generally based on a formula that typically includes an employee’s salary and years of service. Under a DC plan, such as a 401(k) plan, employees have individual accounts to which the employee, employer, or both make contributions, and benefits are based on contributions along with investment returns (gains and losses) on the accounts.

<sup>2</sup>The voluntary termination of a fully funded DB plan is called a standard termination. Plan sponsors may terminate fully funded plans by purchasing a group annuity contract from an insurance company, under which the insurance company agrees to pay all accrued benefits, or by paying lump-sum benefits to participants if permissible.

<sup>3</sup>GAO, *Private Pensions: Timely and Accurate Information Is Needed to Identify and Track Frozen Defined Benefit Plans*, [GAO-04-200R](#) (Washington, D.C.: Dec. 17, 2003).

<sup>4</sup>See Pension Benefit Guaranty Corporation, *Pension Insurance Data Book 2006*, p. 3-13 (Washington, D.C., Fall 2007) and Pension Benefit Guaranty Corporation, *An Analysis of Frozen Defined Benefit Plans* (Washington, D.C., Dec. 21, 2005).

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Employee Benefit Plan.<sup>5</sup> However, the data from the Form 5500, the primary source of information on DB plans, are limited to so-called “hard freezes.” Under a hard freeze, all current employees who participate in the plan receive no additional benefit accruals after the effective date of the freeze, and employees hired after the freeze are ineligible to participate in the plan. The Form 5500 information on freezes does not include so-called “soft-freezes,” which limit future benefit accruals based on a component of the benefit accrual formula (that is, the service or salary component). According to the most recent PBGC study, 14 percent of the single-employer plans it insures were hard frozen at the end of 2005, a 48 percent increase since 2003. The PBGC study also found that plans with 100 or fewer participants were generally more likely to be frozen than larger plans.

In addition to the informational limitations of the Form 5500, we have also noted that its data are not always available on a timely basis. For example, the Form 5500’s most recently available and complete information on plan freezes is for calendar year 2005 and thus does not include recent plan freezes. Given these concerns and broader concerns about the implications of plan freezes for the retirement security of plan participants, GAO initiated a survey of frozen DB plans under the authority of the Comptroller General of the United States as part of our ongoing reassessment of risks associated with the PBGC’s single-employer pension insurance program. In 2003, we placed this program on our high-risk list of programs that need broad-based transformations and warrant the attention of Congress and the executive branch. Frozen DB plans have possible implications for PBGC’s long-term financial position.

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## Reporting Objectives

To better understand the current plan-freeze environment and its significance to the DB system going forward, we address the following questions:

1. To what extent are DB pension plans frozen, and what are the characteristics of such freezes?

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<sup>5</sup>The Form 5500 Annual Return/Report of Employee Benefit Plan is jointly published by the Department of Labor, in conjunction with the Internal Revenue Service and Pension Benefit Guaranty Corporation, to be used by plan administrators and employers in order to satisfy their legally required annual reporting obligations.

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2. What are the implications of such freezes for plan sponsors, participants, and the PBGC?

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## Scope and Methodology

To determine the extent and characteristics among plans that are currently frozen, we collected and analyzed original survey data. We also analyzed and reviewed recent studies of frozen DB plans, notably PBGC's studies of hard frozen DB plans. Appendix I contains revised slides that update the preliminary briefing information that we provided to interested congressional staffs and members, as well as officials from the Department of Labor, PBGC, and the Department of the Treasury from late-April to June 2008.

We conducted our work from April 2006 to July 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform our work to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our research objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

To achieve our survey objectives, we surveyed a stratified probability sample of 471 DB pension sponsors from PBGC's 2004 Form 5500 Research Database. We limited our study population to 7,804 sponsors that had 100 or more total participants in sponsored plans, and our survey population results represent estimates for all sponsors with this characteristic. While they are a minority of sponsors (about 34 percent), sponsors whose plans have more than 100 participants represent about 99 percent of all DB plan participants in the single-employer DB system. Further, sponsors with more than 100 participants in participating plans also represent 99.1 percent of the total liabilities among single-employer plans. To deploy the survey, we mailed a questionnaire to DB pension plan sponsors in the three smallest strata we identified. In addition, as part of a longer questionnaire, we collected similar information via a web survey about plan freezes from the very largest strata of plan sponsors. The survey results can be reviewed in [GAO-08-818SP](#). See appendix II for a more detailed discussion about our survey methodology.

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## Frozen Plans Affect about One-Fifth of Active DB Plan Participants

Overall, an estimated 3.3 million active participants<sup>6</sup> in our study population—or 21 percent of all active participants in the private, single-employer DB system—are affected by reported freezes. (See app. I, slide 9 and slide 10.) Active participants are employees that are or may become eligible to accrue or receive additional benefits under a plan; if all participants in the DB system (that is, active participants, retirees, and separated vested participants) are considered, the proportion represented by active participants who are affected by plan freezes falls to 10 percent.<sup>7</sup> (See app. I, Slide 9.) We considered only those participants who are currently accruing benefits (that is, active participants) at the time of freeze implementation to be affected by a freeze. The above calculations, therefore, do not include sponsors whose largest frozen plans are under a new-employee-only soft freeze, where the plan is closed to new entrants and benefit accruals for active participants remain unchanged. The extent to which active participants are affected by a freeze depends on the type of freeze in place. Under hard freezes, future benefit accruals cease for active participants. In contrast, soft freezes may reduce future benefit accruals for some or all active participants. Soft freezes are distinct from hard freezes in that the restrictions on participants' future benefit accruals are less comprehensive than the total cessation of future accruals under hard freezes.<sup>8</sup>

Our survey shows that about half the sponsors in the study population have one or more frozen plans. (See app. I, slide 11.) Overall, about

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<sup>6</sup>All estimates based on our sample are subject to sampling error. For example the 95 percent confidence interval of the total participant estimate ranges from 2.25 million to 4.34 million participants. Unless otherwise noted, all percentage estimates based on this survey have 95 percent confidence intervals of within +/- 11 percentage points of the estimate itself. Of the 3.3 million estimated participants affected by a freeze, 1.7 million are affected by a hard freeze, and 1.8 million are affected by a soft, partial, or other freeze. The 95 percent confidence interval for participants affected by hard freeze is from 1.1 million to 2.3 million. The 95 percent confidence interval for participants affected by soft, partial, or other freezes is from 0.7 million to 2.5 million. See appendix II for additional information on sampling error of estimates.

<sup>7</sup>Active participants may continue to accrue benefits because they are currently employed by the sponsoring firm. Retirees are no longer employed by the firm and are collecting their retirement benefits. Separated vested participants are no longer employed by the sponsoring firm and no longer accrue benefits, but they are not yet collecting their retirement benefits.

<sup>8</sup>See appendix I, slide 5 for general freeze type definitions. Exact definitions used in the survey may be found in the special product supplement. See GAO, *Defined Benefit Pensions: Survey of Sponsors of Large Defined Benefit Pension Plans*, GAO-08-818SP (Washington, D.C.: July 21, 2008).



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51 percent of plans in the study population were reported as closed to new entrants, the basic requirement of a plan freeze. Nearly half of plans with a reported freeze, or 23 percent of all plans in the study population, were under a hard freeze. (See app. I, slide 12.)<sup>9</sup> In addition, 12 percent reported some type of soft freeze. About 6 percent reported a partial plan freeze, while 4 percent reported an “other” freeze, which include situations where plan participants are separated into plan tiers,<sup>10</sup> or freezes brought on by bankruptcy, plant closure, or plan merger.

The survey results suggest that two factors may influence the likelihood that sponsors will implement a hard freeze: sponsor size and the extent to which a sponsor’s plans are subject to collective bargaining (CB) agreements. Larger sponsors, those with 10,000 or more total participants, are significantly less likely than smaller sponsors to have implemented a hard freeze, with only 9.4 percent of plans under a hard freeze among larger sponsors compared with 25.4 percent of plans under a hard freeze among smaller sponsors. (See app. I, slide 13.) Similarly, firms with some or all plans subject to CB are significantly less likely to implement hard freezes than sponsors with no plans subject to CB.<sup>11</sup> (See app. I, Slide 14.) However, these two factors may be related, as larger sponsors in our

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<sup>9</sup>Closed and unclassified plans are only included for this analysis (see app. I, slide 12). In other analyses, only those plans reporting a specific freeze type will be included in calculations of frozen plans. Of the 51 percent of all plans reported as closed to new entrants, 44 percent reported a specific freeze type. Another roughly 9 percent of plans were closed to new entrants but were not classified by their sponsors as being frozen. Those plans defining a freeze plus those that reported the plan as closed to new hires, but not defined as frozen, may not sum to the total number of closed plans. This occurs because, in certain instances, a partial freeze may not be closed to all new entrants. For example, a subset of new entrants may be part of the group unaffected by the partial freeze.

<sup>10</sup>An example of a tier might be if an employer were to offer certain participants the option to freeze certain accruals in one DB plan as a condition of participation and accruals in another, alternative plan (either DB or DC).

<sup>11</sup>The statistical significance of this finding applies only to hard frozen plans. Sponsors with some or all plans that were subject to CB did not freeze their plans overall at a statistically different rate from the general population of sponsors. Estimated percentages for sponsors with no CB or some CB have 95 percent confidence intervals of within +/- 11 percentage points of the estimates themselves. For sponsors with all plans subject to CB, the confidence intervals are within +/- 15 percentage points of the estimates themselves.

