

# **PBGC's Guarantee Limits—an Update**



**Pension Benefit Guaranty Corporation**  
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# PBGC's Guarantee Limits—an Update

## Summary

The 1999 edition of the Pension Benefit Guaranty Corporation's (PBGC) Pension Insurance Data Book contained an article describing the statutory and regulatory limitations on PBGC's guarantees and the effects of these limitations on the benefits PBGC paid to participants in certain single-employer plans it trusteeed.<sup>1</sup> That report found that less than six percent of the more than 90,000 participants in the 22 trusteeed plans in the study had their benefits reduced by PBGC's guarantee limits. Those whose benefits were reduced had their benefits cut by 16 percent, on average, although there was a rather broad range in the degree to which earned benefits were reduced.

Since 1999, PBGC has experienced an unprecedented number of plan terminations and claims. The majority of recent claims were from plans sponsored by companies in the airline and primary metal, mostly steel, industries. PBGC was asked whether the findings of the 1999 study continued to hold for participants in the recent influx of new claims. This report attempts to answer that question.<sup>2</sup> The current study's results are based on a review of the impacts of the three limitation provisions applied by PBGC to the benefits of more than 525,000 participants in an expanded sample of 125 trusteeed plans sponsored by 55 large controlled groups. (A controlled group is a company or a group of affiliated companies under a common control; in the remainder of this article, we refer to these controlled groups as companies.) These 125 plans were trusteeed by PBGC from 1990 to 2005.

The plans in the expanded study were more likely than those in the earlier study to have participants whose benefits were reduced by one or more of the three benefit limitation provisions.<sup>3</sup> We found:

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<sup>1</sup> The 1999 study is in the *Pension Insurance Data Book 1999*, which may be found at [www.pbgc.gov/docs/1999databook.pdf](http://www.pbgc.gov/docs/1999databook.pdf).

<sup>2</sup> An abridged version of this study was included as a chapter in the *Pension Insurance Data Book 2006* which is available on PBGC's web site at [www.pbgc.gov/docs/2006databook.pdf](http://www.pbgc.gov/docs/2006databook.pdf).

<sup>3</sup> The Pension Protection Act of 2006 (PPA) contained several provisions that affected the guarantee limitations. The plans in this study all terminated before 2006 and were not affected by the PPA provisions. However, the PPA modifications will impact how the limitation provisions affect the benefits of participants whose plans terminate after the law's provisions become effective. The PPA modifications are these: (1) if the plan sponsor entered bankruptcy after September 16, 2006, and was in bankruptcy when the plan terminated, PBGC's guarantees will generally be determined as of the date the plan sponsor began bankruptcy proceedings, rather than as of the date of plan termination; (2) these same bankruptcy-related provisions will affect which priority categories plan participants fall into for the allocation of plan assets and employer recoveries; (3) if a commercial airline plan sponsor elected funding relief under PPA and the plan terminates within 10 years of the election, PBGC's guarantees are determined as of the first day the funding relief applied to the plan; and (4) if, after July 26, 2005, benefits were increased as a result of an event (such as a facility shutdown) that triggered an "unpredictable contingent event benefit," the benefit increase will be treated as if it were the result of a plan amendment and will be subject to the "Phase-In" limitation.

- The vast majority of participants in both studies received 100 percent of the benefits they earned under their plans;
- 16 percent of participants had benefits reduced by one or more of the limitation provisions in the current study compared to less than six percent in the 1999 study;
- on average, this study found that benefits were reduced by 28 percent for those affected compared with an average reduction of only 16 percent in the earlier study; and
- more than 80 percent of the plans in this study and more than 75 percent in the 1999 study had at least one participant whose benefits were reduced by one or more of the limitation provisions.

Neither the change in the number of participants whose benefits were reduced nor the change in the size of the reductions is unexpected. The impacts of these limitations depend critically on the characteristics of both the plans being trusteeed (whether they provide temporary supplemental benefits, whether they regularly increase benefits through plan amendments, whether they provide generous benefits or highly subsidized early retirement benefits) and the participants in the plans (whether they are highly paid).

This updated study includes several recently trusteeed large plans from the steel and airline industries. These industries are heavily unionized and their plans are relatively generous. Steel plans often provide temporary supplemental benefits and generous benefits that are available after 30 years of employment. Many steel workers can retire with immediate pension benefits while in their late 40s or early 50s. Many airline plans also provide generous benefits and often allow their participants to retire at relatively young ages. These characteristics make steel and airline plans more likely to be subject to the guarantee limitations than the average defined benefit plan.

## PBGC's Benefit Limitations

PBGC pays participants the benefits they accrued under the terms of their plan, subject to certain constraints set by Title IV of the Employee Retirement Income Security Act of 1974, as amended (ERISA) and by PBGC's implementing regulations. When PBGC takes control of a terminated underfunded plan, it takes over responsibility for the plan's assets and the payment of benefits to plan participants and their beneficiaries. PBGC determines, on a participant-by-participant basis, the benefits to which each participant or beneficiary is entitled.

