

**TRANSACTIONS OF SOCIETY OF ACTUARIES
1997-98 REPORTS**

SAFEST ANNUITY RULE

**A STUDY SPONSORED BY
THE COMMITTEE ON RETIREMENT SYSTEMS RESEARCH
OF THE SOCIETY OF ACTUARIES***

EXECUTIVE SUMMARY

In this study, the Safest Annuity Rule Working Group of the Committee on Retirement Systems Research of the Society of Actuaries, considers whether Interpretive Bulletin 95-1 (IB95-1) issued by the Department of Labor (DOL) in March 1995 is significantly changing the market for insured annuities issued to tax-qualified pension plans, particularly upon the termination of defined benefit plans. Although we found recent shrinkage in the market for such annuities, DOL's new guideline for selecting annuity providers, which we refer to as the "Safest Annuity Rule" (SAR), is not the most important influence. Most of the shrinkage occurred before the publication of the standards.

The recent failure of a few large life insurers, notably in the early 1990s, was accompanied by public concern about the safety of annuities purchased by qualified retirement plans. If the plan was terminating and the employer sponsoring the plan was going out of business, there might be no recourse to the employer's assets and the Pension Benefit Guaranty Corporation (PBGC) would not, as a matter of law, provide benefits to holders of annuity certificates issued by failed insurance companies. In response, DOL issued IB95-1, which called for plan fiduciaries to act in the best interests of plan participants by generally purchasing the "safest available annuity." In other words, a plan fiduciary cannot buy, for example, a less expensive annuity than the safest available annuity unless the participants are compensated for the perceived reduction in security.

The term "safest available annuity" alarmed both buyers and all but the strongest sellers of annuities, suggesting that only one annuity provider would be the "safest" at any time. This could drive the cost of annuity purchases upward while the number of acceptable carriers would spiral downward. To explore this issue, we (1) surveyed insurance companies who sell annuities ("sellers"), (2) surveyed consultants who help plans purchase annuities ("buyers"), and (3) analyzed PBGC data on terminated plans. In each case we focused on changes in or around the 1990-96 period. Independent data from the Life Insurance Marketing Research Association (LIMRA) were available to corroborate some of our findings.

*Working Group: Zenaida Samaniego, Chairperson, David Brady, Thomas P. Edwalds, Lindsay Malkiewich, Richard Schreitmueller, William Sohn, Henry Winslow.

First, our survey of annuity providers confirms that fewer insurance companies are selling annuities in this market than before, partly because plan sponsors are less willing to accept bids from insurers lacking top financial ratings, and partly because the capital constraints, profitability, and market size for the product are deemed less favorable than in the past. Nonetheless there is evidence that some carriers who left the market are returning, at least on a spot basis.

Second, our survey of annuity consultants indicates that plan sponsors are concerned about the long-term solvency of insurers, and that consultants believe the SAR mainly confirms procedures they were already using. The consultants have narrowed their recommended bid lists to include only ‘safe’ carriers, and report that fiduciaries have often determined, as IB95-1 suggests they might, that any one of several carriers is able to offer the safest available annuity.

Third, our study of PBGC data from 1990 to the first half of 1995, although not conclusive, shows some shrinkage in the number of annuity providers, a large decline in the volume of annuities purchased at plan termination, and a large decline in the ratio of assets to liabilities at plan termination.

Our surveys indicated that the new DOL standard was not a significant cause of these declines, and that other changes occurring at the same time may have had a greater impact:

- There was a large increase in excise tax rates on excess assets reverting to plan sponsors at plan termination. This made it unattractive for plan sponsors to terminate over-funded plans to recover the excess assets.
- Interest rates declined, leading to an increase in the cost of purchasing annuities.

Our surveys also showed that there has been more active use of the lump-sum option in plan terminations since the passage of the General Agreement on Tariffs and Trade (GATT) legislation in 1994. GATT included provisions that greatly reduced the amount that defined benefit plans had to pay when they offered lump-sum benefits. The impact of this increase in the use of lump sums on the annuity market is unclear at this time. Our opinion is that it has exacerbated the decline in the annuity market.

We also believe that the spate of plan termination activity in the 1980s reduced the number of candidates for plan termination. While our study did not test this hypothesis, our opinion is that this is one cause of the decline in the annuity market.

Our study also did not test the impact on the annuity market of the recent trend to cash balance or pension equity type plans, which emphasize lump

sums instead of monthly pensions or annuities. We believe that this trend will also tend to shrink the annuity market.

Although this study did not find concerns about insurer solvency, in general, or the issuance of IB95-1, in particular, to be a dominant cause of shrinkage or distortion in the annuity market, we believe it would be helpful to revisit this subject in the future.

1. PURPOSE AND METHODOLOGY

The Safest Annuity Rule Working Group, assisted by SOA staff, has tried to evaluate the impact of the SAR on the annuity market, especially regarding defined benefit plan terminations, and has also tried to assess the relative impacts of other changes: asset reversion rules, GATT legislation regarding lump-sum distributions, and the decline in interest rates since the 1980s.

To gain an understanding of trends in recent years, the working group obtained data from four sources:

1. PBGC plan termination data. Researchers were retained to analyze standard termination data from the Pension Benefit Guaranty Corporation. The data allowed analysis of the trends in plan termination activity and in the involvement of pension consultants in that activity.
2. Buyers survey. To analyze market trends from the buyer's viewpoint, the working group conducted a survey of pension consultants who specialize in helping pension plans purchase annuities.
3. Sellers survey. To analyze market trends from the seller's viewpoint, the working group conducted a survey of insurers who sell annuities to pension plans.
4. Industry data from LIMRA. A review of industry data from the LIMRA indicated trends in the total annuity market.

2. PBGC STANDARD TERMINATIONS

The working group contracted with outside researchers to analyze PBGC data for fully funded plans terminating in 1990 (the "pre-SAR" period) and in the first half of 1995 (the "post-SAR" period). Under PBGC rules, such plans had to settle their benefit commitments by giving participants annuity contracts or lump-sum distributions. These trends were noted between 1990 and 1995:

- The volume of terminations dropped from about \$8 billion in pension assets in the pre-SAR period to about half, or \$3.6 billion (annualized) in the post-SAR period. The number of cases also dropped, from 8,426

to 3,550 (annualized). Small plans (under \$1 million in assets or 100 participants) accounted for about 25% of the drop in asset and 85% of the drop in plans.