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survey are generally more likely to have one or more plans subject to CB than smaller sponsors.<sup>12</sup>

About half of the freezes of sponsors' largest frozen plans have occurred since 2005. (See app. I, slide 16.) This figure includes only plans that are currently frozen, and it does not represent a longitudinal dataset of all plan freezes. Any plans frozen during the same time period and terminated prior to GAO's survey are not included. However, PBGC data shows us that there has been a recent decline in the number of plan terminations among plans with 100 or more participants. The number of standard terminations declined by two-thirds from 2001 to 2002 through 2005 to 2006, a period during which there was a significant increase in the number of current plan freezes. This may suggest possible growth in the number of frozen plans currently in the single-employer DB system.

Of sponsors in the study population with one or more frozen plans, 83 percent offered a replacement retirement savings vehicle to affected participants in their largest frozen plans. (See app. I, slide 18.) Eleven percent of sponsors did not offer any replacement plan to affected participants; however, this figure includes any sponsors who allowed affected participants to join or increase employee contributions to an existing but unchanged plan.<sup>13</sup> An additional 6 percent of sponsors froze plans under extenuating circumstances that preclude the offering of a replacement plan (such as, a firm merger, bankruptcy, plant closure, multiple employer plan, or new-employee-only soft freeze). Of those sponsors offering replacement plans, over 80 percent offered enhanced existing or new DC plans. (See app. I, slide 19.) About 5 percent of sponsors offered a new DB plan to affected participants.

Sponsors of frozen plans cited a number of reasons why they froze their largest plan. "Annual contributions needed to satisfy funding requirements and their impact on cash flows" was cited most often, with 72 percent of sponsors responding that this was a reason for freezing their largest frozen

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<sup>12</sup>For further information on how plan, demographic, and market factors generally influence larger sponsors with respect to plan freezes, see Alicia H. Munnell and Mauricio Soto, Center for Retirement Research, Boston College "Why Are Companies Freezing Their Pensions?" (Boston, 2007).

<sup>13</sup>For this survey, a replacement plan is defined as an addition to retirement plan offerings, either in the form of a new plan or an enhancement of an existing plan. Therefore, a sponsor that allows affected participants to join an existing and unchanged plan would not be considered to have replaced its frozen plan(s).

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plans; “unpredictability/volatility of plan funding requirements” followed with 69 percent.<sup>14</sup> (See app. I, slide 21.) The remaining 13 reasons range in prevalence from 54 percent responding that “plan was frozen in anticipation of replacing it with an alternative retirement plan” to 12 percent for “other reason.”<sup>15</sup>

About two-thirds of sponsors with frozen plans reported at least some level of confidence that their largest frozen plan was reasonably well-funded at the time of freeze. (See app. I, slide 22.) Further, 58 percent of sponsors were highly or moderately confident that their largest frozen plans could have undergone standard, fully-funded terminations instead of freezing. This is compared with 30 percent of sponsors who were not at all confident that their largest frozen plans could have undergone standard terminations. However, there are some limitations to these data. First, the survey asked about sponsor beliefs, not actual funding levels. Second, the data refer to when the freezes were implemented and may bear no relation to current funding levels. Third, the data only include each sponsor’s largest frozen plan. Nevertheless, the data provide some insight into sponsors’ state of mind when they chose to freeze their largest frozen plans.

For sponsors with plans that are already frozen, fewer than half reported having a firm idea of the anticipated outcome for their largest frozen plans. Among these sponsors, a very small number anticipate “thawing,” or unfreezing, their plan, and about one-third said they will eventually terminate their largest frozen plans. (See app. I, slide 24.) In contrast, nearly half say they will keep the plan frozen indefinitely. Another 14 percent report that it is too early to make a decision or that they are uncertain what the outcome will be. The anticipated outcome for a sponsor’s largest plan varies significantly by the type of frozen plan. Sponsors with frozen plans that were not under a hard freeze were significantly less likely to anticipate termination as the outcome for their largest frozen plan. (See app. I, slide 25.)<sup>16</sup> Among sponsors with one or more plans not currently frozen, only 10 percent have firmly decided to

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<sup>14</sup>These reasons were identified as the most prevalent among a list of 15 reasons given to survey respondents. The reasons were created and selected using a literature review and feedback from survey pretesters.

<sup>15</sup>To view the complete list of reasons and prevalence, see [GAO-08-818SP](#).

<sup>16</sup>The 95 percent confidence intervals for percentage estimates by freeze type are within +/- 14 percent of the estimate itself.

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freeze, or not freeze, any plans in the future. (See app. I, slide 26.) Thirty-five percent of sponsors have considered freezing additional plans in the future but are uncertain if they will, while nearly 50 percent have not yet considered or discussed future freezes.

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## Plan Freezes Have Various Implications for Key Stakeholders

The prevalence of frozen DB plans today has different implications for key stakeholders in the single-employer DB system—plan sponsors, participants, and the PBGC.

Our survey found that nearly a third of the sponsors ultimately expect to terminate their largest frozen plan. Further, we found that about half of all frozen plans were hard frozen and that sponsors of hard frozen plans appear more likely to anticipate termination as an eventual outcome. However, the number of plan terminations has not increased recently. For example, from 1990 to 2006, total annual standard terminations averaged about 7 percent of insured single-employer plans. However, from 2002 to 2006, this rate had been far lower. (See app. I, slide 28.) Further, larger plans, or those plans with 100 or more participants, which account for about 36 percent of plans but which account for the overwhelming number of the system's active participants, accounted for only about 9 percent of the terminations during the 2002 to 2006 period. This suggests that the single-employer DB system's decline does not appear to be accelerating, with many large plans continuing in operation.

Plans may freeze for many reasons, and our survey population of frozen plan sponsors cited cost of contributions and volatility of plan funding as the key reasons for freezing their largest plans. However, when we asked all sponsors, including those with no frozen plans, about the key challenges to the future health of the single-employer DB system generally, the very same issues of plan cost and volatility were listed most frequently. Given that these issues seem to be an inherent problem for all sponsors, it may be that each sponsor decision to freeze a plan has a firm-specific reason or is based on other factors not picked up in our survey. In any case, the current prevalence of plan freezes does not present an encouraging landscape for DB plan sponsorship.

For active plan participants, plan freezes imply a possible reduction in anticipated retirement income. In particular, a hard freeze, which ceases future benefit accruals, is especially likely to reduce anticipated retirement income—unless this income is made up through increased savings, possibly from such sources as higher wages or other nonwage benefit increases. Although a majority of the sponsors with frozen plans cited plan

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cost considerations as a key motivation for the freeze—suggesting that they may be somewhat reluctant to fully redirect any potential cost savings from the freeze to other areas of compensation or benefits—our survey did not collect information to fully address this issue. For example, while our survey indicated that sponsors most often do offer a replacement plan for frozen participants and this offering is most often a DC or 401(k)-type plan, we did not ask about the generosity of these replacement plans or of the previous frozen DB plan.

The offering of an alternative plan may have different consequences for employees in different stages of their career. Reductions to anticipated accruals for participants affected by a freeze will vary considerably depending on key plan features, participant demographic characteristics, and market interest rate factors.<sup>17</sup> However, for those participants with traditional pension plan formulas<sup>18</sup> that are hard frozen and replaced with a typical DC, or 401(k)-type plan, all else being equal, longer-tenured, midcareer workers are most likely to see the greatest reductions in anticipated retirement income. This effect occurs because older, longer-tenured employees generally have less time remaining in their careers to offset anticipated accrual losses through typical 401(k)-type plan contributions compared to younger workers. Alternatively, depending on the generosity of the frozen, pay-based pension plan, certain younger (or less well-tenured) and more mobile participants might actually see increases in their anticipated retirement incomes by moving to a typical, or average, 401(k)-type plan.

These concerns are not just relevant for the current active participants of a frozen plan. Our survey also shows that roughly a majority of sponsors in our study population have closed their plans to new employees, many of whom will also likely depend on a DC plan as a source of retirement income. Our survey did not collect information on the degree to which affected employees are participating in either the newly offered DC plans

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<sup>17</sup>For a discussion on how plan freezes may affect expected retirement income, see Jack VanDerhei, *Defined Benefit Plan Freezes: Who's Affected, How Much, and Replacing Lost Accruals*, Employee Benefits Research Institute (EBRI) Issue Brief No. 291 (Washington D.C., March 2006). The EBRI study modeled the effect of a universal hard freeze to show how anticipated accruals were affected by key plan, participant, and market characteristics.

<sup>18</sup>Traditional formula is used to refer to pay based plans, which use formulas based on salary and service, such as final average pay plans. These types of plan formulas typically accrue increasingly larger benefits at the end of an employee's active working career.

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or any existing, but enhanced, DC plan. DC plans are increasingly the dominant retirement savings vehicle for private sector workers. Like DB plans, DC plans pose their own potential retirement-income challenges, including the need for employees to participate in the plan and to effectively manage the investment risk of their DC accounts if they are to have a secure retirement. Yet for some workers, especially for lower-income workers, this may be difficult to do as they are less likely to participate when offered the opportunity to do so and less able to make even limited contributions.<sup>19</sup>

The effect of plan freezes on PBGC's net financial position is not certain, but it could be modestly positive in both the immediate- and long-term; freezes generally reduce system liabilities and potentially minimize claims among financially weak plans.<sup>20</sup> The possible improvement in PBGC's net position, however, assumes that the aggregate effect of plan freezes does not significantly reduce the agency's premium income over time.<sup>21</sup> The reductions in flat-rate premium<sup>22</sup> income could come from a decline in participants, possibly from the considerable number of plans that we found that were closed to new employees or from terminations that may result from the freeze. Variable-rate premium income<sup>23</sup> could also be reduced to the degree that sponsors of underfunded plans improve funding as a result of a plan freeze.

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<sup>19</sup>See GAO, *Private Pensions: Low Defined Contribution Plan Savings May Pose Challenges to Retirement Security, Especially for Many Low-Income Workers*, [GAO-08-8](#) (Washington, D.C.: Nov. 7, 2007).