Three limitation provisions constrain the level of PBGC's guaranteed benefits—the “Accrued-at-Normal” limitation, the “Maximum Insurance” limitation, and the “Phase-In” limitation.

### *The “Accrued-at-Normal” Limitation*

The accrued-at-normal limitation constrains the benefits PBGC guarantees to a monthly amount no larger than the monthly benefit provided as a straight life annuity available at the plan's normal retirement age. The portion of any combined early retirement benefit and supplemental benefit that exceeds this amount is eliminated by this provision.<sup>4</sup> For example, suppose that the plan entitles a participant to a straight life annuity of \$1,000 per month at the plan's normal retirement age of 65. Suppose further that, if he retires at age 60, he is entitled to an early retirement benefit of \$750 per month and a temporary supplemental benefit of \$400 per month between the ages of 60 and 62. His total benefit under the plan from age 60 to age 62 would be \$1,150 per month. The accrued-at-normal limitation will reduce the supplemental benefit by \$150. In this case, PBGC would pay the participant a benefit of \$1,000 per month from age 60 to age 62, instead of \$1,150. At age 62, PBGC would stop paying the reduced supplemental benefit in accordance with the plan's terms. From that point forward, the participant would be paid a monthly benefit of \$750, the same amount he would have received from the plan at that age if the plan had not terminated.

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<sup>4</sup> Plans in certain industries, such as steel and motor vehicle manufacturing, often pay early retirees a supplemental benefit until they become eligible for Social Security benefits.

## *The “Maximum Insurance” Limitation*

The maximum insurance limitation puts a dollar cap on the benefits PBGC may guarantee. The amount of the maximum guaranteed benefit depends on the calendar year in which the underfunded plan terminates.<sup>5</sup> The maximum benefit guarantee is adjusted yearly but is fixed for any plan once that plan terminates.<sup>6</sup> For a plan terminating in 2008, the maximum benefit guarantee is \$4,312.50 per month, or \$51,750 per year, for a straight-life annuity that PBGC begins paying at age 65. The guarantee is actuarially reduced for those who begin receiving benefits from PBGC at younger ages or who receive a benefit that includes a survivor benefit, and it is actuarially increased for those who first receive benefits from PBGC at older ages. The participants whose benefits are affected by the maximum insurance limitation tend to be those with high salaries, those whose plans provide very generous benefits, and those whose plans provide subsidized or unreduced early retirement benefits at a relatively young age.<sup>7</sup>

## *The “Phase-In” Limitation*

The phase-in limitation restricts the proportion of recent plan benefit improvements provided through a plan amendment that PBGC will guarantee.<sup>8</sup> Although any type of plan can be amended to improve benefits, collectively bargained plans often regularly increase benefits in this manner, making them more likely than nonbargained plans to be subject to the phase-in limitation. PBGC will fully cover benefit improvements made more than five years prior to the date of the plan’s termination. It will not cover any benefit increase implemented through a plan amendment that was made within one year of the date of the plan termination. For benefit improvements that became effective (or that the sponsor adopted, if later) more than one year but less than five years prior to the plan’s termination, PBGC will guarantee the larger of 20 percent of the benefit increase or \$20 per month of the increase for each full year the increase was in effect.<sup>9</sup>

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<sup>5</sup> The Pension Protection Act of 2006 modified this provision. If the sponsor entered bankruptcy after September 16, 2006, and the plan terminates while the sponsor is in bankruptcy, the maximum benefit guarantee will be based on the calendar year the sponsor entered bankruptcy.

<sup>6</sup> The maximum guaranteed amount is adjusted annually based on changes in the Social Security “Old-law” contribution and benefit base. The “Old-law” base is the base that would have been effective without enactment of the 1977 amendments to the Social Security Act.

<sup>7</sup> An example of this latter type of benefit is a “30 and out” plan that allows a participant to retire at any age with unreduced benefits once he or she has completed 30 years of service with the plan’s sponsor.

<sup>8</sup> PPA applied this limitation to payments for “unpredictable contingent event benefits” that are triggered by a specific event, such as a plant shutdown. The trigger date begins the five-year phase-in period. The bankruptcy provision of PPA also comes into play for the phase-in provision. If the plan terminates while the employer is in bankruptcy, then the date the employer filed for bankruptcy (if after September 16, 2006) will be treated as the termination date for purposes of applying the phase-in limitation provision.

<sup>9</sup> A less generous phase-in provision is applicable for substantial owners of companies that sponsored PBGC-trusted plans. The substantial owner provision was changed to a majority owner provision by PPA. It now applies to fewer owners and is less onerous when it does apply. This type of phase-in is rarely applicable to participants in large plans.