- The mean asset size of terminating plans was up about 7% from the pre-SAR to the post-SAR period, with the mean asset size of small terminating plans (under \$1 million in assets or 100 participants) increasing about 15%, and the mean asset size of large terminating plans decreasing about 20%. The participant count averaged slightly above 50 per plan in both periods.
- The ratio of assets to liabilities for terminating plans decreased sharply from the pre-SAR to the post-SAR period, and was similar for large and small plans alike. This observation is consistent with independent data that suggest that fewer plans were terminated to recover excess assets, due to the increase in the excise tax on asset reversions.
- The ten largest pension consulting firms in terms of participation in termination activity increased their share of the market only slightly, from 13% pre-SAR to 16% post-SAR.

The researchers' report, describing the process of extracting useable data from the PBGC standard termination data, the analysis performed on the data, and the conclusions drawn, is provided as Appendix I.

3. BUYERS SURVEY

A questionnaire went to annuity purchase specialists at 20 of the largest currently active actuarial consulting and brokerage firms, with 12 of them completing the questionnaires. The summary tabulation of responses is attached as Appendix II.

In Question 1, the average number of annuity purchases each specialist handled stayed remarkably steady over the period, at about two cases per month. But our other data showed that the annuity market shrank considerably.

How could the annuity specialists have stayed busy even as the market shrank? First, individual annuity specialists may have been responding based on their personal experiences and clientele, not that of their consulting firms. Second, annuity specialists may have become involved in a substantially higher proportion of the annuity purchases by the clients of their consulting firms during this period, as standards of the marketplace and DOL started to demand more expertise than the firm's generalist consultants could provide.

On the other hand, a comparison of findings across the three surveys may be treacherous. We asked different questions regarding the trends in termination activity. Therefore, it is possible for the overall dollar volume of annuities to decline (Sellers Survey), and the number of plan terminations (with or without annuity purchases) to decline (PBGC data), with the number of competitively priced annuity bids remaining relatively constant. Finally, we only surveyed annuity purchase specialists who are currently active, or at least have been active since IB95-1. Had we also surveyed specialists who have left the market since 1990, we think we would have observed at least a slight drop in activity for the group.

In Question 2, two-thirds of the respondents acknowledged using minimum levels of published credit ratings as a primary criterion for including or excluding insurers from consideration, although some indicated that a ratings test was only a first pass in the selection process. Of the other criteria presented in Question 2, which were drawn directly from IB95-1, 89% of those responding indicated that they considered investment quality and diversification, company size, capital and surplus level, and contract guarantees.

While IB95-1 specifically states that ratings alone would not satisfy the SAR, the current process which requires a 45-day period for the PBGC's pre-bid review of the carriers appears to have effectively set a ratings bar. Fiduciaries who included certain lower-rated insurers on their "intent to solicit" list to the PBGC, were notified by the PBGC that the agency had referred the plan's list to the DOL.

This practice has caused a widespread concern among fiduciaries and their advisors, that lower-rated insurers would not measure up (even those that by the other criteria would have at least qualified in their judgment as safe, if not safest available) and are to be avoided. This, in turn, may be contributing to a shrinkage in eligible annuity providers.

In Question 3, tabulations show that the average number of bids solicited since 1995 was about one-half of the average number for the prior three periods. The decreasing number of invites could be due to both heightened buyer focus on minimum standards and fewer eligible carriers choosing to participate in this market (see Sellers Survey).

In Question 4, two-thirds of the respondents stated that more than 60% of the time, fiduciaries determined that two or more insurers could be designated as safest available providers. The post-SAR frequency was only slightly lower than the pre-SAR frequency.

One concern in the marketplace regarding the SAR was the potential monopoly to be enjoyed by a distinct safest available provider. However, if

a thorough analysis so provides, the plan is allowed to buy the least expensive annuity from among the offers of several "equally safe" providers. This would offset a potential increase in price which could result from a shrinking number of available and/or eligible providers.

Question 5 explored whether the range of bids received is still wide enough such that an offer from a safe (but not safest available) insurer is sufficiently below the best (or lone) safest available price, so that the fiduciary may be justified on a risk-adjusted basis in choosing the nonsafest provider.

More than 80% of the respondents said that this "bargain" opportunity occurred at least 25% of the time. However, fewer opportunities occurred post-SAR than pre-SAR. This may be explained by the narrower range in bids that one should expect from a shorter bid list.

In Question 6, it would seem that fiduciaries generally are not taking advantage of these "bargain" opportunities. In very limited occurrences where they do, the fiduciaries selected a safe, but not safest, annuity and shared a portion of the cost savings with the participants in the form of increased benefits (ostensibly as compensation for the perceived increase risk exposure).

For the remaining majority, the fiduciary may have indeed paid the substantially higher price for the safest available annuity. Thus, in most cases, price becomes a consideration only when deciding among the multiple safest available providers. Consequently, the buyers would not be taking full advantage of the competitiveness of prices in this market because of concerns about safety.

The survey did not address situations, if any, where the plan selects a safe, but not safest, less expensive annuity and does not share the cost savings with the participants.

In Question 7, the survey explored whether the top-rated insurers have become less aggressive on pricing, and if the less than top-rated insurers have become more aggressive.

The respondents, as a whole, came in right down the middle on both questions, with a slight leaning toward yes, the top-rated have become less aggressive. The overall lack of consensus supports the idea that this is an inefficient market, but also suggests that one annuity purchase specialist's perception of aggressiveness is very different from another's.

The results in Question 8 show universal agreement that GATT has prompted widespread use of lump sums. This suggests that the cost of terminating a plan is not necessarily higher post-SAR, even if annuities are more expensive. This may explain the finding of the sellers survey that annuity purchase events have increased since the first half of 1995 (with, however, fewer lives per plan being annuitized).

4. SELLERS SURVEY

Concurrently with the Buyers Survey, a questionnaire was also prepared that was primarily directed at the sellers of annuities, or the insurers who were active annuity providers in the same periods covered by the Buyers Survey.

There were 19 respondents out of 41 surveyed. However, seven insurers out of the nonrespondents told the SOA they shouldn't have been among those surveyed. Therefore, this survey can be viewed as receiving about a 60% response, the same as the Buyers Survey. The summary tabulation of responses is attached as Appendix III.

