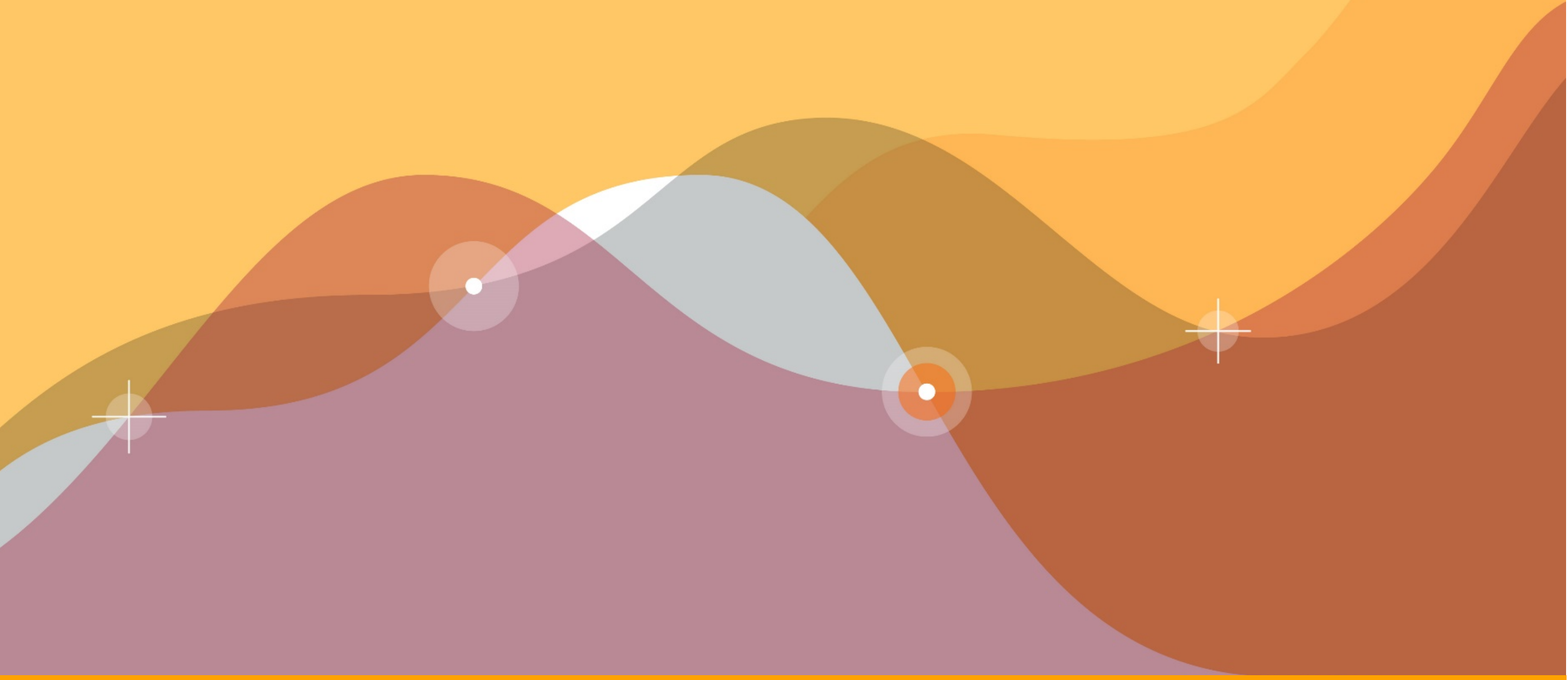


MILLIMAN PRODUCT RESEARCH

Milli-*Byte* follow-up: Life insurance product management and the COVID-19 pandemic

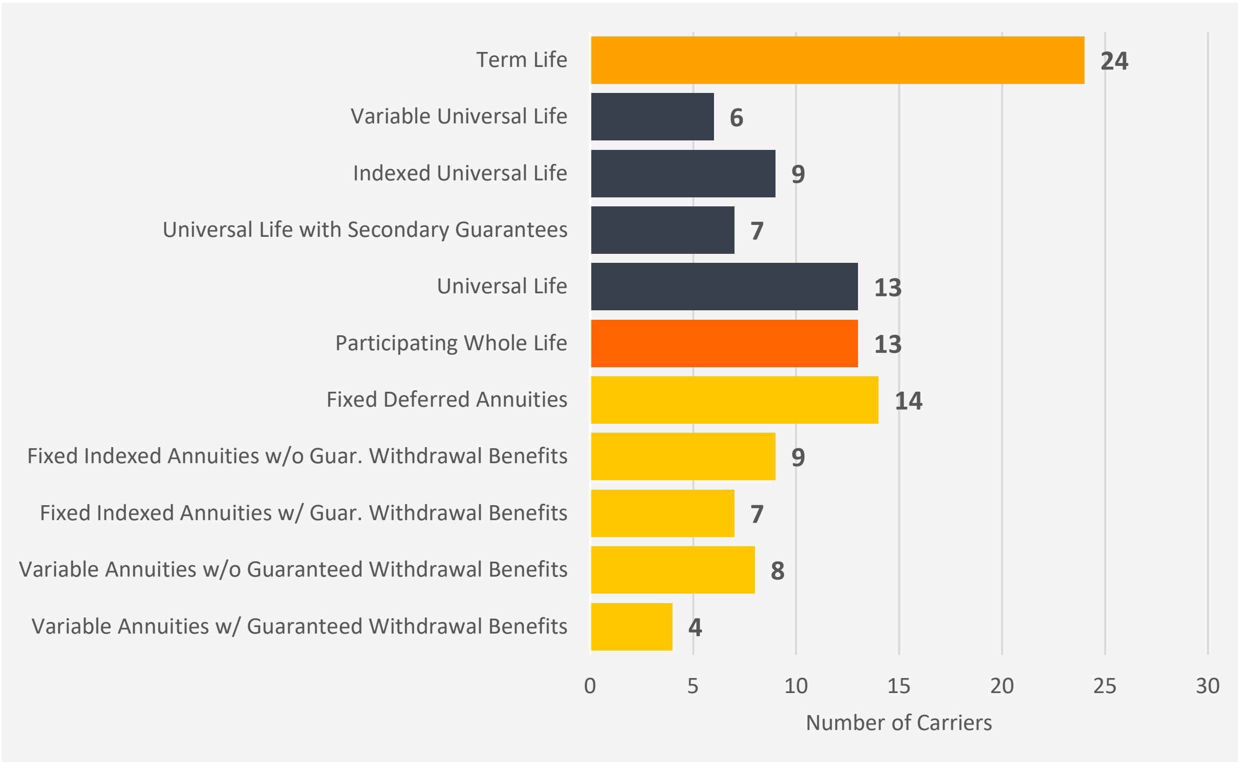
June 2020

Milliman

Milliman received responses from 30 carriers for our follow-up Milli-*Byte* Survey of Life Insurance Product Management and the Coronavirus (COVID-19) Pandemic. While the April survey specifically asked about individual life products—term life, universal life, and participating whole life—this follow-up expanded its scope to include annuities.

Figure 1 (next page) shows that of the 30 carriers surveyed, 24 offer term life products, 17 offer universal life products, 13 offer participating whole life products, and 17 offer annuities.