## *Benefits Exceeding PBGC's Guarantees*

Some participants in PBGC-trusted plans receive benefits that exceed the PBGC guarantee level. This can occur if the plan has sufficient assets to fund benefits above the guarantee or if PBGC recovers, or is deemed to recover, additional funds from the plan sponsor through bankruptcy proceedings. Recoveries are shared with participants according to a specified formula, and the participants' share is used to fund benefits that exceed PBGC's guarantee.<sup>10</sup>

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<sup>10</sup> PPA changed this provision so that, for plans whose sponsors enter bankruptcy after September 16, 2006 and are in bankruptcy when the plan terminates, the date the sponsor entered bankruptcy proceedings will be used to assign participants to the priority categories that PBGC uses to allocate any available plan assets and employer recoveries.

## Methodology

To determine the impact of the limitation provisions on the benefits of the 525,700 participants in the 125 trustee plans in this study, we calculated the present value of the reduction in benefit payments caused by each limitation. PBGC's internal valuation records describe which guarantee limitations applied to each participant's benefit. We calculated the estimated present value of the vested plan benefits the participants would have received over their lifetimes without any reductions and then estimated the present value of their lifetime benefits after PBGC applied each individual limitation.<sup>11</sup> From the difference in these calculations, we determined the number and percentage of participants whose benefits were reduced by each limitation and the average percentage reduction in benefits. The average percentage reductions reported in Tables 3, 7, and 9 of this study were calculated by dividing the aggregate present value of benefit reductions by the aggregate present value of vested benefits the affected participants would have received if their benefits had not been reduced.

These limitations can affect the different types of participants—active workers, retirees, and separated vested workers (workers who earned a nonforfeitable right to a pension benefit but left the plan sponsor's employ without commencing a pension benefit)—in different ways. For this reason, the effects of each limitation are reported for each type of participant. (See Tables 2 through 6.) The 125 plans in the sample contained 525,700 participants at their dates of plan termination—206,600 retirees, 171,600 separated vested workers, and 147,500 active vested workers. Beneficiaries of deceased workers were not included in the study. Because the impact of each limitation also depends heavily on the characteristics of the trustee plan, the effects are also reported by the industry of the plan sponsor. (See Tables 8 through 10.) The rationale behind reporting results by industry is that plans in specific industries are likely to have similar provisions, especially if there is one union that represents the majority of workers in a particular occupation.

We note that the sample of 125 plans is not a random sample of trustee plans. We chose the controlled group sponsors based on the total amount of unfunded liabilities in their trustee plans and on whether PBGC had completed its actuarial valuations. Some recently trustee plans with very large unfunded liabilities were not included in the study because PBGC had not completed its actuarial valuations at the time the sample was selected. The distribution of participants by type and industry in the sample differs from that of the plans PBGC has trustee.<sup>12</sup> The percentages of participants from the steel industry and retail sector in the study are comparable to their percentages in all trustee plans, while the percentage of

<sup>11</sup> The lifetime benefits estimated after the limitation provisions were applied include PBGC-guaranteed benefits and any nonguaranteed benefits that were funded by plan assets or recoveries.

<sup>12</sup> We do not have readily available data on the distribution of participants by type for all the plans PBGC has trustee. Thus, we do not know on this basis how representative the sample is for all trustee plans.

airline participants in the sample is more than twice the comparable percentage in all trustee plans. Participants from all other sectors are under-represented in the sample of participants. The results of this study have not been weighted to adjust for distributional differences between the sample and full population of trustee plans.

## Results of this Study

Most of the plans in the sample had at least one participant whose benefit was reduced by one of the limitation provisions. However, when PBGC takes over a pension plan, the overwhelming majority of participants receive 100 percent of their vested accrued benefit. In this sample of 525,700 participants, only 16 percent, about 84,000, had their vested accrued benefits reduced by any of the benefit limitation provisions. The other 84 percent received 100 percent of the vested benefits they had earned under their plans. Those whose benefits were reduced received, on average, 72 percent of the vested benefits they had earned under their plans.

### *Plans*

The benefit limitation provisions reduced the benefits of at least one participant in more than 80 percent of the plans in the sample. (See Table 1.) The maximum insurance limitation reduced benefits of some participants in 60 percent of the 125 plans, while the accrued-at-normal and phase-in limitations each reduced benefits of some participants in almost half the plans. In most plans where any benefits were reduced, however, the benefits of only a small percentage of participants were affected. For example, the maximum insurance limitation reduced the benefits of fewer than five percent of plan participants in 54 of the 75 plans it affected.

**Table 1. Number of Plans with Benefits Reduced by One or More Benefit Limitation Provision, By Limitation Provision**

Total Plans	Number With Benefits Reduced By:			
	At Least One Limitation	Accrued-At-Normal Limitation	Maximum Insurance Limitation	Phase-In Limitation
125	104	55	75	61

### *Participant Status*

Participants who were active in their plan at the time of plan termination were most likely to face reductions in their benefits. (See Table 2.) Almost 30 percent of the active participants had their vested benefits reduced compared with 16 percent of retirees and only four percent of separated vested participants. More than twice as many participants had their benefits reduced by the phase-in provision than by either of the other two limitation provisions. About two percent of all participants had their benefits reduced by either two or all three of the limitation provisions.

