| Welcome | Introduction | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Wit hdrawals Based o.. |
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# Variable Annuity Guaranteed Living Benefits Utilization 

## 2017 Experience

Guaranteed Minimum Income Benefits (GMIB)
A Joint Study Sponsored by the
Society of Actuaries and LIMRA
society of Secure ACTUARIES. Retren INSTITUTE

| Welcome | Introduction | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts <br> Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Wit hdrawals Based o.. |
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## Variable Annuity Guaranteed Living Benefits Utilization

2017 EXPERIENCE

## About the Study

## LIMRA Secure Retirement Institute and

 Society of Actuaries Variable Annuity Guaranteed Living Benefit Utilization Study (VAGLBUS) - 2017 Experience is an update of earlier investigations, conducted since 2006.The study examines the GLB utilization of over
4.3 million contracts that were either issued during or in force as of 2017. Eighteen insurance companies participated in this study. These 18 companies made up 65 percent of all GLB sales in 2017 and 68 percent of GLB assets at year-end, and thus provide a substantial representation of this business.

Few product innovations have transfigured the variable annuity (VA) industry as much as guaranteed living benefits (GLBs). Evolving from simple income benefits, they are now offered in a variety of forms on the vast majority of VA products sold today.
Knowing more about benefit utilization — as well as the connection with behaviors such as persistency - can assist insurers with assessing and managing the long-term risks of these GLBs.

Companies should use the data provided in this tool as a basis for monitoring the following:
-Customer mix versus the industry
-Risks associated with providing a guarantee to younger buyers -both short- and long-term including growth in benefit base relative to cash value, customer withdrawal deferral periods, sources of funds used to purchase the annuity, percentage of customers begin to take withdrawals due to the required minimum distribution (RMD) rule, and the persistency of their contracts.
-Competitiveness of the maximum payout rates that are typically set by age bands
-Customer behavior in general and how it changes the dynamics of a company's in-force book of business

| Welcome | Introduction | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Wi hdrawals Based o. |
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Buyer Profiles


| Welcome | Introduction | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts <br> Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Wit hdrawals Based o. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Percentage of Riders Annuitized in 2017


| Welcome | Introduction | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Wi hdrawals Based o.. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Contracts Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017


| We <br> Ico <br> me | Introduction | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts <br> Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Withdrawals Based on Proximity to Max Withdrawal Rate Increase | 9. Av erage With draw al A.. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Summary of Withdrawal Activity

Percentage of owners who have taken withdrawals in 2017:


Of those taking withdrawals in 2017:


| $\begin{aligned} & \text { Int } \\ & \text { ro } \\ & \text { du } \\ & \text { cti } \\ & \text { on } \end{aligned}$ | 1. Buyer Profiles | 2. Annuitized Contracts by Benefit Maturity | 3. Contracts <br> Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Withdrawals Based on Proximity to Max Withdrawal Rate Increase | 9. Average Withdrawal Amount by Withdrawal Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Withdrawal Activity by Contract Year



| 3. Contracts <br> Annuitized in 2017 with Benefit Maturity Dates in 2016 or 2017 | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Withdrawals Based on Proximity to Max Withdrawal Rate Increase | 9. Average Withdrawal Amount by Withdrawal Type | 10. Ratio of Withdrawals to Average Contract Value and Benefit Base | 11. Ratio of Total Withdrawals to Total Contract Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