FIGURE 1: PRODUCTS OFFERED BY RESPONDING CARRIERS

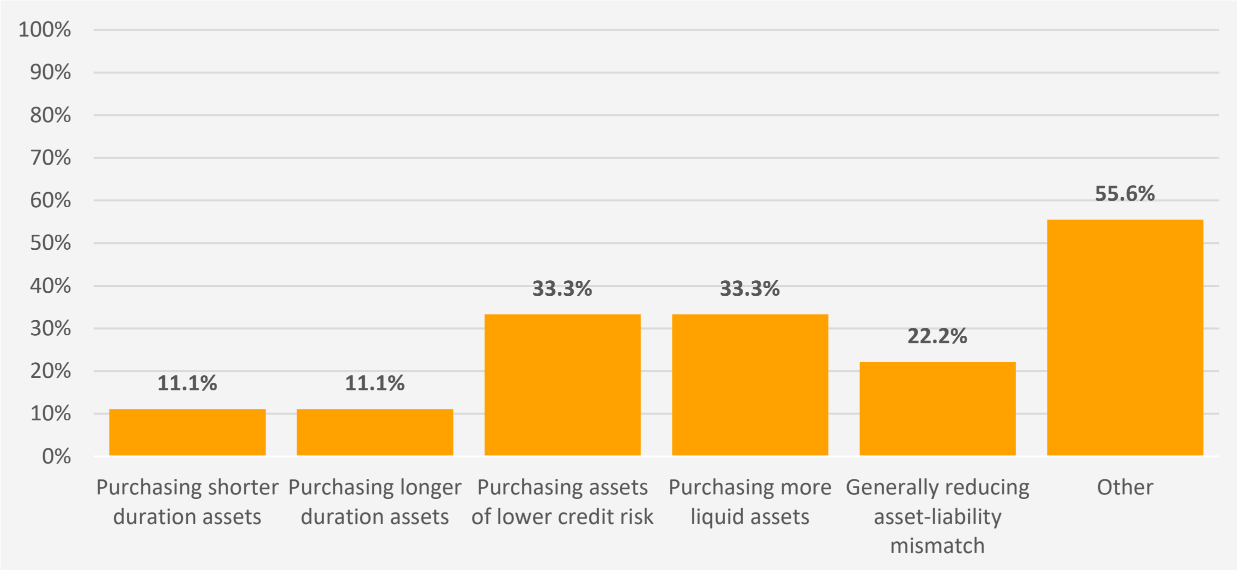


Investments

Seven (26.9%) of responding life product carriers and four (23.5%) of responding annuity product carriers indicated that they are employing strategic or tactical investment strategy changes in response to the COVID-19 pandemic.

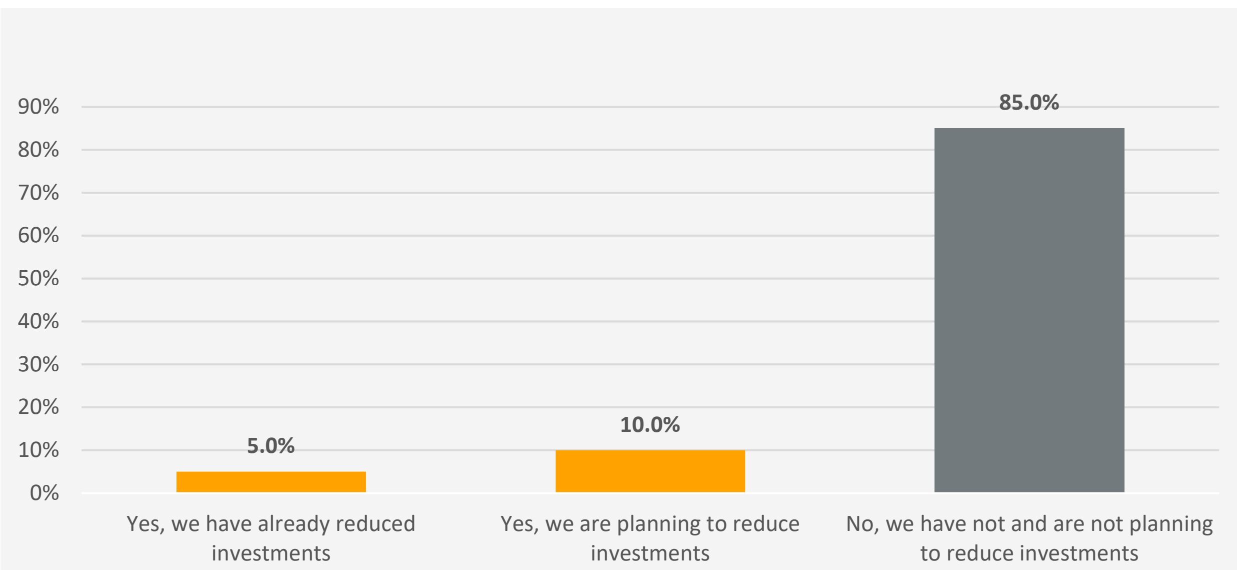
Of the 30 total carriers, 9 are changing their investment strategies in response to the COVID-19 pandemic. Their specific changes are shown in Figure 2. Comments regarding “Other” indicate various asset allocation considerations based on risk, yield, and liquidity.

FIGURE 2: INVESTMENT STRATEGY CHANGES



As seen in Figure 3, the vast majority of carriers (85.0%) have not and are not planning to reduce investments in commercial mortgages or commercial mortgage backed securities. Only 5.0% have reduced and 10.0% plan to reduce their investments.

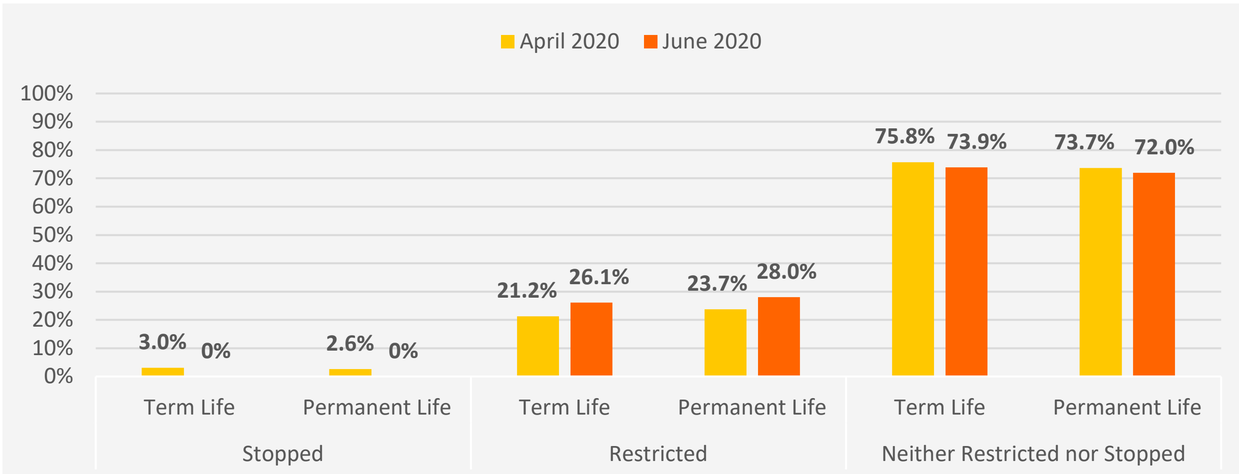
FIGURE 3: REDUCED INVESTMENTS IN COMMERCIAL MORTGAGES OR COMMERCIAL MORTGAGE BACKED SECURITIES



Product

When asked about sales of products, none of the responding carriers that offer annuity products have restricted or stopped sales. Figure 4 provides a comparison of restricted/stopped sales for life products between our April and June surveys. In general, carriers responded similarly for both surveys, with about a quarter of life product carriers reporting restricted sales. Only one carrier reported stopped sales in the April survey and no carriers reported stopped sales in the June survey.