<sup>20</sup>Frozen plan sponsors must continue to pay premiums to PBGC for its participants even if those participants' future benefit accruals have been frozen. Frozen plan sponsors must also continue to maintain the plan in accordance with federal pension law, including funding the plan by making minimum required contributions. However, sponsors may find it somewhat easier to bring the frozen plan to full funding if future participant accruals are limited.

<sup>21</sup>PBGC has witnessed a steady decline in the percentage of single-employer participants that are active participants. PBGC has only recently seen a slight decrease in the number of total insured participants, but the large percentage of plans closed to new entrants seems to suggest possible further decline.

<sup>22</sup>The flat-rate premium is a per-participant premium that plans pay to PBGC each year. In 2008, the rate for the flat premium is \$33 per participant in insured single-employer plans. This rate is adjusted annually by an average-national-wage index.

<sup>23</sup>The variable-rate premium applies only to insured single-employer plans that have unfunded vested benefits. The rate for the variable-rate premium is \$9 per \$1,000 of underfunding.

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PBGC's financial status is influenced not only by the number of freezes and terminations but also by the relative health and size of the plans and sponsors that decide to terminate. For example, PBGC finds that hard frozen plans are more likely to be underfunded and to terminate, which may highlight two other trends. Plan sponsors that initiate a standard termination must have sufficient assets in the plan to pay participants their accrued benefits and are unlikely to represent the very same plan sponsors that are also underfunded. If relatively well-funded and financially healthy sponsors are the ones who terminate their frozen plans, it may leave the underfunded, and potentially financially distressed, frozen plan sponsors under PBGC's insurance responsibility. Alternatively, data from PBGC shows that relatively large plans terminate at a much lower rate than smaller plans. This is possibly encouraging for PBGC's financial status, to the degree that these larger plans do not result in claims, because these plans represent the bulk of liabilities and participants.

Ultimately, no matter what the impact on its net financial position, the freezing of plans and the exiting from the single-employer DB system by sponsors do not indicate future plan growth for the PBGC. One part of its mission is to foster the continuation and maintenance of private-sector pension plans. PBGC's single-employer insurance program currently covers 28,800 plans, which is 65 percent fewer plans than it covered 15 years ago. Given the prevalence of plans that are currently frozen and the relationship between plan freezes and plan termination, the shrinking of the single-employer insurance program plan base seems likely to continue.

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## Concluding Observations

The private DB pension system, a key source of retirement income for millions of Americans, continues to experience a slow decline. Plan freezes are a common phenomenon, affect a large number of participants, and have important implications for plan sponsors, participants, and the PBGC. While plan freezes are not as irrevocable as plan terminations, they are indicative of the system's continued erosion. Yet freezes are just one of the many developments now affecting the DB system. The broad ranging Pension Protection Act of 2006, changes in accounting rules, rising retiree health care costs and health care costs generally, a weak economy, and falling interest rates all represent challenges that DB plan sponsors may need to confront. How key stakeholders, plan sponsors, participants, the PBGC, other government agencies, and congressional policymakers respond to all of these challenges will shape the fortunes of the DB system and its future role in providing retirement security to American workers.

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## Agency Comments and Our Evaluation

We provided a draft of this report to the Department of Labor, the Department of the Treasury, and PBGC. The PBGC provided written comments, which appear in appendix III. PBGC generally agreed with the findings and conclusions of the report. However, PBGC did express some concerns about our survey methodology—especially with respect to the comparability of our estimates of hard frozen plans and affected active participants with their estimates, which are based on the Form 5500 filings for plan year 2006 received to date. PBGC notes that differences in results may be due to a variety of reasons, including that our survey data are more recent than the 2006 Form 5500 and the potential for some reporting errors on the Form 5500. Other explanations include the potential for response bias in the GAO survey, our use of a size variable that is sponsor-based rather than plan-based and the GAO survey’s omission of newly formed pension plans since 2004.

We addressed many of PBGC’s specific methodological concerns by providing additional information to our technical appendix. We note that the very different methodologies used by PBGC and GAO in estimating the number of hard plan freezes and the number of active participants affected by such freezes suggest that the studies’ results should be compared with extreme caution. We do note that our survey questionnaire was pre-tested extensively. Further, regarding the issue of response bias, we considered this as we analyzed our survey’s results. We do not believe response bias is a significant issue because we did not find significant differences when we analyzed a comparison of key characteristics of the survey respondents to all sponsors in the study population. We also did not include newly-formed DB plans other than those formed by survey respondents because such data were not available, and, in our view, would not have a significant effect on our estimates.

PBGC identified a number of explicit areas of agreement with our report. They noted that our finding with respect to the differences in prevalence of freezes between large and small plans is generally consistent with their estimates. They also mentioned that our report was consistent with their views on the effect that freezes may have on the future health of the DB system, the PBGC itself, as well as the impact of freezes on retirement incomes. Further, despite PBGC’s concerns about the magnitude of certain estimates in our report, they generally found the relative estimates of alternative definitions of plan freezes to be new and important information. Lastly, PBGC noted that the comparison of our survey estimates to Form 5500 estimates highlights the delay that PBGC faces getting basic plan data. PBGC expects that plan data will become timelier



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in the near future, but some delay will still remain that may hinder PBGC's awareness of changing trends among plans that it insures.

The Department of Labor and Treasury provided technical comments, which we incorporated as appropriate.

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We are sending copies of this report to the Secretary of Labor, the Secretary of the Treasury, and the Director of the PBGC, appropriate congressional committees, and other interested parties. We will also make copies available to others on request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you have any questions concerning this report, please contact me at (202) 512-7215 or [bovbjergb@gao.gov](mailto:bovbjergb@gao.gov). Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made contributions are listed in appendix V.

A handwritten signature in black ink that reads "Barbara D. Bovbjerg". The signature is written in a cursive style with a large, looped initial "B".

Barbara D. Bovbjerg  
Director, Education, Workforce,  
and Income Security Issues

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*List of Addressees*

The Honorable Max Baucus  
Chairman  
The Honorable Chuck Grassley  
Ranking Member  
Committee on Finance  
United States Senate

The Honorable Herb Kohl  
Chairman  
The Honorable Gordon Smith  
Ranking Member  
Special Committee on Aging  
United States Senate

The Honorable George Miller  
Chairman  
The Honorable Buck McKeon  
Ranking Member  
Committee on Education and Labor  
House of Representatives

The Honorable Charles B. Rangel  
Chairman  
The Honorable Jim McCrery  
Ranking Member  
Committee on Ways and Means  
House of Representatives

The Honorable Earl Pomeroy  
Member

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# Appendix I: Frozen DB Plan Briefing Slides

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## **Defined Benefit Pensions: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges**

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**July 2008**

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## Survey Objective

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- Assess the extent to which private, defined benefit (DB) plan sponsors are “freezing” (closing the plan and/or reducing future accruals in some manner) their plans
  - Results part of a broader survey focusing on how DB plan sponsors are responding to recent developments affecting the DB pension system



## GAO Freeze Survey

- A statistically representative, stratified survey of sponsors of private, single-employer DB plans with 100 or more total participants in all sponsored plans.
- Survey administered via mail for smaller sponsors, and by web for certain larger sponsors (as part of a larger survey)
- Of the original 471 sponsors in sample, 469 were deemed 'in scope.' 330 in-scope sponsors responded, resulting in a 70 percent raw response rate (or 78 percent weighted response rate)
- Our study population represents all sponsors of single-employer plans with 100 or more total participants, which account for 7,804 sponsors and their 11,090 plans
  - These sponsors represent 34 percent of all sponsors and 42 percent of plans, but 99 percent of participants and 99 percent of liabilities



# GAO Freeze Survey: Sampling Summary

Total Participant Category of Sponsor	Sponsors Sampled	Number of Sponsors	Percent of Sponsors	Number of Plans	Percent of Plans	Number of Participants	Percent of Participants	Liabilities (in billions)	Percent of Liabilities
less than 100	0	15,156	66.0%	15,344	58.0%	306,757	1.0%	\$13	0.9%
100 - 999	126	5,010	21.8%	5,801	21.9%	1,730,589	5.4%	\$53	3.5%
1,000 - 4,999	123	1,829	8.0%	2,711	10.3%	4,171,045	13.0%	\$138	9.2%
5,000 - 49,999	117	858	3.7%	1,978	7.5%	12,442,522	38.6%	\$506	33.8%
50,000 - plus	105	107	0.5%	600	2.3%	13,553,358	42.1%	\$786	52.5%
Study Group Total	471	7,804	34.0%	11,090	42.0%	31,897,514	99.0%	\$1,483	99.1%

Source: GAO analysis of 2004 PBGC Form 5500 Research Data  
 Note: sampling columns represent sponsor, participants and liabilities as of 2004



## Background: What Is a Plan Freeze?

- A plan freeze is a plan amendment that closes the plan to new entrants and may limit future benefit accruals for some or all active plan participants
- General types include:
  - Hard Freeze – the plan is closed to new entrants and participants no longer accrue additional benefits
  - Soft Freeze – at a minimum the plan is closed to new entrants. The plan’s prospective benefit formula may or may not be changed in such a way as to limit future benefit accruals for participants.
  - Partial Freeze – the plan is closed to new entrants and, for only a subset of active participants, the plan’s prospective benefit formula is changed to limit or cease future benefit accruals.