**Table 2. Participants with Benefits Reduced by One or More Benefit Limitation Provisions, By Participant Status and Limitation Provision**

Status	Number of Participants	Percent Receiving 100% of Vested Accrued Benefit	Percent Affected By:			
			At Least One Limitation	Accrued-At-Normal Limitation	Maximum Insurance Limitation	Phase-In Limitation
Retired	206,600	84%	16%	5%	6%	10%
Separated	171,600	96	4	*	*	4
Active	147,500	71	29	1	9	21
All Participants	525,700	84%	16%	2%	5%	11%

\* Less than 0.5 percent.

Note: Some participants had their benefits cut by more than one limitation provision.

Table 3 summarizes the average percentage reduction in the lifetime value of benefits caused by each of the benefit limitation provisions for the affected participants. Tables 4, 5, and 6 provide additional information about the impacts each individual limitation has on those it affects. The 16 percent of participants whose benefits were reduced had their benefits reduced, on average, by 28 percent (measured in present value terms).<sup>13</sup> From Table 3 it is clear that the maximum insurance limitation caused the greatest average reduction in benefits. It reduced the benefits of those it affected by a third. The phase-in limitation reduced benefits of those it affected by 15 percent, and the accrued-at-normal limitation reduced benefits by an average of 10 percent.

**Table 3. Average Benefit Reduction for Participants Whose Benefits Were Reduced by One or More Benefit Limitation Provision, By Participant Status and Limitation Provision**

Status	Number With Reduced Benefits	Average Percent Reduction From:			
		All Limitations	Accrued-At-Normal Limitation	Maximum Insurance Limitation	Phase-In Limitation
Retired	32,900	22%	10%	21%	15%
Separated	7,400	19	19	26	21
Active	43,400	34	12	43	14
All Participants	83,700	28%	10%	33%	15%

<sup>13</sup> The benefit reductions, if spread across all participants in the sample, would average only four percent per participant.

Tables 4, 5, and 6 show how each of the limitations affected the present value of future benefits for those participants whose benefits were reduced by that limitation. Table 4 shows the impacts of the accrued-at-normal limitation. This limitation reduced the supplemental benefits of almost 12,000 of the more than 525,000 participants in the sample. The benefits of relatively few participants were affected because most plans do not provide substantial supplemental benefits. More than 90 percent of those affected by the accrued-at-normal limitation were retirees. The present value of benefits for the affected participants before the limitation was applied was almost \$2.5 billion, or about \$210,000 per participant, on average. The accrued-at-normal limitation reduced the present value of benefits for all affected participants by almost \$260 million or just over 10 percent of the present value of benefits accrued under the plan.

**Table 4. Impact of the Accrued-at-Normal Limitation on Benefits of Affected Participants**

Participant Category	Number of Participants Affected by the Accrued-at-Normal Limitation	Present Value of Benefits Before Applying the Accrued-at-Normal Limitation*	Present Value of Benefits After Applying the Accrued-at-Normal Limitation*	Percent of Pre-limitation Benefit Received	Present Value of Benefits Lost Due to the Accrued-at-Normal Limitation*	Average Loss of Present Value per Affected Participant
Retired	10,800	\$2,356.3	\$2,116.6	90%	\$239.7	\$22,200
Separated	100	14.3	11.6	81	2.7	27,000
Active	1,000	123.8	109.0	88	14.8	14,800
All Participants	11,900	\$2,494.4	\$2,237.2	90%	\$257.2	\$21,600

*\*Dollars in millions*

The average percentage of full benefits received by participants affected by the accrued-at-normal limitation increased from 83 percent in the 1999 study to 90 percent in this study. The decline in the impact of this limitation was caused, we believe, by a decline of average monthly supplemental benefits relative to average monthly early retirement benefits. The average monthly supplemental benefit in most steel plans (the plans whose participants are most affected by the accrued-at-normal provision in this study) has remained constant for many years while the average monthly early and normal retirement benefits have increased. Thus, over time the supplemental benefit has become responsible for a smaller share of the average affected participant's total early retirement benefit. This is reflected in the smaller percentage reduction in benefits caused by the accrued-at-normal limitation provision.

Table 5 shows the impacts of the maximum insurance limitation. This limitation affected the benefits of more than 27,000 participants and resulted in substantial reductions in their present value of future benefits of more than \$140,000, on average. As noted earlier, the maximum insurance limitation tends to affect those participants with relatively large benefits. The average present value of future benefits for participants whose benefits were reduced by this limitation provision was \$430,000, more than twice as high as the average present value of future benefits of those whose benefits were reduced by either the accrued-at-normal or phase-in limitations.