FIGURE 4: RESTRICTED OR STOPPED SALES FOR LIFE PRODUCTS AS OF APRIL 2020 AND JUNE 2020

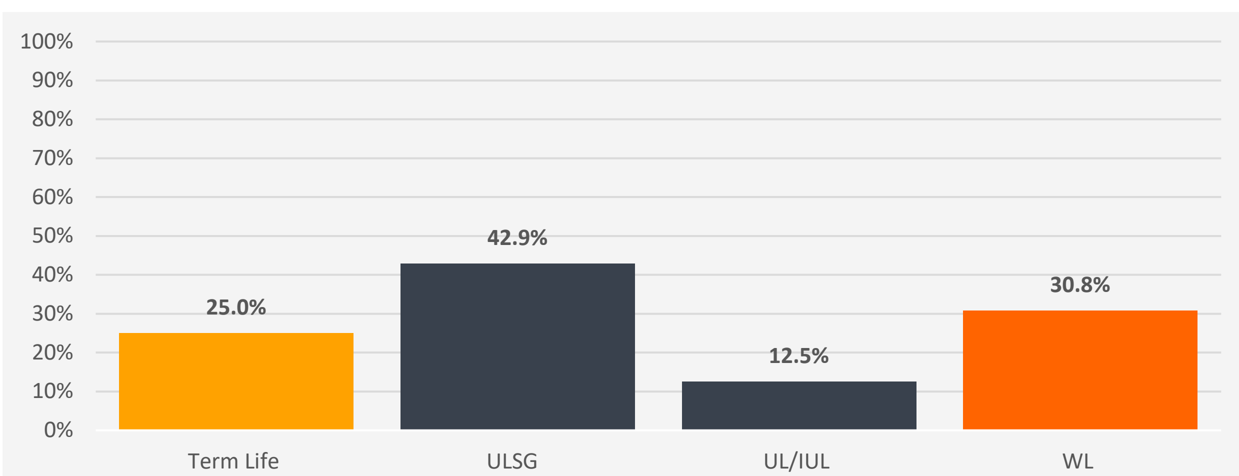


Considering the next 12 months, 53.3% of all responding carriers have no planned product changes for any of their products.

Figure 5 shows carriers' planned price changes for life products. While some carriers are adjusting their products in response to the COVID-19 pandemic, some companies have slowed down their product development, and some remain unchanged.

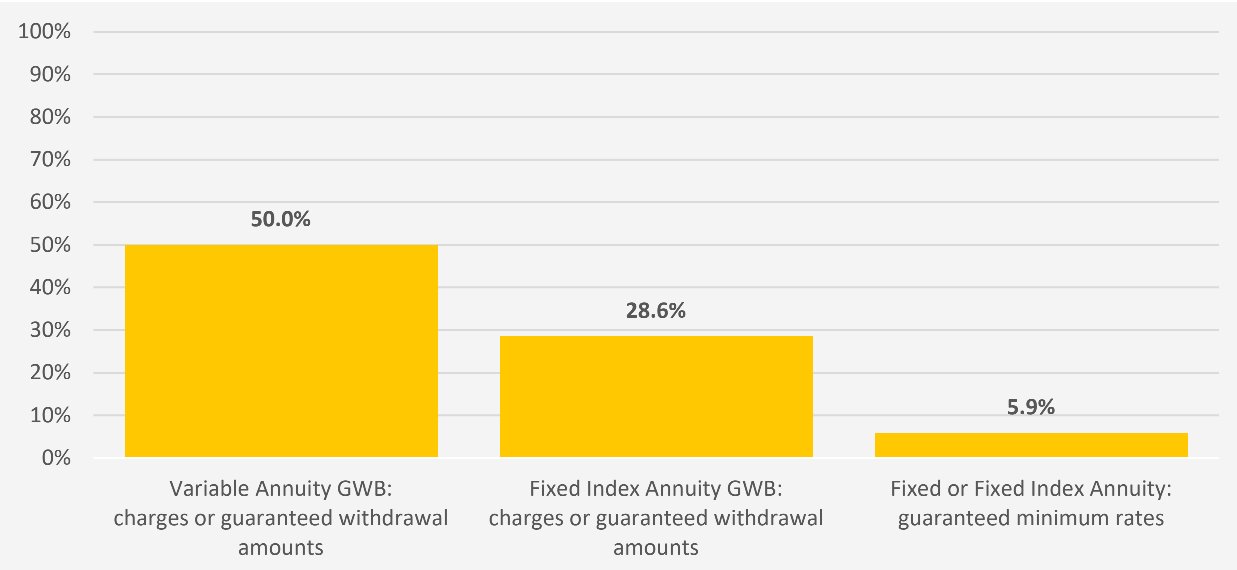
For term life products, 25.0% of responding carriers that offer term life are planning to implement price changes within the next 12 months. For universal life products, 42.9% of carriers that offer universal life with secondary guarantees, and 12.5% of carriers that offer either universal life or indexed universal life are planning price changes. For whole life products, 30.8% of carriers that offer participating whole life products are planning price changes. None of the responding whole life carriers are planning dividend changes.

FIGURE 5: EXPECTED PRICE CHANGES WITHIN THE NEXT 12 MONTHS FOR LIFE PRODUCTS



For annuity products, as seen in Figure 6, 50.0% of responding carriers that offer variable annuities with guaranteed withdrawal benefits and 28.6% of carriers that offer fixed indexed annuities with guaranteed withdrawal benefits are planning to adjust charges or guaranteed withdrawal amounts. Furthermore, 5.9% of carriers that offer fixed or fixed indexed annuities are planning guaranteed minimum rate changes, including fixed rates, caps, etc.

