

## IV. ANNUITY PERSISTENCY STUDY\*

### ACKNOWLEDGMENT

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### I. INTRODUCTION

This report presents the results of a study jointly sponsored by LIMRA International and the Society of Actuaries. The study examines the persistency of deferred annuities on a contract anniversary basis. Contracts were followed for a period of one year for separate samples of contracts in force on 1992 and 1993 anniversaries respectively. Combined, the study observed surrender behavior of these two samples for 1992 through 1994. The results are based on business issued during 1979 through 1993 and written by 28 companies.

*Important Note:* The period studied was one of generally declining interest rates, followed by sharply increasing rates in 1994. Results might be different in other financial environments.

One purpose of this study is to analyze the surrender activity of deferred annuities by selected product, customer, and distribution characteristics. This study is the first to examine surrender activity of all types of deferred annuities. An earlier study, *Single Premium Deferred Annuity Persistency Study* (LIMRA/SOA, 1992), which focused on single premium fixed annuities, provided a foundation for the current study. Both studies are based on information provided by life insurance companies, including a sample of individual contract record data and a sample of product surveys containing product, customer, and distribution information.

Another primary purpose of the analysis is to quantify the relationship between surrender activity and variables associated with surrender. Quantifying this relationship is useful in product design, valuation, investment management, evaluation of market performance, and corporate planning.

The study examines contracts for which all of the cash value is surrendered (full surrenders) and contracts for which only a portion of the cash value is withdrawn (partial withdrawals). It measures annualized full sur-

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renders and partial withdrawals in two ways: as a percentage of contracts in force and as a percentage of cash values in force.

The remainder of Section I provides a summary of overall study results and definitions and methodology used in the study. Section II provides detail and analysis of the results for fixed single-premium deferred annuities (SPDAs). Separate analyses are provided for fixed SPDAs for interest guarantee periods (IGPs) of one year or less and for contracts with longer interest guarantees. An analysis of single-premium variable annuities (SPVAs) then follows in Section III. Section IV examines surrender and cash-flow activity of both fixed and variable flexible-premium deferred annuities (FPDAs). The appendices include detailed tables of surrender experience, the list of contributing companies, and the instructions that were given participants for submitting data used in the analysis.

### *A. Summary of Results*

Of the 822,053 contracts in the study, 42,643 (5.2%) incurred a full surrender, 45,543 (5.5%) had part of the cash value withdrawn, 2,420 (0.3%) were annuitized, 4,361 (0.5%) were surrendered due to death or disability, and 727,086 (88.5%) had no withdrawal activity (Table 1). Full surrender activity was highest among single premium fixed annuities (6.9%) and lowest among SPVAs (2.6%), and partial withdrawal activity was highest among single premium contracts. Only 0.3% of the contracts were annuitized. This is much lower than the 1.0 to 1.4% rate from the earlier study. Some possible explanations for the lower rate include:

- More customers may be shopping for the best payout, which could mean annuitizing with a different carrier.
- The average age of variable annuity and flexible annuity purchasers is lower than that of the average fixed SPDA buyer. Two thirds (66.2%) of annuitants who annuitized were between 65 and 74 years old.

TABLE I  
SURRENDER ACTIVITY

	Single Premium		Flexible Premium		All Contracts
	Fixed	Variable	Fixed	Variable	
Full surrender	6.9%	2.6%	5.3%	4.1%	5.2%
Partial withdrawal	7.5	7.0	4.8	3.8	5.5
Annuitized	0.3	0.1	0.3	0.3	0.3
Death or disability	0.9	0.4	0.3	0.4	0.5
No activity	84.4	89.9	89.3	91.4	88.5
	100.0%	100.0%	100.0%	100.0%	100.0%

There were significant overall differences in surrender activity by distribution channel (Table 2). Of the identifiable distribution channels, contracts sold by stockbrokers had the highest surrender rates for all but SPVAs. This is most evident when there are no surrender charges in effect. Direct-response-sold contracts consistently had the lowest surrender rates.

TABLE 2  
FULL SURRENDER RATES BY DISTRIBUTION SYSTEM

Distribution System	Single Premium		Flexible Premium		Total
	Fixed	Variable	Fixed	Variable	
Career agent	4.9%	3.8%	6.1%	4.1%	4.8%
Independent agent	4.0	+	5.6	5.0	4.6
Stockbroker	12.8	1.9	8.2	5.4	6.9
Bank	6.5	2.8	5.9	4.5	5.9
Direct response	1.8	+	4.0	2.1	3.5
Other	13.7	+	0.9	2.6	8.0
Total	7.1%	2.6%	5.3%	4.2%	5.2%

+ insufficient data

### ***B. Highlights***

- Surrender charges had a significant effect on surrender rates for single premium products and little effect on flexible premium products.
- In general, single premium contracts with larger cash values tended to surrender more than smaller contracts. In contrast, the likelihood of surrender of FPDAs decreased as contract size increased.
- Contracts sold in qualified markets generally had higher surrender rates than nonqualified contracts (Figure 5, Figure 7, Table 23, and Table 30).
- Except for career agent business, cash value surrender rates ranged from 36 to 52% for fixed SPDAs in the year surrender charges expired (Table 4).
- Surrender rates for fixed SPDAs with low interest rates (2.1 to 4.0%) were two to five times as high as contracts with higher interest rates. While two-fifths (41.5%) of contracts surrendered in the year surrender penalties expired, most (86.6%) contracts with low interest rates did so that year (Table 9). The level of credited interest rate had a similar, albeit lesser, effect on fixed FPDAs (Table 32).
- Contracts sold by stockbrokers were surrendered more than business of any other distribution system for all products except SPVAs (Table 2). Nearly all (90.0%) cash value was surrendered from fixed SPDAs with short interest guarantee periods sold by stockbrokers in the year following surrender charge expiration. In contrast, a mere 5.7% of cash value was surrendered that year from contracts sold by career agents (Figure 6).
- The presence of a free full surrender provision tended to decrease the likelihood of a full surrender from fixed SPDAs. However, contracts with

a window provision experienced significantly higher surrender activity when the window was in effect. For example, nearly half (47.3%) of such contracts with five-year interest guarantee periods were surrendered in the sixth contract year (Table 21).

- Fixed SPDAs with shorter interest guarantee periods were much more sensitive to the presence of surrender penalties than contracts with interest guarantees longer than one year (Table 15 and Table 19).
- Partial withdrawal activity was generally highest among bank-sold annuities (Table 4, Table 27, and Table 34).
- With double-digit surrender rates a rare occurrence, SPVAs did not have remarkably high surrender activity. And while their full surrender activity was the lowest among the major product types, their partial withdrawal activity was similar to that of fixed SPDAs (Table 23).
- Flexible contracts sold in the 403(b) market were more likely to make contributions in successive years than those sold in other markets (Table 35).
- Nonqualified FPDAs tended to have the highest first-year contributions and IRAs had the lowest contributions in other years (Table 37).

### C. Definitions

*Cash value* on an in-force contract is the account value as of the contract's anniversary at the beginning of the observation period and before any reductions for surrender charges. The cash value on a new issue equals the initial premium if known; otherwise, it is estimated from the contract's first-year premiums.

*Contracts with partial withdrawals* that terminated in the same contract year due to full surrender, annuitization, or death or disability are treated as having surrendered, annuitized, or terminated due to death or disability. Only contracts with partial withdrawals that were in force at the end of the contract year were treated as partial withdrawals.

*Contracts with surrender charges* are contracts with penalties in effect for early withdrawal of cash value. This includes contracts with free full surrender provisions (see definition below) and contracts that assess nominal administrative fees on cash value withdrawals.<sup>1</sup>

*Contracts without surrender charges* are contracts that do not have penalties in effect for early withdrawal of cash value. These contracts include those for which the surrender charges have expired.

<sup>1</sup>This is one area in which the current study differs from the *Single Premium Deferred Annuity Persistence Study* (LIMRA/SOA, 1992). Since data was not collected with detail sufficient to determine when contracts with free full surrender provisions were able to withdraw cash value without penalty, these contracts were included here, but only until their surrender penalties expired. In addition, contracts with fixed administrative fees assessed upon cash value withdrawal were included, since these fixed fees often represent percentages of cash values similar to surrender charges.

*Free full surrender provisions* are any provisions that allow the customer to surrender the entire annuity contract without being assessed a surrender charge within a period when surrender charges are normally in effect. Two common examples of such provisions are *bailouts* and *windows*. *Bailout* provisions allow penalty-free withdrawals if the renewal interest rate ever falls below a stated interest rate or, more commonly, falls more than a certain percentage (often 100 basis points) below the initial credited interest rate. Customers are usually limited to a 30- to 45-day period in which to exercise this provision. We were unable to determine if the bailout clause was *pierced* either during or prior to the study period since historic interest rates were not collected for each contract. *Window* provisions are similar to bailout provisions, with the exception that there is no condition upon the renewal interest rate. *Windows* typically *open* for a 30- to 45-day period at the end of the interest guarantee period. Both window and bailout provisions lose value when surrender charges expire.

*Flexible premium products* are products that were filed as flexible premium products with each state and where the primary expectation is for multiple deposits. Flexible premium contracts with cash values less than \$100 were excluded. Since many flexible premium products have surrender charge schedules based on the number of years since premium deposit, it was not possible to determine whether these contracts had surrender charges in effect.

*Single premium products* are defined by the expectation for deposits, not by the way in which the policy form was filed with each state. Products filed as single premium by definition cannot receive additional deposits and thus are always treated as single in this study. Products filed as flexible premium but whose primary expectation for deposits is single premium are also defined as single premium for purposes of this study.

*Variable annuities* include products with and without a fixed investment option. *Combination annuities*, which are variable annuities with at least one fixed option, are included as variable. In this study, 98.2% of the single premium variable annuity contracts and 98.4% of the flexible premium variable annuity contracts in the study were combination annuities.

#### ***D. Methodology Used***

The percentages and rates in this study are calculated as follows:

*Percentage of contracts*

$$= 100 \times \frac{\text{Number of contracts with a particular characteristic}}{\text{Total number of contracts}}$$

*Percentage of cash values*

$$= 100 \times \frac{\text{Cash values on contracts with a particular characteristic}}{\text{Cash values on all contracts}}$$

*Annualized full surrender rate*

$$= 100 \times \frac{\text{Number of contracts surrendered during the year}}{\text{Number of contracts exposed to surrender during the year}}$$

where the number of contracts exposed recognizes the length of time a contract is exposed to risk of surrender during the year. Surrenders contribute exposure for a full year. Surrender rates exclude termination due to death, disability, or annuitization.

*Annualized cash value surrender rate*

$$= 100 \times \frac{\text{Cash value withdrawn during the year}}{\text{Cash value exposed to withdrawal during the year}}$$

where cash value exposed recognizes the length of time a contract is exposed to risk of surrender during the year. Withdrawal rates exclude termination due to death, disability, or annuitization.

Surrender and withdrawal rates in this study are generally based on a minimum of 1,000 contracts exposed to the risk of surrender. If a particular category does not have at least 1,000 contracts, the surrender or withdrawal rate is not shown and is labeled as insufficient data.

## II. FIXED SINGLE PREMIUM DEFERRED ANNUITIES (SPDAs)

Surrender charges had the greatest impact on surrender activity of fixed SPDAs. While the overall full surrender rate for these contracts was 6.9%, over half (55.3%) of the contracts without a free full surrender provision were surrendered in the year that surrender charges expired. Surrender rates increased as that year approached (Table 3). Interestingly, this trend did not apply to contracts with bailout provisions. Full contract surrender rates for contracts with bailout provisions were at their highest (9.6%) at two years before surrender charge expiration.

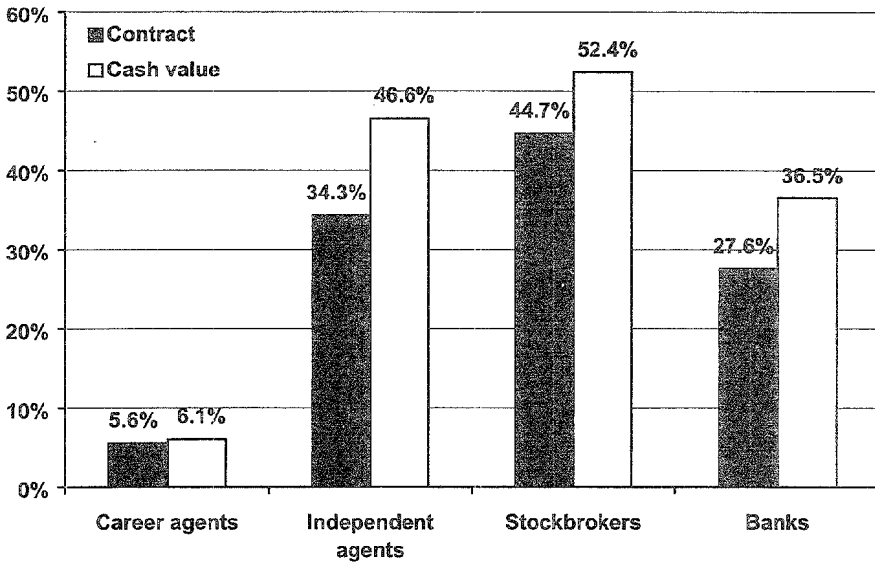
TABLE 3

SPDA FULL SURRENDER RATES BY TIME REMAINING  
IN SURRENDER CHARGE PERIOD  
CONTRACTS WITH NO FREE FULL SURRENDER PROVISION  
(NUMBER OF CONTRACTS, 141,888; CASH VALUE IN FORCE, \$4,787,112,763)

Years Remaining	Percentage of Contracts	Percentage of Cash Values	Contract Surrender Rate	Cash Value Surrender Rate
3 or more	81.6%	81.6%	4.1%	4.3%
2	5.6	5.2	7.9	9.9
1	4.1	3.9	19.0	23.9
0	4.1	5.4	55.3	69.1
-1	2.2	1.9	20.3	24.9
-2	1.1	0.9	8.0	8.3
-3 or more	1.4	1.1	9.1	7.5
Total	100.0%	100.0%	7.5%	9.3%

There was quite a bit of variability in the full surrender rate during the year in which the surrender charge schedule expired. One third (33.5%) of all fixed SPDAs (regardless of free full surrender provision) in force on the anniversary when surrender charges expired were surrendered during the following year. Surrender rates were highest for stockbrokers and lowest for career agents (Figure 1). All distribution channels except career agents experienced increasing surrender rates as the year surrender charges expired approached. Total cash value surrender rates (44.7%) and cash value surrender rates for each distribution system were higher than contract surrender rates, suggesting larger contracts were more likely to be surrendered than smaller contracts.

FIGURE 1  
SPDA FULL SURRENDER RATES IN THE YEAR SURRENDER CHARGES EXPIRED



Surrender activity was lowest while surrender charges were in effect, highest in the year following surrender charge expiration, and then decreasing somewhat thereafter (Table 4). Of contracts with identifiable distribution channels, stockbrokers had the highest full surrender activity (regardless of surrender charge status) and direct response the lowest. While surrender charges were in effect, banks had the highest contract partial withdrawal

rate: Over 10% of contracts sold through banks had part of the cash value withdrawn. Bank buyers of annuities tend to be older than buyers through other distribution channels and often use the systematic withdrawal feature to create an income from the annuity while protecting the principal to pass on to their heirs.

TABLE 4  
SPDA SURRENDER RATES BY DISTRIBUTION CHANNEL  
(NUMBER OF CONTRACTS, 263,449; CASH VALUE IN FORCE, \$8,979,854,724)

Distribution System	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
<b>With a Surrender Charge</b>							
Career agent	21.2%	22.5%	4.8%	7.7%	5.6%	1.2%	6.8%
Independent agent	17.5	20.1	3.4	6.5	3.7	1.2	4.9
Stockbroker	11.6	14.0	7.8	6.1	8.7	0.9	9.6
Bank	29.1	23.2	5.9	10.6	6.4	1.4	7.8
Direct response	2.9	3.1	1.8	2.5	1.6	0.5	2.1
Other	8.9	8.2	10.7	6.4	10.5	1.1	11.6
<b>Total</b>	<b>91.3%</b>	<b>91.2%</b>	<b>5.7%</b>	<b>7.9%</b>	<b>6.2%</b>	<b>1.2%</b>	<b>7.4%</b>
<b>Year Surrender Charges Expired</b>							
Career agent	1.1%	1.0%	5.6%	7.5%	6.1%	1.6%	7.7%
Independent agent	0.3	0.4	34.3	5.9	46.6	2.0	48.6
Stockbroker	1.6	2.4	44.7	9.1	52.4	1.6	54.0
Bank	0.6	0.4	27.6	8.6	36.5	2.2	37.7
Direct response	0.0	0.0	+	+	+	+	+
Other	0.4	0.6	77.6	+	84.8	+	+
<b>Total</b>	<b>4.0%</b>	<b>4.8%</b>	<b>33.5%</b>	<b>7.9%</b>	<b>44.7%</b>	<b>1.6%</b>	<b>46.3%</b>
<b>One Year or More after Surrender Charges Expired</b>							
Career agent	2.5%	2.3%	5.4%	10.8%	5.1%	1.9%	7.0%
Independent agent	0.2	0.2	+	+	+	+	+
Stockbroker	0.3	0.3	36.2	6.4	40.1	2.3	42.4
Bank	1.6	1.1	11.2	5.9	10.6	1.4	12.0
Direct response	0.0	0.0	+	+	+	+	+
Other	0.1	0.1	+	+	+	+	+
<b>Total</b>	<b>4.7%</b>	<b>4.0%</b>	<b>10.3%</b>	<b>8.6%</b>	<b>11.4%</b>	<b>1.7%</b>	<b>13.1%</b>
<b>All Contracts</b>	<b>100.0%</b>	<b>100.0%</b>	<b>7.1%</b>	<b>8.0%</b>	<b>8.3%</b>	<b>1.2%</b>	<b>9.5%</b>

+ insufficient data

The rest of the analysis of fixed SPDAs is divided into four parts. The first two parts provide the results of regression modeling attempting to (A) identify and quantify the factors explaining full surrender activity and (B) measure the effect of interest rates on surrender activity. The final two parts look at (C) detailed surrender rates for contracts with interest guarantee periods of one year or less and (D) greater than one year, respectively.



### A. Factors Explaining Surrender

This section summarizes a multivariate model of fixed SPDA surrender.

Table 5 shows results from a regression analysis with full surrender explained by product, annuitant, and distribution channel characteristics. These are ranked in descending order of importance, based on explained variance (i.e., how much of the variance in sample surrender rates is explained by each factor). In the total fixed SPDA sample, they explain just under 15% of the variance in surrender rates.<sup>2</sup> It appears that other factors unique to contract owners/annuitants and companies largely determine whether a given contract will be surrendered or not. These would account for the rest of the sample variance in surrender.

TABLE 5  
FACTORS EXPLAINING FULL SURRENDER: ALL SPDA CONTRACTS VERSUS THOSE WITH AND WITHOUT FREE FULL SURRENDER PROVISIONS

Individual Factor Effects, with Overlap	Explained Variance		
	Full Sample	Free Full Surrender Provision?	
		No	Yes
Year surrender penalty expires	11.1%	19.9%	0.1%
Distribution system	4.9	11.1	0.6
Interest rate spread, net of surrender charge	3.5	4.8	0.4
Duration and account value	1.5	2.8	0.2
Free full surrender provision	0.7	na	na
Tax status and interest guarantee period	0.2	0.4	*
Annuitant age at issue and sex	*	0.1	*
All factors, less overlapping effects	14.9%	24.5%	1.5%

\*less than 0.05%

na: Free full surrender feature not applicable to this sample

Excluding contracts with a free full surrender provision (i.e., bailout or window) the model does better, explaining almost 25% of the sample variance in surrender rates. For contracts that do allow for free early full surrender, surrender rates fall well below the sample average (3.7% versus 5.9% for the full sample and 7.1% for contracts without such a provision). However, for these contracts, the model does poorly, explaining less than 2% of the variance in surrender rates. Persistency within this sample clearly depends less on controllable factors such as contract features and credited interest rates and appears to have more to do with individual contract owner circumstances.