First Withdrawals by Issue Age and Contract Year
Issue Age

| Withdrawals started at | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | $\begin{gathered} \text { All } \\ \text { Ages } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 55 | 4\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 4\% | 4\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 57 | 2\% | 4\% | 4\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 58 | 3\% | 3\% | 3\% | 4\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 59 | 4\% | 6\% | 4\% | 5\% | 5\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60 | 7\% | 7\% | 10\% | 9\% | 11\% | 10\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 61 | 5\% | 4\% | 5\% | 6\% | 8\% | 10\% | 9\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 62 | 5\% | 6\% | 5\% | 5\% | 7\% | 8\% | 11\% | 13\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 63 | 4\% | 5\% | 5\% | 6\% | 5\% | 6\% | 8\% | 13\% | 15\% |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 64 | 3\% | 3\% | 5\% | 4\% | 5\% | 5\% | 7\% | 7\% | 12\% | 12\% |  |  |  |  |  |  |  |  |  |  |  |  |
| 65 | 6\% | 5\% | 5\% | 5\% | 5\% | 7\% | 5\% | 8\% | 9\% | 13\% | 15\% |  |  |  |  |  |  |  |  |  |  |  |
| 66 |  | 6\% | 5\% | 5\% | 5\% | 6\% | 7\% | 7\% | 7\% | 10\% | 13\% | 15\% |  |  |  |  |  |  |  |  |  |  |
| 67 |  |  | 6\% | 4\% | 4\% | 4\% | 5\% | 6\% | 5\% | 6\% | 8\% | 13\% | 15\% |  |  |  |  |  |  |  |  |  |
| 68 |  |  |  | 5\% | 3\% | 4\% | 3\% | 4\% | 5\% | 4\% | 7\% | 8\% | 12\% | 16\% |  |  |  |  |  |  |  |  |
| 69 |  |  |  |  | 4\% | 3\% | 3\% | 3\% | 5\% | 5\% | 5\% | 5\% | 7\% | 13\% | 14\% |  |  |  |  |  |  |  |
| 70 |  |  |  |  |  | 14\% | 11\% | 15\% | 14\% | 18\% | 17\% | 20\% | 20\% | 10\% | 27\% | 27\% |  |  |  |  |  |  |
| 71 |  |  |  |  |  |  | 16\% | 13\% | 13\% | 16\% | 18\% | 22\% | 25\% | 40\% | 12\% | 36\% | 33\% |  |  |  |  |  |
| 72 |  |  |  |  |  |  |  | 3\% | 3\% | 2\% | 4\% | 4\% | 5\% | 4\% | 26\% | 6\% | 31\% | 34\% |  |  |  |  |
| 73 |  |  |  |  |  |  |  |  | 2\% | 2\% | 2\% | 2\% | 3\% | 3\% | 5\% | 13\% | 7\% | 31\% | 37\% |  |  |  |
| 74 |  |  |  |  |  |  |  |  |  | 2\% | 1\% | 2\% | 3\% | 2\% | 4\% | 3\% | 10\% | 7\% | 33\% | 40\% |  |  |
| 75 |  |  |  |  |  |  |  |  |  |  | 2\% | 1\% | 2\% | 2\% | 3\% | 3\% | 4\% | 11\% | 4\% | 29\% | 30\% | 9\% |
| 76 |  |  |  |  |  |  |  |  |  |  |  | 2\% | 1\% | 2\% | 2\% | 2\% | 3\% | 3\% | 9\% | 5\% | 33\% | 9\% |
| 77 |  |  |  |  |  |  |  |  |  |  |  |  | 1\% | 1\% | 1\% | 2\% | 3\% | 3\% | 3\% | 12\% | 6\% | 5\% |
| 78 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2\% | 2\% | 2\% | 1\% | 2\% | 2\% | 4\% | 11\% | 7\% |
| 79 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1\% | 2\% | 1\% | 1\% | 2\% | 1\% | 4\% | 5\% |
| 80 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1\% | 1\% | 1\% | 1\% | 2\% | 4\% | 5\% |
| 81 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1\% | 1\% | 1\% | 1\% | 2\% | 5\% |
| 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0\% | 1\% | 1\% | 1\% | 4\% |
| 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1\% | 2\% | 0\% | 4\% |
| 84 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0\% | 1\% | 3\% |
| 85 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0\% | 4\% |
| Total | 47\% | 54\% | 57\% | 58\% | 63\% | 76\% | 86\% | 91\% | 91\% | 91\% | 92\% | 94\% | 94\% | 95\% | 95\% | 95\% | 95\% | 94\% | 94\% | 96\% | 93\% | 60\% |
| Took withdrawals all subsequent years | 65\% | 71\% | 66\% | 71\% | 71\% | 71\% | 77\% | 81\% | 82\% | 85\% | 84\% | 83\% | 83\% | 86\% | 80\% | 70\% | 69\% | 67\% | 66\% | 70\% | 66\% | 73\% |