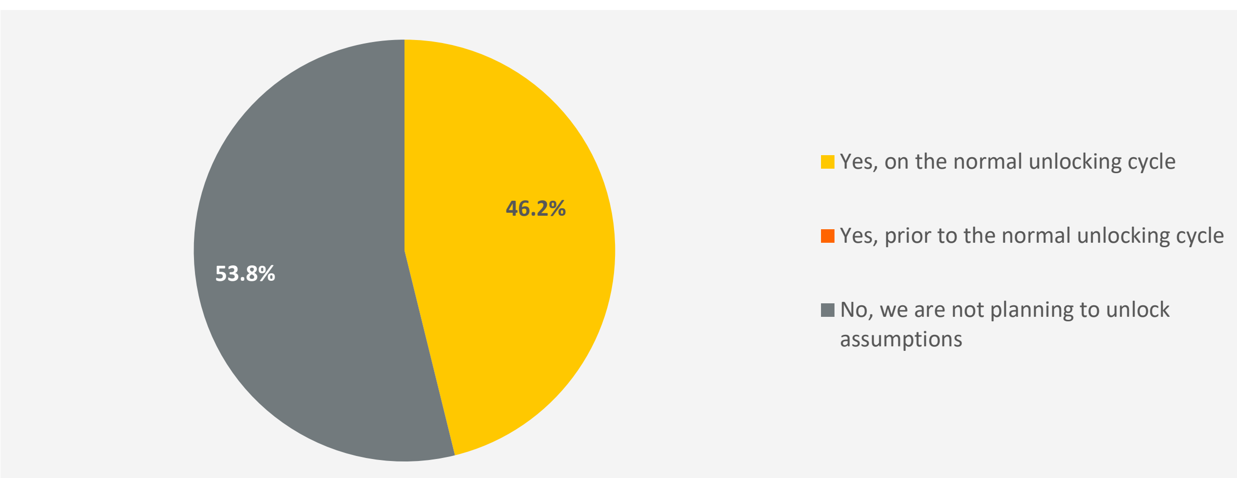
FIGURE 6: EXPECTED CHANGES WITHIN THE NEXT 12 MONTHS FOR ANNUITY PRODUCTS



GAAP reporting

None of the responding carriers are adjusting their existing plans to unlock assumptions in response to the COVID-19 pandemic. Nearly half (46.2%) of the responding carriers are unlocking assumptions on the normal cycle, and 53.8% are not planning to unlock assumptions.

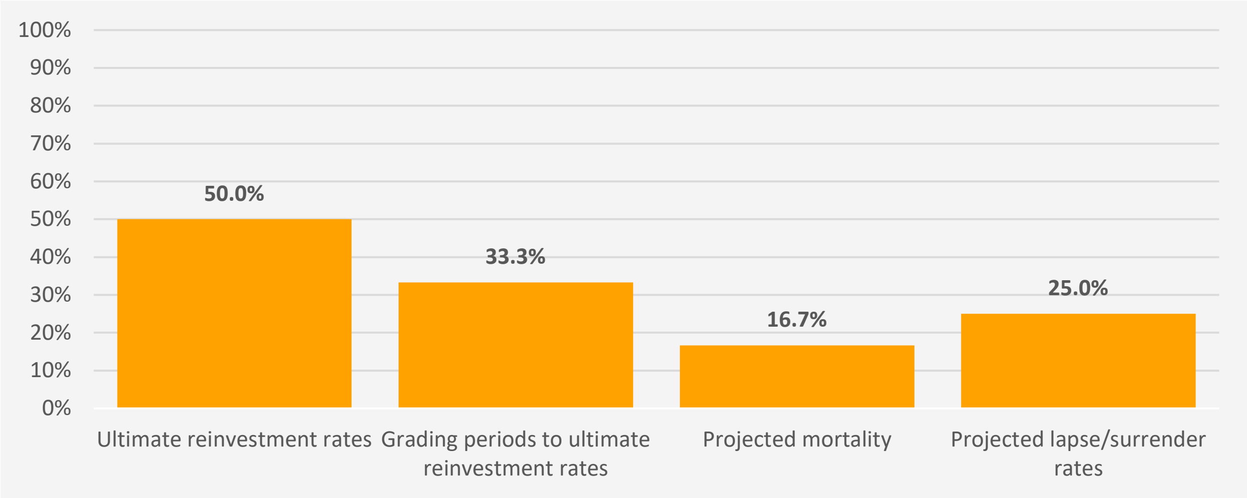
FIGURE 7: PLANS TO UNLOCK ASSUMPTIONS



Carriers that are planning to unlock assumptions indicated whether they are planning to change certain investment or actuarial assumptions—ultimate reinvestment rates, grading periods to ultimate reinvestment rates, projected mortality, and projected lapse/surrender rates—as a result of the COVID-19 pandemic. Carriers reported they are more likely to change reinvestment-based assumptions than liability assumptions, where half of the responding carriers are planning to update ultimate reinvestment rates, and a third are planning to update grading periods to ultimate reinvestment rates. Of the carriers that are planning to update their ultimate reinvestment assumptions, 16.7% of them are doing so publicly.

While a major public focus has been on the many deaths due to COVID-19 (over 120k, according to the CDC as of 6/24/2020), only 16.7% of carriers plan to update their mortality assumption.