## Background: Freeze Data

- Most reports of pre-2003 freezes were based on:
  - limited data obtained from restricted/proprietary client bases of consulting firms and
  - survey questions on freezes that were often indirect or could be misconstrued
- The Pension Benefit Guaranty Corporation (PBGC) began analyzing generalizable information on single-employer, “hard frozen” plans in 2005 (using plan year 2003 data)
- Most recent PBGC data shows that:
  - 14 percent of plans were hard frozen as of 2005
  - There has been a nearly 50 percent increase in frozen plans since 2003
  - Hard freezes are generally more prevalent among smaller plans

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## Overview: Survey Findings

- Frozen plans are common--affecting roughly one-fifth of all active participants
- Most current freezes were recently implemented, with about half freezing between 2005 and the present
- Most sponsors offered some form of alternative retirement plan to affected participants
- Sponsors of frozen plans said cost (impact on cash flows) and funding volatility were key reasons in their decisions
- Sponsors of non-frozen plans are uncertain about future course of action
- Frozen plans have varied implications for key stakeholders

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## Finding: Plan Freezes Are a Common Occurrence

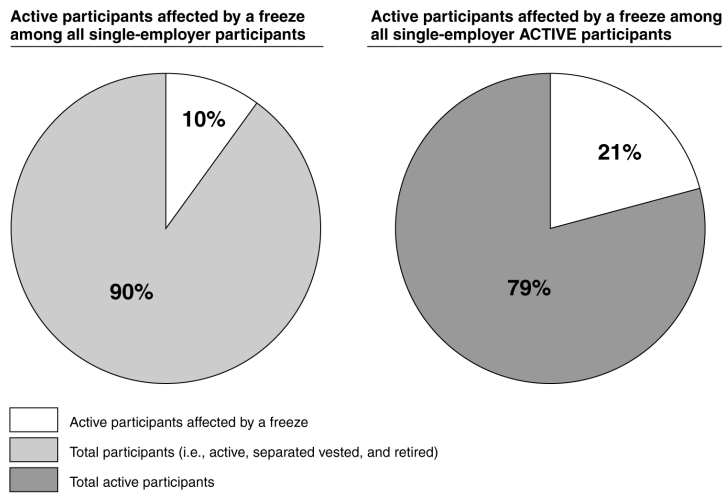
- About 3.3 million active participants (21 percent of all active participants in single employer DB plans) affected by a freeze
  - 51 percent of all plan sponsors with 100 or more total participants had one or more frozen plans
  - 44 percent of plans reported a specific freeze in some form
  - 51 percent of plans do not allow eligible, new hires to enter or accrue benefits in the plan
- Hard freezes are the most common occurrence, accounting for about half of all frozen plans
- Larger sponsors are significantly less likely to have plans that are hard frozen
- Sponsors with only collectively bargained (CB) plans froze plans at about the same rate as the overall study population, but have a lower proportion of hard freezes
- About half of plan freezes (among sponsors' largest frozen plans) were implemented after 2004

Note: The 95 percent confidence interval of the total participant estimate ranges from 2.25 to 4.34 million participants

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## Figure 1: Participants Affected by Freezes Comprise a Significant Number of All DB Plan Participants



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

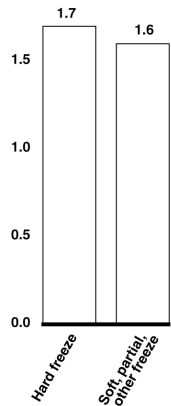
N=3,298,923 (Affected Parts.); 31,897,514 (Total Parts.); 15,598,254 (Active Parts.)

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGCs 2004 Form 5500 Research Database.



## Figure 2: About 3.3 Million Participants Are Currently Affected by a Freeze

Number of affected participants (in millions)



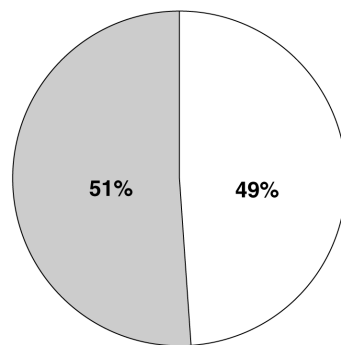
Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=3,298,923 (Affected Parts.)

Note: The 95 percent confidence interval for participants affected by hard freeze is from 1.1 to 2.3 million. The 95 percent confidence interval for participants affected by soft, partial, or other freezes is from 0.7 to 2.5 million. Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



## Figure 3: Around Half of All Survey Sponsors Have at Least One Frozen Plan



□ Sponsors with no frozen plans  
■ Sponsors with 1 or more frozen plans

Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

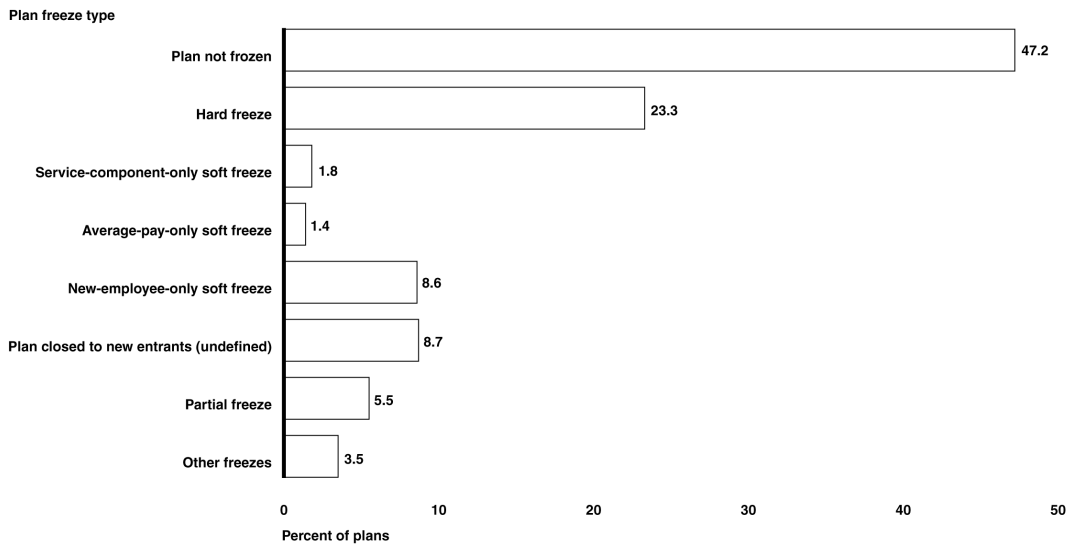
N=7,804 (Sponsors)

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.

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## Figure 4: 53 Percent of All Plans in Study Population Are Frozen to Some Extent



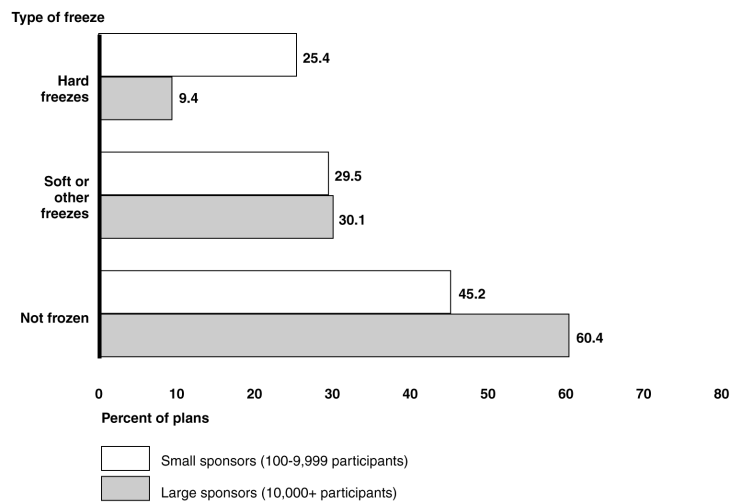
Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=5,985 (Frozen), 11,341 (Total)

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



## Figure 5: Larger Sponsors are Significantly Less Likely to Have Hard Frozen Plans



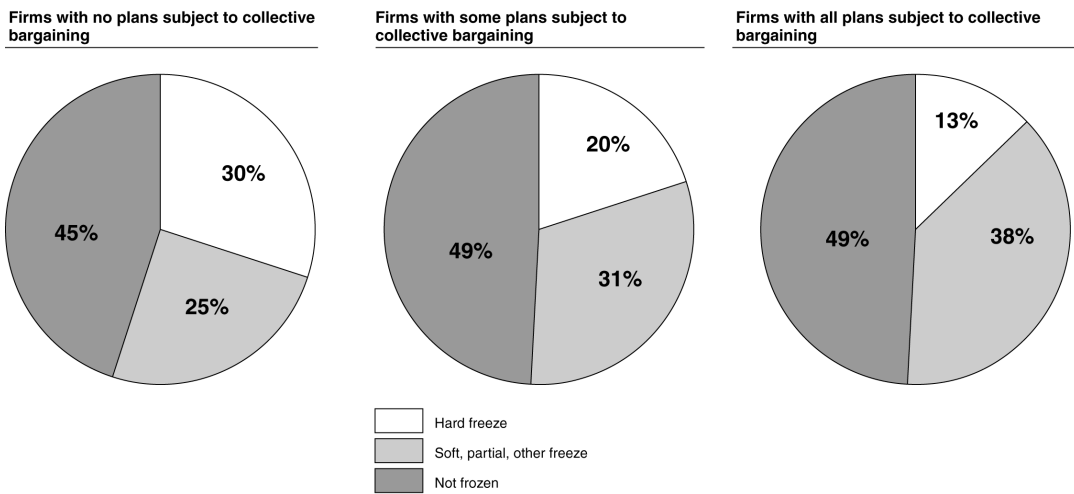
Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=5,985 (Frozen), 11,341 (Total)

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



## Figure 6: Sponsors with Collectively Bargained Plans Are Less Likely to Have Hard Freezes



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=4,259 (CB Plans), 11,340 (Total Plans)