The responses to Questions 1 and 2 show that the SAR was issued in a market that had diminished considerably since the late 1980s for reasons unrelated to insurer solvency. In 1989, the reporting insurers had underwritten over \$7.4 billion of single-premium, annuity-related business and \$5.3 billion in 1990. By 1993, there had been a considerable drop as the same insurers produced less than \$700 million of this business. Apparently, this lower volume was sustained just after the SAR was issued, given roughly \$350 million sold in the first half of 1995. However, there was modest growth later as over \$1.1 billion was sold in the year beginning July 1, 1995.

It should be noted that one insurer made 55% of the total reported sales in 1989 and almost 40% in 1990. Over 90% of its sales were through participating Separate Account guarantees. In 1993 and the first half of 1995 it made few sales, but it sold 30% of the total in the year beginning July 1995. However, even excluding this insurer, the historical pattern of industry sales still holds, although much diminished.

Independent of our survey, the LIMRA Group Pension Survey gives data on the size of the annuity market roughly paralleling our survey's market size pattern. An exhibit from that survey is attached as Appendix IV. The LIMRA statistics show the following totals for annuity sales in billions of U.S. dollars:

Year	Amount (\$Billions)
1989	\$4.56
1990	4.85
1993	1.45
First half of 1995	0.72
Second half of 1995 & First half of 1996	1.08

These LIMRA statistics are not directly comparable to our survey as they usually include more insurers, have several market exits and entries, and exclude annuities guaranteed in Separate Accounts. Nonetheless, they also show a much bigger market in 1989 and 1990 than in 1993 and 1995.

It should be noted that the annuity purchases reported here include ongoing plans as well as the plan terminations about which we surveyed actuarial consultants in the Buyers Survey.

Consistent with these statistics, collectively, the insurers' opinion tabulated in Question 3 is that there has been a market shrinkage since the 1980s, i.e., the insurers' drop in volume wasn't a collective loss of business to other insurers (presumably nonqueried or nonrespondents).

In Question 4, the survey explored several possible causes for the shrinking market, including the SAR. Three causes that got substantive support (88% or more) were: fewer plan terminations, the historical pattern of interest rates since the late 1980s, and higher excise taxes on reversions.

Possible causes for market decreases receiving some support (35-40%) were the 1991 insolvencies of Executive Life Insurance Company and Mutual Benefit Life, the SAR, GATT's allowing lower lump sums, and the trend to defined contribution plans.

Not considered as a factor in the market decrease were the Confederation Life bankruptcy and improving mortality rates.

Clearly, the SAR was not deemed the primary cause of the shrinking market. This is consistent with sales statistics that show the shrinkage occurred prior to the SAR. In fact, the market may have grown modestly although our survey and LIMRA provide differing indications after the publication of IB95-1.

While the market shrank, so did the number of insurers participating in it. Forty-five percent of the responding insurers gave up this business since the late 1980s as shown by the results in Question 5. We surveyed their reasons, wondering about the role of the SAR. But it is interesting to note that the average departure date from this market, as tabulated in question 6, occurred in 1992—nearly three years before IB95-1 was published. Three of nine reported departures occurred in 1995 when IB95-1 was imminent or actually published. The dates in our survey are imprecise regarding such timing.

For those who departed the market, capital or its negative component reserve strain and risks, as well as profit concerns, were considered significant factors as shown in responses to Question 7. In addition, those who departed felt they were leaving a shrunken market.

One-third of those who left the market felt the SAR was a factor in their departure. Other DOL criteria for insurer selection (credit ratings, other

factors) had less support as causes. The insurers who indicated that the SAR was a factor in their departure tended to be recent departures, and did not indicate that credit ratings or views of others were relevant factors. However, one insurer who departed the market in 1991 indicated that the SAR and credit ratings were the only two factors influencing their decision to stop writing this business. That insurer re-entered the market in 1995, after the issuance of IB95-1.

A concern has been raised that the SAR reduces competition among insurers. This can be caused either by insurers declining to bid, feeling that the SAR would render their cause hopeless, or by buyers declining to accept bids from some insurers in light of the SAR. Indeed, even if the volume of business is stabilized, insurers making a bid are seeing fewer competitors now. Question 8 shows the SAR may have had some impact as competitors have dropped from 7 in 1993 to 5.3 after IB95-1. Prior to 1990, the perception was that the number of competitors had dropped from 8 to 7 since the late 1980s. However, as this trend also parallels the market departures, one cannot be sure about this relationship.

IB95-1 requires that buyers make qualitative decisions in exercising their fiduciary responsibilities; they may not just take the lowest price. A symptom of this may be an insurer having its low bid not accepted and the buyer going with a higher priced bid from another insurer, perhaps one more highly rated. Question 9 reviews symptoms of that concern. It shows that prior to 1993, a selection on this basis was an infrequent event. In 1993, several insurers experienced it more. After IB95-1 over half the insurers felt it happened frequently. The various responses to our question utilized heterogeneous terminology. In our discussion here we assume that a response of 45% or more can be interpreted to mean "frequent."

Finally, many insurers have in-force contracts for ongoing pension plans that guarantee annuities upon retirement. A fear of the insurance industry was that the SAR might impact the volume of this business, also. Question 10 shows that, collectively, it is the insurers' opinion that this hasn't happened. However, it is a mixed result, as some insurers report a decrease in this business due to the SAR, whereas slightly fewer others even feel there has been an increase. It's their belief that the 1991 insolvencies also had little impact on the volume of business.

While this survey tabulates opinions rather than hard data in many of its questions, one can generalize the following points:

1. The market didn't shrink due to the SAR.
2. Insurers gave up the business for reasons other than the SAR and usually earlier than its publication, although in some cases the government's

growing concern about safety of annuities may have been a factor in that decision.

3. Competition is lessening, and the SAR and accompanying concerns about the safety of annuities may be exacerbating that trend.
4. Fewer low bids are winning.

5. INSURANCE INDUSTRY ACTIVITY

The PBGC standard plan termination data totaled \$8.0 billion for 1990 and \$1.8 billion for the first half of 1995. The volume of new annuity business written by insurers who responded to the Sellers Survey was about \$5.3 billion in 1990 and \$0.3 billion in the first half of 1995. As a percentage of the volume of terminations, the purchase of annuities from insurers who responded to our survey appears to have declined from about 66% in 1990 to 19% in 1995.

The most recent LIMRA Group Pension Statistics show that in 1996 about 84% of new annuity business was written by insurers that were ranked Aa2 or higher by Moody's. These same insurers comprised 68% of the total in 1995 and 43% in 1992.

The ten most active insurers in the LIMRA survey handled about 81% of the industry total in 1992, and 99% in 1996. Of these insurers, six were active in both periods, accounting for about 42% and 53% of the corresponding industry totals.