<sup>2</sup>When applied to binary dependent variables, such as contract surrender versus no surrender, least squares regression overstates model variance. So, estimates of statistical significance reported in this section are conservative.

For the full sample of fixed SPDAs, the comparison of individual model factors shows the overwhelming impact of the surrender penalty in predicting surrender. Of the variance that the model does explain, better than three-fourths (11.1 versus 14.9%) is attributable to the surrender penalty schedule whether or not the penalty expires in the current contract year.

Distribution system (whether the contract was initially sold through career or independent life agents, banks, stockbrokers, direct response, or "other" distribution channels) appears to be important. But given sampling limitations, this could reflect individual company differences rather than distribution system effects, especially where only a few participating companies use a particular distribution system.

Interest rate spreads (current market interest rate<sup>3</sup> versus actual credited rate, net of the surrender charge) have smaller but still significant effects on surrender. Duration and account value have relatively little impact on surrender. Information on annuitants is limited to age at issue and sex. These add very little to predicting surrender.

Persistency of fixed SPDA contracts with *no* free full surrender provision depends even more on the surrender expiration. This single factor explains about 80% of the variance in surrenders (19.9 out of 24.5% model-explained variance). For contracts that do allow for free early full surrender, surrender charge expiration has little effect on surrender. In this sample, distribution system (and possibly individual company effects) is most important.

Table 6 provides a similar but somewhat more detailed view of the surrender model and its component effects. Items are again ranked in descending order by how much of the sample variance in full surrender they explain. Effects show the impact of each factor on surrender, holding other factors constant.

TABLE 6  
FACTORS PREDICTING FIXED SPDA SURRENDER  
ALL FIXED SPDA CONTRACTS  
(RANK BASED ON EXPLAINED VARIANCE)

Factor	Rank	Direction of Effect
Year surrender charge expired	1	-
Sold by stockbroker	2	+
Plan has free full surrender provision	3	-
Interest spread, net of surrender charge	4	+
Tax-qualified	5	+
Larger account value	6	+
Years in force	7	+
Sold by independent agent	8	+
Sold through bank	9	-
Older issue ages	10	-

<sup>3</sup>Market interest rates for the annuity market are average credited rates for new deposits. Source: *U.S. Individual Annuities*, LIMRA International.

Distribution system effects reported in Table 7 are relative to results for business sold by career agents, which shows favorable persistency (low surrender rates) compared with stockbrokers, independent life agents, or banks. The better persistency of career agent sales largely reflects the fact that these contracts do *not* show a large surge in surrenders in the year the surrender charge expires. This suggests that a different, more long-term sales approach is being made by career agents compared with other producers. Results for direct response and other distribution systems are based on too few companies to support inferences about how distribution system affects persistency.

TABLE 7  
FACTORS PREDICTING FIXED SPDA SURRENDER  
FIXED SPDA CONTRACTS *EXCLUDING* THOSE WITH  
FREE FULL SURRENDER PROVISIONS  
(RANK BASED ON EXPLAINED VARIANCE)

Factor	Rank	Direction of Effect
Year surrender charge expired	1	+
Sold by stockbroker	2	+
Years in force	3	+
Interest spread, net of surrender	4	+
Tax-qualified	5	+
Larger account value	6	+
Sold through bank	7	+
Older issue ages	8	-
Sold by independent agent	9	+

Interest rate spread has a relatively small impact on surrender, especially when surrender charge expiration is taken into account. Controlling for other factors, the presence of either a bailout or window clause actually reduces the likelihood of full surrender. From the survey results, we know that companies with bailout clauses do a better job of keeping renewal interest rates competitive. But lower surrender rates for contracts with a bailout or window provision could also reflect that giving contract owners an opportunity to withdraw funds penalty free in the event of an adverse financial situation may lessen the likelihood they will surrender the policy during what may be only temporary adverse interest spreads. Even though the existence of a window provision did not increase the overall likelihood of surrender, contracts with window provisions tend to be surrendered when the window periods are open, as will be shown later in the report.

### *Testing the Model*

Earlier, we showed that the full sample explains 14.9% of the variance in sample surrender rates. The regression model estimates the likelihood of full surrender. One way to test the validity and accuracy of the model is to compare the estimated odds of surrender among sampled contracts with actual persistency results. Overall, the model correctly predicts the in-force<sup>4</sup> status of 94.8% of the fixed SPDA contracts, based on contracts where the estimated probability of surrender was less than 50%.

The model is, however, much less accurate in identifying contracts that will be surrendered than in predicting those that will remain in force. It correctly predicted 99.9% of the contracts that stayed in force (187,078 of 187,292 persisting contracts correctly predicted). For the surrendered contracts, by contrast, only 13% were correctly predicted. The model errs in understating surrender, as only 1,750 contracts show a probability of surrender greater than 50%, giving a predicted lapse rate of less than 1%.

If accurately predicting which annuity contracts will surrender does not appear possible, identifying those contracts with various degrees of likelihood of surrender is. Table 8 shows a strong positive relationship between the estimated odds of surrender and the actual surrender rate.

TABLE 8  
FIXED SPDAs: ACTUAL VERSUS PREDICTED SURRENDER ACTIVITY BY  
LIKELIHOOD OF SURRENDER

Predicted		Actual		
Likelihood of Surrender	Expected Status	In Force	Surrendered	Percentage Surrendered
0.0% to 24.9%	In-force	183,015	8,584	4.5%
25.0 to 49.9	In-force	4,063	1,712	30.0
50.0 to 74.9	Surrendered	214	1,536	87.8
75.0 to 100	Surrendered	0	0	
Total		187,292	11,832	5.9%

<sup>4</sup>For purposes of this model, *in-force* status will include any contract that is not fully surrendered (i.e., contracts that surrender due to annuitization, death, or disability, and those with no surrender activity).

**B. Effect of Interest Rates on Surrender Activity**

Contracts with lower interest rates were surrendered at a higher rate than contracts with higher interest rates. Surrenders were especially high for contracts with rates at or below 4.0% and in the year surrender charges expired. Even while surrender charges were in effect, over 10% of contracts with interest rates between 2.1 and 4.0% were surrendered (Table 9). And, when the surrender charges expired, most contracts (86.6%) with low interest rates surrendered. Similar trends were evident in cash value withdrawal rates. The cash value surrender rates were five percentage points higher than contract surrender rates for contracts in the lowest interest rate bracket, suggesting larger contracts were more sensitive to interest rates.

TABLE 9

FIXED SPDAS: SURRENDER RATES BY INTEREST RATE  
(NUMBER OF CONTRACTS, 201,965; CASH VALUE IN FORCE, \$6,990,317,457)

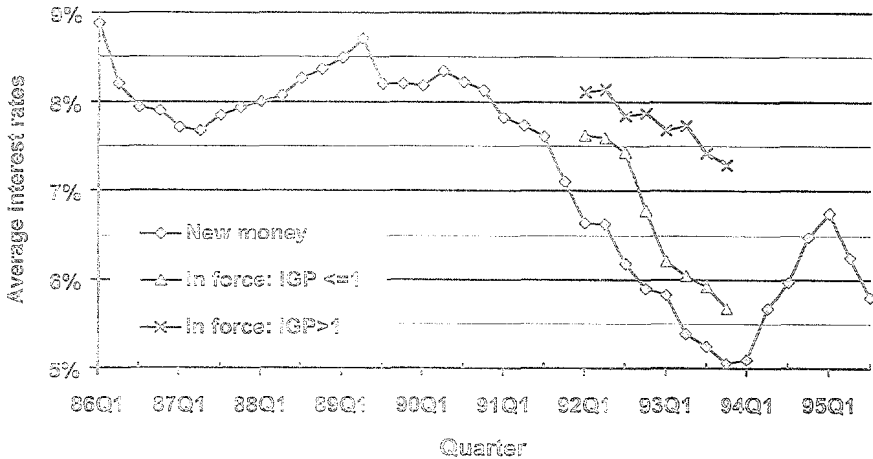
Credited Interest Rate	Percentage of Contracts	Percentage of Cash Value	Contract Surrender Rate	Cash Value Surrender Rate
<b>With a Surrender Charge</b>				
2.1% to 4.0%	0.8%	0.7%	10.3%	14.9%
4.1% to 6.0%	33.0	28.4	5.1	5.5
6.1% to 8.0%	39.3	41.1	4.6	4.9
8.1% to 10.0%	16.4	19.8	4.8	6.2
<b>Total</b>	<b>89.5%</b>	<b>90.1%</b>	<b>4.8%</b>	<b>5.4%</b>
<b>Year Surrender Charges Expired</b>				
2.1% to 4.0%	1.4%	2.2%	86.6%	92.5%
4.1% to 6.0%	1.0	0.8	19.7	25.4
6.1% to 8.0%	1.1	1.2	23.8	33.1
8.1% to 10.0%	0.6	0.4	4.4	4.5
<b>Total</b>	<b>4.0%</b>	<b>4.6%</b>	<b>41.5%</b>	<b>57.3%</b>
<b>One Year or More after Surrender Charges Expired</b>				
2.1% to 4.0%	0.3%	0.4%	57.6%	66.2%
4.1% to 6.0%	3.1	2.3	10.4	10.8
6.1% to 8.0%	1.7	1.5	5.5	5.5
8.1% to 10.0%	1.4	1.2	4.4	3.5
<b>Total</b>	<b>6.5%</b>	<b>5.3%</b>	<b>10.1%</b>	<b>11.4%</b>
<b>All Contracts</b>	<b>100.0%</b>	<b>100.0%</b>	<b>6.6%</b>	<b>8.1%</b>

*Effect of In Force versus New Market Rates on Fixed Annuities*

Interest credited on new fixed annuities during 1992 and 1993 followed the downward trend experienced by interest rates in general since the early 1980s. Rates for new fixed annuities declined steadily during the period from around 7% at the beginning of 1992 to just over 5% by the end of 1993 (Figure 2).

A portion of the contracts in force were, however, exposed to a significant upturn in interest rates in 1994 as rates rose by 140 basis points in a 12-month period. Generally, though, credited rates on in-force contracts (excluding new issues) during this period would more likely exceed the external or "market" rate. The study sample reflects this: On average the market rate was 112 basis points below the rates credited on in-force contracts.

FIGURE 2  
FIXED SPDAS: INDUSTRY AVERAGE INTEREST CREDITED ON NEWLY ISSUED ANNUITIES\*  
AND IN-FORCE INTEREST RATES BY LENGTH OF GUARANTEE FROM STUDY DATA



\*Industry average interest rates on newly issued annuities from *U.S. Individual Annuities*, LIMRA International.

*Other Financial Incentives*

Securities markets (both stock and bond prices) were strong during most of the exposure period (Table 10), so mutual funds and other variable financial products did very well, particularly during 1992 and 1993. The narrow spreads for fixed annuity interest rates during the period would not

reflect the financial incentives to move cash values into variable return assets. On the other hand, money market, CD, and other short-term alternative rates were relatively low, so there was less incentive than usual to shift funds to shorter-term financial products.

TABLE 10  
S&P500 INDEX LEVEL VERSUS  
T-BOND YIELDS

Quarter	S&P 500	T-Bond Yields
1992 Q1	412.00	7.73%
1992 Q2	410.16	7.80
1992 Q3	417.15	7.22
1992 Q4	423.66	7.33
1993 Q1	442.36	6.90
1993 Q2	445.46	6.62
1993 Q3	453.55	6.15
1993 Q4	464.25	6.14
1994 Q1	469.46	6.53
1994 Q2	450.99	7.41
1994 Q3	460.87	7.66
1994 Q4	460.00	8.05

### *Interest Rate Spreads and Contract Provisions*

Companies' interest crediting practices, not surprisingly, reflect various contract provisions (product design features), especially the length of the interest guarantee and whether the contract includes a free full surrender provision. Table 11 shows that credited interest rates tended to be the highest in relation to market rates (interest rate spread negative) for contracts with longer interest guarantee periods and with a free full surrender provision. Companies offering free full surrender provisions may purposely keep their renewal rates high to prevent surrenders from occurring.

TABLE 11  
FIXED SPDAS: AVERAGE INTEREST SPREAD  
(MARKET RATE MINUS CREDITED RATE)  
BY CONTRACT SURRENDER PROVISION

Interest Guarantee Period	Free Full Surrender Provision?		All
	Yes	No	
One year or less	-100 bp	0 bp	-040 bp
Greater than one year	-200	-150	-180
All	-140 bp	-30 bp	-80 bp

Note: Spreads are calculated at the end of the exposure period for in-force contracts or the month of full surrender for surrendered contracts.

As a result, fixed interest rate comparisons from the study sample favored surrendering the contract in only 7% of the fixed SPDA contracts with interest guarantee periods longer than one year, while 41% of the contracts with shorter interest guarantee periods offered interest rates below market (Table 12).

Surrender charges in effect on in-force contracts were on average higher for longer interest guarantee periods (5.9% for periods longer than one year versus 4.2% on shorter periods). With more competitive interest rates and generally higher surrender penalties, a financial incentive to lapse is very rare among contracts with interest guarantee periods longer than one year. In only 94 out of 80,922 contracts with the longer guarantee periods was the net spread positive (i.e., the market rate higher than the credited rate plus the surrender penalty). For contracts with shorter interest guarantee periods, surrender rates were higher for contracts where the spread (simple spread or net spread) favored surrender.

TABLE 12  
FIXED SPDAs: FULL SURRENDER RATES WHERE INTEREST SPREAD FAVORS SURRENDER  
BY INTEREST GUARANTEE PERIOD

Length of Interest: Guarantee	Spread Favors Surrender?	Simple Spread*		Net Spread	
		Percentage of Contracts	Full Surrender Rate	Percentage of Contracts	Full Surrender Rate
One Year or Less	Yes	41.2%	7.7%	11.2%	19.4%
	No	58.8	6.4	88.8	5.4
		100.0%	7.0%	100.0%	7.0%
Greater Than One Year	Yes	7.3%	4.6%	0.1%	+
	No	92.7	6.3	99.9	6.1%
		100.0%	6.1%	100.0%	6.1%

\*current market rate for fixed annuities less rate credited on in-force contracts.

+insufficient data.

### *Interest Spread*

In theory, higher credited interest rates would make annuity surrenders less likely. Experience for fixed SPDA contracts during the 1992-94 exposure period supports this theory, although the results suggest surrender is a good deal more complicated than that. For example, surrender was significantly more likely for contracts offering interest rates below the current market level. But, the relationship depends heavily on the surrender charge

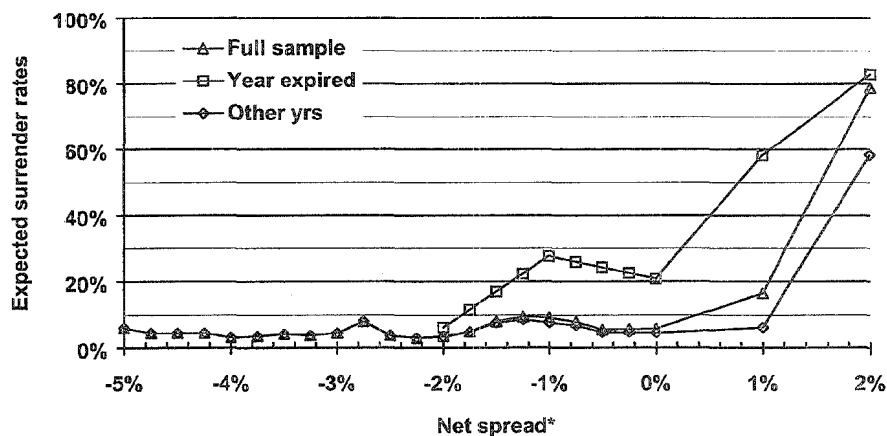


provisions of the contract—both the size of the surrender charge in effect at any given time and the timing of when the surrender charge expires.

Attempts to model the likelihood of surrender based on the net interest spread were largely unsuccessful. The net spread formula was modified to “amortize” the existing surrender charge over three years and over the length of the current interest guarantee period. Just as homeowners refinancing their mortgages will calculate the number of years it will take to recover the points on the new loan, an annuity contract owner may see how long it would take to recover the surrender charge on the old annuity. Amortizing the spread over one year (e.g., the definition used to this point), over three years, and over the length of the interest guarantee period altered the distribution of contracts by net spread but had little if any effect on actual surrender rates. Contracts more likely to surrender have little or no surrender charge to amortize to begin with.

Figure 3 illustrates the sensitivity of fixed SPDA surrender to interest rates. It plots actual full contract surrender rates versus the net interest rate spread, with the surrender charge amortized over three years. Positive spreads mean a financial incentive to surrender the contract.

FIGURE 3  
FULL SURRENDER RATES VERSUS NET SPREAD FOR ALL FIXED SPDA CONTRACTS  
(AND FOR YEAR SURRENDER CHARGES EXPIRED AND OTHER YEARS)



\*The net spread is rounded to the nearest quarter percentage point for negative net spreads and to the nearest whole percent thereafter. In the year surrender charges expire, the net spread is rounded to the nearest whole percent in all instances.

The data used in plotting Figure 3 appear in Table 13.

TABLE 13  
SURRENDER RATES VERSUS NET SPREAD  
FOR ALL FIXED SPDA CONTRACTS  
(AND FOR YEAR SURRENDER CHARGE EXPIRED AND OTHER YEARS)

Net Spread	Full Sample	Year Charges Expired	Other Years
-5.00%	6.1%		6.1%
-4.75	4.5		4.5
-4.50	4.5		4.5
-4.25	4.5		4.5
-4.00	3.1		3.1
-3.75	3.5		3.5
-3.50	4.2		4.2
-3.25	3.8		3.8
-3.00	4.5		4.5
-2.75	8.0		8.0
-2.50	3.8		3.7
-2.25	2.9		2.9
-2.00	3.5	6.2%	3.3
-1.75	4.9		4.8
-1.50	8.0		7.7
-1.25	9.4		8.6
-1.00	9.2	27.7	7.7
-0.75	7.9		6.9
-0.50	5.5		4.7
0.00	5.8	20.8	4.5
1.00	16.5	58.2	6.2
2.00	78.7	83.0	58.3

*C. Surrender Rates for Interest Guarantee Period One Year or Less*

There were 174,515 contracts in the portion of the sample that had interest guarantee periods of one year or less. Of these, 12,631 (7.2%) incurred a full surrender, 14,904 (8.5%) had part of the cash value withdrawn, 607 (0.4%) were annuitized, 1,504 (0.9%) were surrendered due to death or disability, and the remaining 144,869 (83.0%) had no withdrawal activity (See Table 14).

TABLE 14  
TYPE OF ACTIVITY FOR FIXED SPDAS  
WITH INTEREST GUARANTEE PERIOD  
ONE YEAR OR LESS

	Percentage of Contracts
Full surrender	7.2%
Partial withdrawal	8.5
Annuitized	0.4
Death or disability	0.9
No activity	83.0
	100.0%

The presence of a surrender charge had a significant effect on surrender rates, especially for contracts with interest guarantees of one year or less (Table 15). Full cash value surrender rates spiked to 59.2% in the year surrender charges expired and then decreased to 11.5% thereafter. Cash value surrender rates were significantly higher (59.2%) than contract surrender rates (43.3%) in the year surrender charges expired, suggesting that contracts surrendering were larger than those not surrendering. Qualified contracts withdrew part of the cash value more often than nonqualified contracts. Meeting minimum distribution requirements may have contributed to the higher partial withdrawal activity of these contracts.

