

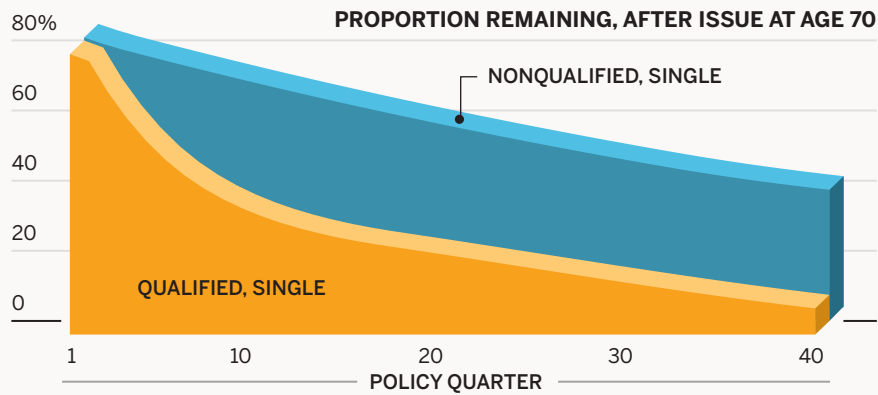
HOW EFFICIENT ARE POLICYHOLDERS?

VARIABLE ANNUITY GLWB UTILIZATION: KEY FINDINGS

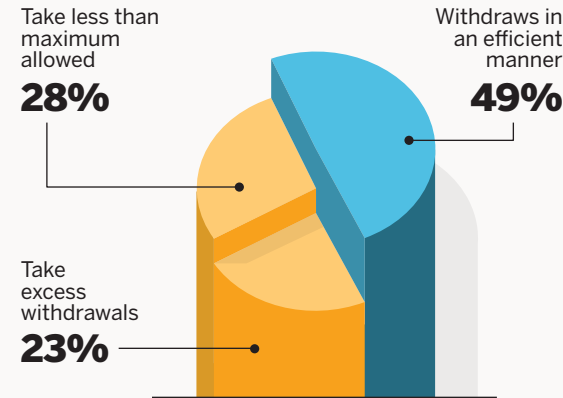
The life insurance industry is still chasing the property and casualty insurance industry in using advanced analytical techniques to understand its customers—both potential future customers and existing policyholders. We believe that there is great potential for life insurance companies to develop expertise in this area. This Milliman report focuses on using advanced analytics techniques to analyze GLWB utilization among variable annuity policyholders.

Tax Qualification Status Drives Utilization Timing

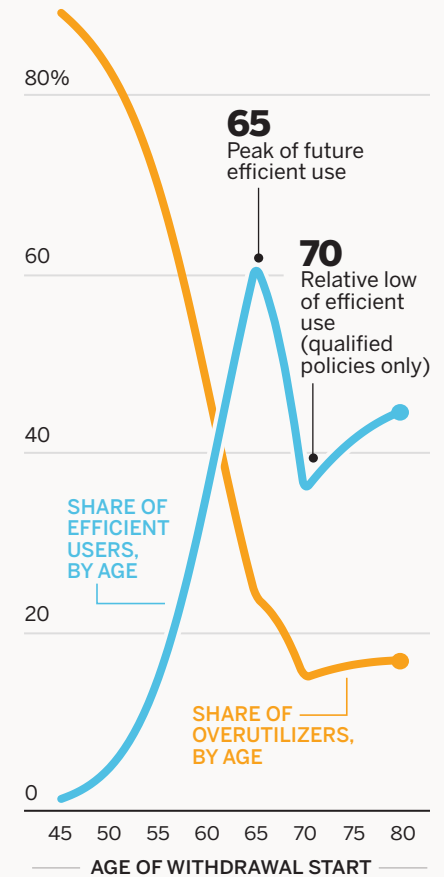
After age 70½, qualified policyholders will begin to take required minimum distributions and are more likely to begin GLWB utilization in each of the subsequent quarters.



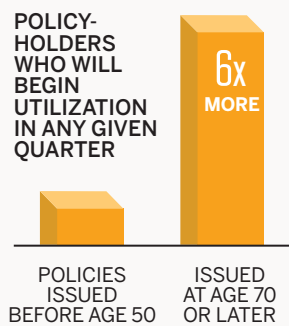
Most Policyholders Don't Use Their Benefits Efficiently



Correlation between Age and Subsequent Withdrawal Efficiency

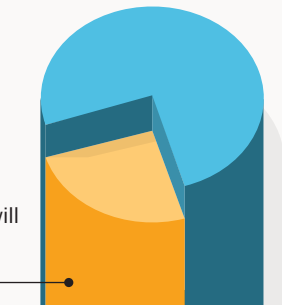


Policyholders Who Are Older at Issue Utilize their Policies Sooner



More Begin Utilizing Their GLWBs in the 1st Quarter and on Policy Anniversaries

Up to 25% of policies will start immediately, forgoing potential benefits



Joint policies owners begin withdrawals later. They are ...

5 to 10%

... less likely to have withdrawn at every observed policy duration

OUR DATA

Our analysis of policyholder withdrawal behavior is based on 2 million unique policies issued from 2003 to 2015 by seven different companies. We track the same policies from time of issue to the first guaranteed lifetime withdrawal, and thereafter, to study how policyholders utilize their withdrawal benefit riders. This provides a rich data set with which to study policyholder withdrawal behavior.