6. SUMMARY OF OBSERVATIONS

Some of the major observations drawn from this study by the working group are listed below:

- The SAR has not had a discernible, direct impact on the annuity market, although insolvency concerns remain unabated.
- While credit ratings are not the primary factor in distinguishing among safest available candidates, they have become a critical first-pass or early screening device in the bidding process.
- There is still a reasonably sized field of "safest available" candidates that bid. Because buyers more often than not determine these insurers to be comparable in terms of safety, the annuity cost or price becomes an important secondary consideration.
- New annuity business had been steadily dropping even before the SAR, somewhat tracking the decline in volume of plan terminations. Insurers have cited capital and reserving concerns, in addition to the market decline, as reasons for reducing their activity in these annuities.

- There is evidence that the proportion of terminations that are being provided in the form of lump sums has increased, especially since the GATT legislation was passed.

7. ACKNOWLEDGMENTS

The Safest Annuity Rule Working group would like to thank the following individuals and those who have provided assistance to this project: Joe Applebaum, FSA, Chairperson of the Committee on Retirement Systems Research (CRSR), and Chris Bone, FSA, the prior chairperson of the CRSR, for their guidance and inspiration in seeing this project through to completion; Tian-teck Go, FSA, for his special input; Matt Hassett, William Gundberg, Jr., and John Hassett for their work in preparing Appendix I; all the annuity providers and consulting firms that responded and completed the surveys; and to Julie Rogers of the SOA staff for her help with the work of the committee, especially in the preparation of the reports. Special thanks to Dick Schreitmuller from the rest of the working group members for this research idea.

APPENDIX I REPORT ON PBGC STANDARD TERMINATIONS

I. Executive Summary

The major goals of this project were:

1. To create usable databases from two original files containing information on PBGC standard terminations from (a) calendar year 1990 (and possibly 1993) and (b) the first half of calendar year 1995.
2. To clean bad data (as possible) from those two files.
3. To link to each record the actuarial firm involved in the termination.
4. To provide summaries for each file of total assets, liabilities, and participant numbers and the frequency of involvement of each of the ten most active actuarial consulting firms.

These tasks have been completed, with the following results:

1. The two files have been converted to usable database form. The first file contains no data from 1993. Plan termination dates in the file range from 1986 to 1991. We have been told that the first file probably consists of all cases closed in 1990 and the second file probably consists of all cases received in the first six months of 1995. The data in the two files are consistent with those descriptions.
2. Both files contained some records with clearly erroneous or missing information. These records have been modified if possible. Further errors may remain.
3. Company names have been linked to most cases. Due to minor differences in name reporting between PBGC files and actuary name/firm files (Elizabeth Jones vs. Betty Jones), many matches were done manually using best judgment. Matches also required assumptions about the employment year in which work was done. Company links to cases are subject to challenge.
4. Data analysis has been done on the two files and results tabulated for this report.

II. Detailed Description of Results to Date

A. Original Files

Two files were supplied:

1. FITZ : A large (4906KB) RPT file containing reports on plans closed in 1990 with termination dates from 1986 to 1991. The file appeared to be a scan of a hard copy report file. Variables of importance for this project were:

- EIN/PN (Plan ID number)
- Date of Plan Termination
- Enrolled Actuary Number
- Assets
- Liabilities
- Number of Participants

There was a field for actuary name, but this was blank in all but one of 8,453 cases.

2. STDTERM: A spreadsheet file containing reports on plans with form 500 receipt dates in the first six months of 1995. Variables of importance for this project were:

- EIN/PN (Plan ID number)
- Date of Plan Termination
- Date of receipt of form 500
- Enrolled Actuary Number
- Enrolled Actuary Name
- Assets
- Liabilities
- Number of Participants

B. Initial File Processing

Each file was converted to an Access database (MDB) and then a spreadsheet (XLS) file. The files were browsed for initial basic cleaning.

1. FITZ: the converted file had 8,453 records. A random sample of records was chosen for careful comparison with the original to validate the conversion process.
2. STDTERM: The converted file had 126 records which completely duplicated another record in every field except for NAME OF INSURER. These duplicates were removed to avoid double counting of cases. The remaining file had 1,793 records.

C. Supplemental Files for Company Linking

Two file sets were needed to make it possible to associate a company with each record:

1. EA#FULL: This spreadsheet file listed enrolled actuary numbers from 0001 to 4,845 and gave the name corresponding to each number. This file was created by combining three smaller WK1 files Nfiles1, Nfiles2, and Nfiles3 (sent by Tom Edwalds of the Society of Actuaries.)

2. MSTD89 to MSTD95: These six files associated actuary names and companies at year-end for the years 1989 to 1995, and were also sent by Tom Edwalds.

Both file sets were necessary since the FITZ file gave only an actuary number. Records had to be linked first number-to-name using EA#FULL and then name-to-company using the appropriate MSTD.

D. The Linking Process

For both files company matching was demanding because of minor variations in name presentation from file to file. For both files actuary numbers given with a year prefix (903415) were stripped to 4-digit form (3415).

1. FITZ: A total of 128 plans had no actuary number and could not be linked to an actuary name. A total of 18 records had actuary numbers ranging from 9,167 to 5,476. These were out of range of our files and probably were typographical errors—they could not be linked. Over 2,000 records had plausible numbers but names in EA#FULL with no exact match to a name in MSTD. Those records were linked manually using human judgment about nicknames and use of initials. The resulting linked FITZ file gave each possible record a company name for 1989, 1990, and 1991. In case of an individual actuary not appearing in MSTD, the actuary's name was used in the company name field. The 1989 company was used for the report on most active companies. The final file gave a 1989 company for 8,120 records and had no company for 333 records.
2. STDTERM: This file was easier to work with and provided the ability for checks since the original file had both an actuary name and number. A total of 53 records had blank fields for one or both identifiers and could not be matched to a company for 1994. As with FITZ, substantial numbers of manual matches of slightly different versions of names were required, and some actuaries were given their own name in the company name field because they were not found in MSTD. A total of 1,740 records in the updated file had entries in the 1994 company name field.

E. Further Cleaning

Asset/liability ratios were generated for all records in each file. Records with very small (<0.7) or very large (>5) ratios were individually reviewed and some obvious typographical errors were discovered and corrected, e.g., Assets = 44,284 and Liabilities = 444,284. Only cases with a clear digit omission were changed.