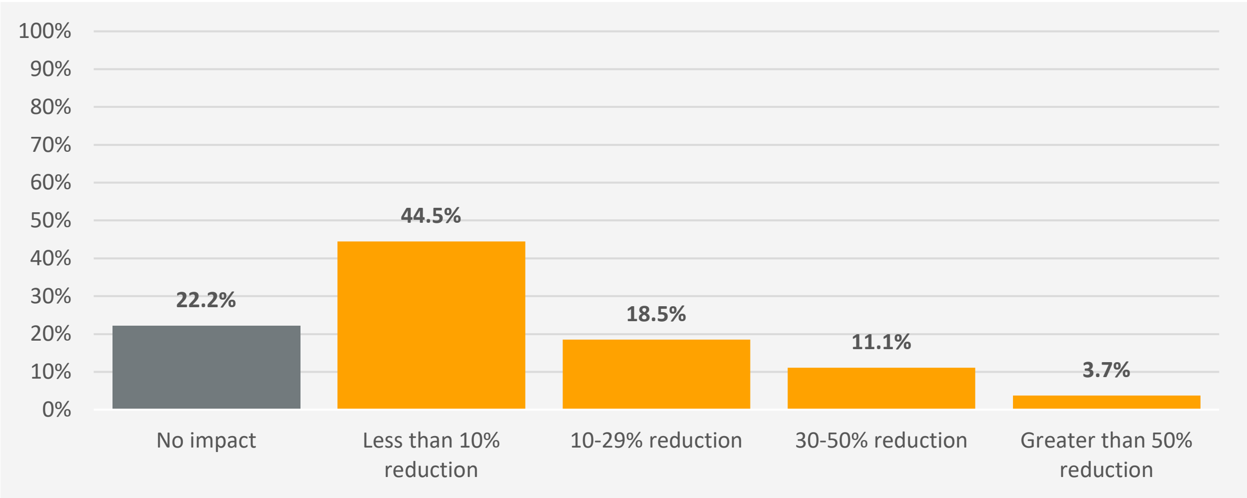
FIGURE 8: PLANNED ASSUMPTION CHANGES AS A RESULT OF THE COVID-19 PANDEMIC



Risk-Based Capital

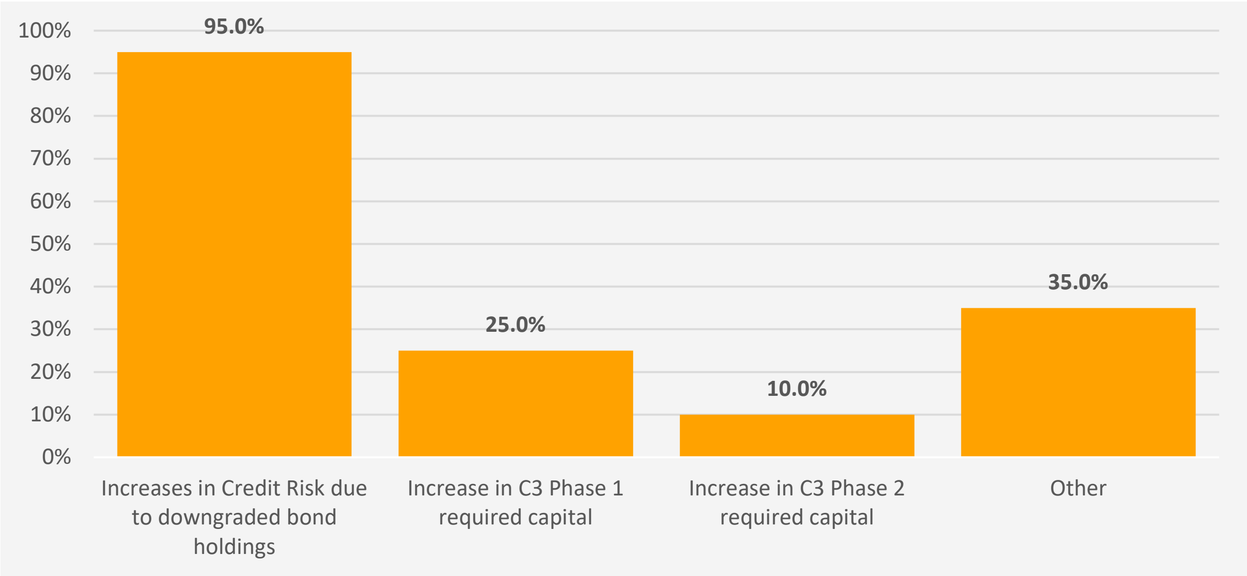
The majority of carriers (77.8%) expect the COVID-19 pandemic to have an impact on their capital as a percent of Risk-Based Capital (RBC). Of those carriers that expect an impact, most expect it to be less than a 10% reduction, and only one carrier expects a greater than 50% reduction. These results are shown in Figure 9.

FIGURE 9: EXPECTED IMPACT OF THE COVID-19 PANDEMIC ON RBC% (ABSOLUTE CHANGE IN THE RBC%)



The survey asked participants their views on the driving factors of a reduced RBC%. Almost every response indicated the driving factor of change was due to the RBC basis (denominator) increasing rather than the capital (numerator) decreasing. As seen in Figure 10, 95% of carriers expect that increases in credit risk due to downgraded bond holdings will be a driving factor in the expected decrease in RBC%. Comments received for “Other” focused on strain on earnings and surplus based on higher mortality and lower investment returns.

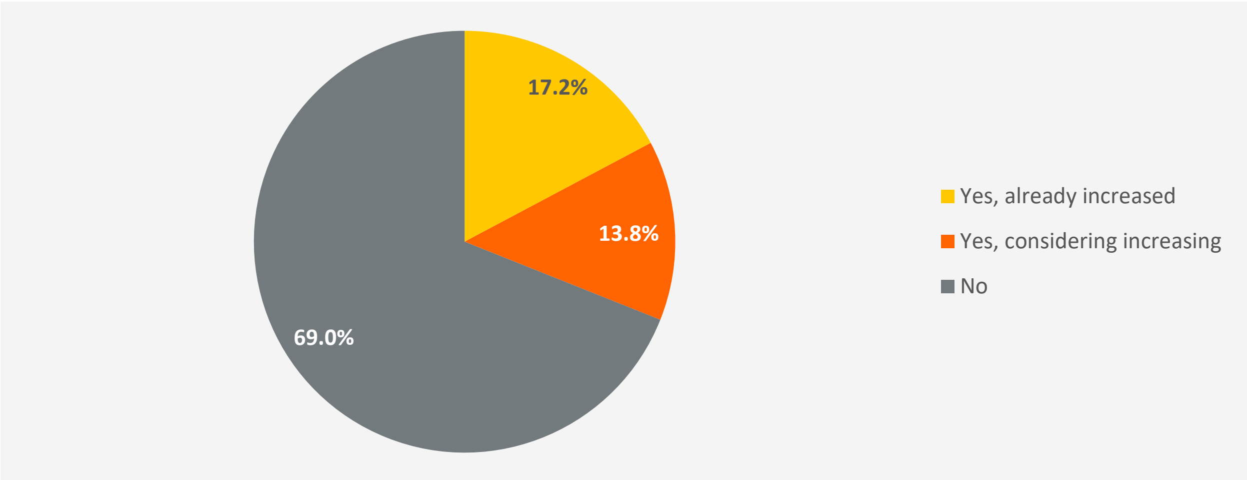
FIGURE 10: DRIVING FACTORS OF THE DECREASE IN RBC%



Technology

Product and administration regulation changes due to the COVID-19 pandemic have led companies to increase technology spending. Some carriers (17.2%) have already increased their spending on technology, 13.8% are considering increasing it, but most carriers (69.0%) are neither increasing nor considering increasing their spending on technology.

FIGURE 11: INCREASE IN TECHNOLOGY SPENDING



Carriers that are either increasing or considering increasing spending on technology indicated the extent of this increase on a scale of 1 (small increase) to 5 (large increase). Eight of the nine responding carriers expect this increase to be small to moderate. These results are shown in Figure 12.