TABLE 15

SURRENDER RATES FOR FIXED SPDAs: INTEREST GUARANTEE PERIOD ONE YEAR OR LESS  
(NUMBER OF CONTRACTS, 173,258; CASH VALUE IN FORCE, \$5,503,623,503)

Type of Contract	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
With a Surrender Charge							
Nonqualified	70.5%	69.8%	5.2%	8.4%	5.6%	1.2%	6.8%
Qualified	18.4	18.5	5.7	11.9	5.7	2.2	7.9
Total	88.9%	88.3%	5.3%	9.1%	5.6%	1.4%	7.0%
Year Surrender Charges Expired							
Nonqualified	3.4%	4.1%	41.5%	6.6%	55.6%	1.4%	57.0%
Qualified	1.0	1.5	49.9	11.0	68.7	2.4	71.1
Total	4.4%	5.6%	43.3%	7.5%	59.2%	1.7%	60.9%
One Year or More after Surrender Charges Expired							
Nonqualified	5.6%	5.0%	10.0%	7.9%	11.1%	1.6%	12.7%
Qualified	1.1	1.0	12.3	13.2	13.8	2.6	16.4
Total	6.7%	6.0%	10.4%	8.8%	11.5%	1.8%	13.3%
All Contracts	100.0%	100.0%	7.3%	9.0%	9.0%	1.4%	10.4%

Surrender rates were generally level while surrender charges were in effect and tended to spike in the year they expired. For example, the surrender rate more than doubled from 6.7% to 15.4% for contracts with no free full surrender provision and a seven-year surrender charge schedule (Table 16).

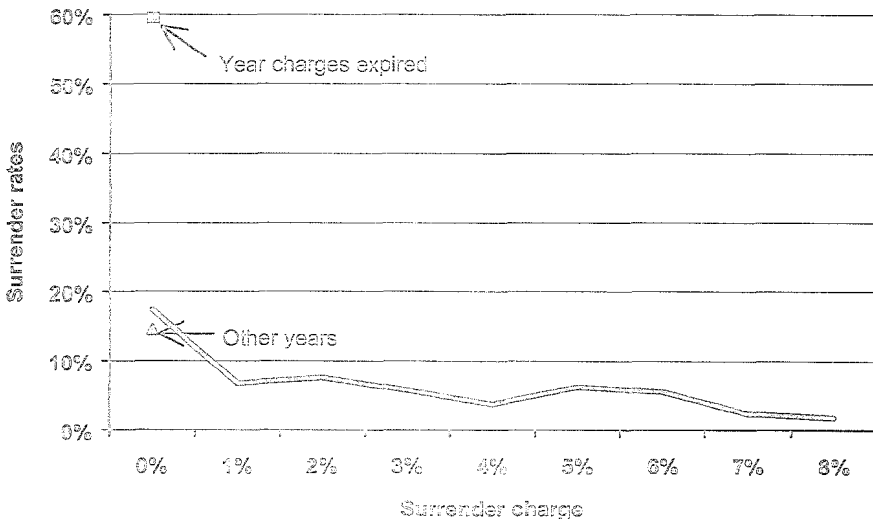
TABLE 16  
 FIXED SPDAs: CONTRACTS WITH SEVEN-YEAR SURRENDER SCHEDULES  
 AND NO FREE FULL SURRENDER PROVISION  
 (NUMBER OF CONTRACTS, 52,690; CASH VALUE IN FORCE, \$1,511,684,527)

Contract Year	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
1	26.9%	25.4%	4.7%	10.5%	4.8%	1.3%	6.1%
2	25.6	25.7	5.2	9.5	4.8	1.4	6.2
3	18.5	20.3	5.4	9.3	4.4	1.7	6.1
4	9.1	10.5	4.4	8.9	3.6	2.1	5.7
5	5.8	6.4	6.3	7.5	7.6	1.1	8.7
6	7.4	6.4	7.5	8.9	7.8	1.6	9.4
7	4.7	4.1	6.7	6.2	7.7	1.3	9.0
8	0.9	1.0	15.4	7.1	14.7	3.1	17.8
9	0.2	0.2	+	-	+	+	+
Total	100.0%	100.0%	5.5%	9.3%	5.2%	1.5%	6.7%

+insufficient data

Another way to see the impact of surrender charges is to look at surrender activity by the size of the surrender charge. Over half (59.5%) of contracts surrendered in the year surrender charges expired (Figure 4). Many fewer surrendered (14.9%) in later years. As was shown earlier, surrender activity increased as the surrender charge decreased (or as the surrender charge expiration year approached).

FIGURE 4  
 FIXED SPDAs WITH NO FREE FULL SURRENDER PROVISIONS  
 FULL CONTRACT SURRENDER RATES BY SURRENDER CHARGE IN EFFECT



### *1. Free Full Surrender Provisions*

Many contracts have provisions that under certain situations allow for full surrender without surrender penalty. The two most common provisions of this type are bailouts and windows. Bailout provisions allow the contract owner to fully surrender the contract without penalty if the contract's credited interest rate falls below a stated percentage or, more often, if the renewal interest rate falls more than a certain percentage (e.g., 1%) below the initial credited rate. Since historical interest rate histories were not collected for each contract, it is not known whether any bailout provisions were "pierced" prior to or during the study period. Window provisions do not have any conditions that must be met other than expiration of the interest guarantee period. Contracts with window provisions allow for penalty-free surrender during a window, say of 30 to 60 days, upon the expiration of the interest guarantee period. As with window provisions, if a bailout provision is pierced, the contract owner must surrender his or her contract within a specified window in order to avoid surrender penalties. Both of these provisions lose value at the end of the surrender penalty period. Bailout provisions are more common than window provisions among products with shorter interest guarantee periods.

While surrender charges were in effect, contracts with bailout provisions had surrender activity similar to contracts without any free full surrender provision (Table 17). One explanation is that the existence of the bailout provision provides an incentive for the insurance company to maintain competitive renewal interest rates, thus minimizing free surrender activity. Because of the complexity of some bailout provisions and the way the data were collected, it is not possible to identify contracts where surrender charges were waived due to the bailout provision. Looking at these contracts by observation year shows some interesting results; the full contract surrender rate increased from 2.9% for observation year 1992 to 7.3% for observation year 1993. The precipitous drop in interest rates during this period (see Figure 2) may have pierced the bailout provision for some contracts. Although full surrender activity was generally not remarkable for these contracts, they did withdraw part of the cash value more than other contracts.

TABLE 17  
 FIXED SPDAs: CONTRACTS WITH BAILOUT PROVISIONS  
 AND EIGHT-YEAR SURRENDER SCHEDULES  
 (NUMBER OF CONTRACTS, 20,759; CASH VALUE IN FORCE, \$580,491,375)

Contract Year	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
1	8.0%	7.3%	4.0%	7.4%	0.4%	1.1%	1.5%
2	12.2	13.3	0.7	12.9	0.5	1.7	2.2
3	12.1	14.0	1.2	12.2	1.0	1.6	2.6
4	11.3	13.0	2.1	13.2	2.4	1.8	4.2
5	12.1	11.1	3.2	9.6	3.1	1.2	4.3
6	9.7	8.1	3.9	11.2	3.8	1.3	5.1
7	5.1	4.3	3.7	9.1	4.7	1.1	5.8
8	4.8	4.0	3.1	8.6	4.0	1.1	5.1
9	5.8	5.4	4.4	8.6	4.1	1.9	6.0
10	4.4	4.2	5.2	8.8	4.1	1.9	6.0
11	5.5	5.5	3.7	9.6	2.9	1.8	4.7
12	6.2	6.8	4.3	13.0	4.6	1.8	6.4
13	2.5	3.0	+	+	-	+	+
Total	100.0%	100.0%	3.1%	10.9%	2.6%	1.6%	4.2%

+insufficient data

Contracts with window provisions had significantly higher surrender activity while surrender charges were in effect, with full surrender rates of 42.1%. Only 0.6% of contracts with interest guarantee periods of one year or less contain window provisions. Window provisions are more common among products with longer interest guarantee periods.

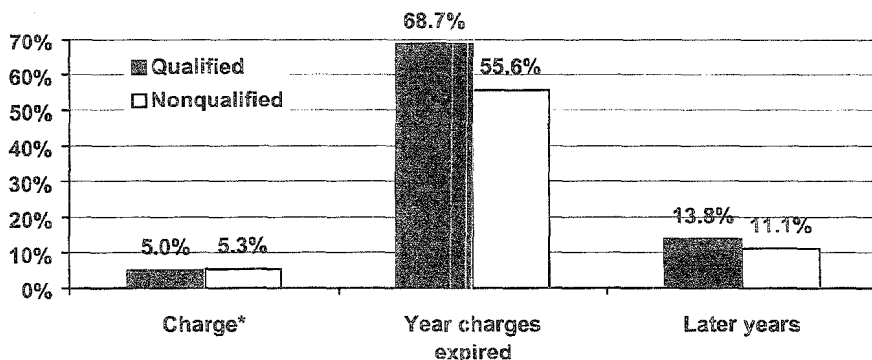
## 2. Free Partial Withdrawal Provision

In the earlier *Single Premium Deferred Annuity Persistency Study*, 85% of contracts with interest guarantee periods of one year or less had free partial withdrawal provisions. Such provisions have become much more prevalent, now representing 95% of contracts. Because free partial withdrawal provisions are now virtually standard, the impact of their existence cannot readily be measured.

### 3. Tax Status

Surrender rates were similar for qualified and nonqualified contracts while surrender charges were in effect. Without surrender charges, qualified contracts had much higher surrender rates than nonqualified contracts, especially during the year surrender charges expired (Figure 5). Partial withdrawal activity did not vary by tax status.

FIGURE 5  
FIXED SPDAS: FULL CASH VALUE SURRENDER RATES BY TAX STATUS

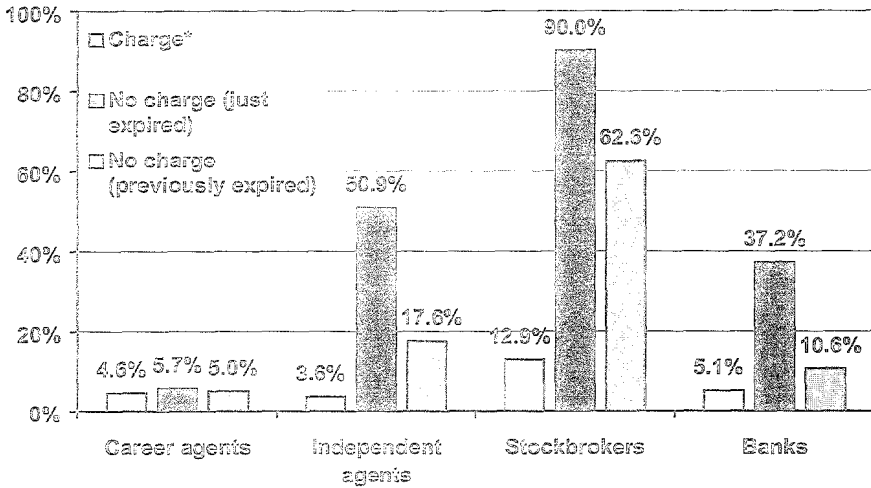


\*excludes contracts with bailout or window provisions.

### 4. Distribution System

The distribution system used had a much greater impact on surrender activity for contracts with shorter interest guarantee periods than it did for contracts with longer guarantees. This was especially true when there were no surrender charges in effect. For example, cash value surrender rates for stock-broker-sold contracts with interest guarantee periods of up to one year spiked at 90.0% in the year following surrender charge expiration (Figure 6).

FIGURE 6  
FIXED SPDAs: FULL CASH VALUE SURRENDER RATES BY DISTRIBUTION CHANNEL



\*excludes contracts with bailout or window provisions.

*D. Surrender Rates for Interest Guarantee Period Greater than One Year*

There were 86,818 contracts in the portion of the sample that had interest guarantee periods of more than one year. Of these, 5,169 (5.9%) incurred a full surrender, 4,852 (5.6%) had part of the cash value withdrawn, 148 (0.2%) were annuitized, 831 (1.0%) were surrendered due to death or disability, and the remaining 75,818 (87.3%) had no withdrawal activity.

TABLE 18  
TYPE OF ACTIVITY FOR FIXED SPDAs  
WITH INTEREST GUARANTEE PERIOD  
GREATER THAN ONE YEAR

	Percentage of Contracts
Full surrender	5.9%
Partial withdrawal	5.6
Annuitized	0.2
Death or disability	1.0
No activity	87.3
	100.0%



Similar to contracts with shorter guarantees, full contract surrender rates for this portion of the sample were higher for contracts without a surrender charge (8%) than for those with surrender charges in effect (5.9%). This is a much smaller difference than for contracts with shorter interest guarantee periods. While there was not enough exposure to further distinguish contracts without surrender charges, there appears to be little difference between surrender activity of contracts whose surrender charges expired in the current year and those whose charges expired earlier. Qualified contracts were more likely to have part of the cash value withdrawn than nonqualified contracts were (Table 19). Meeting minimum distribution requirements may contribute to the higher partial withdrawal activity of these contracts.

TABLE 19

FIXED SPDAS: SURRENDER RATES FOR INTEREST GUARANTEE PERIOD GREATER THAN ONE YEAR  
(NUMBER OF CONTRACTS, 86,058; CASH VALUE IN FORCE, \$3,411,461,813)

Type of Contract	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate			
			Full	Partial	Full	Partial	Total	
With a Surrender Charge								
	Nonqualified	69.9%	68.8%	5.8%	4.8%	6.2%	0.7%	6.9%
	Qualified	25.9	26.8	6.1	8.4	6.4	1.4	7.8
Total	95.8%	95.6%	5.9%	5.7%	6.3%	0.9%	7.2%	
Without a Surrender Charge								
	Nonqualified	3.6%	3.8%	7.3%	5.0%	7.5%	1.2%	8.7%
	Qualified	0.6	0.6	11.6	27.1	15.1	3.5	18.6
Total	4.2%	4.4%	8.0%	8.3%	8.5%	1.5%	10.0%	
All Contracts	100.0%	100.0%	6.0%	5.9%	6.4%	0.9%	7.3%	

During the surrender charge period, contracts with window provisions had higher full surrender rates (8.3%) than contracts with no free full surrender provision (5.1%), and contracts with bailout provisions had the lowest full surrender rates (2.0%). Regardless of the presence of any free full surrender provision, the expiration of an interest guarantee period had a large impact on full surrender rates. Contracts without such provisions but with three-year interest guarantees showed sizable increases in full surrender rates in the fourth and seventh contract years (Table 20). The high full surrender rate in the seventh contract year were not a result of surrender penalties expiring, since all of these contracts had at least two more years until surrender penalty expiration.

TABLE 20

FIXED SPDAs: SURRENDER RATES FOR CONTRACTS  
WITH THREE-YEAR INTEREST GUARANTEE PERIODS  
AND NO FREE FULL WITHDRAWAL PROVISION  
(NUMBER OF CONTRACTS, 13,181; CASH VALUE IN FORCE, \$461,571,857)

Contract Year	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
1	15.0%	13.1%	1.8%	11.6%	1.4%	0.9%	2.3%
2	19.1	20.0	1.6	7.2	1.4	0.9	2.3
3	24.9	26.6	2.0	7.4	1.4	1.5	2.9
4	11.4	11.8	10.5	7.1	9.0	1.8	10.8
5	10.7	10.1	3.7	3.9	4.4	1.3	5.7
6	10.4	10.0	4.9	1.4	3.6	0.3	3.9
7	4.8	4.9	20.0	0.7	20.6	0.1	20.7
8	2.2	2.2	+	+	+	+	+
9	1.4	1.4	+	+	+	+	+
Total	100.0%	100.0%	4.4%	6.5%	3.9%	1.1%	5.0%

—insufficient data

### 1. Free Full Surrender Provisions

Free full surrender provisions were the rule rather than the exception with contracts having interest guarantees longer than one year. Here, more than two thirds (70%) of contracts had such provisions. Window provisions were more common (48%) than bailouts (22%). As with contracts with shorter interest guarantee periods, contracts with bailouts did not show remarkably higher surrender activity upon the expiration of the interest guarantee period (Table 21). Since all of these contracts had surrender charge schedules longer than five years, the higher sixth-year surrender rate was more likely due to the fact that the interest guarantee period expired and/or the bailout provision may have been pierced. Contracts with window provisions and a five-year interest guarantee period, on the other hand, had surrender rates approaching 50% in the sixth contract year. While there was a mix of book value and market value adjusted (MVA) contracts, all of the first-year contracts with window provisions were MVAs. The 10.3% cash value surrender rate experienced by these contracts may be due to owners of larger contracts taking advantage of a positive market value adjustment as interest rates dropped. Over half (51.3%) of contracts with window provisions no longer had surrender charges in effect by the ninth contract year. Since contracts with surrender charges in their ninth contract year surrendered at a rate of 9.4%, the absence of surrender charges does not seem to be responsible for the higher contract surrender rate among all contracts with window provisions that year (11.0%).

TABLE 21

FIXED SPDAs: FULL SURRENDER RATES FOR CONTRACTS  
WITH A FIVE-YEAR INTEREST GUARANTEE PERIOD  
BY FREE FULL SURRENDER PROVISION  
NUMBER OF CONTRACTS, 29,214; CASH VALUE IN FORCE, \$1,200,660,465

Contract Year	Percentage of Contracts	Percentage of Cash Values	Bailout Provision		Window Provision	
			Contract	Cash Value	Contract	Cash Value
1	12.7%	11.4%	0.4%	0.2%	4.8%	10.3%
2	15.3	15.7	1.6	1.1	1.5	1.7
3	25.0	27.4	1.2	0.8	3.4	3.2
4	16.5	17.6	1.5	1.7	2.4	2.5
5	8.8	8.4	2.8	4.3	7.4	8.6
6	6.9	6.5	8.7	12.4	47.3	52.7
7	3.2	2.3	+	+	6.9	6.8
8	5.7	4.9	+	+	2.2	2.6
9	5.5	5.3	+	-	11.0	12.0
10	0.6	0.5	+	+	+	+
Total	100.0%	100.0%	1.9%	2.1%	7.8%	8.3%

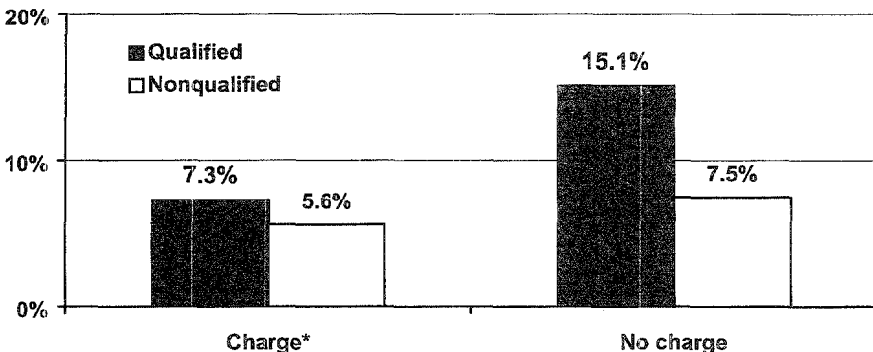
+insufficient data

As shown earlier, contracts with longer interest guarantee periods did not display much higher surrender activity after surrender charges expired. By the time they did expire, many contracts with free full surrender provisions (especially those with window provisions) may already have surrendered, for those where surrender charges are an issue.

2. Tax Status

As with contracts with shorter interest guarantee periods, surrender rates were similar for qualified and nonqualified contracts while surrender charges were in effect. Without surrender charges, qualified contracts had twice the surrender rates of nonqualified contracts (Figure 7).

FIGURE 7  
FIXED SPDAs WITH INTEREST GUARANTEE PERIOD GREATER THAN ONE YEAR:  
FULL CASH VALUE SURRENDER RATES BY TAX STATUS



\*excludes contracts with free full surrender provisions.

### III. SINGLE PREMIUM VARIABLE ANNUITIES (SPVAs)

Of the major product types, SPVAs, with 74,860 contracts, were the smallest group in the study. It was also the newest group, with over 80% of the contracts issued between 1990 and 1993. Before the major surge in variable annuity sales began in the mid-1980s, variable annuities were more commonly found among qualified retirement plans and hence were flexible premium products. Of the 74,860 SPVA contracts in the sample, 1,933 (2.6%) incurred a full surrender, 5,239 (7.0%) withdrew part of the cash value, 49 (0.1%) annuitized, 299 (0.4%) surrendered due to death or disability, and 67,340 (89.9%) had no withdrawal activity (Table 22).