F. Data Analysis

The final database files were read into the statistical package SPSS and saved as SPSS files. The results in the following sections were produced in SPSS.

G. Asset, Liability, and Participant Totals

Results are presented for the two files in the tables that follow (Tables I-1 and I-2). It is clear that the number of plans and the totals of the relevant variables for FITZ indicate a substantially greater level of activity for the FITZ as compared to STDTERM. It is clear that the asset/liability ratios are significantly greater in FITZ than in STDTERM.

Large plans are defined as those with either at least 1,000,000 in assets or at least 100 participants. This is problematic, since some large plans have zero participants or zero assets in our files. We have redone this analysis using a finer classification scheme in Exhibit I-1 of this appendix.

The FITZ file has 20 cases with Asset/Liability ratios above ten. There are extreme outliers that have substantial effects on the average of that ratio. For example, plan EIN 362419274/001 has assets of 270,683 and liabilities of 2.

TABLE I-1
1995 STDTERM FILE*

Plan Size	Assets	Liabilities	Asset/Liability Ratio	Participants
Large				
Number of Cases	474	474	471	474
Sum	1,303,188,843	1,125,117,892		73,839
Mean	2,749,344	2,373,666	1.088	156
Minimum	30,000	0	0.950	0
Maximum	126,000,000	67,000,000	5.100	8,336
Small				
Number of Cases	1,301	1,301	1,290	1,301
Sum	499,798,488	479,268,668		21,575
Mean	384,165	368,385	1.077	17
Minimum	0	0	0.730	0
Maximum	997,825	997,825	6.010	98
Total				
Number of Cases	1,775	1,775	1,761	1,775
Sum	1,802,987,331	1,604,386,560		95,414
Mean	1,015,768	903,880	1.079	54
Minimum	0	0	0.730	0
Maximum	126,000,000	67,000,000	6.010	8,336

*Notes: A total of 17 cases had Assets = Liabilities = 0, and were not included above. One case had blank asset and liabilities, and was not included. That case had one participant.

TABLE I-2
1990 FITZ FILE*

Plan Size	Assets	Liabilities	Asset/Liability Ratio	Participants
Large				
Number of Cases	1,675	1,675	1,675	1,677
Sum	5,779,896,502	4,576,994,977		333,855
Mean	3,450,684	2,732,534	1.389	199
Minimum	10,903	7,700	1.000	0
Maximum	1,055,000,000	622,000,000	260.740	6,291
Small				
Number of Cases	6,751	6,751	6,732	6,751
Sum	2,221,158,478	2,004,631,003		111,682
Mean	329,012	296,938	1.431	17
Minimum	0	0	0.750	0
Maximum	999,232	999,232	1,374.170	99
Total				
Number of Cases	8,426	8,426	8,407	8,428
Sum	8,001,054,980	6,581,625,980		445,537
Mean	949,567	781,109	1.422	53
Minimum	0	0	0.750	0
Maximum	1,055,000,000	622,000,000	1,374.170	6,291

*Notes: A total of 25 cases had Assets = Liabilities = 0, and were not included above. Two cases had missing values in all above fields and were not included. The mean Asset/Liability ratios were excessively influenced by outliers.

When all cases with A/L > 10 were excluded, the mean ratios were:

Large Plans	1.2259
Small Plans	1.1923
All Plans	1.199

H. Date Differences for STDTERM

The Request for Proposal (RFP) asked for the "Period elapsed between termination date and PBGC receipt date." The PBGC receipt date is not available in FITZ. The results for STDTERM are in Table I-3.

TABLE I-3
1995 STDTERM FILE

Period Between Receipt Date and Termination Date*			
Difference Range (Days)	Frequency	Percentage	Cumulative Percentage
-120 to -61	77	4.34%	4.34%
-60 to -1	301	16.96	21.30
0 to 60	362	20.39	41.69
61 to 120	789	44.45	86.14
121 to 180	207	11.66	97.80
181 to 365	20	1.13	98.93
366 to 730	15	0.85	99.77
> 730	4	0.23	100.00
Total	1,775	100.00%	

*Note: Eighteen cases had no date and were excluded.

I. Years of FITZ Terminations

The above date analysis was not possible for the FITZ file. Table I-4 shows the range of termination dates for FITZ. This range was unexpectedly wide.

TABLE I-4
1990 FITZ FILE BY TERMINATION DATE*

Termination Year	Frequency	Percentage	Cumulative Percentage
1986	6	0.07%	0.07%
1987	17	0.20	0.27
1988	260	3.08	3.35
1989	3,676	43.51	46.86
1990	4,389	51.95	98.80
1991	101	1.20	100.00
Total	8,449	100.00%	

*Note: Four cases had missing values and were excluded.

J. Most Active Actuarial Consulting Firms

The ten most active actuarial firms have been found for each file for all cases, large plans only, and small plans only. "Large plans" are defined as in Section G. Results are presented in Tables I-5 through I-10. The company of record is the 1994 MSTD company for STDTERM and the 1989 MSTD company for FITZ. Companies are identified only by letters of the alphabet which have no relation to the actual company name.

TABLE I-5
1990 FITZ FILE
MOST ACTIVE FIRMS: ALL PLANS

Rank	1989 Company	Number of Cases
1	A	218
2-3 tie	B,C	119
4	D	115
5	E	113
6	F	110
7-8 tie	G,H	81
9	I	78
10	J	75

TABLE I-6
1995 STDTERM FILE
MOST ACTIVE FIRMS: ALL PLANS

Rank	1994 Company	Number of Cases
1	B	48
2	E	45
3	A	43
4	K	33
5	F	27
6	L	25
7	M	19
8-9 tie	N,O	16
10-14 tie	P,Q,R,S,T	15

TABLE I-7
1990 FITZ FILE
MOST ACTIVE FIRMS: LARGE PLANS

Rank	1989 Company	Number of Cases
1	A	87
2	C	59
3-4 tie	E,J	38
5	B	31
6	L	25
7	U	24
8	V	22
9	W	20
10-11 tie	X,Y	18

TABLE I-8
1995 STDTERM FILE
MOST ACTIVE FIRMS: LARGE PLANS

Rank	1994 Company	Number of Cases
1	A	27
2	E	17
3-4 tie	O,L	9
5	B	8
6	Z	7
7	A2	6
8-11 tie	B2,C2,D2,E2	5