Note: Estimated percentages for sponsors with no CB or some CB have 95 percent confidence intervals of within +/- 11 percentage points of the estimates themselves. For sponsors with all plans subject to CB, the confidence intervals are within +/- 15 percentage points of the estimates themselves. Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



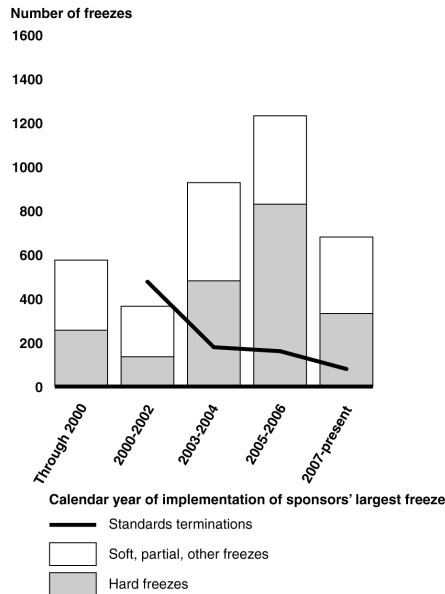


## For Sponsors' Largest Plans, Just Over Half Were Frozen During or After 2005

- Just over half of sponsors froze their largest frozen plan between 2005 and the present
- Because most sponsors have just one plan, distribution of freeze types among sponsors' largest plans is generally consistent with the overall plan population
- Because our data are limited to currently frozen plans and exclude plans frozen in the past that have already terminated, identifying long term trends is difficult. However, based on data from 2003 to 2005, PBGC has found that:
  - hard frozen plans are more likely to terminate than non-hard frozen plans
  - there has been a general, recent decline in the number of plan terminations
  - plans frozen in earlier years seem no more likely to terminate than more recently frozen plans



## Figure 7: Among Sponsors' Largest Frozen Plans, Many Freezes Have Been Recently Implemented



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans and preliminary PBGC data.

Median=2005

Note: 2007-2008 freeze data represents 2008 data as of survey close. PBGC termination data for 2007-2008 includes terminations as of 2007 only. Also, PBGC termination data is at the plan level, while GAO data is at the sponsor level. This graphic represents the distribution of dates of currently implemented freezes only. Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



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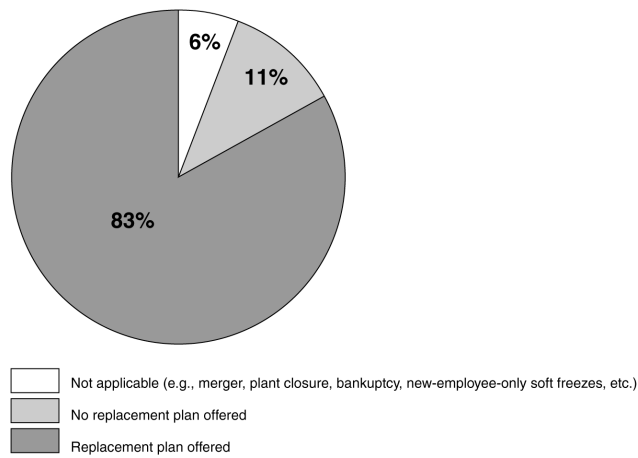
## **Finding: Most Sponsors Who Froze a Plan Made an Alternative Replacement Plan Available**

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- 83 percent of sponsors offered a replacement plan to participants affected by the plan freeze
  - an overwhelming majority offered enhanced contributions to an existing defined contribution (DC) plan or a new DC plan
  - about 5 percent offered a new DB plan
- About 1 in 9 sponsors who froze a plan (11 percent) offered no new or replacement retirement plan of any type
  - Note that these sponsors may have offered an already existing plan, but did not replace or improve employer contributions in such a way as to ‘replace’ the frozen DB plan



## Figure 8: 11 Percent of Sponsors with Frozen Plan(s) Did Not Offer Affected Participants a New or Enhanced Retirement Plan of Any Type



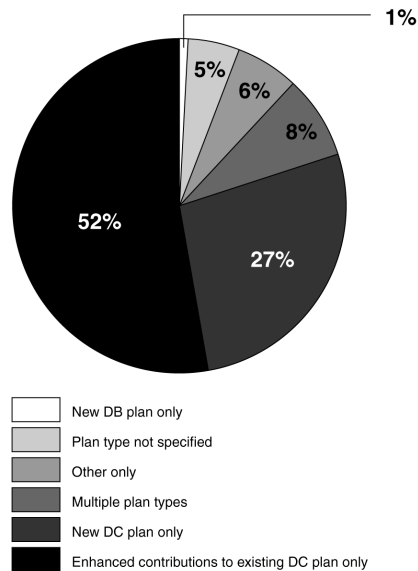
Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=3,865

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



## Figure 9: About 83 Percent of Replacement Plans Offered Were New or Existing DC Plans



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=3,145

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



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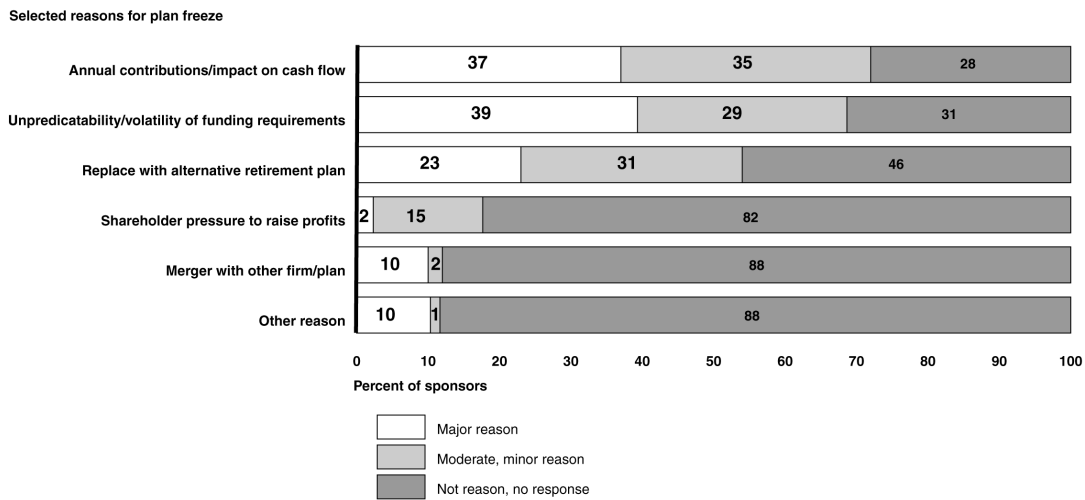
## **Finding: Sponsors Froze Plans for a Variety of Reasons**

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- Top reasons sponsors reported for freezing a plan were:
  - Cost of annual contributions needed to satisfy funding requirements and their impact on cash flow (72 percent)
  - Unpredictability/volatility of plan funding requirements (69 percent)
- Few plans were frozen because of mergers (12 percent)
- Many sponsors (58 percent) were highly or moderately confident that their plan was sufficiently well-funded for a standard termination at time of freeze



## Figure 10: Funding Volatility, Effect on Cash Flows Key Reasons for Freezing Plans



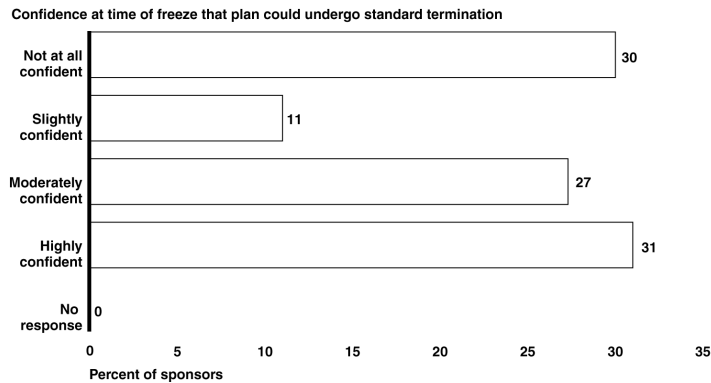
Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N= 3,865

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database. Values may not sum to 100 percent due to rounding.



## Figure 11: About 30 Percent of Sponsors Did Not Believe Their Frozen Plan was Sufficiently Funded to Permit Termination at The Time Plan Was Frozen



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N= 3,863

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.