TABLE 22  
SPVAs: TYPE OF ACTIVITY

	Percentage of Contracts
Full surrender	2.6%
Partial withdrawal	7.0
Annuitized	0.1
Death or disability	0.4
No activity	89.9
	100.0%

While full surrender rates for SPVAs were the lowest among the major product type groups, surrender rates nearly tripled for contracts without surrender charges (6.6%) compared with contracts with them (2.3%) (Table 23). Partial withdrawal activity for SPVAs was as high as that of fixed SPDAs.

TABLE 23  
SINGLE PREMIUM VARIABLE ANNUITIES (SPVAs)  
(NUMBER OF CONTRACTS, 74,334; CASH VALUE IN FORCE, \$2,389,731,870)

Type of Contract	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
With a Surrender Charge							
Nonqualified	47.5%	54.6%	1.7%	7.5%	1.6%	1.1%	2.7%
Qualified	45.7	37.6	2.9	6.9	2.1	2.3	4.4
Total	93.2%	92.2%	2.3%	7.2%	1.8%	1.6%	3.4%
Without a Surrender Charge							
Nonqualified	4.0%	5.3%	6.4%	6.8%	8.7%	1.3%	10.0%
Qualified	2.8	2.5	6.9	5.5	10.8	1.9	12.7
Total	6.8%	7.8%	6.6%	6.3%	9.4%	1.5%	10.9%
All Contracts	100.0%	100.0%	2.6%	7.1%	2.4%	1.6%	4.0%

A model was developed to compare the surrender activity of various contract characteristics. For contracts with surrender charges, tax status, contract size, and distribution system were all statistically significant (Table 24). Results for contracts without surrender charges were insignificant, due to the small number of SPVA contracts with no surrender charges.

Among the 74,145 SPVA contracts in the model, 1,918 (2.6%) experienced full surrenders. For those contracts with surrender charges, comparing the full surrender activity of a particular contract characteristic with the average full surrender activity for all SPVA contracts shows:

- Qualified contracts were surrendered 10.7% more frequently than the average for all SPVA contracts.
- Contracts with larger cash values were surrendered less frequently than those with small cash values.
- Contracts sold by career agents had the highest surrender activity and contracts sold by stockbrokers had the lowest.

TABLE 24  
PERCENTAGE CHANGE\* IN FULL SURRENDER ACTIVITY  
FOR SPVA CONTRACTS WITH SURRENDER CHARGES

Tax status	Qualified	10.7%
	Nonqualified	-9.7
Contract size	Under \$5,000	82.0%
	\$ 5,000 - \$ 9,999	18.1
	10,000 - 19,999	ns
	20,000 - 29,999	-22.0
	30,000 - 49,999	-21.3
	50,000 and over	-22.0
Distribution system	Career agent	30.4%
	Stockbroker	-30.5
	Bank	10.4

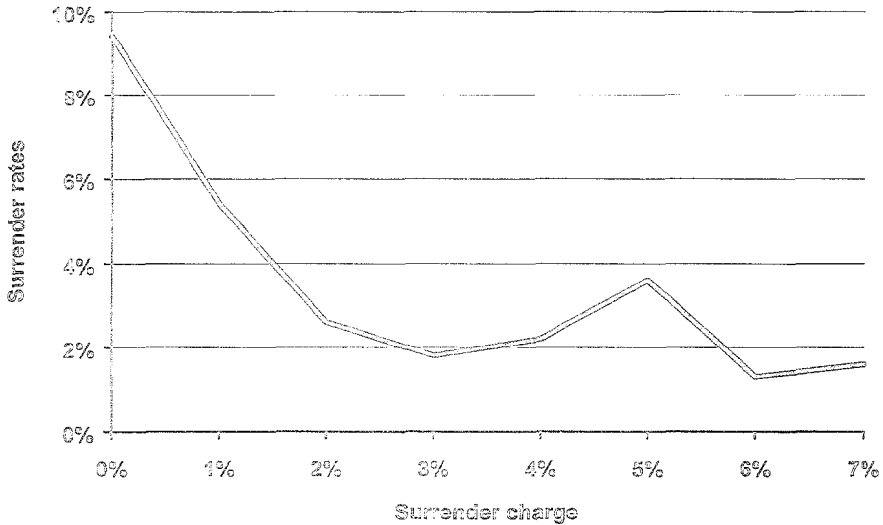
\*To translate the percent change into an expected surrender rate, the overall surrender rate of 2.6% is adjusted upward or downward by the percentage change indicated. For example, the expected surrender rate for qualified contracts is  $2.6\% \times 1.107$ , or 2.9%.

ns: results not statistically significant for these characteristics.

### A. Surrender Charges

SPVA contracts without surrender charges were nearly three times as likely to be surrendered (6.6%) as those with surrender charges (2.3%). As a percent of cash value, the difference was greater, with 9.4% of cash value being surrendered when there was no surrender charge in effect versus 1.8% for contracts with surrender charges (Figure 8). This result suggests, as with fixed SPDAs, that larger contracts tended to surrender more than smaller contracts when there were no surrender charges in effect.

FIGURE 8  
SPVAs: FULL CASH VALUE SURRENDER RATES BY SURRENDER CHARGE



Variable contracts did not show as significant a spike in surrender rates during the year surrender charges expired as did fixed annuities. Full contract surrender rates did increase slightly in this year from 3.4% to 7.1% and then remained slightly higher than before the surrender charge expired (Table 25).

TABLE 25

SPVAs: FULL SURRENDER RATES BY TIME REMAINING IN SURRENDER CHARGE SCHEDULE  
(NUMBER OF CONTRACTS, 74,382; CASH VALUE IN FORCE, \$2,392,091,878)

Years Remaining	Percentage of Contracts	Percentage of Cash Value	Contract Surrender Rate	Cash Value Surrender Rate
3 or more	84.5%	81.5%	2.2%	1.7%
2	4.3	5.0	3.4	2.6
1	4.4	5.7	3.4	2.7
0	3.5	4.1	7.1	11.5
-1	1.9	2.0	6.7	8.9
-2 or more	1.4	1.7	5.3	4.9
Total	100.0%	100.0%	2.6%	2.4%

Over half of the SPVA contracts in the sample had a six-year surrender charge schedule. Full contract surrender rates did not increase significantly in the seventh year for these contracts. However, cash value surrender rates increased from 4.2% to 13.0% in the seventh year, again suggesting that larger contracts tended to be surrendered when the surrender charge schedule expired (Table 26).

TABLE 26

SPVA SURRENDER RATES BY DURATION  
FOR CONTRACTS WITH A SURRENDER CHARGE SCHEDULE OF SIX YEARS  
(NUMBER OF CONTRACTS, 37,673; CASH VALUE IN FORCE, \$1,068,489,095)

Contract Year	Percentage of Contracts	Percentage of Cash Values	Contract Surrender Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
1	33.2%	24.8%	1.2%	1.8%	0.6%	0.4%	1.0%
2	28.3	27.4	2.3	5.6	1.2	1.1	2.3
3	15.3	18.5	3.1	7.9	2.4	1.5	3.9
4	5.2	6.2	5.5	8.0	2.7	2.9	5.6
5	3.5	4.3	5.7	5.2	5.0	1.4	6.4
6	4.6	6.0	4.8	9.3	4.2	1.7	5.9
7	4.6	5.8	6.7	7.7	13.0	1.7	14.7
8	2.8	3.4	6.6	6.2	9.7	1.6	11.3
9+	2.6	3.6	5.0	4.6	4.6	1.6	6.2
Total	100.0%	100.0%	2.9%	5.1%	2.8%	1.3%	4.1%

### ***B. Distribution System***

Over half (53.9%) of the SPVAs in the study were sold by stockbrokers. Unlike fixed SPDAs, full surrender rates for stockbroker-sold contracts were the lowest. This result may be somewhat misleading since most of these contracts were recent sales and were still in the surrender charge period (Table 27).

TABLE 27  
 SPVA SURRENDER RATES BY DISTRIBUTION SYSTEM  
 (NUMBER OF CONTRACTS, 74,382; CASH VALUE IN FORCE, \$2,392,091,878)

Distribution System	Percentage of Contracts	Percentage of Cash Values	Contract Surrender Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
Career agent	28.1%	25.2%	3.8%	6.5%	3.4%	2.2%	5.6%
Stockbroker	53.9	57.1	1.9	7.3	1.9	1.3	3.2
Bank	18.0	17.7	2.8	7.5	2.6	1.5	4.1
Total	100.0%	100.0%	2.6%	7.1%	2.4%	1.6%	4.0%

### C. Fixed Subaccounts

Nearly all (98.2%) SPVA contracts are combination annuities. Combination annuities are variable annuities with at least one fixed interest account. While most contracts had 20% or less invested in these options, surrender activity did rise slightly as the percentage invested in fixed accounts increased (Table 28).

TABLE 28  
 SPVA SURRENDER RATES BY AMOUNT INVESTED IN FIXED ACCOUNTS  
 FOR CONTRACTS WITH SURRENDER CHARGES  
 (NUMBER OF CONTRACTS, 67,772; CASH VALUE IN FORCE, \$2,159,782,600)

Percentage of Account Value in Fixed Account	Percentage of Contracts	Percentage of Cash Values	Surrender Rates	
			Contract	Cash Value
0-20%	85.6%	82.5%	2.1%	1.6%
21-40%	2.3	2.8	2.2	1.3
41-60%	2.9	3.0	3.5	2.0
61-80%	1.5	1.9	3.0	3.3
81-100%	7.7	9.7	4.2	3.6
Total	100.0%	100.0%	2.3%	1.8%

## IV. FLEXIBLE PREMIUM DEFERRED ANNUITIES (FPDAs)

Flexible premium contracts represented over half (58.2%) of the contracts in the study. Of the 478,523 contracts in the sample, 22,080 (4.6%) incurred a full surrender, 20,234 (4.2%) had part of the cash value withdrawn, 1,431 (0.3%) were annuitized, 1,672 (0.4%) were surrendered due to death or disability, and 433,106 (90.5%) had no withdrawal activity. Both full surrender and partial withdrawal activity were slightly higher for fixed contracts than for variable contracts (Table 29 and Table 30).



TABLE 29  
FPDAs: TYPE OF ACTIVITY

	Fixed	Variable	All
Full surrender	5.3%	4.1%	4.6%
Partial withdrawal	4.8	3.8	4.2
Annuitized	0.3	0.3	0.3
Death or disability	0.3	0.4	0.4
No activity	89.3	91.4	90.5
	100.0%	100.0%	100.0%

Surrender behavior of flexible contracts was not as sensitive to the level and existence of surrender charges as that of single premium contracts. Many FPDAs had surrender penalty schedules for each premium deposit. Most variable FPDAs (74.0%) and one fifth (21.5%) of fixed FPDAs had surrender penalties based on the number of years since each deposit was made. For these contracts, it is difficult for the contract owner who makes multiple contributions to know exactly when and if the surrender penalties expire. This and the fact that many purchasers of FPDAs intend to continue making deposits are two reasons these contracts were less sensitive to surrender charges than SPDAs.

TABLE 30  
SURRENDER RATES FOR FPDAs  
(NUMBER OF CONTRACTS, 473,622; CASH VALUE IN FORCE, \$7,726,035,703)

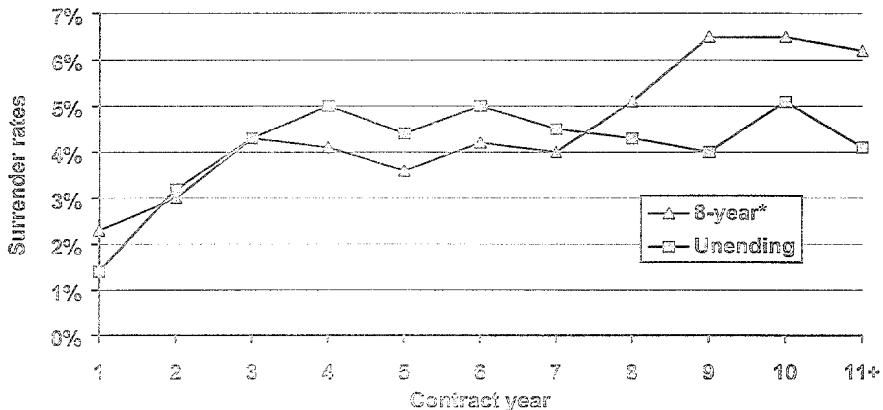
Contract Year	Percentage of Contracts	Percentage of Cash Values	Contract Surrender Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
Fixed							
Nonqualified	7.1%	8.8%	4.9%	5.8%	4.6%	1.5%	6.1%
Qualified	36.1	29.4	5.4	4.7	4.9	1.6	6.5
Total	43.2%	38.2%	5.3%	4.9%	4.8%	1.6%	6.4%
Variable							
Nonqualified	16.6%	26.2%	3.1%	5.4%	3.1%	1.4%	4.5%
Qualified	40.2	35.6	4.6	3.4	3.8	1.6	5.4
Total	56.8%	61.8%	4.2%	4.0%	3.5%	1.5%	5.0%
All Contracts	100.0%	100.0%	4.7%	4.4%	4.0%	1.6%	5.6%

There was no dramatic increase in full surrender activity even as surrender charges approached 0% among the 78.4% of fixed contracts whose surrender charge schedules were based on the number of years since contract issue.<sup>5</sup>

<sup>5</sup>A similar analysis of variable FPDAs was not possible due to the small number of products whose surrender charges are based on the number of years since contract issue.

Both contracts with eight-year surrender charge schedules and contracts with surrender schedules that never end experienced full surrender rates that started low (1.4–2.3%) in the first year and increased to 4 or 5% for the next few contract years. Surrender rates for contracts with eight-year surrender charge schedules then increased to around 6% in the year following surrender charge expiration and stayed level thereafter. Contracts with unending surrender charge schedules did not experience any additional increase in surrender activity once the 4–5% level was reached (Figure 9). Most contracts with unending surrender charges were fixed FPDAs with low, long-lasting penalties.

FIGURE 9  
FIXED FPDAs: FULL CONTRACT SURRENDER RATES BY LENGTH OF SURRENDER PERIOD



\*Surrender charges based on years since contract issue.

A model was developed to compare the surrender activity of various contract characteristics (Table 31). This analysis differs slightly from analysis of single premium contracts in that the presence or absence of a surrender charge has not been included. As was shown above, the impact of surrender charges on surrender activity of flexible premium products was not as evident as with single premium contracts. In addition, many flexible premium annuities had surrender charge schedules based on the number of years since deposit, making it difficult to determine the presence or level of surrender charges in effect.

Among the 466,336 flexible contracts in the model, 21,879 (4.7%) experienced full surrenders. Surrender activity was very similar between fixed and variable FPDAs for most contract characteristics. Comparing the full surrender activity of a particular contract characteristic to the average full surrender activity for all flexible contracts shows:

- Qualified contracts had surrender rates 18–20% higher than average.
- Annuitants with attained ages under 40 and fixed annuitants with attained ages over 70 experienced the highest surrender activity.
- Females were less likely to surrender than were males among both fixed and variable annuities.
- In general, smaller contracts were more likely to be surrendered than larger contracts. With the exception of contracts with cash values exceeding \$50,000, the larger the contract the less likely it was to surrender.
- As with single premium fixed contracts, flexible premium annuities sold by stockbrokers had the highest surrender activity, 95% (variable) to 151% (fixed) higher than average. Direct response had the lowest surrender activity among contracts with an identifiable distribution system.

TABLE 31

## FPDAS: PERCENTAGE CHANGE\* IN FULL SURRENDER ACTIVITY

		Fixed	Variable
Tax Status	Qualified	18.6%	20.3%
	Nonqualified	-15.7	-16.9
Attained Age	Under 40	20.1%	26.6%
	40 to 49	-7.7	-3.9
	50 to 59	-22.7	-14.5
	60 to 64	ns	7.4
	65 to 69	-10.1	ns
	70 and over	33.6	-11.2
Sex	Female	-8.2%	-9.1%
	Male	8.9	10.0
Contract Size	Under \$5,000	25.6%	26.2%
	\$ 5,000 – \$ 9,999	ns	16.3
	10,000 – 19,999	-4.3	ns
	20,000 – 29,999	-10.1	-9.0
	30,000 – 49,999	-12.6	-14.8
	50,000 and over	4.1	-13.8
Distribution System	Career agent	35.5%	ns
	Independent agent	20.6	24.2
	Stockbroker	150.7	95.4
	Bank	49.0	17.6
	Direct response	-14.2	-31.2
	Other	-80.9	-47.0

\*To translate the percent change into an expected surrender rate, the overall surrender rate of 4.7% is adjusted upward or downward by the percentage change indicated. For example, the expected surrender rate for fixed qualified contracts is  $4.7\% \times 1.186$ , or 5.6%.

ns: results not statistically significant for these characteristics.

### A. Interest Rates

As with fixed single contracts, fixed flexible contracts with lower interest rates were surrendered at a higher rate (Table 32). Surrender rates ranged from 13.0% for contracts with interest rates between 2.1 and 4.0% to 3.3% for contracts with rates between 8.1 and 10.0%. Although contracts in the lowest interest rate group were surrendered at nearly twice the rate of contracts in the next grouping, corresponding single premium contracts in the lowest interest rate group surrendered at ten times the rate of those in the next grouping.

TABLE 32  
FIXED FPDAs: SURRENDER RATES BY INTEREST RATE  
(NUMBER OF CONTRACTS, 76,281; CASH VALUE IN FORCE, \$2,605,497,593)

Interest Rate	Percentage of Contracts	Percentage of Cash Value	Contract Surrender Rate	Cash Value Surrender Rate
2.1 to 4.0%	1.5%	0.7%	13.0%	12.9%
4.1 to 6.0	22.2	20.4	7.7	7.1
6.1 to 8.0	70.5	72.4	4.5	4.2
8.1 to 10.0	5.8	6.6	3.3	2.5
Total	100.0%	100.0%	5.3%	4.7%

### B. Qualified Retirement Programs

Table 33 shows FPDA surrender rates for various qualified retirement programs and for nonqualified annuities. Of fixed FPDAs, 401(k) and other corporate contracts had the highest surrender rates. Each had a surrender rate higher than 10%, ranging from 12.1% for 401(k) to 15.3% for other corporate contracts. Interestingly, the cash value surrender rate for 401(k) contracts was the lowest of all the plan types at 3.8%. Qualified contract surrender rates (5.4%) were generally higher than the nonqualified surrender rate (4.9%), with the exception of IRA contracts (4.8%).

For variable flexible contracts, 401(k) and Keogh plans surrendered at the highest rates. Other corporate plans also had a high surrender rate at 9.9%. As with fixed flexible contracts, smaller contracts surrendered in the 401(k) group, resulting in a cash value surrender rate half the corresponding contract surrender rate (7.2% versus 13.9%). Keogh plans also had a contract surrender rate (10.6%) twice the cash value surrender rate (4.8%).

Over three quarters (76.3%) of flexible premium contracts were sold in qualified markets. FPDAs are much more prevalent in funding qualified plans than are single premium fixed (22.3%) or single premium variable (48.5%) products.