[^0]| 3. <br> Co <br> ntr <br> act <br> s.. | 4. Summary of Withdrawal Activity | 5. Withdrawal <br> Activity by Contract Year | 6. Withdrawal <br> Activity by Age of Owner | 7. First Withdrawals by Issue Age and Contract Year | 8. First Withdrawals Based on Proximity to Max Withdrawal Rate Increase | 9. Average <br> Withdrawal Amount by Withdrawal Type | 10. Ratio of Withdrawals to Average Contract Value and Benefit Base | 11. Ratio of Total Withdrawals to Total Contract Value | 12. Additional Premium | 13. N et Flo ws |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

First Withdrawals Based on Proximity to Max Rate Increase

6. Withdrawa Activity by Age of Owner

| 7. First Withdrawals <br> by Issue Age and <br> Contract Year | 8. First Withdrawals <br> Based on Proximity <br> to Max Withdrawal <br> Rate Increase |
| :--- | :--- |

## Average Withdrawal Amount by Withdrawal Type

Average Withdrawal Amount
Systematic
Non-systematic


Average Contract Value EOY
Systematic Non-systematic

|  | Mean |  | Median |  | Mean |  | Median |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Non-qualified | Qualified | Non-qualified | Qualified | Non-qualified | Qualified | Non-qualified | Qualified |
| Under age 60 | 243,359 | 230,611 | 142,561 | 158,095 | 125,922 | 85,275 | 54,414 | 48,671 |
| Age 60-69 | 173,629 | 184,233 | 103,346 | 129,362 | 152,930 | 137,006 | 83,145 | 83,497 |
| Age 70 or older | 124,794 | 120,908 | 78,579 | 77,266 | 146,700 | 141,584 | 83,412 | 87,281 |
| Grand Total | 138,836 | 137,529 | 84,856 | 88,587 | 146,529 | 135,897 | 80,611 | 83,034 |



| 6. <br> Wi <br> th <br> dr <br> a.. | 7. First Withdrawals by Issue Age and Contract Year | 8. First Withdrawals Based on Proximity to Max Withdrawal Rate Increase | 9. Average <br> Withdrawal Amount <br> by Withdrawal Type | 10. Ratio of Withdrawals to Average Contract Value and Benefit Base | 11. Ratio of Total Withdrawals to Total Contract Value | 12. Additional Premium | 13. Net Flows | 14. Surrender Rates by Selected Owner and Product Characteristics | 15. Surrender Rates by Contract Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



| 7. <br> Fir <br> st <br> Wi <br> th.. | 8. First Withdrawals Based on Proximity to Max Withdrawal Rate Increase | 9. Average Withdrawal Amount by Withdrawal Type | 10. Ratio of Withdrawals to Average Contract Value and Benefit Base | 11. Ratio of Total Withdrawals to Total Contract Value | 12. Additional Premium | 13. Net Flows | 14. Surrender Rates by Selected Owner and Product Characteristics | 15. Surrender Rates by Contract Year | 16. Surrender Rates <br> by Years Left in Surrender Charge Period | 17. S urren <br> der R <br> ates <br> by S.. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Additional Premium

Percentage of Contracts Receiving Additional Premium in 2017


Select Breakout () Year of Issue $\bigcirc$ Contract Value EOY

| 8. | 9. Average |
| :--- | :--- |
| Fir | Withdrawal Amount |
| st | by Withdrawal Type |
| Wi |  |
| th.. |  |

```
10. Ratio of Withdrawals to Average Contract Value and Benefit Base
```