FIGURE 12: EXTENT OF INCREASE ON TECHNOLOGY SPENDING

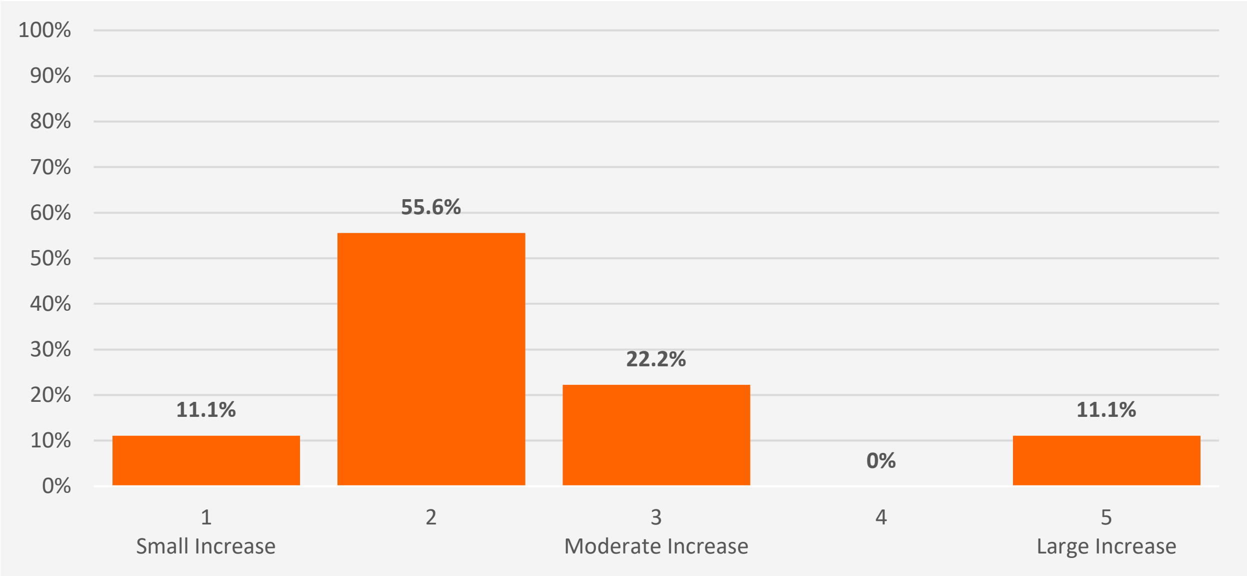
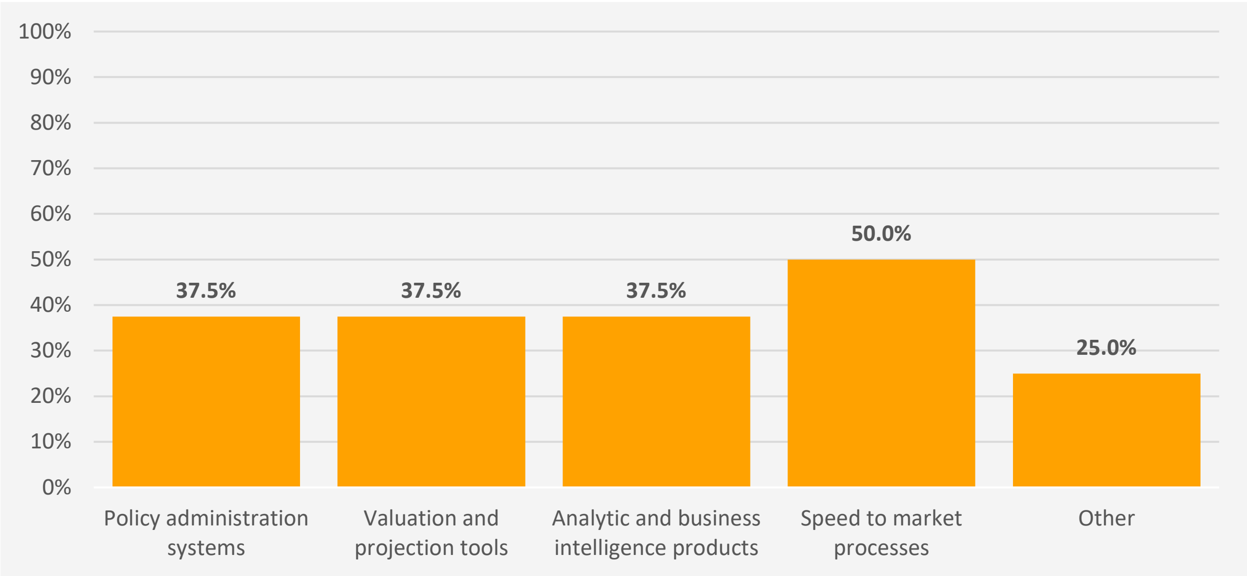


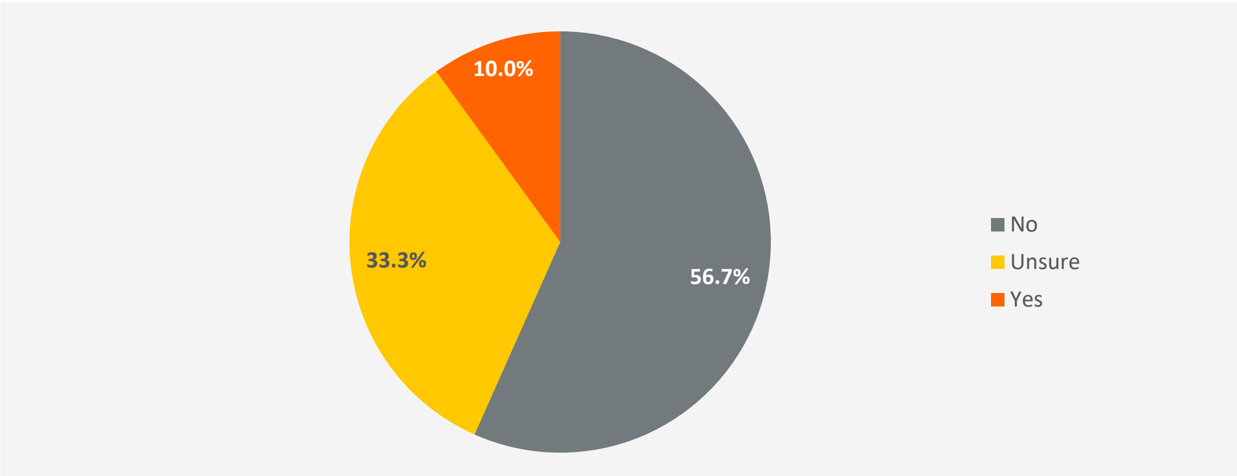
Figure 13 shows the highest focus for increased technology spending tends to be on speed to market processes; other areas of focus are evenly distributed between the given survey options of policy administration systems, valuation and projection tools, and analytic and business intelligence products. The category of "Other" focused on addressing issues related to working remotely.

FIGURE 13: FOCUS OF INCREASED TECHNOLOGY SPENDING



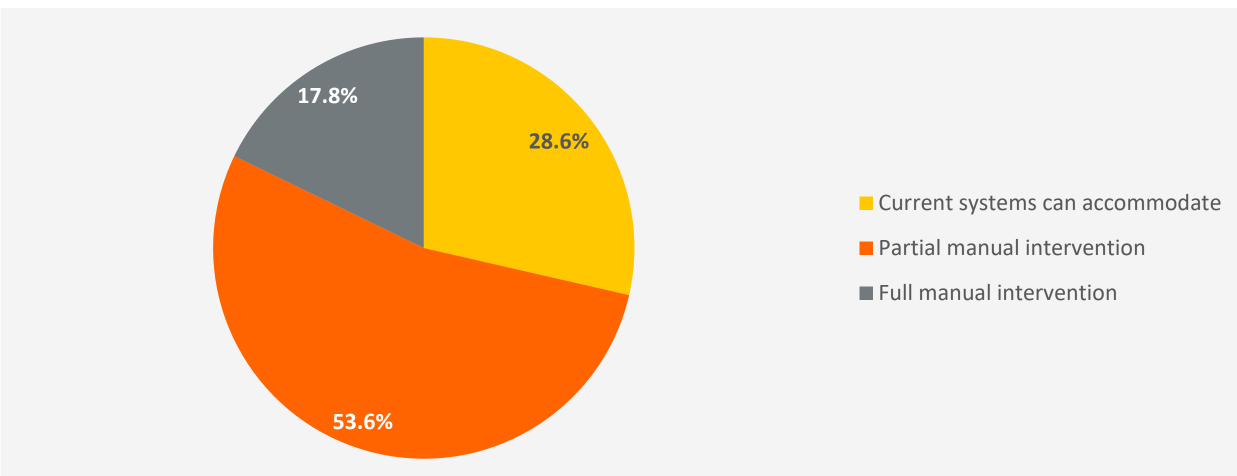
As seen in Figure 14, 10.0% of participating carriers stated that they are considering an enhancement to their data science and analytical tools in response to the COVID-19 pandemic, 56.7% are not considering an enhancement, and the remaining 33.3% are unsure.

FIGURE 14: CONSIDERING AN ENHANCEMENT TO YOUR DATA SCIENCE AND ANALYTICAL TOOLS



Almost all carriers (93.3%) have implemented the administration of extending grace periods as required by some states. Of those carriers administering the extended grace periods, 28.6% have systems that can already accommodate the extensions, 53.6% require partial manual intervention, and 17.8% require full manual intervention. These results are shown in Figure 15.

