Milliman VALUES™
2019 GLWB industry utilization study

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In 2014, Milliman kicked off a series of variable annuity (VA) policyholder behavior experience studies using predictive analytics, starting with an industry lapse study. Since then, we have expanded the study to withdrawal behaviors as well as mortality. The goal of this Milliman VALUES™ series is to evaluate and improve common assumptions using advanced analytics, and to provide implementable suggestions.

Subscribers receive all annual studies and access to Recon® GLWB, an interactive web-based platform that allows users to explore industry data and compare it to their company's experience. Recon is refreshed quarterly with new data, allowing subscribers to keep up on emerging trends in policyholder behavior.

Our 2019 Milliman VALUES Guaranteed Lifetime Withdrawal Benefit (GLWB) industry lapse and utilization studies included 3.1 million policyholders from eight large VA writers, representing roughly $360 billion of initial account value, and covering a range of GLWB product designs as well as demographic attributes. Our experience spanned from 2007 through the beginning of 2019. We studied when policyholders chose to begin taking lifetime withdrawals, how efficiently they continued to take them thereafter, and what drove them to lapse.

In this year's utilization study, we significantly increased the amount of exposure in late durations, allowing us to better calibrate behavior after the GLWB rollup period ends. We also built an *annual* efficiency predictive model, allowing us to study more granular drivers of utilization efficiency behavior.
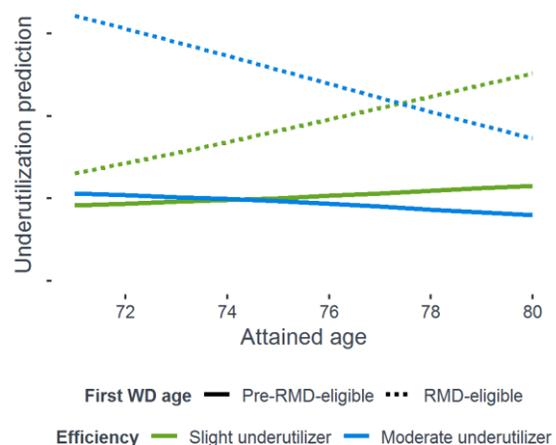
2019 utilization study takeaways

The full VALUES utilization report includes details about our predictive experience models and their coefficients, as well as a wide range of insights and takeaways into policyholder behavior. In this summary, we focus on some of our findings related to required minimum distributions (RMDs). Historically, policyholders with tax-qualified funds had to withdraw from at least one account the year they turned 70.5. With the recent implementation of the Setting Every Community Up for Retirement Enhancement (SECURE) Act, that age was increased to 72, but RMDs were subsequently waived in 2020 due to the coronavirus pandemic. Gaining a better understanding of how RMDs affect policyholder behavior is thus as critical as ever.

Takeaways and figures in this section are based on the industry data supporting the utilization study and are stylized to convey relative likelihoods of utilization behavior for the sake of comparison. Individual company experience will differ based on the demographic composition and product features in its block.

Relative to policyholders with non-qualified funds, those with tax-qualified funds are more likely to commence GLWB utilization sooner, especially after they have reached the RMD-eligible age, and they are more likely to withdraw less than the maximum annual withdrawal amount (MAWA) thereafter. The RMD requirement pushes many tax-qualified contracts to commence GLWB utilization earlier than their non-qualified counterparts, and it also seems to encourage policyholders to take exactly the RMD amount. RMD amounts are typically quite a bit less than their MAWAs, and thus RMDs lead to significant underutilization of the GLWB.

Policyholders with tax-qualified contracts who begin withdrawals after becoming RMD-eligible are more likely to underutilize than those policyholders who begin withdrawals before becoming RMD-eligible. In the absence of industry standards for recording RMD-specific withdrawal amounts, we used age at first GLWB withdrawal to meaningfully segment policyholders. Figure 1 shows the predicted probabilities of underutilizing across attained age, for two cohorts of RMD-eligible policyholders.

FIGURE 1: UNDERUTILIZATION RATES FOR RMD-ELIGIBLE POLICYHOLDERS
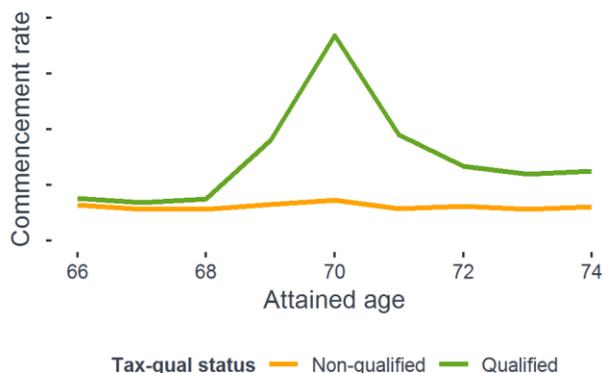
RMD-eligible policyholders who first withdrew *before* becoming RMD-eligible (solid lines) show significantly lower rates of underutilization, and those rates remain stable for both slight and moderate underutilization. Conversely, RMD-eligible policyholders who first withdrew *after* becoming RMD-eligible (dotted lines) have much higher rates of underutilization, and see a trade-off of slight and moderate underutilization rates over time. As those policyholders age, and RMD amounts grow toward their MAWAs, many moderate underutilizers become slight underutilizers.