TABLE I-9
1990 FITZ FILE
MOST ACTIVE FIRMS: SMALL PLANS

Rank	1989 Company	Number of Cases
1	A	131
2	D	99
3	F	96
4	B	87
5	E	75
6	I	71
7	F2	65
8	G	64
9	H	62
10	C	60

TABLE I-10
1995 STDTERM FILE
MOST ACTIVE FIRMS: SMALL PLANS

Rank	1994 Company	Number of Cases
1	B	40
2	K	32
3	E	28
4	F	25
5-7 tie	L,M,A	16
8-10 tie	T,R,S	13

III. Conclusions

- Asset and benefit volume are substantially greater for FITZ than for STDTERM. (Total assets in FITZ are \$8,001,054,980 for all cases closed in 1990. Total assets in STDTERM are \$1,802,987,331 for all cases received in the first half of 1995; \$3,605,974,662 annualized.)
- The ratio of assets to benefits (liabilities) is much larger for plans in FITZ than for plans in STDTERM.
- The association of cases with actuarial firms presents special problems. STDTERM cases were received by PBGC in the first half of 1995. The 1994 company list was chosen for company linking assuming that year-end employment in 1995 was past the receipt date, but it is not impossible for the 1995 company to be the proper one for actuaries who changed employment at the start of 1995. The FITZ file is even more ambiguous due to its wide range of termination dates. There is no way to guarantee the exact validity of the most active firm counts given here, and any strong

inference from those lists will be difficult to defend without substantial extra work.

- c The final database files are in good order and of reasonable size. Further research can be done by us or other researchers who are given the files. Some additional cleaning may be appropriate, e.g., research of individual cases with very large asset/liability ratios. However, the existing file can be used as is to study regional differences, termination reasons, and refinements of the size distinctions used in this report. We plan to continue to study these files, and have provided the final file to SOA for distribution to others.

Exhibit I-1—Refinement of Plan Size Differences

In this exhibit we look at Assets, Liabilities, Participant Number, and Asset/Liability Ratio as separately 0, large or small. This will lead to more refined summary tables.

Assets:	Large	Assets \geq 1,000,000
	Small	1,000,000 > Assets > 0
	0	Assets = 0
Participants:	Large	Participants \geq 100
	Small	100 > Participants > 0
	0	Participants = 0

Null Plans

FITZ: 25 cases had Assets = Participants = 0.

STDTERM: 17 cases had Assets = Participants = 0.

The tables for the remaining non-null plans follow.

Partially Null Small Plans

A total of twelve cases in FITZ and ten in STDTERM had either assets or participants equal to zero with the other variable in the small category. This is shown in the Tables I-11 and I-12. These cases contribute partial information, but are most likely incorrect.

TABLE I-11

1990 FITZ: SMALL PLANS WITH EITHER ASSETS = 0 OR PARTICIPANTS = 0

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: 0; Participants: Small				
Number of Cases	5	5		5
Sum	0	0		27
Mean	0	0		5
Minimum	0	0		3
Maximum	0	0		10
Assets: Small; Participants: 0				
Number of Cases	7	7	4	7
Sum	1,339,623	1,123,849		0
Mean	191,375	160,550	1.088	0
Minimum	1,327	0	1.000	0
Maximum	767,456	767,456	1.220	0
Total				
Number of Cases	12	12	4	12
Sum	1,339,623	1,123,849		27
Mean	111,635	93,654	1.088	2
Minimum	0	0	1.000	0
Maximum	767,456	767,456	1.220	10

TABLE I-12

1995 STDTERM FILE: SMALL PLANS WITH EITHER ASSETS = 0 OR PARTICIPANTS = 0

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: 0; Participants: Small				
Number of Cases	8	8		8
Sum	0	0		161
Mean	0	0		20
Minimum	0	0		1
Maximum	0	0		70
Assets: Small; Participants: 0				
Number of Cases	2	2	1	2
Sum	884,481	884,374		0
Mean	442,241	442,187	1.000	0
Minimum	107	0		0
Maximum	884,374	884,374		0
Total				
Number of Cases	10	10	1	10
Sum	884,481	884,374		161
Mean	88,448	88,437	1.000	16
Minimum	0	0	0.000	0
Maximum	884,374	884,374	0.000	70

Partially Null Large Plans

Two cases in FITZ and three in STDTERM had either assets or participants equal to zero with the other variable in the large category. This is shown in Tables I-13 and I-14. These cases contribute partial information but are probably incorrect.

TABLE I-13

1990 FITZ: LARGE PLANS WITH EITHER ASSETS = 0 OR PARTICIPANTS = 0

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: 0; Participants: Large				
Number of Cases	0	0		0
Sum				
Mean				
Minimum				
Maximum				
Assets: Large; Participants: 0				
Number of Cases	2	2	2	2
Sum	3,152,182	3,139,291		0
Mean	1,576,091	1,569,646	1.005	0
Minimum	1,346,436	1,333,545	1.000	0
Maximum	1,805,746	1,805,746	1.010	0
Total				
Number of Cases	2	2	2	2
Sum	3,152,182	3,139,291		0
Mean	1,576,091	1,569,646	1.005	0
Minimum	1,346,436	1,333,545	1.000	0
Maximum	1,805,746	1,805,746	1.010	0

TABLE I-14

1995 STDTERM FILE: LARGE PLANS WITH EITHER ASSETS = 0 OR PARTICIPANTS = 0

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: 0; Participants: Large				
Number of Cases	0	0		0
Sum				
Mean				
Minimum				
Maximum				
Assets: Large; Participants: 0				
Number of Cases	3	3	3	3
Sum	3,490,202	3,364,854		0
Mean	1,163,401	1,121,618	1.037	0
Minimum	1,103,497	1,097,797	1.000	0
Maximum	1,276,072	1,156,424	1.100	0
Total				
Number of Cases	3	3	3	3
Sum	3,490,202	3,364,854		0
Mean	1,163,401	1,121,618	1.037	0
Minimum	1,103,497	1,097,797	1.000	0
Maximum	1,276,072	1,156,424	1.100	0

Mixed Plans

A total of 1,195 cases in FITZ and 341 in STDTERM had either assets or participants in the large category with the other variable in the small category. This is shown in Tables I-15 and I-16.