TABLE 33  
FPDA SURRENDER RATES BY PLAN TYPE

Distribution System	Percentage of Contracts	Percentage of Cash Values	Contract Surrender Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All FPDAs (Number of Contracts, 473,622; Cash Value in Force, \$7,726,035,703)							
IRA	49.1%	36.8%	4.5%	3.5%	3.9%	1.5%	5.4%
IRA-SEP	3.0	1.8	6.8	3.5	5.5	1.9	7.4
403(b)	17.7	17.9	4.2	5.1	4.1	1.4	5.5
457	0.3	0.3	9.0	3.3	10.8	1.3	12.1
401(k)	1.2	0.8	13.5	5.9	6.3	5.4	11.7
Other Corporate	1.4	2.3	13.5	8.4	9.0	4.9	13.9
Keogh (HR10)	2.2	3.2	10.0	3.3	5.4	1.9	7.3
Other Qualified	1.4	1.9	4.3	2.4	3.3	1.0	4.3
Total Qualified	76.3%	65.0%	5.0%	4.0%	4.3%	1.6%	5.9%
Nonqualified	23.7%	35.0%	3.7%	5.5%	3.5%	1.4%	4.9%
Total	100.0%	100.0%	4.7%	4.4%	4.0%	1.6%	5.6%
Fixed FPDAs (Number of Contracts, 204,501; Cash Value in Force, \$2,953,002,525)							
IRA	60.7%	46.2%	4.8%	3.7%	4.4%	1.4%	5.8%
IRA-SEP	2.7	1.8	8.0	3.9	7.1	2.4	9.5
403(b)	14.8	19.0	5.5	8.7	4.5	1.4	5.9
457	0.5	0.6	6.7	3.0	10.4	1.2	11.6
401(k)	0.5	0.6	12.1	3.5	3.8	3.8	7.6
Other Corporate	2.2	3.9	15.3	9.8	9.4	5.8	15.2
Keogh (HR10)	1.5	3.1	8.6	3.1	6.3	1.1	7.4
Other Qualified	0.8	1.7	6.7	2.9	5.0	1.5	6.5
Total Qualified	83.6%	76.9%	5.4%	4.7%	4.9%	1.6%	6.5%
Nonqualified	16.4%	23.1%	4.9%	5.8%	4.6%	1.5%	6.1%
Total	100.0%	100.0%	5.3%	4.9%	4.8%	1.6%	6.4%
Variable FPDAs (Number of Contracts, 269,121; Cash Value in Force, \$4,773,033,179)							
IRA	40.3%	31.0%	4.2%	3.4%	3.4%	1.5%	4.9%
IRA-SEP	3.2	1.7	6.0	3.3	4.5	1.5	6.0
403(b)	19.9	17.2	3.4	3.2	3.8	1.4	5.2
457	0.1	0.1	+	+	+	+	+
401(k)	1.7	1.0	13.9	6.5	7.2	6.0	13.2
Other Corporate	0.8	1.3	9.9	5.5	8.2	3.0	11.2
Keogh (HR10)	2.7	3.3	10.6	3.5	4.8	2.4	7.2
Other Qualified	1.9	2.0	3.5	2.2	2.4	0.8	3.2
Total Qualified	70.8%	57.6%	4.6%	3.4%	3.8%	1.6%	5.4%
Nonqualified	29.2%	42.4%	3.1%	5.4%	3.1%	1.4%	4.5%
Total	100.0%	100.0%	4.2%	4.0%	3.5%	1.5%	5.0%

+insufficient data

### C. Method of Premium Collection

Companies were able to provide the method premiums are collected in over three-fourths (76%) of flexible contracts. Most (64%) of these contracts have nonautomatic premiums, one-third (31%) are automatic and less than 5% are collected through payroll deduction. Unlike life insurance, where nonpayment of premium can result in a lapse, the method of collecting premiums does not appear to have a significant impact on annuity surrender activity. No pattern is found among qualified programs or between fixed and variable annuities. Payroll deduction had a slightly higher surrender rate (5.7%) than automatic withdrawal (4.4%) and nonautomatic (4.6%). This may be due to employee turnover.

### D. Distribution System

Surrender activity of FPDAs was not nearly as sensitive as fixed SPDAs to distribution channel (Table 34). But, as with fixed SPDAs, stockbroker-sold contracts had the highest surrender rates. Fixed partial withdrawal rates were highest among bank-sold contracts, where individuals may have been using interest from their annuity contracts for income rather than annuitizing.

TABLE 34  
FPDA SURRENDER RATES BY DISTRIBUTION CHANNEL

Distribution System	Percentage of Contracts	Percentage of Cash Values	Contract Surrender Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
Fixed FPDAs (Number of Contracts, 204,501; Cash Value in Force, \$2,953,002,525)							
Career agent	58.3%	53.8%	6.1%	5.5%	5.2%	1.7%	6.9%
Independent agent	8.3	8.1	5.6	2.6	5.8	1.7	7.5
Stockbroker	1.7	5.0	8.2	4.7	8.2	1.1	9.3
Bank	3.3	4.1	5.9	8.9	4.9	1.5	6.4
Direct response	24.0	25.5	4.0	3.9	3.7	1.5	5.2
Other	4.5	3.8	0.9	4.0	0.3	1.1	1.4
Total	100%	100%	5.3%	4.9%	4.8%	1.6%	6.4%
Variable FPDAs (Number of Contracts, 269,121; Cash Value in Force, \$4,773,033,179)							
Career agent	72.2%	62.1%	4.1%	3.6%	3.4%	1.5%	4.9%
Independent agent	15.6	21.7	5.0	6.4	4.0	1.4	5.4
Stockbroker	3.1	8.6	5.4	4.3	3.6	1.4	5.0
Bank	2.0	2.4	4.5	2.1	4.2	0.6	4.8
Direct response	1.9	2.5	2.1	3.5	1.8	4.6	6.4
Other	5.3	2.8	2.6	2.8	3.9	1.2	5.1
Total	100.0%	100.0%	4.2%	4.0%	3.5%	1.5%	5.0%

### *E. Cash-Flow Measures*

Because many FPDA contract owners make multiple deposits, it is valuable to understand the premium payment patterns of such contracts. Over one quarter (26.2%) of contract owners in the second and later contract years made deposits during both the current year of observation *and* the prior year. Contracts sold under qualified programs were more likely than nonqualified contracts to receive contributions from year to year. This was especially true of the 403(b) market, where annuities often serve as the defined contribution pension plan. The percent of qualified contracts that received contributions in successive years declined over time. Nonqualified and IRA annuities had the lowest percentage, since these often receive one-time, rather than periodic, contributions (Table 35).

Table 36 shows the ratio of contributions between successive years for contracts receiving contributions in both the current and prior year. Total contributions in the second contract year were nearly half (48.9%) of total contributions in the first contract year for contracts with contributions in both years. After the second year, this ratio was much closer to, and sometimes exceeded, 100%. The main reason for the lower ratio in the second year is that many contracts had large single deposits in the first year, usually in the form of a rollover from another plan. These ratios and the percent of contracts that make successive payments were the highest and most consistent among 403(b) annuities, especially variable annuities. Usually, 403(b) annuities are purchased through the workplace with contributions deducted from salary.

All plans had high initial contributions (Table 37). Nonqualified contracts had the highest initial contributions. After the first year, both IRA and nonqualified contracts generally had low average contributions compared with 403(b) and other qualified contracts.

TABLE 35

FPDAs: PERCENTAGE OF CONTRACTS WITH PREMIUMS IN BOTH THE CURRENT AND PRIOR YEAR

Contract Year	Nonqualified	Qualified			All
		IRA	403(b)	Other Qualified	
All FPDAs					
2	20.1%	30.1%	86.1%	73.1%	42.2%
3	10.3	19.0	76.1	60.9	32.2
4	8.5	17.2	65.8	52.7	26.0
5	10.6	15.5	59.7	50.4	24.5
6	10.6	12.2	58.8	47.8	21.2
7	6.7	9.4	58.4	41.9	15.7
8	9.9	10.2	55.0	36.3	14.8
9	11.8	12.5	53.3	30.9	17.1
10	14.3	13.9	50.0	34.3	18.9
11	13.9	15.3	47.7	32.2	21.2
12	12.7	17.8	45.0	30.3	23.8
13	8.4	20.2	43.2	34.7	27.8
14	6.5	19.5	29.1	21.6	19.6
All Years	12.3%	16.3%	66.8%	53.3%	26.2%
Fixed FPDAs					
2	19.2%	32.8%	81.7%	63.9%	36.0%
3	10.4	22.6	69.4	53.2	27.5
4	8.2	20.9	57.3	45.8	25.2
5	13.1	19.3	48.2	48.2	25.3
6	19.5	17.2	45.8	46.9	24.9
7	13.2	14.3	44.7	42.8	20.0
8	12.2	13.7	42.0	29.9	16.7
9	17.9	13.9	41.9	28.9	17.0
10	23.8	14.4	37.3	34.6	17.3
11	19.0	17.6	38.9	33.0	20.3
12	22.9	19.9	36.7	33.3	23.4
13	25.5	23.6	34.0	38.8	28.8
14	17.5	21.2	31.2	23.2	24.1
All Years	13.6%	18.5%	50.9%	45.1%	23.8%
Variable FPDAs					
2	20.5%	28.6%	86.9%	75.9%	44.5%
3	10.2	16.4	78.3	64.2	34.9
4	8.8	14.5	74.1	56.0	26.6
5	8.5	12.0	76.3	51.4	23.7
6	7.2	8.4	76.5	48.1	18.7
7	4.8	6.4	74.3	41.6	13.2
8	9.1	6.5	69.8	41.1	13.1
9	8.1	8.1	70.0	34.4	17.2
10	3.2	11.4	70.2	+	25.5
11	7.2	9.1	59.4	+	24.7
12	4.0	6.8	54.9	+	24.9
13	1.3	4.7	53.4	+	26.3
All Years	11.5%	13.8%	77.6%	57.8%	28.3%

+insufficient data



TABLE 36

FPDAS: RATIO OF CURRENT PREMIUM TO PRIOR YEAR'S PREMIUM BY PLAN TYPE  
FOR CONTRACTS WITH PREMIUMS IN BOTH YEARS

Contract Year	Nonqualified	Qualified			All
		IRA	403(b)	Other Qualified	
All FPDAs					
2	54.4%	42.9%	49.9%	48.4%	48.9%
3	88.6	87.6	96.3	81.5	91.0
4	91.4	85.3	98.2	80.0	90.5
5	98.8	92.9	97.0	90.3	94.8
6	99.7	94.3	98.4	95.6	96.8
7	75.2	92.7	95.0	90.0	91.3
8	100.5	95.8	96.0	89.7	94.9
9	86.0	98.2	100.6	91.0	97.1
10	155.8	96.7	97.3	101.8	98.8
11	63.0	86.6	95.6	78.7	88.5
12	85.1	96.1	98.8	85.2	95.8
Years 3+	90.8%	91.3%	97.0%	86.7%	92.9%
All Years	63.6%	63.0%	75.5%	70.5%	69.1%
Fixed FPDAs					
2	52.8%	39.6%	58.0%	36.5%	45.2%
3	101.0	82.2	85.9	71.1	84.3
4	101.6	87.8	94.2	65.7	87.2
5	102.6	98.3	91.1	83.8	92.7
6	81.9	103.1	96.0	93.8	96.2
7	91.7	94.1	89.5	82.4	88.6
8	106.1	96.0	92.7	96.5	95.7
9	94.2	96.6	97.2	86.0	94.0
10	159.7	99.3	94.6	106.0	100.2
11	58.2	94.6	93.6	77.7	90.4
12	88.8	99.4	98.0	77.0	94.8
Years 3+	98.1%	94.3%	92.2%	81.7%	91.0%
All Years	70.6%	71.3%	86.0%	68.1%	75.0%
Variable FPDAs					
2	54.7%	44.3%	49.0%	53.1%	49.9%
3	82.9	91.7	99.1	86.3	93.6
4	86.5	83.4	101.2	89.9	92.7
5	94.9	87.3	102.7	95.1	96.7
6	117.1	83.2	100.7	97.6	97.5
7	72.5	91.0	99.6	103.1	94.0
8	97.9	95.5	98.4	82.5	93.9
9	82.7	104.3	104.0	117.4	103.4
10	+	80.4	99.6	+	95.8
11	+	55.1	96.9	+	85.4
Years 3+	86.8%	87.2%	100.0%	91.3%	94.4%
All Years	61.5%	57.0%	72.1%	72.1%	66.5%

+insufficient data

TABLE 37

## FPDAs: AVERAGE TOTAL ANNUAL CONTRIBUTIONS BY CONTRACT YEAR

Contract Year	Nonqualified	Qualified			All
		IRA	403(b)	Other Qualified	
All FPDAs					
1	\$28,847	\$15,937	\$7,513	\$16,140	\$19,557
2	2,068	1,313	2,892	3,491	2,022
3	1,067	769	2,704	2,354	1,399
4	617	546	1,983	1,962	936
5	589	469	1,899	2,063	866
6	624	486	1,952	2,270	855
7	488	372	2,037	2,224	668
8	541	359	1,724	2,090	577
9	314	440	1,663	2,221	623
10	443	462	1,564	2,061	652
11	476	488	1,523	1,304	675
12	464	363	1,502	1,283	688
Total	\$ 8,953	\$ 2,660	\$3,099	\$ 4,240	\$ 4,336
Years 2-	\$ 1,022	\$ 593	\$2,251	\$ 2,358	\$ 1,067
Fixed FPDAs					
1	\$18,522	\$10,363	\$8,213	\$14,842	\$12,785
2	1,905	1,447	2,319	3,353	1,802
3	911	831	1,997	2,260	1,127
4	467	504	1,620	2,121	807
5	566	502	1,502	2,304	821
6	695	661	1,638	3,431	1,012
7	464	458	1,627	3,938	798
8	693	395	1,320	2,364	589
9	277	409	1,350	2,395	563
10	416	456	1,135	2,158	575
11	308	397	1,179	1,276	520
12	528	373	1,138	1,245	578
Total	\$ 3,072	\$ 1,255	\$1,767	\$ 3,333	\$ 1,746
Years 2+	\$ 864	\$ 580	\$1,547	\$ 2,441	\$ 873
Variable FPDAs					
1	\$30,444	\$17,957	\$7,456	\$16,456	\$21,052
2	2,135	1,229	3,000	3,545	2,118
3	1,179	718	2,964	2,400	1,575
4	755	582	2,361	1,879	1,047
5	610	434	2,509	1,927	912
6	595	336	2,427	1,678	730
7	496	311	2,609	1,344	582
8	485	314	2,318	1,830	564
9	337	555	2,268	1,837	785
10	481	505	2,466	1,706	1,031
11	741	1,055	2,130	1,472	1,365
12	408	311	2,108	1,458	1,054
Total	\$11,537	\$ 4,175	\$3,928	\$ 4,776	\$ 6,337
Years 2+	\$ 1,116	\$ 610	\$2,710	\$ 2,302	\$ 1,255

## APPENDIX A DETAILED SURRENDER TABLES

TABLE A-1

SURRENDER RATES FOR FIXED SPDAS: INTEREST GUARANTEE PERIOD ONE YEAR OR LESS  
FOR YEAR SURRENDER CHARGES EXPIRED  
(NUMBER OF CONTRACTS: 7,680; CASH VALUE IN FORCE: \$309,825,056)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	43.3%	7.5%	59.2%	1.7%	60.9%
Type of Plan							
IRA	14.2%	15.4%	49.8%	12.8%	69.4%	1.9%	71.3%
403(b)	1.6	1.8	+	+	+	+	+
Other qualified	5.9	9.9	56.1	+	70.6	+	+
Nonqualified	78.3	73.0	41.5	6.6	55.6	1.4	57.0
Attained Age							
Under 40	3.5%	2.0%	+	+	+	+	+
40 to 49	8.3	7.7	49.1%	3.2%	70.0%	0.8%	70.8%
50 to 59	14.8	13.6	47.4	2.1	64.6	1.9	66.5
60 to 64	15.2	15.8	49.7	6.9	66.9	1.7	68.6
65 to 69	20.4	23.2	47.6	8.8	65.1	1.2	66.3
70 and over	37.9	37.8	41.5	10.8	54.6	2.1	56.7
Sex							
Male	54.9%	60.7%	44.8%	7.4%	63.4%	1.8%	65.2%
Female	45.1	39.3	41.6	7.5	52.6	1.5	54.1
Account Value							
Under \$5,000	2.2%	0.2%	+	+	+	+	+
5,000- 9,999	14.4	2.9	36.3%	6.5%	35.0%	1.4%	36.4%
10,000-19,999	29.6	10.9	35.6	5.6	35.4	1.1	36.5
20,000-29,999	16.8	10.3	40.0	7.6	40.5	1.5	42.0
30,000-49,999	16.7	15.8	46.1	9.1	46.4	1.6	48.0
50,000 and over	20.3	60.0	63.3	11.0	71.3	1.9	73.2
Distribution System							
Career agent	33.7%	25.2%	5.3%	8.1%	5.7%	1.8%	7.5%
Independent agent	9.2	9.2	38.0	6.5	50.9	2.2	53.1
Stockbroker	27.4	38.4	83.8	5.6	90.0	1.2	91.2
Bank	18.0	11.2	28.4	8.6	37.2	2.0	39.2
Other	11.6	16.0	85.7	+	89.8	+	+

+insufficient data.

TABLE A-2

SURRENDER RATES FOR FIXED SPDAs: INTEREST GUARANTEE PERIOD ONE YEAR OR LESS  
 FOR SURRENDER CHARGES EXPIRED AT LEAST ONE YEAR EARLIER  
 (NUMBER OF CONTRACTS: 11,618; CASH VALUE IN FORCE: \$332,830,482)

	Percentage of Contracts	Percentage of Cash Values	Contract: Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	10.4%	8.8%	11.5%	1.8%	13.3%
Type of Plan							
IRA	8.3%	8.3%	15.0%	13.1%	16.5%	3.5%	20.0%
403(b)	5.3	5.7	6.8	16.1	5.4	2.0	7.4
Other qualified	2.7	3.3	+	+	+	+	+
Nonqualified	83.7	82.6	10.0	7.9	11.1	1.6	12.7
Attained Age							
Under 40	2.2%	1.5%	+	+	+	+	+
40 to 49	6.1	4.6	11.5%	2.5%	10.3%	1.0%	11.3%
50 to 59	13.4	11.4	10.1	3.0	11.3	0.6	11.9
60 to 64	13.2	13.2	11.8	6.3	14.5	2.0	16.5
65 to 69	18.0	18.1	10.1	9.5	11.5	1.7	13.2
70 and over	47.2	51.2	9.8	11.6	10.6	2.2	12.8
Sex							
Male	55.3%	56.4%	10.1%	8.3%	11.9%	1.8%	13.7%
Female	44.7	43.6	10.6	9.3	11.1	1.8	12.9
Account Value							
Under \$5,000	7.3%	0.7%	13.8%	4.1%	14.2%	1.0%	15.2%
5,000- 9,999	11.4	3.2	13.3	7.1	13.4	1.2	14.6
10,000-19,999	31.6	16.5	9.3	7.3	9.3	1.2	10.5
20,000-29,999	20.2	17.2	8.7	8.4	8.7	1.6	10.3
30,000-49,999	16.4	22.0	9.2	9.9	9.2	1.5	10.7
50,000 and over	13.2	40.4	12.5	15.5	14.8	2.4	17.2
Distribution System							
Career agent	55.0%	58.8%	5.3%	10.8%	5.0%	1.9%	6.9%
Independent agent	3.8	4.7	14.8	6.8	17.6	1.4	19.0
Stockbroker	3.0	4.6	60.7	+	62.6	+	+
Bank	36.6	29.3	11.3	6.0	10.6	1.4	12.0
Other	1.7	2.7	+	+	+	+	+

+insufficient data.