13. Net Flows | 14. Surrender Rate |
| :--- | :--- |
| by Selected Owner |
| and Product |
| Characteristics |
14. Surrender Rates by Contract Year

15. Surrender Rate by Years Left in Period
16. Surrender Rates by Surrender Charge Level

## Net Flows

|  |  | Total Dollars (in billions) | Number of Contracts | Average Dollars |
| :---: | :---: | :---: | :---: | :---: |
|  | In-Force BOY | \$131.2B | 1,011,232 | \$129,755 |
| Premium Received | Existing Contracts | \$0.7B | 1,270,519 |  |
|  | Newly Issued Contracts | \$0.0B | 14,090 | \$136 |
| Benefits Paid | Annuitizations | \$0.3B | 3,976 | \$86,527 |
|  | Death/Disability | \$1.3B | 11,337 | \$110,818 |
|  | Full Surrenders | \$5.3B | 51,313 | \$104,023 |
|  | Partial Withdrawals | \$4.9B |  |  |
|  | Investment Growth | \$15.1B |  |  |
|  | In-Force EOY | \$167.7B | 1,217,983 | \$137,700 |

```
\mathrm{ 10. Ratio of }
Value and Benefit
Base
```

| 11. Ratio of Total <br> Withdrawals to Total <br> Contract Value | 12. Additional <br> Premium | 13. Net Flows | 14. Surrender Rates <br> by Selected Owner <br> and Product <br> Characteristics |
| :--- | :--- | :--- | :--- |

13. Net Flows


Surrender Rates by Selected Owner and Product Characteristics


| 10. <br> Ra tio of W.. | 11. Ratio of Total Withdrawals to Total Contract Value | 12. Additional Premium | 13. Net Flows | 14. Surrender Rates by Selected Owner and Product Characteristics | 15. Surrender Rates <br> by Contract Year | 16. Surrender Rates by Years Left in Surrender Charge Period | 17. Surrender Rates by Surrender Charge Level | 18. Surrender Rates by Timing of Withdrawals | 19. Surrender Rates by Withdrawal Method |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Surrender Rates by Contract Year


| 11. | 12. Additional |
| :--- | :--- |
| Ra | Premium |
| tio |  |
| of |  |
| T.. |  |

20. Surrender Rates by Amount Benefit Contract Value

Surrender Rates by Years Left in Surrender Charge Period


Surrender Type
Surrender Type Contract Surrender Rate
Cash Value Surrender Rate
Withdrawal Methods
$\checkmark$ No Withdrawals
Non-systematic Withdrawals
Systematic Withdrawals

[^1]| 12. <br> Ad <br> diti <br> on <br> al.. | 13. Net Flows | 14. Surrender Rates <br> by Selected Owner and Product Characteristics | 15. Surrender Rates by Contract Year | 16. Surrender Rates by Years Left in Surrender Charge Period | 17. Surrender Rates by Surrender Charge Level | 18. Surrender Rates by Timing of Withdrawals | 19. Surrender Rates by Withdrawal Method | 20. Surrender Rates <br> by Amount Benefit <br> Base Exceeds <br> Contract Value | 21. Benefit Base and Contract Value Summary | 22. C ontra ct Va ue an d Be. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Surrender Rates by Surrender Charge Level



Some data are suppressed for confidentiality reasons.

```
13. 14. Surrender Rates
by Selected Owner
and Product
Characteristics
```

```
15. Surrender Rates
```