TABLE I-15

1990 FITZ FILE: MIXED PLANS

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: Large; Participants: Small				
Number of Cases	922	922	922	922
Sum	1,456,002,111	1,260,971,170		28,785
Mean	1,579,178	1,367,648	1.506	31
Minimum	1,000,000	7,700	1.000	1
Maximum	30,219,200	29,737,100	260.740	99
Assets: Small; Participants: Large				
Number of Cases	273	273	273	273
Sum	146,496,084	130,236,966		55,302
Mean	536,616	477,058	1.155	203
Minimum	10,903	10,903	1.000	100
Maximum	996,700	996,700	2.460	2,025
Total				
Number of Cases	1,195	1,195	1,195	1,195
Sum	1,602,498,195	1,391,208,136		84,087
Mean	1,341,003	1,164,191	1.155	70
Minimum	10,903	7,700	1.000	1
Maximum	30,219,200	29,737,100	260.740	2,025

TABLE I-16
1995 STDTERM FILE: MIXED PLANS

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: Large; Participants: Small				
Number of Cases	289	289	288	289
Sum	477,966,385	445,072,814		7,981
Mean	1,653,863	1,540,044	1.078	28
Minimum	1,000,000	0	0.950	2
Maximum	12,655,474	12,655,474	3.870	98
Assets: Small; Participants: Large				
Number of Cases	52	52	51	52
Sum	28,488,485	27,807,077		9,973
Mean	547,855	534,751	1.023	192
Minimum	30,000	0	1.000	101
Maximum	993,000	993,000	1.230	956
Total				
Number of Cases	341	341	339	341
Sum	506,454,870	472,879,891		17,954
Mean	1,485,205	1,386,745	1.023	53
Minimum	30,000	0	0.950	2
Maximum	12,655,474	12,655,474	3.870	956

Small Plans

A total of 6,739 cases in FITZ and 1,291 in STDTERM had both assets and participants in the small category. These results are in Tables I-17 and I-18.

TABLE I-17
1990 FITZ FILE: SMALL PLANS

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: Small; Participants: Small				
Number of Cases	6,739	6,739	6,728	6,739
Sum	2,219,818,855	2,003,507,154		111,655
Mean	329,399	297,300	1.431	17
Minimum	125	0	0.750	1
Maximum	999,232	999,232	1,374.170	99

TABLE I-18
1995 STDTERM FILE: SMALL PLANS

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: Small; Participants: Small				
Number of Cases	1,291	1,291	1,289	1,291
Sum	498,914,007	478,384,294		21,414
Mean	386,455	370,553	1.077	17
Minimum	757	0	0.730	1
Maximum	997,825	997,825	6.010	98

Large Plans

A total of 478 cases in FITZ and 130 in STDTERM had both assets and participants in the large category. These results are in Tables I-19 and I-20.

TABLE I-19
1990 FITZ FILE: LARGE PLANS

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: Large; Participants: Large				
Number of Cases	478	478	478	478
Sum	4,174,246,125	3,182,647,550		249,756
Mean	8,732,732	6,658,258	1.299	523
Minimum	1,000,000	418,383	1.000	100
Maximum	1,055,000,000	622,000,000	4.790	6,291

TABLE I-20
1995 STDTERM FILE: LARGE PLANS

Plan Size	Assets	Liabilities	Assets/Liabilities Ratio	Participants
Assets: Large; Participants: Large				
Number of Cases	130	130	129	130
Sum	793,243,771	648,873,147		55,885
Mean	6,101,875	4,991,332	1.136	430
Minimum	1,015,000	0	1.000	101
Maximum	126,000,000	67,000,000	5.100	8,336

APPENDIX II

SUMMARY RESULTS OF BUYERS SURVEY

1. Approximately how many defined benefit (DB) plans have you terminated, where annuities were used, in the following periods?

Summary:	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since then
Mean	23.7	22.1	21.4	11.5	34.1
Standard Deviation	14.3	14.8	16.6	8.0	21.6

2. Did any of your clients regard the Interpretive Bulletin (IB) as an absolute bar to using as annuity providers insurance companies with a claims paying

or credit rating (Moody's, Standard and Poor's, Duff and Phelps, etc.) below some specified level?

Yes	64%
No	36%

These were the percentage of criteria used to distinguish safe insurance companies from unsafe ones:

- a. Quality and diversification of investments: 89%
- b. Company size: 89%
- c. Range and quality of administrative services: 67%
- d. Capital and surplus level: 89%
- e. Business diversification and exposure: 78%
- f. Contract guarantees: 89%
- g. State Guaranty fund protection: 56%

3. For each of the periods below, what is the approximate number of bids solicited per DB termination? Also please provide an estimated range of the bids obtained (from lowest to highest), as a percent of winning bid.

Summary:	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since then
Mean	15.9	15.5	13.8	10.4	8.4
Standard Deviation	7.0	5.9	4	4.2	3.7

4. For each of the periods below, how frequently did the fiduciaries conclude, after conducting an appropriate search, that more than one annuity provider was able to offer the safest annuity available?

Frequency	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since then
5 = Never	20%	10%	10%		
4 = Up to 25%		10	10	10%	20%
3 = 25% to 60%			10	20	10
2 = Over 60%	80	80	70	70	70
1 = Don't know					

5. For each of the periods listed below, how frequently did one or more safe, but not safest available, annuity providers offer a price that was substantially less expensive than that offered by the most competitive, or lone, safest available annuity provider?

Frequency	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since then
5 = Never					
4 = Up to 25%	18%	18%	9%	9%	9%
3 = 25% to 60%	27	27	36	55	55
2 = Over 60%	45	45	45	27	27
1 = Don't know	9	9	9	9	9

6. Given the pricing scenario described in Question 5, how frequently in each of the following periods did the fiduciaries select a safe, but not safest available annuity and then share a portion of the cost savings with the participants in the form of increased benefits?

Frequency	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since then
5 = Never	30%	10%	10%	10%	20%
4 = Up to 25%	40	60	50	50	40
3 = 25% to 60%			10	10	10
2 = Over 60%					
1 = Don't know	30	30	30	30	30

7. Do you agree with the following statements regarding the character of insurance company bids since the issuance of the IB (March 1995)? Yes or No?

a) Top-rated companies have become less flexible on pricing.	Yes 60%	No 40%
b) Less-than top-rated companies have become more aggressive.	Yes 50%	No 50%

8. An option available to most companies when terminating their defined benefit pension plans is to offer lump-sum settlements at the new rates under GATT (December 1995), an option which may be much less costly than buying annuities in today's market.