FIGURE 15: ADMINISTRATION OF EXTENDED GRACE PERIODS

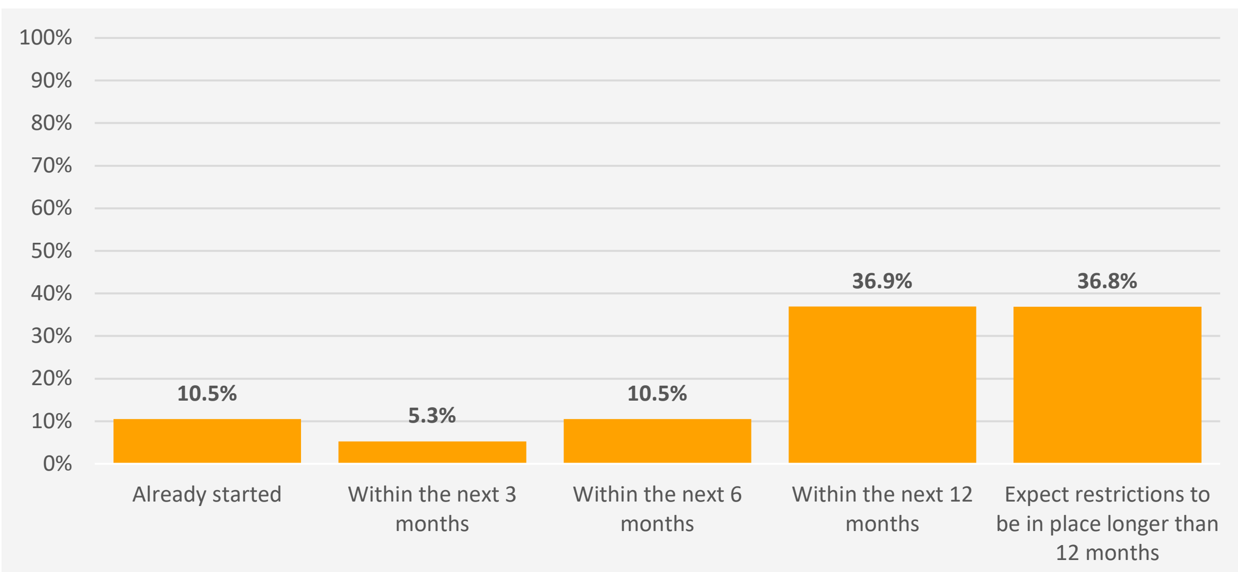


Underwriting

69% of responding carriers adjusted underwriting practices in response to the COVID-19 pandemic. Of those carriers, **70%** are tracking policies issued under the new underwriting guidelines.

Some companies have adjusted underwriting practices to be more restrictive for risks due to COVID-19. When asked about plans to remove or lessen these underwriting restrictions—including restricted product sales—that were put in place in response to the COVID-19 pandemic, 73.7% of respondents are expecting restrictions to stay in place for at least 6 more months, and half of those carriers expect restrictions to stay in place for at least 12 months. The full results of expected timeframes are shown in Figure 16.

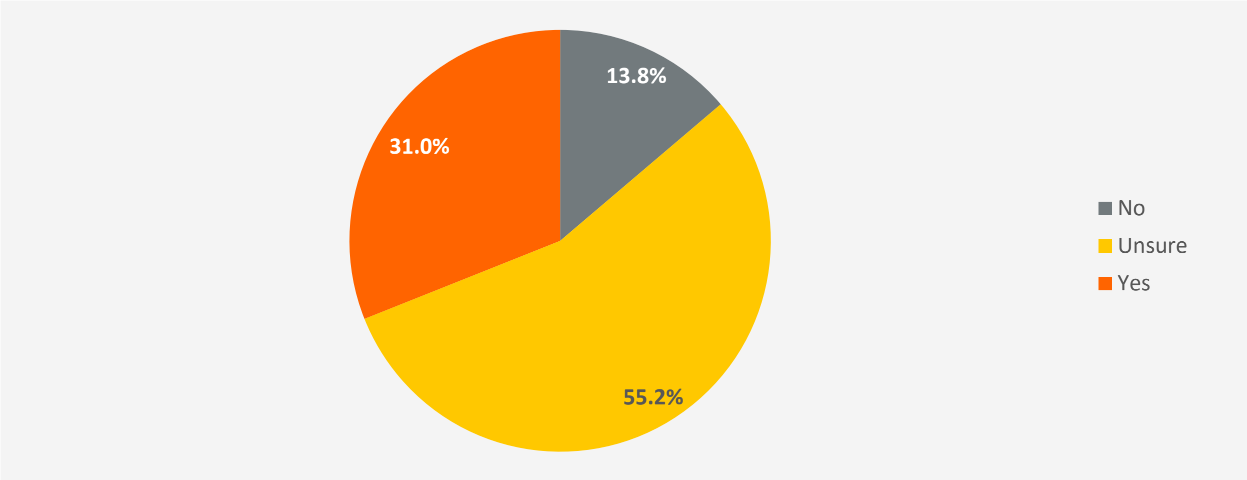
FIGURE 16: PLANNING TO REMOVE OR LESSEN ANY UNDERWRITING RESTRICTIONS



Regulatory

Most carriers (55.2%) are unsure of whether to expect any additional regulatory changes as a result of the COVID-19 pandemic. The 31.0% of carriers that expect regulatory changes commented on what they think those changes might be. Two of the most common themes included reducing valuation/non-forfeiture rates and further grace period extensions.

FIGURE 17: REGULATORY CHANGES AS A RESULT OF THE COVID-19 PANDEMIC



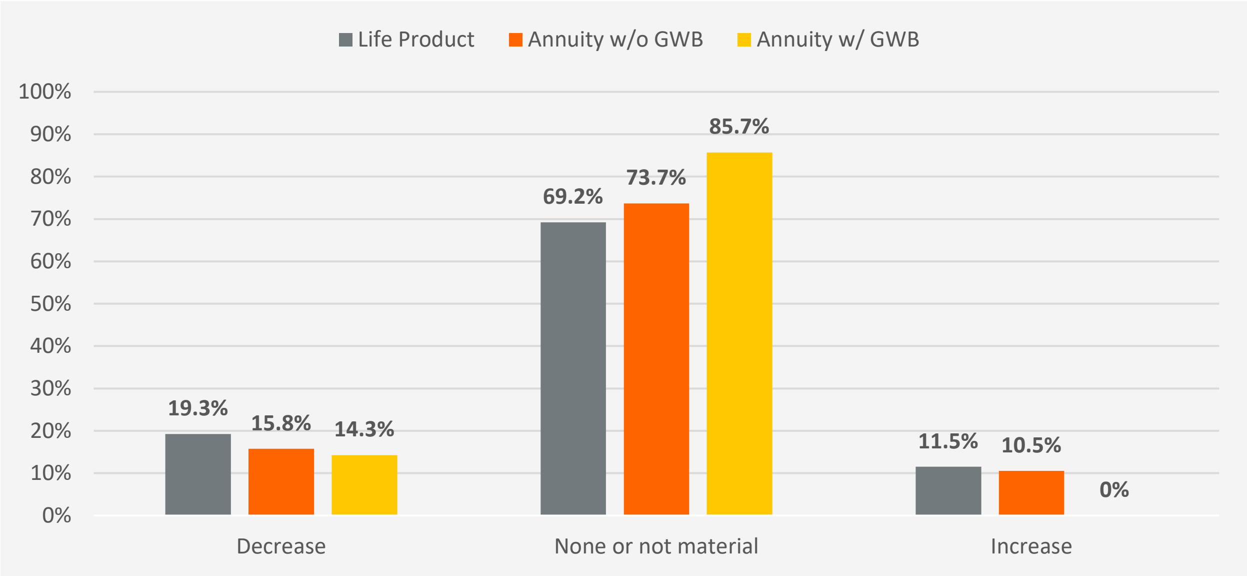
Mortality and policyholder behavior

The survey asked carriers about any changes in lapse activity over the last two months for life products, annuity products without guaranteed withdrawal benefits, and annuity products with guaranteed withdrawal benefits. Across all these products, 74.6% of respondents have not experienced any material changes in lapse activity.