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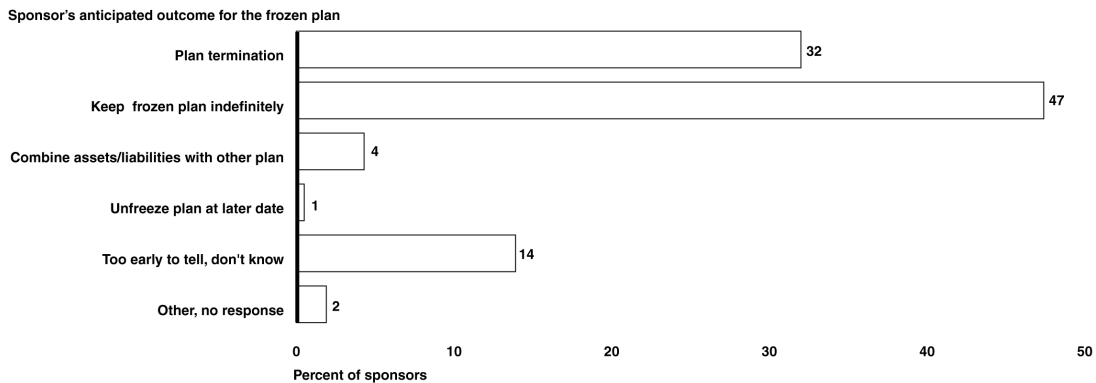
## **Finding: Sponsors of DB Plans Uncertain About Future Course of Action**

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- For those sponsors with frozen plans:
  - About a third say that they will ultimately terminate the plan, but this varies by freeze type
  - About 60 percent say that they will keep plan frozen indefinitely or were otherwise unsure
- Many sponsors with at least one not frozen plan have considered or discussed a freeze (45 percent), but very few are certain they will freeze a plan in the future



## Figure 12: Few Sponsors Anticipate “Thawing” a Frozen Plan at a Later Date



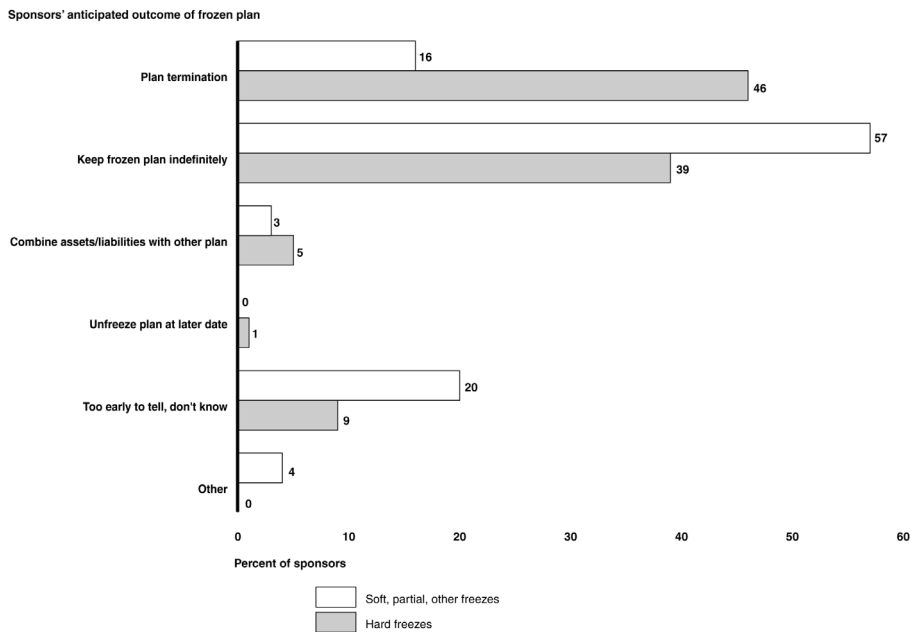
Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N= 3,863

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



## Figure 13: Sponsors of Soft Frozen Plan-Types Are Significantly Less Likely to Anticipate Termination as Outcome for Largest Frozen Plan



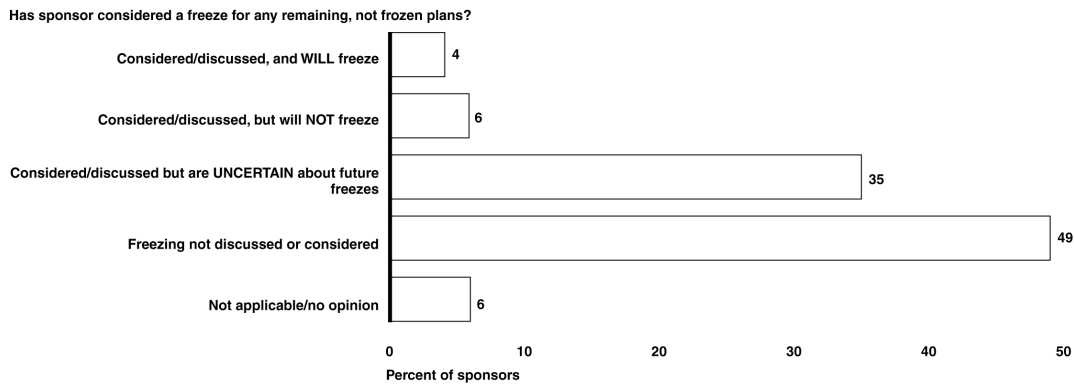
N= 3,863

Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

Note: The 95 percent confidence intervals for percentage estimates by plan types are within +/- 14 percentage points of the estimates themselves. Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGC's 2004 Form 5500 Research Database.



## Figure 14: 4 Percent of Sponsors with One or More Not Frozen Plans Have Decided to Freeze a Plan in the Future



Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans.

N=3,666

Note: Stratified survey results are weighted and represent the population of 'large' plan sponsors, or sponsors who had 100 or more participants in all plans reported in PBGCs 2004 Form 5500 Research Database.



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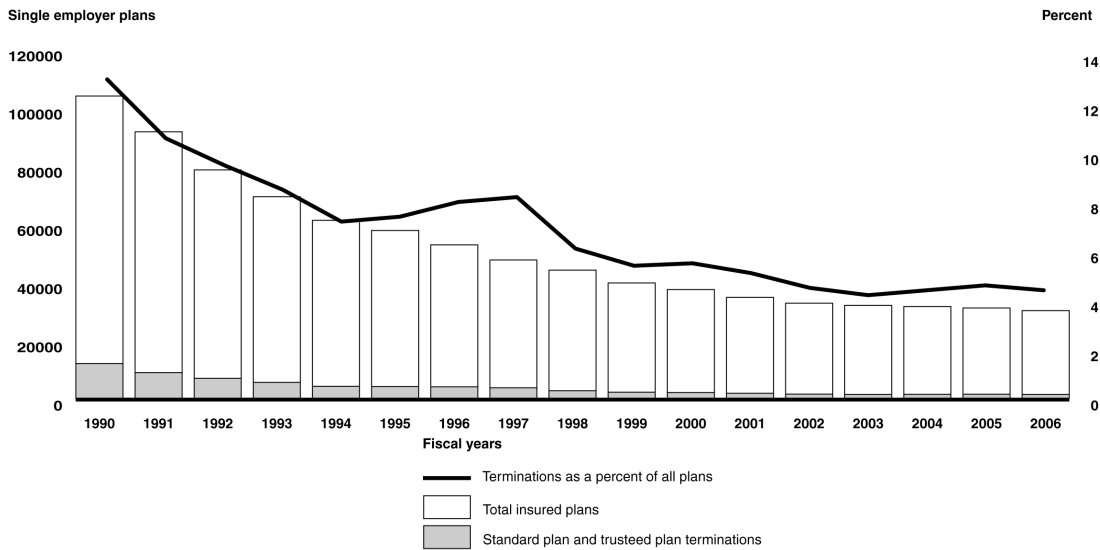
## Implications for Sponsors

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- Despite the widespread prevalence of plan freezes, a rise in terminations has yet to materialize (notably among the largest plans)
- Sponsor decision to freeze is either firm-specific reason or based on other factors not picked up in our survey



## Figure 15. Sponsors of Frozen Plans May Terminate at Higher Rates, but the Number and Ratio of Terminations Are Currently Relatively Low



Source: GAO analysis of PBGC data.



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## Implications for Participants

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- A freeze may imply:
  - a reduction in anticipated future retirement income for currently active employees—especially for mid-career employees—depending on type of plan frozen and/or any replacement plan
  - a continued shift towards defined contribution plans, such as 401k-type plans, which tend to:
    - shift the responsibility for saving and participating in in retirement plan, and,
    - place investment risk with the participant



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## Implications for PBGC

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- Freezes likely to have a slightly positive effect on net financial position
- However, how much frozen sponsors will improve funding is unclear
- Freezes imply a continued decline in number of plans covered by PBGC single-employer insurance program



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# Appendix II: Scope and Methodology

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To achieve our objectives, we conducted a survey of sponsors of defined-benefit (DB) pension plans. For the purposes of our study, we defined “sponsors” as the listed sponsor on the 2004 Form 5500 for the largest sponsored plan (by total participants).<sup>1</sup> To identify all plans for a given sponsor we matched plans through unique sponsor identifiers.<sup>2</sup> See appendix I for further detail on how we defined a sponsor in the data.

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## Population and Sample Design

We constructed our population of DB plan sponsors from the 2004 Pension Benefit Guaranty Corporation’s (PBGC) Form 5500 Research Database by identifying unique sponsors listed in this database and aggregating plan level data (for example, plan participants) for any plans associated with this sponsor. As a result of this process, we identified 22,960 plan sponsors. A summary of the number of sponsors and participants is shown in table 1.

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<sup>1</sup>We removed plans that terminated after 2004, which may also include plans that reported a final filing or merged into another plan. We also remove any sponsors whose total plans had fewer than 100 total participants. We were unable to add any new plans or sponsors that may have been newly insured by PBGC after 2004 because complete data was not available at the time we constructed our survey sample. Although newly-insured plans may be considerably less likely to be frozen, we expect not including these plans would have an extremely small impact on our estimates. Likely, very few new plans would have qualified under our sponsor definition in relation to the number of plans represented in our survey. Further, any newly created plans will be represented to the extent that they are associated with sponsors already in our survey.

<sup>2</sup>These include the nine-digit employee identification number (EIN) found in the Form 5500 as well as the Committee on Uniform Securities Identification Procedures (CUSIP) number, which is contained in the PBGC Research Database. A CUSIP number identifies most North American securities, including stocks of all registered U.S. and Canadian companies and U.S. government and municipal bonds. The number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security. In addition to these two methods, we identified sponsors by visually inspecting plan names and sponsor names from the database to find common sponsors that were not identified by EINS or CUSIPs.