The average benefit loss from the maximum insurance limitation was twice as large for active participants as for retired participants. Part of the reason for this pattern is that the maximum benefit guarantee is actuarially adjusted. It is higher for older participants than it is for younger participants. For 2008, the annual maximum benefit guarantees, payable as a single-life annuity, are approximately \$33,600 for a 60-year-old, \$51,750 for a 65-year-old, and \$85,900 for a 70-year-old. If a participant of each age were entitled to a benefit of \$60,000 per year under their plan, the maximum insurance limitation would reduce the benefit of the 60-year-old by \$26,400 per year and that of the 65-year-old by \$8,250 per year, but would not reduce the benefit of the 70-year-old. A second reason retired participants had a lower average benefit reduction is the procedures PBGC uses to allocate assets in the plan. Assets are used to cover the benefits of those who were eligible to retire at least three years prior to the date the plan terminated before they are used to cover the benefits of other participants.<sup>14</sup> In many plans that PBGC trustees, assets are sufficient to cover all benefits earned by most retirees, even if their benefits exceed the guarantee level for their age. These two reasons explain why the benefits of retirees affected by the maximum insurance limitation were reduced by only 21 percent while the benefits of affected active participants were reduced by 43 percent (see Table 3).

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<sup>14</sup> Assets are allocated first to cover that portion of participants' accrued benefits that are derived from their own voluntary or mandatory contributions to the plan. After these allocations are made, the remaining assets are used to cover benefits funded by employer contributions. Most private-sector defined benefit plans do not require or allow participant contributions. Thus, in most trustee plans, asset allocations begin by covering the benefits of those retired or eligible to retire three years before the plan terminated. Going forward, the plan termination date for this purpose will be deemed to be the bankruptcy filing date, if that date is after September 16, 2006 and the sponsor is still in bankruptcy when the plan actually terminates.

Table 5. Impact of the Maximum Insurance Limitation on Benefits of Affected Participants

Status	Number of Participants Affected by the Maximum Insurance Limitation	Present Value of Benefits Before Applying Maximum Insurance Limitation*	Present Value of Benefits After Applying Maximum Insurance Limitation*	Percent of Pre-limitation Benefit Received	Present Value of Benefits Lost Due to the Maximum Insurance Limitation*	Average Loss of Present Value per Affected Participant
Retired	12,800	\$5,235.3	\$4,155.6	79%	\$1,079.7	\$84,400
Separated	800	171.6	127.6	74	44.0	55,000
Active	13,500	6,246.0	3,542.0	57	2,704.0	200,300
All Participants	27,100	\$11,652.9	\$7,825.2	67%	\$3,827.7	\$141,200

\*Dollars in millions

The average percentage of full benefits received by participants affected by the maximum insurance limitation fell from 83 percent in the 1999 study to 67 percent in this study. The decrease is due to the large number of participants in airline and steel plans in this study. Pilots were especially affected by this provision. Almost 60 percent of pilots had their benefits reduced by the maximum insurance limitation. Their high average incomes provided very generous benefits that were often two to three times the maximum insurance limitation, putting them at risk of large benefit reductions. For example, a 60-year-old pilot whose plan terminated in 2003 could have earned a benefit of about \$6,300 per month. For plans terminating in 2003, the PBGC maximum insurance limitation for a person aged 60 was \$2,382.10 per month. Absent other considerations, this pilot's benefit would be reduced by more than 60 percent or almost \$4,000 per month by the maximum insurance limitation. In some cases, retired pilots and pilots who were eligible to retire at least three years before the date the plan terminated got a measure of relief because of the way plan assets and recoveries are allocated across participants. For them, the asset allocation reduced or eliminated the maximum insurance limitation reduction. However, the vested accrued benefits of active pilots who were not eligible to retire at least three years before the plan's termination date were usually cut back to the PBGC guarantee level for their expected retirement age.

Many steel plans also had provisions that provided participants with reasonably generous benefits at relatively young ages. Because PBGC's guarantee is actuarially reduced for participants drawing benefits before age 65, young retirees with generous benefits are likely to have those benefits reduced by the maximum insurance limitation. For example, a 50-year-old who had worked for a steel company for 30 years could have been eligible for a benefit in 2002 of \$1,575 per

month (\$52.50 per year of service). However, the maximum insurance limitation for a 50-year-old in 2002 was only \$1,252.84 per month. The limitation would have reduced the retired steelworker’s benefit by almost \$325 per month, or 20 percent.