Of the eight life product carriers that have seen a change in lapse rates, five have seen lower lapse rates and three have seen higher lapse rates. One of these companies indicated they have seen more than a 50% decrease in lapse rates. We suspect heightened public awareness of mortality and relaxed lapse enforcement may contribute to the bias towards lower lapse rates on life insurance policies.

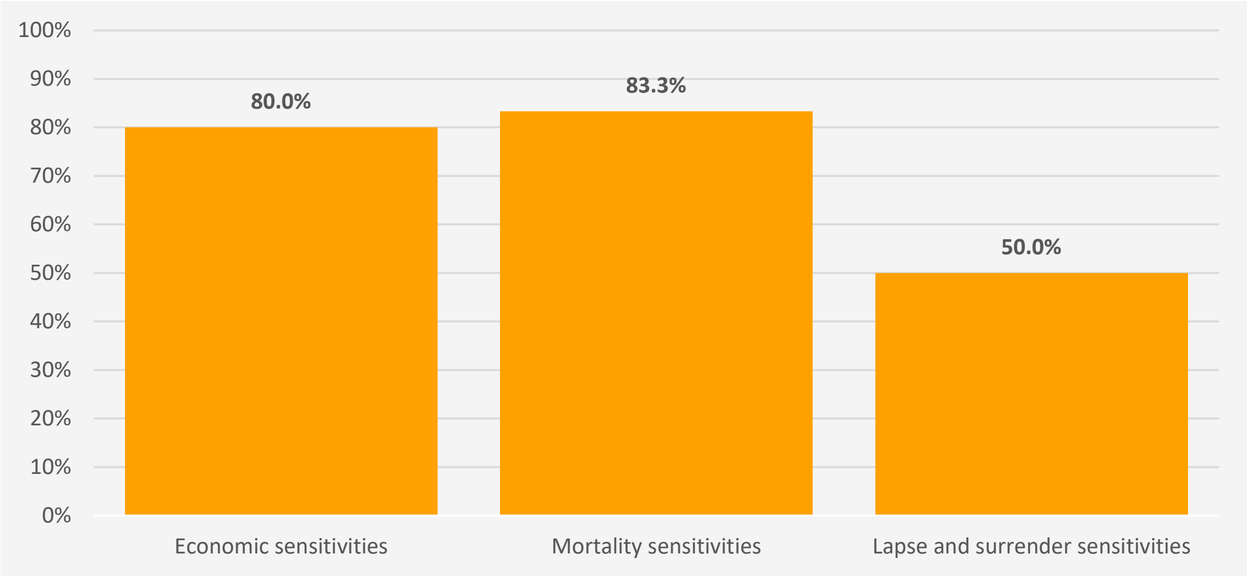
So far, annuity carriers are seeing less sensitivity to lapse experience, but not by a significant margin.

FIGURE 18: CHANGE IN LAPSE ACTIVITY IN THE LAST TWO MONTHS



Most carriers plan to perform sensitivity analyses related to the COVID-19 pandemic; 80.0% plan to analyze economic sensitivities, 83.3% plan to analyze mortality sensitivities, and 50.0% plan to analyze lapse and surrender sensitivities. None of the carriers provided information regarding other planned sensitivity analyses.

FIGURE 19: PLANS TO PERFORM SENSITIVITY ANALYSES RELATED TO THE COVID-19 PANDEMIC



Concluding thoughts of respondents

The survey concluded by asking carriers for any additional thoughts or comments about how the COVID-19 pandemic might impact their business.

> The prevailing themes from respondents were addressing mortality assumptions and accommodating the adoption of work-from-home as a standard practice.

Participating carriers

We would like to thank the following carriers for their participation in this survey:

AAA LIFE

ALLIANZ LIFE

AMERICAN FAMILY LIFE INSURANCE COMPANY

AMERITAS

CHUBB LIFE

CINCINNATI LIFE

COLUMBIAN FINANCIAL GROUP

COMBINED LIFE INSURANCE

COUNTRY FINANCIAL

CUNA MUTUAL

ERIE FAMILY LIFE

FARMERS NEW WORLD LIFE

FIDELITY LIFE ASSOCIATION

GENWORTH FINANCIAL

GOVERNMENT PERSONNEL MUTUAL LIFE INSURANCE COMPANY

HORACE MANN LIFE INSURANCE COMPANY

ILLINOIS MUTUAL LIFE INSURANCE COMPANY

IPTIQ AT SWISS RE

M FINANCIAL

MUTUAL OF OMAHA

NASSAU RE

NATIONAL GUARDIAN LIFE (NGL)

NAVY MUTUAL AID ASSOCIATION

OXFORD LIFE INSURANCE CO

PACIFIC LIFE (LIFE DIVISION)

SAMMONS FINANCIAL

STANDARD

THRIVENT FINANCIAL

TIAA

WESTERN & SOUTHERN FINANCIAL GROUP

Contact us

Milliman's market research provides insights into an expanding and competitive individual life insurance product marketplace. We plan to monitor the COVID-19 pandemic and, depending on its development, may conduct additional research on the pandemic's impact on carriers that offer life insurance products.

If you are interested in learning more detailed information about the life insurance product market, please contact us about our flexible engagement options.

We are currently underway with our 2020 research projects. If you have ideas for future surveys or would like to provide feedback about our past surveys, we would love to hear from you.

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The data in this report has been summarized for distribution to survey participants. Some of the data presented in this report has been aggregated at the total market level. In addition, not all data points collected from the survey may be shown in this summary report. It is possible that different reviewers of the data could produce different conclusions, particularly for certain market segments, than those that may be drawn from this summary report. As such, readers of this report should be cautious when interpreting the data and making decisions regarding specific market segments.

Milliman has prepared this report for the specific purpose of providing you with the results of our market survey. This report should not be used for any other purpose. Milliman's work is prepared solely for the internal business use of and is only to be relied upon by survey participants. No portion of this report may be provided to any other party without Milliman's prior written consent. Milliman does not intend to benefit any third party recipient of its work product, even if Milliman consents to the release of its work product to such third party.

In preparing this report, we relied upon data and other information provided by survey participants in the marketplace. We have not audited or verified this data and other information. If the underlying data or information is inaccurate or incomplete, the results of our report may likewise be inaccurate or incomplete. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of this report.

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