**Table 1. Summary of Key Survey Sample Characteristics**

Participant category of sponsor	Number sponsors	Percent of total sponsors	Number participants	Percent of total participants	Liabilities	Percent of liabilities
less than 100	15,156	66.0	306,757	1.0	13,369,579,852	0.9
100 - 999	5,010	21.8	1,730,589	5.4	53,057,015,994	3.5
1,000 - 4,999	1,829	8.0	4,171,045	13.0	137,965,716,185	9.2
5,000 - 49,999	858	3.7	12,442,522	38.6	506,194,771,738	33.8
50,000-plus	107	0.5	13,553,358	42.1	785,694,847,153	52.5
<b>Total</b>	<b>22,960</b>	<b>100.0</b>	<b>32,204,271</b>	<b>100.0</b>	<b>1,496,281,930,922</b>	<b>100.0</b>

Source: GAO analysis of 2004 PBGC Form 5500 research data.

As shown in table 1, sponsors having 100 or more participants accounted for about 99 percent of DB plan participants and about 99 percent of total liabilities in sponsored plans in 2004. We limited our study to this population of 7,804 larger sponsors (our study population) because it would be informative about the vast majority of covered participants and we expected a higher success rate in locating, contacting, and obtaining responses from this group than would have been obtained from the smallest sponsors.

We drew a stratified probability sample of 471 DB plan sponsors, where the strata were based on the number of participants covered by the sponsor’s plans. See table 2 for a summary of the study population, the selected sample, respondents, and out-of-scope sponsors by stratum.<sup>3</sup>

<sup>3</sup>Initially a sample of 480 sponsors was selected, but we found that some of the sponsors on our sponsor file were listed more than once. We then aggregated information to a unique sponsor and removed these additional sponsor listings from both the sample and the population. The above tables present totals by stratum after this removing duplicate sponsor listing.

**Table 2. Summary of Study Population by Sampling Stratum**

Stratum number	Sampling stratum	Sponsor population	Sample selected	Respondents	Out of scope	Response rate %
1	100 - 999	5010	126	99	1	79
2	1,000 - 4,999	1829	123	101	0	82
3	5,000 - 49,999	858	117	82	1	71
4	50,000 +	107	105	48	0	46
<b>Total</b>		<b>7804</b>	<b>471</b>	<b>330</b>	<b>2</b>	<b>78</b>

Source: GAO analysis of survey of DB pension plan sponsors regarding frozen plans and 2004 PBGC Form 5500 research data.

The sample was designed to provide acceptably precise estimates of the proportions of sponsors with at least one frozen plan. Further, sponsors in the larger sponsor strata are sampled at a higher rate than sponsors in the smaller strata to improve the precision of estimates of plan-level and participant-level estimates. As shown in table 2, response rates ranged from 46 percent to 82 percent, with an overall weighted response rate of 78 percent.

## Administration of Survey

We developed two questionnaires to obtain information about the experiences of DB pension plan sponsors that have 100 or more participants. One questionnaire—with 18 questions—was mailed in November 2007 to a stratified random sample of 366 pension plan sponsors and asked questions about their experiences with DB plans, benefit freezes, if any, and factors that may have contributed to the decision to freeze. The strata were based on the size of the plan sponsor (as measured by number of participants) and were comprised of three categories. In the initial mailing, we sent a cover letter and questionnaire to pension plan sponsors. To encourage responses, we followed up with another mailing of a copy of the questionnaire in December 2007. In addition, to try to increase the response rate, we called all sponsors who had not responded to the mail survey.

A second, longer questionnaire was sent in December 2007, via the Internet, to the 105 largest pension plan sponsors who were part of the Fortune 500 or Global Fortune 500 and had 50,000 or more participants. This was preceded by an email to notify respondents of the survey and to test our email addresses for these respondents. This web questionnaire asked plan sponsors about their recent experiences with DB plans and benefit freezes. The first 17 questions and last question of this questionnaire mirrored the questions asked in the mail questionnaire

about benefit freezes. We asked these plan sponsors additional questions about their reactions to the current environment for such plans and how the plan or plans may be a part of the firm's total compensation structure. To help increase our response rate, we sent four follow-up emails from January through April 2008. In addition, we also contacted some respondents by telephone to clarify unclear responses. We received responses from 48 respondents. For the 18 questions that asked about frozen pension plans in both the mail and web survey, we obtained an overall unweighted response rate of 70 percent and a weighted response rate of 78 percent.

To pretest the questionnaires, we conducted cognitive interviews and held debriefing sessions with 11 pension plan sponsors; three pretests were conducted in-person and focused on the web survey, and eight were conducted by telephone and focused on the mail survey. We selected respondents to represent a variety of sponsor sizes and industry types, including a law firm, an electronics company, a defense contractor, a bank, and a university medical center, among others. We conducted these pretests to determine if the questions were burdensome, understandable, and measured what we intended. On the basis of the feedback from the pretests, we modified the questions as appropriate.

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## Content Coding of Responses

In addition to the closed-ended questions, we provided an opportunity to provide responses to an open-ended question about the key challenges facing the future health of the single-employer DB system. The responses to this question were classified and coded for content by a GAO analyst, while a second analyst verified that the original analyst had coded the response appropriately. Two-hundred-seventeen respondents provided substantive comments to this item. Some comments were coded into more than one category since some respondents provided more than one topic or category. This means that the number of coded items does not equal the total number of respondents who commented. These comments cannot be generalized to our population of plan sponsors. See table 3 for a tally of the comments.

**Table 3. Summary of Content Analysis, by General Category of Comment**

General category of comment	Number of mentions
Affordability (i.e. cost of funding, administrative cost, cash flow)	108
Uncertainty/volatility of funding	59
Volatility of market forces	24
Non-cost administrative issues (i.e. complexity, reporting requirements, accounting rules)	46
Legislative issues	21
Regulatory issues	40
Workforce issues (i.e. demographics, recruitment/retention)	46
Disadvantageous compared to DC plans	7
Competition (i.e. industry, international)	13
Strong belief in DB system	5
Litigation	5
PBGC insurance (i.e. premiums, incentives for unhealthy plans)	17
Miscellaneous other	35

Source: GAO content analysis of survey of DB pension plan sponsors regarding frozen plans.

## Sampling Error and Estimation

To produce the estimates from this survey, answers from each responding case were weighted in the analysis to account statistically for all the members of the population, including those that were not selected or did not respond to the survey. Estimates produced from this sample are from the population of sponsors represented in PBGC’s 2004 Research Database that had at least 100 participants.

Because our results are based on a sample and different samples could provide different estimates, we express our confidence in the precision of our particular sample’s results as a 95 percent confidence interval (for example, plus or minus 11 percentage points). We are 95 percent confident that each of the confidence intervals in this report include the true values in the study population. Unless we note otherwise, percentage estimates based on all sponsors (for example, percent of sponsors with at least one frozen plan) have 95 percent confidence intervals of within plus or minus 8 percentage points. All other percentage estimates in this report have 95 percent confidence intervals of within plus or minus 11 percentage points, unless otherwise noted. Confidence intervals for other estimates are presented along with the estimate where used in the report.

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## Nonsampling Error

In addition to the reported sampling errors, the practical difficulties of conducting any survey may introduce other types of errors, commonly referred to as nonsampling errors. For example, differences in how a particular question is interpreted, the sources of information available to respondents, or the types of people who do not respond can introduce unwanted variability into the survey results. We included steps in both the data collection and data analysis stages for the purpose of minimizing such nonsampling errors.

We took the following steps to increase the response rate: developing the questionnaire, pretesting the questionnaires with pension plan sponsors, conducting multiple follow-ups to encourage responses to the survey, contacting respondents to clarify unclear responses, and double keying and verifying all data during data entry.

Although the overall response rate was 78 percent, we performed an additional analysis to check whether our survey respondents had characteristics that were significantly different from all sponsors in the study population. To do this, we identified several sponsor characteristics<sup>4</sup> that were available for the entire study population and estimated these population values using the survey respondents. For each estimate tested, we found no significant difference between the estimate and the actual population value.<sup>5</sup>

We performed computer analyses of the sample data to identify inconsistencies and other indications of error and took steps to correct inconsistencies or errors. A second, independent analyst checked all computer analyses.

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## Comparability of Survey Results with 2006 PBGC Results

In July 2008 discussions with PBGC staff and in their comments on this report, PBGC indicated that it has calculated estimates of the number of hard frozen plans on the most recently available Form 5500 data. Based on Form 5500 filings received to date, PBGC currently estimates that 15.9

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<sup>4</sup>These sponsor characteristics were the number of plans, number of total participants, number of active participants, total sponsor liabilities for plans, and total retired participants.

<sup>5</sup>This analysis was repeated separately for the largest sponsors only (stratum 4), and for this group there were also no significant differences between the sample and the population of sponsors with 50,000 or more participants.

percent of plans were hard frozen in 2006. Our survey estimates are not directly comparable with PBGC's estimates for a number of reasons:

- *The GAO Survey is Based on a Statistical Sample* - GAO survey estimates, including those involving hard freezes are based on a probability sample and is subject to sampling error. The PBGC calculations are based on Form 5500 data filings which must be completed by plan sponsors of PBGC-insured defined benefit plans.
- *The GAO Survey Focuses on Sponsors with Larger Plans* - Our survey specifically excluded "smaller" sponsors—those with less than 100 total participants. Although leaving out such smaller sponsors excluded a majority of all plans on the 2004 Form 5000 file, it only excluded about 1 percent of participants, and allowed us to survey a smaller sample. However, if the rate of hard freezes was different for plans having fewer than 100 participants than for larger plans, then we would expect that our survey estimate would differ from an estimate developed from all plans.
- *The GAO Survey Focuses on Hard- and Soft-Freezes and Includes Post-2006 Freezes* - Our survey questionnaire used a definition of a hard freeze that was intended to be substantively similar to the definition contained with the Form 5500 instructions. However, our questionnaire also included a broad range of plan freeze definitions as well as additional questions pertaining to a sponsor's largest frozen plan. The mode of data collection, topical focus, format, item wording or item interpretation of our questionnaire may influence respondents in different ways relative to the applicable hard freeze character code on the Form 5500. One critical difference that could lead to different estimates is that our survey captures freezes that occurred since 2006. The 2006 Form 5500 only includes information as of the end of the 2006 plan year.
- *Possible Differences in Actual Survey Respondents* - While we generally directed our survey to the individual we identified as being most knowledgeable about the DB plans of a given sponsor, it may be the case that the individuals responding to our survey are not the very same individuals that also complete the Form 5500, possibly leading to different responses.