The impact of the phase-in limitation is shown in Table 6. Eleven percent of all participants in the sample lost some or all of the benefit increases their plans had provided within five years of the date their plan terminated. This limitation reduced the benefits of more than 57,000 of the 525,700 participants in the study. A part of the reason for the widespread impact of this limitation is that affected participants do not need to have high benefit levels to be affected. They only need to be in plans that provided recent benefit increases through plan amendments. In fact, the average present value of future benefits before the limitation was applied (\$152,800) was lower for this group of participants than for participants affected by either of the other two limitation provisions. For those affected, this provision reduced benefits by about 15 percent or an average of \$22,700 in present value terms.

**Table 6. Impact of the Phase-In Limitation on Benefits of Affected Participants**

Status	Number of Participants Affected by the Phase-In Limitation	Present Value of Benefits Before Applying Phase-In Limitation*	Present Value of Benefits After Applying Phase-In Limitation*	Percent of Pre-limitation Benefit Received	Present Value of Benefits Lost Due to the Phase-In Limitation*	Average Loss of Present Value per Affected Participant
Retired	19,900	\$4,952.3	\$4,223.1	85%	\$729.2	\$36,600
Separated	6,500	362.4	287.3	79	75.1	11,600
Active	30,900	3,443.1	2,946.3	86	496.8	16,100
All Participants	57,300	\$8,757.8	\$7,456.7	85%	\$1,301.1	\$22,700

*\*Dollars in millions*

The average percentage reduction from the phase-in limitation increased from two percent in the 1999 study to 15 percent in the 2007 study. Given the make up of our 1999 sample, we expressed a belief that the phase-in provision probably affected more than the 0.5 percent of participants that were affected in that study. This expanded study supports that belief. However, we believe the size of the impact reported in this study probably overestimates the average impact of this provision. Several airline and steel plans granted very large benefit increases (as high as a 50 percent increase) within three years of the plans' terminations. Generally, we would not expect sponsors to increase benefits by this magnitude or for plans to terminate this quickly after a benefit increase was granted. The phase-in provision generally eliminated 40 to 60 percent of these large increases in the plans in the sample.

On an aggregate basis, the almost 84,000 participants whose benefits were reduced by any of these benefit limitations had the present value of their future benefits reduced by an average of 28 percent relative to the present value of their benefits before the limitation provisions were applied. This average covers a wide range of benefit reductions. Almost half of those affected lost less than 20 percent of the value of their lifetime benefits,<sup>15</sup> and for more than 25 percent the provisions reduced benefits by less than 10 percent. (See Table 7.) The lifetime values of benefits of about 7,000 participants (eight percent of the participants whose benefits were reduced) were reduced by more than 50 percent. Two-thirds of this last group were participants in airline plans and another 30 percent were participants in steel plans.

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<sup>15</sup> The median participant whose benefit was reduced by the limitation provisions lost 22 percent of his unreduced benefit.

Table 7. Distribution of the Percentage Reduction in the Present Value of Future Benefits Caused by the Benefit Limitation Provisions

	Number	Percent of All	Percent of Those with a Reduction
Total	525,700	100.0%	Not Applicable
No Reduction	442,100	84.1	Not Applicable
Total with a Reduction	83,700	15.9	100.0%
Size of Reduction			
Less than 5%	11,300	2.1	13.5
5% < 10%	10,100	1.9	12.1
10% < 15%	6,000	1.1	7.2
15% < 20%	13,300	2.5	15.9
20% < 25%	19,700	3.7	23.5
25% < 50 %	16,300	3.1	19.5
50% or More	6,900	1.3	8.2

*Note: Numbers and percents may not add up to their respective totals because of rounding.*

### *Industry*

Participants in airline and steel plans were much more likely to have their benefits reduced by the three guarantee limitations—more than 20 percent had their benefits reduced—than were participants from other industries, where only five percent experienced benefit reductions. (See Table 8.)

**Table 8. Participants with Benefits Reduced by One or More Benefit Limitation Provisions, By Industry and Limitation Provision**

Industry	Number of:		Percent Affected By:			
	Plans	Participants	At Least One Limitation	Accrued-At-Normal Limitation	Maximum Insurance Limitation	Phase-In Limitation
Airline	17	228,400	22%	*	8%	14%
Steel	54	122,500	21	7%	6	15
Other Manufacturing	40	115,000	6	2	*	4
Retail	4	30,700	*	0	*	*
Other	10	29,100	5	1	1	5
All Industries	125	525,700	16%	2%	5%	11%

\* Less than 0.5 percent.

Note: Some participants, especially in steel plans, had their benefits cut by more than one limitation provision.

The three limitation provisions affected participants from different industries in different ways. Seven percent of participants in steel industry plans had their benefits reduced by the accrued-at-normal limitation compared with almost none in airline plans, only two percent in other manufacturing sector plans, and one percent from plans from all other industries. Supplemental benefits are commonly found in steel plans and plans of some other manufacturing sectors but are rarely found in plans outside the manufacturing sector.<sup>16</sup>

Even though steel and airline plans tend to have generous benefits, only eight percent of the participants in the airline plans (mostly pilots) and six percent in the steel plans had their benefits reduced by the maximum insurance limitation. Few participants in other industries lost benefits because of this limitation.