Has there been active use of the lump-sum option in terminations in each of the periods shown below? Yes or No

a) Before IB	Yes 45%	No 55%
b) After IB but before GATT	Yes 60%	No 40%
c) After GATT	Yes 100%	No 0%

APPENDIX III
SUMMARY RESULTS OF SELLERS SURVEY

1. In the following periods how much single premium annuity business have you obtained from terminated defined benefit plans (premium in \$ millions)

a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since "d"
7,449.7	5,259.2	687.6	346.9	1,115.5

For companies that wrote participating business who were able to split the participating and nonparticipating premium, their participating premium is tabulated below:

a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since "d"
4,495	2,698	0	0	194

3. Do you feel the market for single premium annuity business from terminated defined benefit plans has decreased since the late 1980s?

Yes	No	No significant change
89.5%	5.3%	5.3%

4. If yes to Question 3, do you feel the following are factors?

	Yes	No	Total
a. The Executive Life Insurance Company and Mutual Benefit Life bankruptcies	35%	65%	100%
b. The volume of plan terminations	100	0	100
c. The pattern of defined benefit interest rates and its impact on the potential amount of asset reversions	88	12	100
d. The Safest Annuity interpretive bulletin	35	65	100
e. The rate of excise taxes on asset reversions	100	0	100
f. Allowing lower lump sums under GATT	35	65	100
g. The Confederation Life bankruptcy	13	88	100
h. Improving mortality	6	94	100
i. The trend to defined contribution plans	40	60	100

5. Did you stop selling single premium annuity business since 1988?

Yes	No
45%	55%

6. If "yes" to Question 5, what was the year you stopped?

Year	Number of Companies	Percentage of Exits
1988	1	11%
1990	1	11
1991	2	22
1994	2	22
1995	2	22
1996	1	11
		100%

7. If "yes" to Question 5, did any of the following influence your decision?

	Yes	No
a. Internal company capital or risk-based capital constraints	78%	22%
b. Reserve strain	67	33
c. More profits or less risk elsewhere	67	33
d. Belief market has shrunk	67	33
e. Safest Annuity Bulletin	33	67
f. Perception of how others viewed your credit rating	22	78
g. Perception of how others viewed your other factors leading to choosing an insurer	13	87
h. Other, specify two responses:	Too much work for marginal return Anticipation of bulletin	

8. In a bid how many competitors do you think you have averaged during the following periods?

Summary	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since "d"
Mean	8.1	8.3	6.9	5.8	5.3
Standard Deviation	3.4	3.1	2.8	1.9	1.3

9. Have you lost what seemed to be winning bids to another insurer with higher credit ratings?

Yes	No
67%	33%

How frequently do you think that happens in the market?

Below are the separate responses received from each company:

Company ^a	a) 1989	b) 1990	c) 1993	d) First half of 1995	e) Since "d"
1	Infrequent	infrequent	Not in business	Very frequent	Very frequent
2	infrequent	Infrequent	Infrequent	Frequently	Frequently
3	Somewhat	Somewhat	Frequently	Frequently	Frequently
4	15%	20%	25%	35%	45%
5	10%	10%	10%	60%	60%
6	10%	10%	25%	45%	45%
7	20%	20%	N/A	N/A	N/A
8	0	0	3	N/A	N/A
9	0	Less than 10%		N/A	N/A
10					Less than 2%
11	When price is very close. About 20%				
12					One. The only case on which we bid.
13	We have on occasion, perhaps 3 times or so, been awarded a case without having the lowest bid, due to ratings.				
14	Not more than 10 times a year.				
15	4 to 5	4 to 5	2 to 3	2 to 3	1

*Five companies gave no response.

10. Today some pension plans still guarantee annuities of defined benefit plans at retirement with a group pension insurer, likewise sometimes retirees buy annuities with their DC plan proceeds at group rates.

a. Do you think the Executive Life Insurance Company and Mutual Benefit Life bankruptcies changed the volume of this business which you underwrite?

Raised	Lowered	No Change
5%	11%	84%

b. Do you think the Safest Annuity Bulletin has changed the volume of this business which you underwrite?

Raised	Lowered	No Change
16%	21%	63%

The responses to these two questions combined are tabulated below:

Responses	Number of responses
Neither the bankruptcies nor the SAR changed the volume	10
The bankruptcies did not change the volume, but the SAR lowered it	4
The bankruptcies did not change the volume, but the SAR raised it	2
The bankruptcies lowered the volume, but the SAR did not change it	2
Both the bankruptcies and the SAR raised the volume	1
No answer	1

APPENDIX IV

INDUSTRY DATA

TABLE IV-1

GROUP ANNUITY SALES 1983-96

Types of Accounts	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	First Quarter 1996
Annuitants														
Amount (\$M)	1,824	4,483	9,042	9,447	8,239	4,616	4,562	4,849	1,595	1,266	1,445	944	1,153	231
Total Percentage	10%	17%	23%	19%	16%	7%	8%	9%	3%	3%	4%	3%	5%	4%
General Account—Other														
Amount (\$M)	2,013	3,021	3,892	4,033	3,400	5,040	6,687	8,286	6,906	5,902	4,602	4,930		
Total Percentage	11%	11%	10%	8%	7%	8%	11%	15%	15%	14%	13%	15%	0%	0%
GICs														
Amount (\$M)	10,356	15,473	20,770	23,869	28,330	32,283	29,912	27,541	25,170	22,799	20,428	21,047	19,178	4,596
Total Percentage	57%	57%	53%	49%	56%	52%	51%	49%	53%	55%	58%	66%	89%	88%
Separate Accounts														
Amount (\$M)	4,059	4,127	5,837	11,348	10,968	20,262	18,010	15,759	13,507	11,255	9,003	5,210	1,323	384
Total Percentage	22%	15%	15%	23%	22%	33%	30%	28%	29%	27%	25%	16%	6%	7%
Total														
Amount (\$M)	18,252	27,104	39,541	48,697	50,937	62,201	59,171	56,435	47,178	41,222	35,478	32,131	21,654	5,211
Number of companies	38	38	40	40	40	45	42	45	45	38	39	39	31	26
Number small companies	N/A	N/A	N/A	N/A	18	17	18	17	20	14	18	12	11	6

TABLE IV-2
DISTRIBUTION OF 1996 NEW ANNUITIES SOLD

1996 Rating	Moody's	Standard & Poor's	Duff & Phelps
11%	Aa1 or higher	AA+ or higher	AAA or higher
84	Aa2 or higher	AA or higher	AA or higher
95	Aa3 or higher	AA- or higher	AA or higher
98	A1 or higher	AA or higher	AA or higher
100	A2 or higher	AA+ or higher	AA- or higher