16. Surrender Rates
```
16. Surrender Rates
by Years Left in
by Years Left in
Surrender Charg
Surrender Charg
Period
```

Period

```
17. Surrender Rates
by Surrender Charge
Level

\section*{18. Surrender R by Timing of
Withdrawals} 19. Surrender R
by Withdrawal

Surrender Rates by Timing of Withdrawals


Surrender Type

Withdrawal Status
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{l}
14. \\
Su \\
rre \\
nd \\
er..
\end{tabular} & 15. Surrender Rates by Contract Year & 16. Surrender Rates by Years Left in Surrender Charge Period & 17. Surrender Rates by Surrender Charge Level & 18. Surrender Rates by Timing of Withdrawals & 19. Surrender Rates by Withdrawal Method & \begin{tabular}{l}
20. Surrender Rates \\
by Amount Benefit \\
Base Exceeds \\
Contract Value
\end{tabular} & 21. Benefit Base and Contract Value Summary & 22. Contract Value and Benefit Base by Issue Quarter & 23. Benefit Base to Contract Value Ratios by Age & 24. Pr oduct \& Be nefit Cha.. \\
\hline
\end{tabular}

Surrender Rates by Withdrawal Method


Surrender Type
Surrender Type
Cash Value Surrender Rate
Presence of Surrender Charge
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{l}
15. \\
Su \\
rre \\
nd \\
er..
\end{tabular} & 16. Surrender Rates by Years Left in Surrender Charge Period & 17. Surrender Rates by Surrender Charge Level & 18. Surrender Rates by Timing of Withdrawals & 19. Surrender Rates by Withdrawal Method & \begin{tabular}{l}
20. Surrender Rates \\
by Amount Benefit \\
Base Exceeds \\
Contract Value
\end{tabular} & 21. Benefit Base and Contract Value Summary & 22. Contract Value and Benefit Base by Issue Quarter & 23. Benefit Base to Contract Value Ratios by Age & 24. Product \& Benefit Characteristics & 25. P artici pant List \\
\hline
\end{tabular}

Surrender Rates by Amount Benefit Base Exceeds Contract Value


Surrender Type - Contract Surrender Rate \(\bigcirc\) Cash Value Surrender Rate

In-the-Moneyness \(B B<=100 \%\) of \(C V\)
BB> \(100 \%\) to \(125 \%\) of \(C V\)
- BB \(>125 \%\) of CV

ITM definition= Benefit
Base/Contract Value so larger
Batios indicate a greater degree of ratios indicate a greater degree of
in-the-moneyness in-the-moneyness


\section*{Benefit Base and Contract Value Summary}



Contract Value and Benefit Base by Issue Quarter

Median Benefit Base


\section*{Time of Year} () Beginning of Year \(\bigcirc\) End of Year

Benefit Base and Contract Value Dollar Amounts or Ratios
(9) Dollar Amounts
\(\bigcirc\) Ratios
Median or Quartiles
© Median
\(\bigcirc\) Quartiles
Economic Data
© None
10 -year Treasury Yield \(\bigcirc\) S\&P 500
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{l}
16. \\
Surrender Rates by Years Left in Surren..
\end{tabular} & 17. Surrender Rates by Surrender Charge Level & \begin{tabular}{l}
18. Surrender Rates \\
by Timing of \\
Withdrawals
\end{tabular} & 19. Surrender Rates by Withdrawal Method & 20. Surrender Rates by Amount Benefit Base Exceeds Contract Value & \begin{tabular}{l}
21. Benefit Base and \\
Contract Value \\
Summary
\end{tabular} & 22. Contract Value and Benefit Base by Issue Quarter & 23. Benefit Base to Contract Value Ratios by Age & 24. Product \& Benefit Characteristics & 25. Participant List \\
\hline
\end{tabular}

Benefit Base to Contract Value Ratios by Age

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{l}
16. \\
Surrender \\