The phase-in limitation reduced the benefits of about one out of seven participants in steel and airline plans but fewer than one out of 20 in other industries. While relatively few participants in plans other than steel and airline plans had their benefits reduced by the phase-in provision, almost half of the plans in these other industries had at least one participant whose benefits were affected by it.

Among participants who had their benefits reduced by one or more of the limitation provisions, those in airline plans had the largest average percentage loss of vested benefits (a 30-percent reduction). (See Table 9.) The average

<sup>16</sup> The participants in the “Other” category whose benefits were reduced by the accrued-at-normal limitation were all participants in the same plan.

percentage reduction for affected participants from plans in other industries was about 25 percent except in the non-steel manufacturing plans where it was only 13 percent. The average reductions conceal a wide variation in the reductions experienced by individual participants. Some had very modest reductions while others lost a substantial proportion of their earned benefits. For example, the benefits of a few participants in pilot plans were reduced by more than 75 percent by the maximum insurance limitation.

**Table 9. Average Benefit Reduction for Participants Whose Benefits Were Reduced by One or More Benefit Limitation Provision, by Industry and Limitation Provision**

Industry	Number of Participants	Percent With Reduced Benefits	Average Percent Reduction From:			
			All Limitations	Accrued-At-Normal Limitation	Maximum Insurance Limitation	Phase-In Limitation
Airline	228,400	22%	30%	6%	36%	15%
Steel	122,500	21	26	10	22	16
Other Manufacturing	115,000	6	13	13	16	6
Retail	30,700	*	24	0	29	13
Other	29,100	5	26	24	26	26
All Industries	525,700	16%	28%	10%	33%	15%

\* Less than 0.5 percent.

Across all industries, the maximum insurance limitation was responsible for the largest percentage reduction in benefits. As noted earlier, almost 60 percent of all pilots in the sample had their benefits reduced by this limitation provision. Given their very high average levels of vested benefits, many experienced very substantial benefit reductions. On average, the maximum insurance limitation reduced the benefits of affected pilots by 38 percent, compared to an average reduction for other affected airline plan participants of 23 percent.

The maximum insurance limitation provision also had the largest impact on benefits of affected participants in other industries. While few plans provide benefits as high as pilots' plans, many upper-level management participants receive generous benefits from their plans. In addition, many plans provide heavily subsidized early retirement benefits. The maximum guarantee at young retirement ages is fairly modest (for example, in 2008 it is \$23,287.56 per year at age 55). A 55-year-old retiree receiving a plan-provided benefit of \$2,100 per month

whose plan terminates (or is deemed to terminate) in 2008 will have his benefit reduced by about \$160 per month by the maximum insurance limitation. While not a large percentage reduction, it demonstrates how younger retirees with benefits substantially below the \$4,312.50-per-month limit that applies at age 65 can have their benefits affected by the maximum insurance limitation provision.

Table 10 shows the number of participants whose benefits were reduced by one or more of the limitation provisions, broken down by both industry and participant type. This table shows that more than 75 percent of those whose benefits were reduced by the accrued-at-normal limitation were in steel industry plans and most of the rest were participants in plans sponsored by other companies in the manufacturing sector. More than 90 percent of those affected by this limitation were retirees. This is to be expected because retirees are most likely to meet the eligibility requirements for a supplemental benefit. Often these requirements are being eligible for an immediate early retirement benefit upon separation from employment and being younger than a specified age (such as age 62 when participants become eligible to receive Social Security benefits). Some active workers had met the eligibility requirements for a supplemental benefit at the time the plan terminated.

Table 10. Number of Participants with Benefits Reduced by One or More Benefit Limitation Provision, By Industry, Participant Type, and Limitation Provision

Industry	Participant Type	Number of Participants	Number with Benefits Reduced By:			
			At Least One Limitation	Accrued-at-Normal Limitation	Maximum Insurance Limitation	Phase-In Limitation
Airline	All Participants	228,400	49,700	300	18,600	32,600
	Retired	61,000	14,000	300	6,200	8,400
	Separated	63,500	4,800	*	600	4,200
	Active	103,900	30,900	*	11,800	20,000
Steel	All Participants	122,500	25,200	9,100	8,000	18,100
	Retired	76,200	15,100	8,500	6,200	9,600
	Separated	23,000	1,500	*	*	1,400
	Active	23,300	8,600	600	1,800	7,100
Other Manufacturing	All Participants	115,000	6,700	2,300	300	5,000
	Retired	55,800	3,400	2,200	200	1,900
	Separated	51,000	800	*	*	700
	Active	8,200	2,500	100	*	2,400
Other	All Participants	59,800	2,100	200	300	1,600
	Retired	13,600	300	200	200	*
	Separated	34,100	300	0	100	200
	Active	12,100	1,400	*	*	1,400
All Industries	All Participants	525,700	83,700	11,900	27,100	57,300
	Retired	206,600	32,900	10,800	12,800	19,900
	Separated	171,600	7,400	100	800	6,500
	Active	147,500	43,400	1,000	13,500	30,900

\* Fewer than 50 participants.