By tracking which policyholders are taking exact RMD amounts, companies may be able to better forecast future withdrawal amounts, especially for tax-qualified contracts.

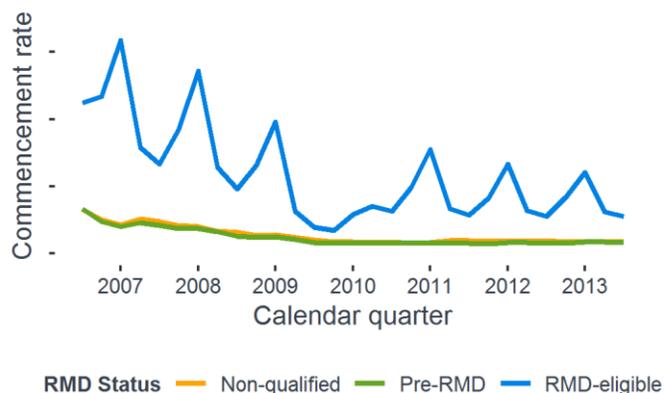**The effect of RMDs on the timing of GLWB utilization spans multiple attained ages.** Figure 2 shows historical industry withdrawal commencement rates for policyholders with tax-qualified contracts, specifically around the former RMD-eligible age of 70.5. Tax-qualified contracts are associated with noticeably elevated commencement rates as early as attained age 68, and beyond attained age 74. When building new assumptions around the SECURE Act, it is important to consider that the RMD effect is not limited to a single attained age.

FIGURE 2: WITHDRAWAL COMMENCEMENT RATES FOR TAX-QUALIFIED POLICIES BY ATTAINED AGE

The waiver of RMDs in 2009 led to a noticeable drop in commencement rates among tax-qualified contracts. Figure 3 shows GLWB withdrawal commencement rates around that time period, segmented by RMD eligibility status. In 2009, there was a noticeable dip in commencement rates, with no shock in the first quarter of 2010. Policyholders had until April 1 of the following year to take their first RMD withdrawals, explaining why it's the 2010 shock that never happened. We will be monitoring emerging experience here to help refine assumptions.

FIGURE 3: WITHDRAWAL COMMENCEMNT RATES BY CALENDAR QUARTER

RELATED INSIGHTS

- Tax-qualified cohorts of policyholders issued in their 60s or later show cumulative utilization rates close to 100% by rider year 13, the limit of our observation period. Non-qualified cohorts, however, show the potential to include a never-withdraw cohort, as cumulative utilization rates are much lower than for qualified cohorts. Such findings can be explored in Recon GLWB.

- Withdrawal efficiency behavior for tax-qualified policyholders who commenced *around* RMD-eligible age shows elevated underutilization rates for a range of attained ages at first withdrawal, rather than just during the policyholders' first year of RMD eligibility.

- Withdrawal efficiency by policyholders of RMD-eligible age who commenced in 2009—when RMDs were temporarily waived—showed lower rates of underutilization than in other years. This is likely due to a selection effect, where those policyholders planning to take exactly their RMD amount did not choose to start withdrawing that year.

Future plans

Building off our VALUES studies, we are currently researching a number of distinct items, including:

- Investigate third-party data as drivers of policyholder behavior. We expand on this in the following section.

- Compare our industry variable annuity experience and policyholder behavior models to the assumptions prescribed in the National Association of Insurance Commissioners (NAIC) Valuation Manual (VM-21).

- Investigate the effects of macroeconomic factors on variable annuity lapse and utilization behavior (beyond dynamic moneyness factors).

- Conduct an industry study on indexed annuities.

Our goals

This study builds on the effort we began in 2014 to provide insights into policyholder behavior based on scientifically sound principles. The report contains a comprehensive analysis of all the drivers we studied related to GLWB utilization behavior, and for each driver the report provides more details, including charts, tables, etc. It also provides baseline GLWB utilization timing and efficiency predictive models designed for straightforward implementation in an actuarial projection, as well as expanded GLWB utilization timing, with exploratory drivers and an annual utilization efficiency model.

We go beyond the report, however, giving subscribers access to Recon® GLWB, an interactive, web-based platform that allows them to visualize and download both the data and predictions from both models in an effective way. Subscribers also have access to the coefficients and model form of our linear predictive models. Recon GLWB is updated each quarter as participants send in updated experience data. Each year, we fully refresh the platform with updated models and new insights based on the VALUES studies.

Our goal is to continue to expand the insights we provide via the VALUES studies on the Recon platform to help our clients.

In that vein, we plan to use third-party data to better segment policyholders, providing a clearer picture of what drives policyholder behavior. Recon subscribers will be able to see data snapshots across these refined policyholder segmentation groups, and subscribers will also have access to predictive models driven by the third-party data policyholder segments.

More generally, we help subscribers by:

- Closely monitoring the emerging industry experience
- Using industry data to benchmark company experience against the industry and supplement assumption setting, particularly where a company's own experience is scarce
- Allowing companies with no GLWB products to get a view on policyholder behavior as they contemplate market entry
- Support in-force management and product development strategies

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For more information on the purchase of the full 2019 GLWB utilization or lapse reports, including access to Recon® GLWB, and to participate in our ongoing industry experience studies, please contact:

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