TABLE A-3

SURRENDER RATES FOR FIXED SPDAs: INTEREST GUARANTEE PERIOD ONE YEAR OR LESS  
FOR CONTRACTS WITH A SURRENDER CHARGE AND NO FREE FULL SURRENDER PROVISION  
(NUMBER OF CONTRACTS: 104,616; CASH VALUE IN FORCE: \$3,327,746,955)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	5.0%	8.8%	5.2%	1.3%	6.5%
Type of Plan							
IRA	16.8%	16.0%	5.1%	11.7%	4.6%	2.3%	6.9%
403(b)	0.4	0.5	5.8	12.3	4.5	1.7	6.2
Other qualified	0.7	1.2	10.9	4.1	10.0	1.0	11.0
Nonqualified	82.1	82.3	4.9	8.2	5.3	1.2	6.5
Attained Age							
Under 40	5.4%	3.5%	6.9%	4.6%	6.2%	1.5%	7.7%
40 to 49	10.0	7.8	5.7	3.1	5.7	1.9	6.6
50 to 59	18.6	17.8	4.4	3.7	5.3	1.1	6.4
60 to 64	14.4	15.4	4.7	7.8	4.9	1.4	6.3
65 to 69	17.3	18.3	4.6	8.9	4.6	1.4	6.0
70 and over	34.3	37.2	5.1	14.3	5.5	1.4	6.9
Sex							
Male	49.3%	54.0%	5.1%	7.9%	5.3%	1.3%	6.6%
Female	50.7	46.0	4.9	9.7	5.2	1.4	6.6
Account Value							
Under \$5,000	7.6%	0.6%	5.8%	4.9%	5.7%	0.9%	6.6%
5,000- 9,999	16.5	3.5	5.6	5.4	5.6	0.8	6.4
10,000-19,999	27.6	12.2	4.6	7.5	4.4	0.9	5.3
20,000-29,999	16.8	12.8	4.7	8.8	4.7	1.0	5.7
30,000-49,999	13.7	16.2	5.1	11.3	5.2	1.2	6.4
50,000 and over	17.9	54.6	4.8	13.7	5.5	1.6	7.1
Distribution System							
Career agent	12.8%	14.6%	4.3%	8.0%	4.6%	1.3%	5.9%
Independent agent	14.7	18.9	3.3	6.8	3.6	1.3	4.9
Stockbroker	5.6	7.9	11.0	8.2	12.9	1.3	14.2
Bank	50.1	40.3	5.1	11.0	5.1	1.6	6.7
Direct response	7.4	8.3	1.8	2.5	1.6	0.5	2.1
Other	9.4	9.9	6.9	7.0	6.9	1.0	7.9

TABLE A-4

SURRENDER RATES FOR FIXED SPDAs: INTEREST GUARANTEE PERIOD ONE YEAR OR LESS  
FOR CONTRACTS WITH A SURRENDER CHARGE AND A BAILOUT PROVISION  
(NUMBER OF CONTRACTS: 48,336; CASH VALUE IN FORCE: \$1,502,447,542)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	5.1%	9.8%	5.7%	1.5%	7.2%
Type of Plan							
IRA	18.6%	17.7%	6.0%	14.6%	6.3%	2.8%	9.1%
403(b)	0.4	0.5	+	+	+	+	+
Other qualified	8.0	10.0	5.8	7.7	6.8	1.5	8.3
Nonqualified	73.0	71.7	4.8	8.9	5.4	1.2	6.6
Attained Age							
Under 40	4.2%	2.9%	5.2%	4.2%	4.7%	1.2%	5.9%
40 to 49	8.5	7.7	3.7	3.7	6.3	1.0	7.3
50 to 59	17.0	16.7	3.0	4.3	3.7	1.1	4.8
60 to 64	14.7	15.4	2.9	9.3	2.6	1.6	4.2
65 to 69	17.6	19.1	3.0	12.5	3.4	1.9	5.3
70 and over	37.8	38.2	3.6	14.2	3.6	1.6	5.2
Sex							
Male	48.2%	51.9%	5.3%	9.0%	6.2%	1.6%	7.8%
Female	51.8	48.1	4.9	10.6	5.2	1.5	6.7
Account Value							
Under \$5,000	1.5%	0.1%	12.8%	2.5%	6.1%	2.7%	8.8%
5,000- 9,999	16.8	4.0	5.0	5.1	4.9	0.9	5.8
10,000-19,999	33.6	15.1	4.7	8.2	4.7	0.9	5.6
20,000-29,999	16.9	13.3	4.9	10.0	4.9	1.0	5.9
30,000-49,999	14.1	17.2	5.3	11.7	5.4	1.5	6.9
50,000 and over	17.1	50.3	5.3	6.7	6.3	1.9	8.2
Distribution System							
Career agent	40.5%	38.3%	4.4%	10.5%	4.8%	1.7%	6.5%
Independent agent	36.5	39.8	4.7	7.4	5.7	1.5	7.2
Stockbroker	3.9	4.9	6.3	5.1	6.3	1.7	8.0
Bank	19.1	17.0	7.4	14.1	7.4	1.3	8.7
Other	0.0	0.0	+	+	+	+	+

+insufficient data.

TABLE A-5

SURRENDER RATES FOR FIXED SPDAS: INTEREST GUARANTEE PERIOD GREATER THAN  
ONE YEAR FOR CONTRACTS WITHOUT SURRENDER CHARGES  
(NUMBER OF CONTRACTS: 3,634; CASH VALUE IN FORCE: \$149,001,122)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	8.0%	8.3%	8.5%	1.5%	10.0%
Type of Plan							
Qualified	14.9%	13.8%	11.6%	27.0%	15.1%	3.5%	18.6%
Nonqualified	85.1	86.2	7.3	5.0	7.5	1.2	8.7
Sex							
Male	56.3%	57.2%	8.0%	8.0%	9.0%	1.4%	10.4%
Female	43.7	42.8	7.9	8.7	7.9	1.5	9.4
Account Value							
Under \$10,000	10.4%	2.0%	8.5%	5.3%	7.2%	0.5%	7.7%
10,000-19,999	27.1	9.7	7.2	6.1	7.2	1.3	8.5
20,000-29,999	19.9	12.0	8.4	8.8	8.2	1.1	9.3
30,000-49,999	19.1	18.0	7.1	10.5	6.8	1.4	8.2
50,000 and over	23.5	58.3	8.9	10.1	9.4	1.6	11.0
Distribution System							
Career agent	19.4%	16.5%	7.5%	6.4%	8.0%	1.1%	9.1%
Independent agent	3.5	3.3	+	+	+	+	+
Stockbroker	69.7%	74.9%	7.8%	9.6%	7.9%	1.6%	9.5%
Bank	4.9	3.2	+	+	+	+	+
Other	2.6	2.1	+	+	+	+	+

+insufficient data.

TABLE A-6

SURRENDER RATES FOR FIXED SPDAs: INTEREST GUARANTEE PERIOD GREATER THAN  
ONE YEAR FOR CONTRACTS WITH A SURRENDER CHARGE  
AND NO FREE FULL SURRENDER PROVISION

(NUMBER OF CONTRACTS: 24,921; CASH VALUE IN FORCE: \$1,014,258,026)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	5.1%	4.7%	6.2%	0.7%	6.9%
Type of Plan							
Qualified	36.8%	34.1%	6.5%	5.3%	7.3%	0.9%	8.2%
Nonqualified	63.2	65.9	4.3	4.3	5.6	0.5	6.1
Attained Age							
Under 40	8.8%	4.9%	6.1%	1.7%	7.7%	0.4%	8.1%
40 to 49	13.9	10.1	6.2	1.4	6.7	0.4	7.1
50 to 59	22.1	21.7	4.5	1.6	5.3	0.4	5.7
60 to 64	16.9	18.0	4.9	3.6	6.1	0.8	6.9
65 to 69	17.6	22.1	5.9	5.9	7.5	0.6	8.1
70 and over	20.7	23.2	4.3	11.1	5.5	1.1	6.6
Sex							
Male	52.2%	60.9%	5.4%	4.0%	6.5%	0.7%	7.2%
Female	47.8	39.1	4.8	5.4	5.7	0.7	6.4
Account Value							
Under \$5,000	11.5%	0.8%	5.6%	1.4%	5.7%	0.3%	6.0%
5,000- 9,999	15.5	2.7	4.9	2.7	5.1	0.5	5.6
10,000-19,999	22.8	7.9	4.7	4.4	4.7	0.6	5.3
20,000-29,999	13.2	8.0	5.2	5.7	5.2	0.7	5.9
30,000-49,999	13.9	13.0	4.6	5.4	4.7	0.5	5.2
50,000 and over	23.1	67.6	5.7	6.8	6.8	0.7	7.5
Distribution System							
Career agent	76.8%	81.6%	5.9%	3.3%	7.0%	0.6%	7.6%
Independent agent	4.6	5.2	1.6	4.8	1.1	0.6	1.7
Stockbroker	1.8	1.4	6.1	3.5	6.1	0.7	6.8
Bank	14.7	9.6	2.7	11.7	2.9	1.5	4.4
Other	2.2	2.1	1.5	4.8	2.7	0.7	3.4



TABLE A-7

SURRENDER RATES FOR FIXED SPDAs: INTEREST GUARANTEE PERIOD GREATER THAN ONE YEAR FOR CONTRACTS WITH A SURRENDER CHARGE AND A BAILOUT PROVISION  
(NUMBER OF CONTRACTS: 18,641; CASH VALUE IN FORCE: \$777,464,921)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	2.0%	6.9%	2.0%	1.1%	3.1%
Type of Plan							
Qualified	28.1%	31.2%	2.3%	11.5%	2.3%	2.0%	4.3%
Nonqualified	71.9	68.8	1.8	5.1	1.9	0.7	2.6
Attained Age							
Under 40	5.9%	4.8%	3.8%	7.1%	2.8%	3.4%	6.2%
40 to 49	10.1	8.2	1.8	2.7	1.7	1.0	2.7
50 to 59	20.4	19.2	1.5	3.4	1.2	0.7	1.9
60 to 64	16.5	17.7	1.4	5.9	1.2	0.8	2.0
65 to 69	19.9	21.9	1.7	8.5	1.5	1.1	2.6
70 and over	27.2	28.1	1.6	10.6	2.1	1.3	3.4
Sex							
Male	51.5%	58.4%	2.0%	7.1%	2.2%	1.3%	3.5%
Female	48.5	41.6	1.9	6.6	1.8	1.0	2.8
Account Value							
Under \$5,000	1.5%	0.1%	+	+	+	+	+
5,000- 9,999	15.5	2.6	1.8	4.0	1.9	0.6	2.5
10,000-19,999	25.3	8.4	1.4	5.4	1.3	0.7	2.0
20,000-29,999	16.9	10.0	1.9	5.7	1.9	0.7	1.6
30,000-49,999	15.9	14.6	2.4	7.9	2.4	0.9	3.3
50,000 and over	24.9	64.3	2.1	10.3	2.1	1.3	3.4
Distribution System							
Career agent	13.0%	11.5%	3.9%	21.1%	3.4%	4.0%	7.4%
Independent agent	63.6	67.0	1.6	5.1	1.9	0.8	2.7
Stockbroker	15.7	16.3	1.5	3.5	1.7	0.6	2.3
Bank	7.6	5.3	2.2	4.0	1.8	0.9	2.7

+insufficient data.

TABLE A-8

SURRENDER RATES FOR FIXED SPDAS: INTEREST GUARANTEE PERIOD GREATER THAN ONE YEAR FOR CONTRACTS WITH A SURRENDER CHARGE AND A WINDOW PROVISION  
(NUMBER OF CONTRACTS: 38,863; CASH VALUE IN FORCE: \$1,470,765,494)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	8.3%	5.9%	8.5%	0.8%	9.3%
Type of Plan							
Qualified	20.3%	22.3%	8.3%	9.9%	8.5%	1.4%	9.9%
Nonqualified	79.7	77.7	8.3	4.9	8.5	0.7	9.2
Attained Age							
Under 40	4.3%	3.6%	10.7%	3.5%	9.8%	1.9%	11.7%
40 to 49	7.3	6.3	10.3	2.4	12.3	0.4	12.7
50 to 59	16.1	15.7	7.9	2.6	9.4	0.5	9.9
60 to 64	17.7	18.6	7.2	5.0	7.2	0.8	8.0
65 to 69	21.6	21.7	8.7	6.9	8.5	0.9	9.4
70 and over	33.0	34.0	8.1	8.5	8.1	1.0	9.1
Sex							
Male	52.6%	54.9%	8.6%	5.5%	8.6%	0.8%	9.4%
Female	47.4	45.1	8.0	6.4	8.4	0.9	9.3
Account Value							
Under \$5,000	0.6%	0.0%	+	+	+	+	+
5,000-9,999	15.6	2.9	9.3	3.1	9.3	0.5	9.8
10,000-19,999	29.6	10.9	8.1	4.1	8.1	0.5	8.6
20,000-29,999	17.0	11.0	7.9	5.9	7.9	0.6	8.5
30,000-49,999	15.1	15.1	7.9	7.6	7.9	0.8	8.7
50,000 and over	22.1	60.0	8.6	9.5	8.8	1.0	9.8
Distribution System							
Career agent	3.9%	3.4%	3.5%	3.9%	5.7%	1.5%	7.2%
Stockbroker	51.2	56.4	7.1	6.2	7.9	0.7	8.6
Bank	9.5	11.3	7.4	7.1	9.2	0.7	9.9
Other	35.5	28.8	12.8	6.1	13.1	1.2	14.3

+insufficient data.

TABLE A-9

SURRENDER RATES FOR SPVAs: CONTRACTS WITHOUT A SURRENDER CHARGE  
(NUMBER OF CONTRACTS: 5,067; Cash Value in Force: \$187,929,584)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	6.6%	6.3%	9.4%	1.5%	10.9%
Type of Plan							
IRA	32.9%	19.4%	6.3%	5.1%	7.5%	2.4%	9.9%
403(b)	4.2	6.0	-	+	+	+	+
Other qualified	4.3	7.2	+	+	+	+	+
Nonqualified	58.7	67.4	6.4	6.8	8.7	1.3	10.0
Attained Age							
Under 40	9.1%	4.2%	7.2%	3.2%	11.6%	1.7%	13.3%
40 to 49	17.7	10.6	6.0	2.2	5.1	0.8	5.9
50 to 59	25.0	23.2	5.4	2.7	8.5	0.8	9.3
60 to 64	15.6	18.0	6.6	6.1	9.0	1.8	10.8
65 to 69	15.0	17.4	7.2	10.3	8.6	1.5	10.1
70 and over	17.7	26.6	8.1	13.8	12.4	2.1	14.5
Sex							
Male	58.4%	64.7%	6.7%	5.6%	10.9%	1.1%	12.0%
Female	41.6	35.3	6.5	7.2	6.7	2.1	8.8
Account Value							
Under \$5,000	12.0%	1.0%	7.5%	1.5%	6.5%	0.6%	7.1%
5,000- 9,999	15.4	3.2	6.5	2.9	6.5	0.8	7.3
10,000-19,999	23.4	9.4	5.6	5.7	5.5	0.9	6.4
20,000-29,999	14.5	9.6	6.1	7.0	6.2	1.3	7.5
30,000-49,999	15.1	15.6	5.9	7.9	5.8	1.0	6.8
50,000 and over	19.5	61.1	8.3	10.7	11.6	1.8	13.4
Distribution System							
Career agent	45.1%	41.8%	6.2%	7.5%	8.0%	2.0%	10.0%
Stockbroker	43.0	45.3	6.9	5.3	11.9	1.2	13.1
Bank	11.9	13.0	7.1	4.9	5.1	0.9	6.0

+insufficient data.

TABLE A-10

SURRENDER RATES FOR SPVAs: CONTRACTS WITH A SURRENDER CHARGE  
(NUMBER OF CONTRACTS: 69,314; CASH VALUE IN FORCE: \$2,204,162,293)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	2.3%	7.2%	1.8%	1.6%	3.4%
Type of Plan							
IRA	40.6%	34.6%	2.4%	7.5%	1.9%	2.3%	4.2%
403(b)	4.0	2.3	3.5	3.9	1.2	1.0	2.2
Other qualified	5.0	3.9	6.4	3.9	4.0	3.2	7.2
Nonqualified	51.0	59.2	1.7	7.5	1.6	1.1	2.7
Attained Age							
Under 40	15.3%	6.4%	3.9%	2.2%	2.3%	1.5%	3.8%
40 to 49	20.1	14.2	2.5	2.5	1.7	1.4	3.1
50 to 59	24.4	24.9	1.8	3.5	1.2	1.0	2.2
60 to 64	12.5	15.8	1.9	9.8	1.6	1.9	3.5
65 to 69	11.4	15.3	1.9	12.1	1.9	1.9	3.8
70 and over	16.2	23.4	1.9	17.7	2.5	1.8	4.3
Sex							
Male	55.8%	61.1%	2.3%	7.2%	1.8%	1.6%	3.4%
Female	44.2	38.9	2.3	7.2	1.8	1.4	3.2
Account Value							
Under \$5,000	19.8%	1.3%	4.2%	1.2%	3.5%	1.0%	4.5%
5,000- 9,999	13.7	3.0	2.6	3.0	2.6	0.7	3.3
10,000-19,999	22.4	9.8	2.0	5.3	2.0	0.8	2.8
20,000-29,999	13.5	10.2	1.5	7.3	1.5	0.9	2.4
30,000-49,999	12.3	14.7	1.6	10.5	1.6	1.1	2.7
50,000 and over	18.4	61.0	1.5	16.5	1.8	1.9	3.7
Distribution System							
Career agent	26.9%	23.8%	3.5%	6.3%	2.7%	2.2%	4.9%
Stockbroker	54.7	58.1	1.6	7.4	1.3	1.3	2.6
Bank	18.5	18.1	2.6	7.7	2.4	1.5	3.9

--insufficient data.

TABLE A-11

SURRENDER RATES FOR FIXED FPDAs: SURRENDER CHARGES BASED ON YEARS SINCE ISSUE  
 FOR CONTRACTS WITHOUT A SURRENDER CHARGE  
 (NUMBER OF CONTRACTS: 31,614; CASH VALUE IN FORCE: \$609,856,241)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	6.7%	7.3%	6.3%	1.5%	7.8%
Type of Plan							
IRA	62.7%	45.2%	6.5%	6.7%	6.1%	1.6%	7.7%
403(b)	23.0	36.5	6.5	11.1	5.6	1.5	7.1
Other qualified	6.6	12.8	10.6	3.7	9.3	1.2	10.5
Nonqualified	7.6	5.5	5.4	2.8	4.6	1.6	6.2
Attained Age							
Under 40	8.9%	4.6%	7.9%	6.1%	7.6%	1.9%	9.5%
40 to 49	18.5	15.5	6.5	4.6	7.4	1.2	8.6
50 to 59	21.0	25.1	5.7	3.3	6.0	0.8	6.8
60 to 64	22.6	25.0	6.4	4.2	6.1	1.3	7.4
65 to 69	21.5	22.2	6.1	6.3	5.2	1.6	6.8
70 and over	7.5	7.6	11.0	39.1	7.8	4.2	12.0
Sex							
Male	53.4%	55.9%	7.1%	7.1%	7.0%	1.7%	8.7%
Female	46.6	44.1	6.3	7.4	5.3	1.2	6.5
Account Value							
Under \$5,000	28.3%	3.7%	7.1%	4.5%	7.6%	1.3%	8.9%
5,000- 9,999	17.4	6.6	7.1	9.0	7.0	2.0	9.0
10,000-19,999	23.5	17.8	6.7	8.6	6.6	1.7	8.3
20,000-29,999	13.6	17.2	6.3	7.1	6.3	1.2	7.5
30,000-49,999	10.0	19.6	5.8	7.5	5.8	1.2	7.0
50,000 and over	7.2	35.0	6.0	9.6	6.1	1.6	7.7
Distribution System							
Career agent	81.3%	83.1%	7.1%	7.8%	6.5%	1.4%	7.9%
Independent agent	8.2	5.2	9.9	2.2	14.0	1.3	15.3
Direct response	3.4	6.0	3.1	4.6	2.8	2.7	5.5
Other	7.1	5.7	0.0	8.5	0.0	1.6	1.6

TABLE A-12

SURRENDER RATES FOR FIXED FPDAs: SURRENDER CHARGES BASED ON YEARS SINCE ISSUE  
FOR CONTRACTS WITH A SURRENDER CHARGE  
(NUMBER OF CONTRACTS: 128,854; CASH VALUE IN FORCE: \$1,678,967,734)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	4.3%	4.0%	3.9%	1.5%	5.4%
Type of Plan							
IRA	70.3%	56.9%	4.1%	2.7%	3.9%	1.1%	5.0%
403(b)	14.6	17.9	4.5	8.8	3.6	1.4	5.0
Other qualified	5.1	10.8	8.3	7.4	6.0	3.8	9.8
Nonqualified	10.1	14.5	3.5	4.5	2.5	1.1	3.6
Attained Age							
Under 40	20.6%	12.3%	5.6%	4.2%	5.0%	3.2%	8.2%
40 to 49	28.6	23.0	4.2	2.6	4.0	1.0	5.0
50 to 59	29.8	32.2	3.4	1.9	3.3	0.8	4.1
60 to 64	11.2	15.7	4.4	4.3	4.0	1.4	5.4
65 to 69	6.0	10.0	3.9	6.9	3.5	1.5	5.0
70 and over	3.7	6.8	5.9	26.2	4.5	2.7	7.2
Sex							
Male	50.7%	59.2%	4.7%	4.2%	4.3%	1.7%	6.0%
Female	49.3	40.8	3.9	3.9	3.3	1.0	4.3
Account Value							
Under \$5,000	42.0%	7.5%	5.0%	2.5%	4.8%	1.1%	5.9%
5,000- 9,999	20.6	11.4	4.0	3.8	4.0	1.1	5.1
10,000-19,999	20.4	22.5	3.7	4.6	3.7	1.0	4.7
20,000-29,999	8.0	14.9	3.6	5.2	3.5	1.0	4.5
30,000-49,999	5.1	14.7	3.4	6.3	3.3	1.0	4.3
50,000 and over	3.8	29.0	4.3	13.7	4.1	2.5	6.6
Distribution System							
Career agent	47.7%	42.9%	4.8%	4.7%	4.1%	1.5%	5.6%
Independent agent	10.6	10.9	4.8	2.6	4.7	1.7	6.4
Bank	0.1%	0.1%	+	+	+	+	+
Direct Response	37.2	42.3	4.0	3.9	3.7	1.4	5.1
Other	4.3	3.7	0.0	1.9	0.0	0.8	0.8

+insufficient data.