Note: Numbers may not add up to column subtotals and totals because of rounding.

Two-thirds of the participants whose benefits were reduced by the maximum insurance limitation worked in the airline industry and almost two-thirds of them were active workers when their plans terminated. Almost all the other participants whose benefits were affected by this provision were in steel industry plans and more

than three-fourths of them were retired when their plans terminated. Most of those in other industries whose benefits were affected by this provision were retirees. This disparate impact on participant types in different industries is a result of different earnings levels of participants in different industries and different typical plan characteristics in different industries.

Almost 60 percent of those whose benefits were reduced by the phase-in limitation were participants in airline industry plans. Another 30 percent were steel industry participants. In most industries, active participants bore the brunt of this provision because in many plans benefits are only increased for workers active at the time the increase is made. In some bargained plans, however, benefit increases apply to both active workers and retirees. The phase-in limitation cut the benefits of many retirees in steel industry plans because some steel companies closed down facilities shortly before their plans terminated, and many workers at those facilities retired immediately under the plans' early retirement shutdown provisions.<sup>17</sup>

About 10,300 participants had benefits cut by two or all three of the limitation provisions.<sup>18</sup> This is about two percent of all 525,700 participants in the study but 12 percent of the 83,700 participants with a benefit reduced by at least one of the limitation provisions. Three-quarters of the participants whose benefits were cut by more than one limitation provision were in steel industry plans. Most of these were retirees. About 17 percent of participants whose benefits were reduced by two or three limitation provisions were in airline industry plans. These participants were split fairly evenly between active workers and retirees.

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<sup>17</sup> We note again that all steel plans in the study terminated before the effective date that shutdown benefits became subject to the phase-in limitation. The phase-in limitation only reduced the benefits of these retirees because the plans' regular benefits had been increased through plan amendments within five years of the date the plans terminated. Had the plants not shut down, many workers would not have retired and would have been counted as active workers whose benefits were reduced by the phase-in limitation.

<sup>18</sup> Subtracting the number of participants with benefits reduced by at least one limitation (83,700) from the sum of the numbers with benefits reduced by each of the three individual provisions (96,300) in the "All Industries All Participants" line near the bottom of the table gives a result of 12,600. This is an overestimate of the number of participants whose benefits were reduced by more than one limitation provision because about 2,300 participants had benefits reduced by all three of the limitation provisions.

## Conclusions

The major finding of this study is that the vast majority of participants in this sample of 125 PBGC-trusted plans—84 percent—receive all the vested benefits they had accrued under their plans. However, many of the 16 percent of participants whose benefits were reduced by one or more of the limitation provisions experienced substantial benefit reductions. A quarter of them, more than 23,000, will lose at least 25 percent of the lifetime value of their accrued benefits because of these limitation provisions. However, almost as many, more than 21,000, will have the lifetime value of their accrued benefits reduced by less than 10 percent. The average benefit reduction for those affected was a 28 percent reduction. The maximum insurance limitation, which places a dollar limit on PBGC's guarantee, continued to be the limitation that caused the largest benefit reductions for affected participants. That said, the phase-in limitation, which limits the amount of recent benefit increases PBGC will guarantee, affected the greatest number of participants.

Whether a participant's benefit is reduced depends heavily on the characteristics of the plan and the individual participant. Not all plans provide supplemental benefits for those who retire before the plan's normal retirement age and not all will increase benefits through plan amendments (or, in the future, provide contingent event benefits). Only those plans that do will have participants whose benefits could be reduced by the accrued-at-normal and phase-in limitations, respectively. Relatively few participants have benefits sufficiently high to be reduced by the maximum insurance limitation. However, those with very high benefits can face substantial reductions in their benefits because of this latter provision. Because this limitation's guarantee is actuarially reduced for first PBGC payments before age 65, the maximum insurance limitation can affect some participants who retire at young ages with relatively modest benefits.

The sample of plans in the study is heavily weighted toward large trusted plans, especially airline and steel plans that have accounted for almost 75 percent of all claims against the PBGC. The sample consequently underrepresents small trusted plans. However, the 525,700 participants in the sample are more than 30 percent of all participants in plans ever trusted by PBGC. This makes us confident that our results provide reasonable estimates of the percent of participants historically affected by these three benefit limitation provisions. Recent changes in law will likely result in somewhat larger benefit reductions for some participants whose plans terminate while their employers are in bankruptcy proceedings. These changes in law, combined with changes in the composition of plans that present the highest likelihood of claims in the future, suggest that these results may not be representative of the benefit reductions that will be experienced in future terminations.



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