Despite these differences in approach and methodology, some may wish to compare PBGC's estimate of 15.9 percent of plans were hard frozen in 2006 and our study population estimate of 23.3 percent of plans as hard frozen among sponsors with 100 or more participants in all plans. Any comparisons should be made with extreme caution for all of the reasons

noted above. Further, the 95 percent confidence interval for our estimate ranges from 18.3 to 28.3 percent.

PBGC also calculated that, based on Form 5500 filings for plan year 2006 received as of July 2008, 0.75 million active participants out of 2.39 million total participants were in frozen plans. As with the estimated percentage of hard frozen plans, our numbers are not completely comparable, due to differences in our methodologies. Although our survey identified the active participants affected by the sponsor's largest frozen plan, we did not specifically ask about total participants in the largest frozen plan. Our questionnaire also asked sponsors to report the calendar year of freeze implementation, while the Form 5500 data is reported on a plan year basis, which can differ from the calendar year.

Another important difference is that PBGC data is not current and new hard frozen plans and active participants affected by such freezes may yet be identified. Some of these newly identified plans may be plans of sponsors that reported freezes in our survey in 2007 or later. When we removed hard frozen plans that occurred for a sponsor's largest plan since 2006 and recalculated the number of active participants affected by hard freezes, we estimate that 1.27 million active participants are affected by a hard freeze in the sponsor's largest frozen plan. As with all of our survey estimates, this result is subject to sampling error. The 95 percent confidence interval of active participants affected by the sponsor's largest hard frozen plan (removing post-2006 freezes) ranges from 0.75 million to 1.78 million.



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# Appendix III: Comments from the Pension Benefit Guaranty Corporation

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Pension Benefit Guaranty Corporation  
1200 K Street, N.W., Washington, D.C. 20005-4026

Office of the Director

July 17, 2008

Ms. Barbara Bovbjerg, Director  
Education, Workforce, and Income Security Issues  
Government Accountability Office  
441 G Street, N.W.  
Washington, D.C. 20548

Dear Ms. Bovbjerg:

Thank you for the opportunity to review and comment on the draft report entitled, "DEFINED BENEFIT PENSIONS: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges" (GAO-08-817).

In many respects, the report's findings are consistent with what PBGC has found in its studies based on data from plans' Form 5500s—the number of newly frozen plans increased over the 2003-2005 period and then decreased; small plans (those with fewer than 1,000 participants) are more likely to be frozen than larger plans; and freezing plans has long-term implications for the health of the defined benefit system, PBGC, and current workers' future retirement incomes.

In other respects, the report's findings differ rather substantially from our own hard-frozen plan findings—the percentage of plans the report shows as being hard frozen is fifty percent larger than our most recent data indicate (based on 2006 Form 5500 filing information), and the number of active workers in hard-frozen plans is about 2.25 times as high as we found. These differences are, no doubt, due to differences in the studies' methodologies. PBGC's studies looked only at hard-frozen plans using data from the Form 5500, the annual report plans file with DOL, IRS, and PBGC. The GAO study uses survey data, is sponsor-based rather than plan-based, and covers a broader range of plan freeze types. We note that GAO's plan size category was determined in a manner that makes direct comparison with data from other sources difficult.

There are several reasons GAO's estimate of the percentage of hard-frozen plans could be 50 percent larger than ours:

- One reason the hard-frozen plan results are different is that GAO's data are more current than the data we used. GAO's sample includes plans that were hard frozen after 2006. These plans are only now beginning to report their hard-freeze status on the Form 5500. We know companies are continuing to freeze plans, so we would expect GAO to find a higher percentage of hard-frozen plans than we found. However, we would not expect it to find fifty percent more hard-frozen plans than were reported on the Form 5500 for 2006, especially since news reports seem to indicate that the number of companies announcing an immediate or future plan freeze declined after 2006. (This highlights the critical importance of PBGC receiving more current Form 5500 data, as discussed below.)
- A second reason for different results is the possibility of response bias in GAO's testing. It is possible that sponsors who have frozen one or more of their plans are more likely to have responded to GAO's survey than sponsors who did not freeze any of their plans. Comparing the GAO sample of plans against those reporting being hard frozen on the Form 5500 would indicate whether a higher percentage of responders than non-responders reported being hard frozen. If response bias is present, GAO's frozen plan estimates will likely be too high.
- As noted above and discussed in more detail below, GAO's size variable is unusual. Possibly, the weights, which apparently were based on this variable, had the unintended effect of increasing the estimates of the percentage of plans that were hard frozen and frozen to a lesser extent. The weights may have substantially increased the percentage of plans found to be hard frozen.
- One thing we noticed was that an attempt was made to remove from the universe plans that terminated after 2004, but no attempt was made to add plans that were newly covered after 2004. These newly insured plans are much less likely to have been frozen than plans we have insured for a longer period. Not including these newly insured plans reduces the apparent universe of PBGC-covered plans and would slightly increase the percentage of plans estimated to be frozen.
- Some plans that are hard-frozen may not report that fact on the Form 5500. Our studies are based solely on reported freezes, but we have noticed that some plans, that do not report being hard frozen, also do not report on the Schedule B to the Form 5500 any "expected increase in current liability due to benefits accruing during the plan year." If some or all of these plans are hard frozen, then the data we use underreport the true number of hard-frozen plans.

GAO estimates that 3.3 million active workers are in frozen plans, with just over half, 1.7 million, in hard-frozen plans. Form 5500 data indicate that about 2.4 million total participants were in hard-frozen plans at the end of the 2006 plan year and that just 750,000 of them were active workers. We realize that a number of large plans have been frozen recently, and that they have not yet reported being frozen on the Form 5500. This will explain some, but we doubt all of the difference between our numbers and GAO's. Some of the potential explanations listed above for the differences in our findings of the percentage of plans that have been hard frozen may also help explain the differences in the number of active participants who are in frozen plans. In addition, this part of GAO's analysis focuses on the largest frozen plan a sponsor has. Applying the study's weights to these "largest frozen plans" may cause an overestimate of the number of impacted active participants because many frozen plans will be smaller than the sponsors' "largest frozen plan."

GAO's size indicator appears to be atypical. GAO added the participants in all a sponsor's defined benefit plans to determine its size variable, but what this total represents is unclear. It is not a good estimator of the company's size--less than half of plan participants are active workers; there is no requirement that all of a company's workers be covered by a defined benefit plan; some participants may belong to more than one of the sponsor's plans; and, if the company is part of a controlled group, participants who never worked for the company could be included in this size total. Using this size variable is a concern if the weights GAO uses to adjust its results are based on this variable and not on actual plan size. It is unclear what the results would represent. Using this unusual size variable makes GAO's results not strictly comparable with results from studies that use other data and methodologies.

Despite our concerns about the magnitudes of the findings in the report, it advances our knowledge on the extent of freezes that are not hard freezes. GAO finds that about as many plans as are hard frozen are frozen to a lesser extent. While we are as concerned about the absolute magnitude of these findings as we are about the magnitude of the hard freeze findings, the relative magnitudes are probably close and provide important information not previously available.

GAO's finding that most active participants in plans being frozen are eligible for coverage under another employer-sponsored plan is also an important finding. Freezing a defined benefit plan does not generally end a sponsor's sense of responsibility for providing some retirement income for its workers. However, GAO did not determine how many active participants actually participate in the new, generally defined contribution plans nor whether the new plans will provide benefits comparable to the benefits that would have been earned had the participants' defined benefit plans not been frozen. This was beyond the scope

of their study, but as GAO points out, the answer has implications for the adequacy of retirement income for these participants.

One issue that is made apparent in comparing the results of the draft report with our own work is the delay the PBGC faces in obtaining basic plan data. GAO recently highlighted this issue in its report "Private Pensions: Government Actions Could Improve the Timeliness and Content of Form 5500 Pension Information," (GAO-05-491, June 3, 2005). Some improvement in timeliness will ensue once the mandated electronic filing of the Form 5500 becomes operational for the 2009 filing year. Even then, however, the reported data will reflect the status of plans seven or more months prior to PBGC receiving the data. PBGC's awareness of changing trends among the plans it insures will continue to lag the actual changes, unless the data can be made available on a more timely basis. PBGC has consistently pressed for more current Form 5500 data in order to better perform the work that is required of the agency.

With nearly 44 million workers and retirees relying on PBGC's insurance programs, we appreciate GAO's work in highlighting issues that relate to pensions, including those that are the subject of this report. We look forward to working with GAO in the future. Again, thank you for the opportunity to comment on this report.

Sincerely,



Charles E.F. Millard

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# Appendix IV: GAO Contact and Staff Acknowledgments

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## GAO Contact

Barbara D. Bovbjerg at (202) 512-7215 or [bovbjergb@gao.gov](mailto:bovbjergb@gao.gov).

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## Staff Acknowledgments

In addition to the contact above, Charles A. Jeszeck, Charles Ford, Isabella Johnson, Luann Moy, Mark Ramage, Joe Applebaum, Craig Winslow, Gene Kuehneman, Brian Friedman, Melissa Swearingen, Marietta Mayfield, Sue Bernstein, and Walter Vance made important contributions to this report.

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