TABLE A-13

SURRENDER RATES FOR VARIABLE FPDAS: SURRENDER CHARGES BASED ON YEARS SINCE ISSUE  
 FOR CONTRACTS WITHOUT A SURRENDER CHARGE  
 (NUMBER OF CONTRACTS: 2,952; CASH VALUE IN FORCE: \$103,305,817)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	8.4%	0.5%	8.1%	0.1%	8.2%
Type of Plan							
IRA	63.7%	49.1%	8.9%	0.3%	8.9%	0.1%	9.0%
403(b)	30.7	39.9	7.4	0.8	6.3	0.1	6.4
Other qualified	1.2	1.6	+	+	+	+	+
Nonqualified	4.3	9.3	+	+	+	+	+
Attained Age							
Under 40	9.6%	3.5%	+	+	+	+	+
40 to 49	27.4	18.9	8.9	0.3	8.8	0.1	8.9
50 to 59	31.1	30.8	6.6	0.1	5.2	0.0	5.2
60 to 64	14.3	18.2	9.2	0.5	7.8	0.1	7.9
65 and over	17.6	28.6	8.1	1.6	10.0	0.1	10.1
Sex							
Male	52.6%	62.9%	8.7%	0.7%	8.3%	0.1%	8.4%
Female	47.4	37.1	8.0	0.3	7.7	0.1	7.8
Account Value							
Under \$5,000	18.6%	1.5%	8.2%	0.2%	9.4%	0.1%	9.5%
5,000- 9,999	14.0	3.0	9.4	0.3	9.9	0.2	10.1
10,000-19,999	21.9	9.3	10.8	0.5	11.1	0.0	11.1
20,000-29,999	14.1	9.9	8.4	0.5	8.5	0.3	8.8
30,000-49,999	12.9	14.1	6.1	0.5	5.9	0.2	6.1
50,000 and over	18.6	62.3	6.4	0.9	7.9	0.0	7.9

+insufficient data.

Note: Distribution for this table was 100% career agent.

TABLE A-14

SURRENDER RATES FOR VARIABLE FPDAS; SURRENDER CHARGES BASED ON YEARS SINCE ISSUE  
FOR CONTRACTS WITH A SURRENDER CHARGE  
(NUMBER OF CONTRACTS: 42,849; CASH VALUE IN FORCE: \$629,769,178)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	3.3%	2.5%	3.0%	0.9%	4.1%
Type of Plan							
IRA	51.8%	44.4%	3.2%	2.2%	3.0%	1.2%	4.2%
403(b)	14.2	8.7	4.9	0.8	3.3	0.4	3.7
Other qualified	4.7	7.6	4.5	3.5	2.1	1.1	3.2
Nonqualified	29.3	39.2	2.4	3.5	3.0	0.7	3.7
Attained Age							
Under 40	22.1%	8.5%	5.0%	0.8%	4.2%	0.5%	4.7%
40 to 49	24.8	18.1	3.8	1.0	4.0	0.7	4.7
50 to 59	24.4	25.0	2.7	1.0	3.3	0.6	3.9
60 to 64	10.6	16.1	2.5	3.8	2.1	1.4	3.5
65 to 69	8.5	14.7	2.1	4.9	2.6	1.1	3.7
70 and over	9.6	17.6	1.3	10.2	2.0	1.3	3.3
Sex							
Male	51.5%	61.5%	3.5%	2.4%	3.5%	1.0%	4.5%
Female	48.5	38.5	3.0	2.6	2.1	0.9	3.0
Account Value							
Under \$5,000	51.7%	4.8%	3.6%	2.2%	4.6%	6.7%	11.3%
5,000- 9,999	15.1	7.4	3.4	1.0	3.3	0.4	3.7
10,000-19,999	14.8	14.1	3.0	2.1	3.0	0.5	3.5
20,000-29,999	6.5	10.7	2.6	3.3	2.7	0.5	3.2
30,000-49,999	5.6	14.6	2.6	4.8	2.6	0.6	3.2
50,000 and over	6.3	48.4	2.6	6.7	3.0	0.8	3.8
Distribution System							
Career agent	97.9%	95.4%	3.3%	2.5%	3.0%	1.0%	4.0%
Independent agent	2.1	4.6	1.2	0.0	1.6	0.0	1.6



TABLE A-15

SURRENDER RATES FOR FIXED FPDAs: SURRENDER CHARGES BASED ON YEARS SINCE DEPOSIT  
(NUMBER OF CONTRACTS: 43,802; CASH VALUE IN FORCE: \$662,215,678)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	7.3%	5.8%	6.0%	2.1%	8.1%
Type of Plan							
IRA	43.4%	28.1%	7.0%	5.1%	5.5%	2.6%	8.1%
403(b)	9.5	5.9	8.1	4.3	5.2	1.5	6.7
Other qualified	5.8	4.9	18.8	2.8	11.0	4.3	15.3
Nonqualified	41.2	61.1	5.8	7.2	5.9	1.7	7.6
Attained Age							
Under 40	18.4%	6.4%	11.3%	3.4%	9.2%	3.4%	12.6%
40 to 49	18.9	11.8	8.5	2.9	7.6	2.3	9.9
50 to 59	22.1	20.4	6.5	2.9	5.5	1.3	6.8
60 to 64	13.1	17.2	6.0	6.9	4.1	2.5	6.6
65 to 69	13.3	19.9	4.8	9.4	5.9	2.1	8.0
70 and over	14.1	24.3	5.3	12.1	6.2	2.1	8.3
Sex							
Male	48.6%	53.3%	7.6%	5.8%	6.2%	2.2%	8.4%
Female	51.4	46.7	7.0	5.7	5.8	1.9	7.7
Account Value							
Under \$5,000	44.0%	5.5%	9.0%	2.5%	9.2%	2.8%	12.0%
5,000-9,999	13.2	6.1	7.4	4.6	7.4	1.5	8.9
10,000-19,999	21.2	18.3	5.7	6.5	5.8	1.4	7.2
20,000-29,999	8.6	13.3	4.7	9.0	4.7	1.7	6.4
30,000-49,999	5.9	14.6	4.8	12.0	4.7	2.0	6.7
50,000 and over	7.0	42.4	6.4	15.6	6.3	2.6	8.9
Distribution System							
Career agent	72.9%	54.4%	7.6%	5.3%	5.8%	2.7%	8.5%
Independent agent	1.1	3.2	2.8	4.7	2.4	1.9	4.3
Stockbroker	8.0	22.2	8.2	4.7	8.2	1.1	9.3
Bank	14.8	18.1	5.8	9.0	4.9	1.5	6.4
Other	3.2	2.0	5.9	5.3	2.6	1.4	4.0

TABLE A-16

SURRENDER RATES FOR VARIABLE FPDAs: SURRENDER CHARGES  
 BASED ON YEARS SINCE DEPOSIT  
 (NUMBER OF CONTRACTS: 183,739; CASH VALUE IN FORCE: \$3,261,612,439)

	Percentage of Contracts	Percentage of Cash Values	Contract Withdrawal Rate		Cash Value Withdrawal Rate		
			Full	Partial	Full	Partial	Total
All Contracts	100.0%	100.0%	4.0%	4.3%	3.2%	1.5%	4.7%
Type of Plan							
IRA	46.5%	35.4%	3.9%	3.8%	2.9%	1.6%	4.5%
403(b)	16.0	10.3	2.5	3.0	3.5	1.0	4.5
Other qualified	9.1	9.3	9.9	4.1	5.3	2.7	8.0
Nonqualified	28.5	44.9	3.1	6.0	3.0	1.3	4.3
Attained Age							
Under 40	21.6%	9.3%	5.4%	2.8%	3.6%	2.1%	5.7%
40 to 49	26.0	20.2	3.8	2.5	3.0	1.4	4.4
50 to 59	25.9	29.1	3.2	2.6	3.0	0.9	3.9
60 to 64	11.1	15.7	4.1	6.1	3.3	1.7	5.0
65 to 69	8.5	13.4	3.8	8.2	3.0	1.7	4.7
70 and over	6.9	12.4	3.5	14.0	4.0	2.0	6.0
Sex							
Male	52.7%	60.9%	4.3%	4.5%	3.4%	1.6%	5.0%
Female	47.3	39.1	3.6	4.1	3.0	1.3	4.3
Account Value							
Under \$5,000	43.2%	4.3%	4.7%	2.7%	5.1%	4.0%	9.1%
5,000- 9,999	16.0	6.5	4.2	3.5	4.1	1.1	5.2
10,000-19,999	17.7	14.1	3.5	4.2	3.5	1.1	4.6
20,000-29,999	8.3	11.4	3.1	5.5	3.1	1.1	4.2
30,000-49,999	6.9	14.7	2.8	6.9	2.8	1.2	4.0
50,000 and over	7.9	49.0	3.0	11.2	3.0	1.7	4.7
Distribution System							
Career agent	62.8%	49.1%	3.7%	3.8%	2.6%	1.6%	4.2%
Independent agent	22.3	30.9	5.0	6.6	4.0	1.4	5.4
Stockbroker	4.5	12.6	5.4	4.3	3.6	1.4	5.0
Bank	2.9	3.5	4.5	2.1	4.2	0.6	4.8
Other	7.5	3.9	2.3	2.7	3.2	1.1	4.3

**APPENDIX B  
PARTICIPATING COMPANIES**

Amica Life  
Connecticut General Life  
Connecticut Mutual Life  
Equitable Life of the United States  
FB Annuity (Michigan)  
First Colony Life  
General American Life  
Great Northern Insured Annuity (GNA)  
The Hartford  
Keyport Life  
Lafayette Life  
Lutheran Brotherhood  
Manufacturers Life  
MetLife  
Midland Life  
Minnesota Mutual Life  
Mutual Trust Life  
Nationwide Life  
Northwestern Mutual Life  
Phoenix Home Life Mutual  
Principal Mutual Life  
Provident Mutual Life of Philadelphia  
Pruco Life (Arizona)  
Pruco Life of New Jersey  
Prudential of America  
Teachers Insurance and Annuity of America\*  
USAA Life  
Woodmen Accident And Life

\* Nonqualified business only.

APPENDIX C  
INSTRUCTIONS FOR SUBMITTING DATA

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INSTRUCTIONS FOR SUBMITTING DATA TO THE 1995 ANNUITY  
PERSISTENCY STUDY JOINTLY SPONSORED BY LIMRA AND THE  
SOCIETY OF ACTUARIES

The targeted date for submitting data is March 31, 1996. Early submission of data is welcome, as it will help us with early data preparation and system testing. We also realize some companies will be unable to meet this target date. Late submission of data is acceptable; however, data submission after May 31, 1996 may be too late to be included in the analysis. Submit data to:

Eric T. Sondergeld  
Industry Performance Research  
LIMRA International  
300 Day Hill Road  
Windsor, CT 06095-4761

If you have any questions, please call Eric Sondergeld at (860) 285-7754.

*Introduction*

This document describes the procedures for submitting data for the 1995 persistency and cash-flow study of deferred annuities. This study will develop appropriate formulas for measuring deferred annuity persistency and cash flow; collect data required by the formulas; and identify and quantify factors affecting deferred annuity persistency and cash flow.

*Confidentiality of Data*

LIMRA has been conducting persistency studies for many years and realizes the importance of maintaining utmost confidentiality of data. LIMRA and the Society of Actuaries assure you that company data will not be published in any way that will allow identification of individual companies. All company data will be confidential unless otherwise authorized by your company.

*Products to Include*

Submit data on all deferred annuity products. Include fixed and variable contracts. Include single-premium and flexible-premium products.

Include individually issued products, individual products marketed on a group basis, and group products marketed on an individual basis. Group products marketed on an individual basis feature a master group contract and trust agreement. The participants are issued certificates as evidence of participation and have the rights to full or partial surrender of cash values.

Exclude employer-sponsored group annuity products and group annuities used to fund defined benefit and defined contribution plans.

### ***Contract Years of Observation***

Please provide data for contract years 1992 and 1993. Contract year 1992 refers to experience of contracts between their 1992 and 1993 anniversaries and includes all contracts issued in 1992 and earlier. Contract year 1993 refers to experience of contracts between their 1993 and 1994 anniversaries and includes all contracts issued in 1993 and earlier. If available, please also submit data for contract years 1990 and 1991 for variable and/or flexible-premium products.

### ***Description of Information to Be Submitted***

The data requested for this study fall into two categories:

1. Information describing the deferred annuity products your company includes in this study.
2. Information at the individual contract level

### ***Section 1. Procedure for Submitting Product Information***

For each product your company includes in this study, whether or not the product is currently being sold, briefly describe the product features by completing the form that follows. You may copy this form for different products, product versions, and distribution systems corresponding to the individual contract level data included in this survey.

## **SECTION 1 — FORM FOR SUBMITTING PRODUCT INFORMATION**

Completed by \_\_\_\_\_ Title \_\_\_\_\_  
 Company \_\_\_\_\_ Date \_\_\_\_\_  
 Phone number \_\_\_\_\_ Fax number \_\_\_\_\_

*Please copy this form for additional products and product versions  
 for which your company supplies contract level data.  
 Add comments or attachments where necessary.*

Indicate product names.

Product I	Product II	Product III

Indicate specific plan codes for each product and each version of a product for which you submit data.

--	--	--

A. *General Product Information*

	Product I	Product II	Product III
1. In what year was each product introduced?			
2. In what year was each product withdrawn?	<sup>1</sup> <input type="checkbox"/> 19__ <sup>2</sup> <input type="checkbox"/> Still actively sold	<sup>1</sup> <input type="checkbox"/> 19__ <sup>2</sup> <input type="checkbox"/> Still actively sold	<sup>1</sup> <input type="checkbox"/> 19__ <sup>2</sup> <input type="checkbox"/> Still actively sold
3a. In what year(s) was each product revised?			
3b. Briefly describe the revision.	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
3c. Was the revision applied to in-force contracts as well as new sales?	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes

4. Product type. Include market value adjusted annuities (MVAs) as fixed, whether or not they are registered with the Securities and Exchange Commission.

Product I	Product II	Product III
<sup>1</sup> <input type="checkbox"/> Fixed <sup>2</sup> <input type="checkbox"/> Variable <sup>3</sup> <input type="checkbox"/> Combination (variable annuity with at least one fixed option)	<sup>1</sup> <input type="checkbox"/> Fixed <sup>2</sup> <input type="checkbox"/> Variable <sup>3</sup> <input type="checkbox"/> Combination (variable annuity with at least one fixed option)	<sup>1</sup> <input type="checkbox"/> Fixed <sup>2</sup> <input type="checkbox"/> Variable <sup>3</sup> <input type="checkbox"/> Combination (variable annuity with at least one fixed option)

5. What is the primary expectation for premium payments for each product (i.e., single-premium products are those where the expectation is for a single deposit, although products allowing additional deposits still apply)?

Product I	Product II	Product III
<sup>1</sup> <input type="checkbox"/> Single-premium <sup>2</sup> <input type="checkbox"/> Flexible-premium	<sup>1</sup> <input type="checkbox"/> Single-premium <sup>2</sup> <input type="checkbox"/> Flexible-premium	<sup>1</sup> <input type="checkbox"/> Single-premium <sup>2</sup> <input type="checkbox"/> Flexible-premium

6. What is the annual contract fee subtracted from customer accounts?

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7. Does this product have a front-end load?

<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, specify _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, specify ____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, specify _____ _____
---	--	---

***B. Fixed Annuities and Combination Annuities (fixed component)***

Please answer the following questions for those products that you indicated as fixed annuities or combination annuities in question 4 above. For combination annuities, answer the following questions specific to the fixed option(s) in these products.

## 8. What type of fixed annuity are these products?

Product I	Product II	Product III
<sup>1</sup> <input type="checkbox"/> Book value	<sup>1</sup> <input type="checkbox"/> Book value	<sup>1</sup> <input type="checkbox"/> Book value
<sup>2</sup> <input type="checkbox"/> Market value adjusted	<sup>2</sup> <input type="checkbox"/> Market value adjusted	<sup>2</sup> <input type="checkbox"/> Market value adjusted
<sup>3</sup> <input type="checkbox"/> Other (describe) _____ _____	<sup>3</sup> <input type="checkbox"/> Other (describe) _____ _____	<sup>3</sup> <input type="checkbox"/> Other (describe) _____ _____

## 9. How long is the initial current credited rate guaranteed? Include whether this period is on a calendar-year basis or a contract-year basis.

_____	_____	_____
-------	-------	-------

## 9a. What is the minimum guaranteed credited interest rate offered for the life of the contract?

_____	_____	_____
-------	-------	-------

## 9b. The following methods are used to credit interest to customer accounts. Please read each method carefully and determine which method most closely describes the method used with each product. Explain where necessary.

1. New-money or cell approach - New-money rates are applied to new deposits; renewal rates are applied to existing deposits. Give the number of years after which all existing deposits are combined for the purpose of determining renewal rates.
2. New-money rates are applied at the beginning of each guarantee period. The same interest rate is applied to renewing interest guarantee periods as to new deposits for the same interest guarantee period. Most MVAs will likely fall into this category.
3. Portfolio - All deposits earn the same interest rate regardless of when the deposits are made.
4. Indexed - Interest rates are based on an external index. Please specify the index and how it is used in the line provided.



5. Other - Please explain in the line provided.

	<u>Method</u>	
Product I	_____	_____
		_____
Product II	_____	_____
		_____
Product III	_____	_____
		_____
		_____

9c. Do these products have higher interest rates for “large” contracts (i.e., rates are banded)?

Product I	Product II	Product III
<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, higher rate on larger deposits (describe) _____ _____ <sup>3</sup> <input type="checkbox"/> Yes, higher rate on larger account values (describe) _____ _____ <sup>4</sup> <input type="checkbox"/> Yes, other (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, higher rate on larger deposits (describe) _____ _____ <sup>3</sup> <input type="checkbox"/> Yes, higher rate on larger account values (describe) _____ _____ <sup>4</sup> <input type="checkbox"/> Yes, other (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, higher rate on larger deposits (describe) _____ _____ <sup>3</sup> <input type="checkbox"/> Yes, higher rate on larger account values (describe) _____ _____ <sup>4</sup> <input type="checkbox"/> Yes, other (describe) _____ _____

9d. Is an initial bonus interest rate applied to these products?