Rates by \\
Years Left \\
in Surren..
\end{tabular} & 17. Surrender Rates by Surrender Charge Level & 18. Surrender Rates by Timing of Withdrawals & 19. Surrender Rates by Withdrawal Method & \begin{tabular}{l}
20. Surrender Rates \\
by Amount Benefit \\
Base Exceeds \\
Contract Value
\end{tabular} & 21. Benefit Base and Contract Value Summary & 22. Contract Value and Benefit Base by Issue Quarter & 23. Benefit Base to Contract Value Ratios by Age & 24. Product \& Benefit Characteristics & 25. Participant List \\
\hline
\end{tabular}

\section*{Product \& Benefit Characteristics}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{9}{|c|}{Average Charges and Number of Subaccounts by Issue Year} \\
\hline & 2006 & 2007 & 2008 & 2009 & 2010 & 2011 & 2012 & 2013 \\
\hline Average Mortality and Expense Charge & 1.45\% & 1.48\% & 1.45\% & 1.38\% & 1.36\% & 1.36\% & 1.31\% & 1.34\% \\
\hline Average Benefit Fee & 0.63\% & 0.67\% & 0.77\% & 0.92\% & 0.89\% & 0.95\% & 0.95\% & 0.95\% \\
\hline Average Number of Subaccounts & 59.03 & 58.18 & 57.52 & 54.48 & 59.21 & 54.89 & 65.09 & 78.18 \\
\hline Average Maximum Age at Election & 75.35 & 75.36 & 76.12 & 77.38 & 77.43 & 77.72 & 77.68 & 76.44 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{10}{|c|}{Product Features - Distribution by Issue Year} & \multirow[t]{2}{*}{(-) Product has fixed account
Product still available as of EOY
Rider still available as of EOY
Cap on benefits} \\
\hline & 2008 & 2009 & 2010 & 2011 & 2012 & 2013 & 2014 & 2015 & 2016 & 2017 & \\
\hline No & 3\% & 3\% & 3\% & 3\% & 2\% & 2\% & 1\% & 2\% & 1\% & & Cap on benefits
Benefit fee basis
Asset allocation restrictions \\
\hline & & & & & & & & & & & \(\bigcirc\) Step-up availability \\
\hline Yes & 97\% & 97\% & 97\% & 97\% & 98\% & 98\% & 99\% & 98\% & 99\% & 100\% & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{l}
16. \\
Surrender \\
Rates by \\
Years Left \\
n Surren..
\end{tabular} & 17. Surrender Rates by Surrender Charge Level & 18. Surrender Rates by Timing of Withdrawals & 19. Surrender Rates by Withdrawal Method & \begin{tabular}{l}
20. Surrender Rates \\
by Amount Benefit \\
Base Exceeds \\
Contract Value
\end{tabular} & 21. Benefit Base and Contract Value Summary & 22. Contract Value and Benefit Base by Issue Quarter & 23. Benefit Base to Contract Value Ratios by Age & 24. Product \& Benefit Characteristics & 25. Participant List \\
\hline
\end{tabular}

\section*{Participants}

\section*{AIG}

Ameritas
Brighthouse
CUNA Mutual Equitable Financial
Lincoln National
MetLife
Nassau Re
Nationwide
New York Life
Phoenix Life
Principal Financial
Protective
Prudential
RiverSource Annuities
Securian/Minnesota Life
Security Benefit
Transamerica```


[^0]:    © Qualified - Issue Year 2007
    (1) Qualified - Issue Year 2007 Non-qualified - Issue Year 2007
    Non-qualified - Issue Year 2008

    - Contract Year 1

    Contract Year 2
    Contract Year 3
    Contract Year 4
    Contract Year 5
    Contract Year 6
    Contract Year 7
    Contract Year 8
    Contract Year 9
    Contract Year 10
    Contract Year 11

[^1]:    In-the-Moneyness
    © All
    ITM <=75\%
    ІтМ $>75 \%$ TO $90 \%$
    ○ 1 ITM $>90 \%$ TO $110 \%$

    - ITM $>110 \%$ TO $125 \%$
    - ITM $>125 \%$

    ITM definition= Benefit Base/Contra
    Value so larger ratios indicate a
    Vreater degree of in-the-moneynes