Product I	Product II	Product III
<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes If yes, a. What is the size of the bonus? ____% b. How long is the bonus interest effective? ____ years	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes If yes, a. What is the size of the bonus? ____% b. How long is the bonus interest effective? ____ years	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes If yes, a. What is the size of the bonus? ____% b. How long is the bonus interest effective? ____ years

10. Does the product have a contract persistency bonus?

<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, stepped-up credited rate after ____ years <sup>3</sup> <input type="checkbox"/> Yes, other (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, stepped-up credited rate after ____ years <sup>3</sup> <input type="checkbox"/> Yes, other (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes, stepped-up credited rate after ____ years <sup>3</sup> <input type="checkbox"/> Yes, other (describe) _____ _____
---	---	---

*C. Variable Annuities and Combination Annuities*

Please answer the following questions for those products that you indicated as variable annuities and combination annuities in question 4.

11. How many fund choices are there under these products?

Product I	Product II	Product III
_____	_____	_____

12. Do these products have a fixed account?

<sup>1</sup> <input type="checkbox"/> No (Go to question 13) <sup>2</sup> <input type="checkbox"/> Yes	<sup>1</sup> <input type="checkbox"/> No (Go to question 13) <sup>2</sup> <input type="checkbox"/> Yes	<sup>1</sup> <input type="checkbox"/> No (Go to question 13) <sup>2</sup> <input type="checkbox"/> Yes
---	---	---

Describe how this fixed account works.

_____	_____	_____
_____	_____	_____
_____	_____	_____

Are there any transfer restrictions with this fixed account?

Product I	Product II	Product III
1 <input type="checkbox"/> No	1 <input type="checkbox"/> No	1 <input type="checkbox"/> No
2 <input type="checkbox"/> Yes (explain) _____	2 <input type="checkbox"/> Yes (explain) _____	2 <input type="checkbox"/> Yes (explain) _____
_____	_____	_____
_____	_____	_____

13. Describe the death benefits available under these products.

_____	_____	_____
_____	_____	_____
_____	_____	_____

**D. Flexible-premium products.**

Please answer the following question for those products you indicated as flexible-premium in question 5.

14. Is this product sold on a payroll deduction basis?

Product I	Product II	Product III
1 <input type="checkbox"/> No	1 <input type="checkbox"/> No	1 <input type="checkbox"/> No
2 <input type="checkbox"/> Yes, some sales	2 <input type="checkbox"/> Yes, some sales	2 <input type="checkbox"/> Yes, some sales
3 <input type="checkbox"/> Yes, all sales	3 <input type="checkbox"/> Yes, all sales	3 <input type="checkbox"/> Yes, all sales

**E. Surrender Charges**

15. What type of surrender charge is used?

Product I	Product II	Product III
1 <input type="checkbox"/> None	1 <input type="checkbox"/> None	1 <input type="checkbox"/> None
2 <input type="checkbox"/> Based on years since contract issued	2 <input type="checkbox"/> Based on years since contract issued	2 <input type="checkbox"/> Based on years since contract issued
3 <input type="checkbox"/> Based on years since deposit	3 <input type="checkbox"/> Based on years since deposit	3 <input type="checkbox"/> Based on years since deposit
4 <input type="checkbox"/> Other (describe) _____	4 <input type="checkbox"/> Other (describe) _____	4 <input type="checkbox"/> Other (describe) _____
_____	_____	_____
_____	_____	_____

16. What is the surrender charge schedule?

Product I		Product II		Product III	
Year	Percent %	Year	Percent %	Year	Percent %
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

17. Are penalty-free withdrawals available under these products?

<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes (describe) _____ _____
---	---	---

18. Describe free look and guaranteed return of principal provisions under these products.

_____	_____	_____
_____	_____	_____
_____	_____	_____

19. Do these products have bailout provisions?

<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes If yes, a. What is the level of the bailout? _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes If yes, a. What is the level of the bailout? _____ _____	<sup>1</sup> <input type="checkbox"/> No <sup>2</sup> <input type="checkbox"/> Yes If yes, a. What is the level of the bailout? _____ _____
b. Describe how the provision works. _____ _____	b. Describe how the provision works. _____ _____	b. Describe how the provision works. _____ _____

**F. Distribution and Compensation**

20. Indicate the **primary** distribution system used to distribute these products.

Product I	Product II	Product III
<sup>1</sup> <input type="checkbox"/> Career agent <sup>2</sup> <input type="checkbox"/> Independent agent (include PPGA and brokerage) <sup>3</sup> <input type="checkbox"/> Stockbrokers <sup>4</sup> <input type="checkbox"/> Banks <sup>5</sup> <input type="checkbox"/> Direct response <sup>6</sup> <input type="checkbox"/> Other (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> Career agent <sup>2</sup> <input type="checkbox"/> Independent agent (include PPGA and brokerage) <sup>3</sup> <input type="checkbox"/> Stockbrokers <sup>4</sup> <input type="checkbox"/> Banks <sup>5</sup> <input type="checkbox"/> Direct response <sup>6</sup> <input type="checkbox"/> Other (describe) _____ _____	<sup>1</sup> <input type="checkbox"/> Career agent <sup>2</sup> <input type="checkbox"/> Independent agent (include PPGA and brokerage) <sup>3</sup> <input type="checkbox"/> Stockbrokers <sup>4</sup> <input type="checkbox"/> Banks <sup>5</sup> <input type="checkbox"/> Direct response <sup>6</sup> <input type="checkbox"/> Other (describe) _____ _____

21. Indicate **other** distribution systems used to distribute these products. (Check all that apply.)

<input type="checkbox"/> Career agent <input type="checkbox"/> Independent agent (include PPGA and brokerage) <input type="checkbox"/> Stockbrokers <input type="checkbox"/> Banks <input type="checkbox"/> Direct response <input type="checkbox"/> Other (describe) _____ _____	<input type="checkbox"/> Career agent <input type="checkbox"/> Independent agent (include PPGA and brokerage) <input type="checkbox"/> Stockbrokers <input type="checkbox"/> Banks <input type="checkbox"/> Direct response <input type="checkbox"/> Other (describe) _____ _____	<input type="checkbox"/> Career agent <input type="checkbox"/> Independent agent (include PPGA and brokerage) <input type="checkbox"/> Stockbrokers <input type="checkbox"/> Banks <input type="checkbox"/> Direct response <input type="checkbox"/> Other (describe) _____ _____
--	--	--

22. What are the commission schedules (excluding overrides) for these products for the primary distribution system (as specified in question 20 above)? If the commission schedule cannot be summarized in the format below (i.e., commissions vary by size of deposit or age of annuitant), please provide this information on a separate sheet.

Product I			Product II			Product III		
Year(s)	Percent of Prem.	Percent of Assets	Year(s)	Percent of Prem.	Percent of Assets	Year(s)	Percent of Prem.	Percent of Assets
	____%	____%		____%	____%		____%	____%
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

23. Are there chargebacks of commissions for contracts that lapse in the first contract year?

<sup>1</sup> <input type="checkbox"/> No	<sup>1</sup> <input type="checkbox"/> No	<sup>1</sup> <input type="checkbox"/> No
<sup>2</sup> <input type="checkbox"/> Yes (describe) _____	<sup>2</sup> <input type="checkbox"/> Yes (describe) _____	<sup>2</sup> <input type="checkbox"/> Yes (describe) _____
_____	_____	_____

24. Does the producer receive a persistency bonus?

<sup>1</sup> <input type="checkbox"/> No	<sup>1</sup> <input type="checkbox"/> No	<sup>1</sup> <input type="checkbox"/> No
<sup>2</sup> <input type="checkbox"/> Yes (describe) _____	<sup>2</sup> <input type="checkbox"/> Yes (describe) _____	<sup>2</sup> <input type="checkbox"/> Yes (describe) _____
_____	_____	_____

*G. Other*

25. Is there anything else that you would like to add about your company's annuity products? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

26. In addition to information collected in this section and at the contract level, what else might impact the persistency of your company's annuity contracts? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## SECTION 2 — PROCEDURES FOR SUBMITTING CONTRACT LEVEL INFORMATION

The information at the individual contract level will be submitted on a seriatim basis for a random sample of contracts from your company's in-force business for a given contract year of observation. **The sample should be drawn from "Number of contracts in force" at the beginning of the contract year** (i.e., on each contract's anniversary), including any new contracts sold during that year. It should include both contracts that remain in force until their next contract anniversaries and contracts that are surrendered. Use the table below to determine the appropriate number of contracts to submit. The number of contracts in force includes all products and product versions and the minimum sample size to submit should be based on all products and product versions combined.

<u>Number of Contracts in force</u>	<u>Sample size to submit</u>
Less than 50,000	10,000 contracts, or entire in force if less than 10,000
50,000–100,000	10,000 + 15% of number of contracts over 50,000
100,000–500,000	17,500 + 10% of number of contracts over 100,000
500,000–1,000,000	57,500 + 7.5% of number of contracts over 500,000
More than 1,000,000	95,000

The following criteria will be used for selecting a contract:

Include only those contracts with a particular ordinal position in the master file such as every 10th contract. The ordinal position your company uses will depend on the number of contracts your company has in force. Choose an ordinal position that will yield an appropriate sample size for your company.

The ordinal position is determined by dividing the number of contracts in force by the approximate sample size, and rounding to the nearest integer. For example, if your company had 157,500 contracts in force during 1992, please submit data for 22,500 contracts by choosing every 7th contract from the 1992 master file. *However, 157,500 contracts divided by 23,250 equals 6.774. Rounding up to 7 then determines that 22,500 contracts—157,700 divided by 7—should actually be submitted.* If your company had 1,383,750 contracts in force during 1993, submit data for 92,250 contracts, by choosing every 15th contract from the 1993 master file. The data submitted for each contract year should be a random sample of contracts; no attempt should be made to include the same contracts in each contract year's data submission. The information collected for each contract includes:

- Company code
- Plan code
- Contract year of observation
- Contract number
- Month contract was issued
- Day of month issued
- Calendar year issued
- Type of plan
- Account value at beginning of contract year
- Percentage of beginning account value in fixed funds
- Account value at end of contract year
- Termination code
- Type of full surrender
- Month contract surrendered
- Day of month contract surrendered
- Calendar year contract surrendered
- Account value at time of full surrender
- Percentage of account value at time of full surrender in fixed funds
- Partial withdrawals
- Systematic withdrawals
- Dollar amount of surrender charge collected on surrender or withdrawal
- Theoretical surrender charge at beginning of contract year annuitant's year of birth
- Sex of annuitant
- State of residence of owner at beginning of contract year
- Zip code



- Distribution system used
- Interest guarantee period in effect at the start of the contract year (or end of the previous year)
- Weighted average credited interest rate at beginning of contract year (or end of prior year)
- Weighted average credited interest rate at end of contract year or at time of surrender, if contract fully surrendered.
- Premium payments in first contract year
- Current year premiums collected—total
- Prior year premiums collected—total
- Cumulative premiums collected since date of issue at beginning of contract year
- Method of premium collection
- Death benefit at beginning of contract year

Please submit the contract level data on tape or diskette with one of the following specifications:

#### **Specification 1 (Regular Tape)**

- Tape is 9 track
- Tape has a density of 6250 BPI
- The recording mode is ASCII
- Character type data only
  - NO block numbering
  - NO multi-punch data
  - NO binary data
  - NO packed-decimal data
  - NO floating-point data
- Records should be fixed length and blocked with 10 records per block
- Label should be Standard IBM label (please use the label ANN95 or similar label)

Include with the tape a printout of the first block and last block of records in the file.

#### **Specification 2 (Cartridge Tape)**

- Tape is 18 track
- Tape has a normal density of 38,000 BPI
- Cartridge tape is compatible with 3480 drives, or may be written on an IBM 3480/3490 drive with Improved Data Recording Capability (IDRC) with an effective density of 76,000 BPI.

- Character type data only
  - NO block numbering
  - NO multi-punch data
  - NO binary data
  - NO packed-decimal data
  - NO floating-point data
- Records should be fixed length with block sizes less than 65,532
- Label should be Standard IBM label (please use the label ANN95 or similar label)

Include with the tape a printout of the first block and last block of records in the file.

#### Specification 3 (Diskette)

If you prefer submitting data on diskette, you may submit data on MS-DOS 5¼-inch or 3½-inch diskettes using high or low density. Please use standard ASCII format; do not send data in spreadsheet, database, or word processing formats.

If you submit data for more than one contract year of observation, you may include all the data on one tape or diskette, and in one file.

Label the outside of the tape or diskette with the following information:

1995 Annuity Persistency Study  
Your company's name  
(Volume serial number of tape)

The record layout and data descriptions for tape-supplied or diskette-supplied contract level data follows.

#### *Record Layout and Coding Instructions*

Please use the following record layout and coding instructions. If any data item is not available, leave the field blank. Leading zeroes may be used. For dollar amounts, do not include dollar signs, commas, decimal points, or cents.

Position	Data Item	Coding Instructions
1-4	Company Code	LIMRA will provide you with a code randomly selected for the purpose of this study.

5-11	Plan Code*	If data are submitted for more than one product (or more than one version of a product), include some way of identifying the different products. The plan codes used should match with plan codes provided in Section 1. Leading zeroes may be used for numeric codes and leading blanks may be used for alpha codes.
12-13	Contract Year of Observation	Specify the last two digits of the Contract Year these data pertain to. For example, Contract Year 1992 includes contracts between their 1992 and 1993 anniversaries. The Contract Year of Observation for these contracts would be 92.
14-33	Contract Number	If this number is alphanumeric, include alphabetic codes.
34-35	Month Contract Was Issued	01-12 for January through December
36-37	Day of Month Issued	01-31 for 1st through 31st
38-39	Calendar Year Issued	Last two digits of year
40-41	Type of Plan	01 — IRA 02 — IRA rollover from a qualified pension plan 03 — IRA-SEP 04 <sup>†</sup> — 403(b) — 501(c)(3) organizations only 05 — 403(b) — other 06 — 457 07 — 401(k) 08 — Other Corporate 09 — Keogh (HR10) 10 — Other qualified 11 — Nonqualified

\* Plan codes in these records must correspond to the plan codes in the information submitted in Section 1 on products.

<sup>†</sup> Use '04' for type of plan for 403(b) annuity contracts sold to employees of 501(c)(3) organizations. If data at this level of detail are not available, use '05' for all 403(b) business.

42-51	Account Value at Beginning of Contract Year	Report account value before surrender charges as of the contract anniversary corresponding to the contract year of observation. Round amounts to the nearest dollar.
52-54	Percent of Beginning Account Value in Fixed Funds	For combination contracts, report the percent of the Account Value at Beginning of Contract Year invested in fixed subaccounts. Round amounts to the nearest whole percent. Leave blank for fixed contracts and true variable contracts.
55-64	Account Value at End of Contract Year	Report account value before surrender charges as of the contract anniversary corresponding to the year after the Contract Year of Observation. Round amounts to the nearest dollar.
65	Termination Code	0 = Contract in force at end of contract year 1 = Contract transferred to annuity payout status 2 = Contract no longer in force for reason of death or disability 3* = Contract fully surrendered
66	Type of Full Surrender (if Termination Code = 3)	0 = Funds sent direct to customer 1 = Funds sent to third party (e.g., rollover or 1035 exchange) 2 = Unknown
67-68	Month Contract Surrendered	01-12 for January through December. Leave field blank if contract not fully surrendered.
69-70	Day of Month Contract Surrendered	01-31 for 1st through 31st. Leave field blank if contract not surrendered.
71-72	Calendar Year Contract Surrendered	Last two digits of year. Leave field blank if contract not surrendered.

\* Contracts that do not renew at the end of their interest guarantee period (fixed annuities only) are considered surrenders.

73-82	Account Value at Time of Full Surrender	Report account value before surrender charges at time of full surrender. Round amounts to the nearest dollar. Leave field blank if contract not surrendered.
83-85	Percent of Account Value at Time of Full Surrender in Fixed Funds	For variable contracts, report the percent of the Account Value at Time of Full Surrender invested in fixed subaccounts. Round amounts to the nearest whole percent. Leave blank for fixed contracts.
86-95	Partial Withdrawals	Total amount of partial withdrawals made during the year. Report amounts before reductions for surrender charges, if any. Round to nearest dollar.
96-105	Systematic Withdrawals	Total amount of Partial Withdrawals above that were part of a systematic withdrawal program. Round to nearest dollar.
106-115	Dollar Amount of Surrender Charge Collected on Surrender or Withdrawal	Include actual fees as well as dollar amounts resulting from percent of premium or account value surrender charges on both partial and full surrenders during the current contract year of observation. Round to nearest dollar. Code field as 0 for contracts without partial or full surrenders during the year.
116-125	Theoretical Surrender Charge at Beginning of Contract Year	Dollar amount of surrender penalty if contract had been surrendered at the beginning of the contract year of observation. Round to nearest dollar.
126-127	Annuitant's Year of Birth	Last two digits of year.
128	Sex of Annuitant	F for female; M for male
129-130	State of Residence of Owner at Beginning of Contract Year	Use standard state abbreviation codes (e.g., NY for New York)
131-135	Postal Code/Zip Code	

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|---------|---|---|
| 136     | Distribution System Used  | <p>1 = Career agent</p> <p>2 = Independent agent (including PPGA and brokerage)</p> <p>3 = Stockbroker</p> <p>4 = Bank</p> <p>5 = Direct response</p> <p>6 = Other</p>  |
| 137-138 | Interest Guarantee Period in effect at the Start of the Contract Year (or end of the previous year) | <p>The guarantee period that was chosen by the contract owner and in effect at the beginning of the contract year. For example, a three-year guarantee period would be reported as 3. Do not report the length of time remaining in the guarantee period, but report the length of time for the entire guarantee period.</p> <p>0 = Guarantee period is less than one year</p> <p>1 = Guarantee period is one year</p> <p>2 = Guarantee period is two years</p> <p>3 = Guarantee period is three years, etc.</p>  |
| 139-143 | Weighted Average Credited Interest Rate at Beginning of Contract Year (or End of Prior Year)        | <p>Credited interest rate on nonborrowed funds in effect at the beginning of the contract year of observation or the end of the prior contract year. This number is the weighted average credited interest rate using the accumulated values as the weights. For example, if an account had an accumulated value of \$10,156 earning 6.00% and \$3,298 earning 7.25%, the weighted average rate is <math>(10,156 \times 6.00\% + 3,298 \times 7.25\%) / (10,156 + 3,298)</math> or 6.31%. Report as a percent to the nearest hundredth of a percent (xx.xx). Include decimal point but do not include percent sign.</p> |

144-148	Weighted Average Credited Interest Rate at End of Contract Year or at Time of Surrender, if Contract Fully Surrendered.	Credited interest rate on nonborrowed funds in effect at the end of the contract year of observation. If contract fully surrendered during the contract year of observation, provide the weighted average credited interest rate at time of full surrender. See previous data field for an example of this calculation. Report as a percent to the nearest hundredth of a percent (xx.xx). Include decimal point but do not include percent sign.
149-156	Premium Payments In First Contract Year	Total amount of premiums received during the first year the contract was in force. Round to nearest dollar.
157-164	Current Year Premiums Collected - Total	Report the total amount of premiums collected during the current contract year of observation. Round to nearest dollar.
165-172	Prior Year Premiums Collected - Total	Report the total amount of premiums collected during the prior contract year of observation. Report as zero for new issues during the current contract year. Round to nearest dollar. Leave blank if unknown.
173-180	Cumulative Premiums Collected Since Date of Issue at Beginning of Contract Year	Report total premiums collected from the date of issue to the beginning of the current contract year of observation. Report as zero for new issues during the current contract year. Round to nearest dollar.
181	Method of Premium Collection	1 = Payroll deduction 2 = Withdrawal from bank account (e.g., <i>check-o-matic</i> , PAC, etc.) 3 = Other (i.e., nonautomatic)
182-191	Death Benefit at Beginning of Contract Year	Enter the amount that would have been received by the beneficiary had the annuitant died on the contract anniversary. Round to the nearest dollar. Leave blank if unknown.

