



77 - Valuation Issues for the Worksite Life Actuary (Life, Annuities, and Combination Life/Health Riders)

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Valuation Issues for the Worksite Life Actuary

Session 77

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Agenda

- Introductions
- Worksite market fundamentals
- Valuation for the worksite market
- Company perspective
- Valuation for LTC riders

Worksite Market Fundamentals



What is worksite?

- Sold at place of employment
- Typically voluntary and employee paid
- Payroll deduction
- Term or Permanent
- Individual or Group



Underserved middle market

- Household income - \$35,000 to \$125,000
- Roughly 50% uninsured
- Strong consensus that there is a significant gap in coverage and the industry has had little recent success in closing the gap.

Source: <https://www.soa.org/Files/Research/Projects/research-middle-market-report.pdf>

Underserved middle market

- The benefit to the employee
- Convenience
 - Payroll deduction
 - Minimal underwriting
 - Portable
 - Family coverage usually available
- Affordability
 - Low cost insurance
 - Perception of value
- Trust
 - Same carries of health benefits
 - Employer trust in vetting carries



Underserved middle market

- The benefit to the employer
- Low Cost
 - Shifting more benefit cost to the employee
- Attract and maintain talent
 - Employees expect it
 - Perceived value



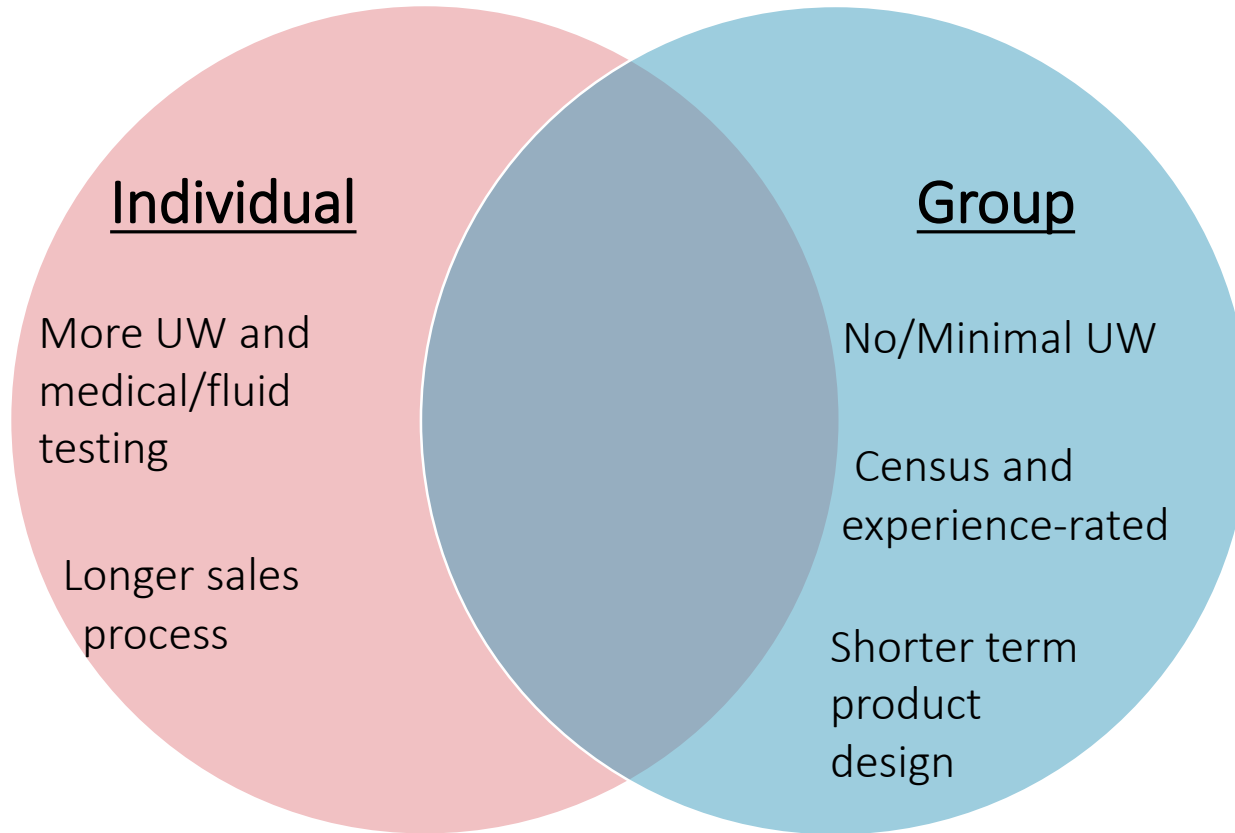
Individual vs Group vs Worksite

Individual

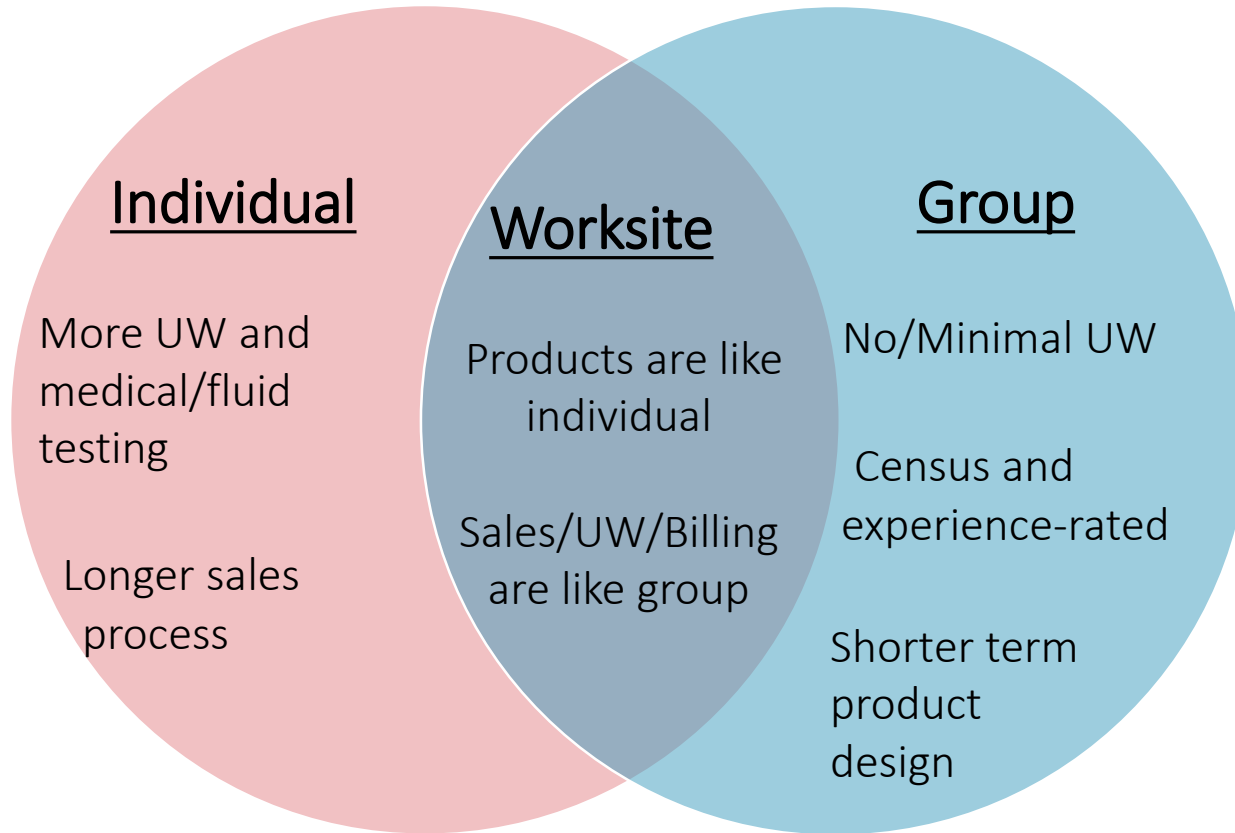
More UW and
medical/fluid
testing

Longer sales
process

Individual vs Group vs Worksite



Individual vs Group vs Worksite



Who are the key players?

- Carriers
- Policyholders
- Employers
- Distribution Partners



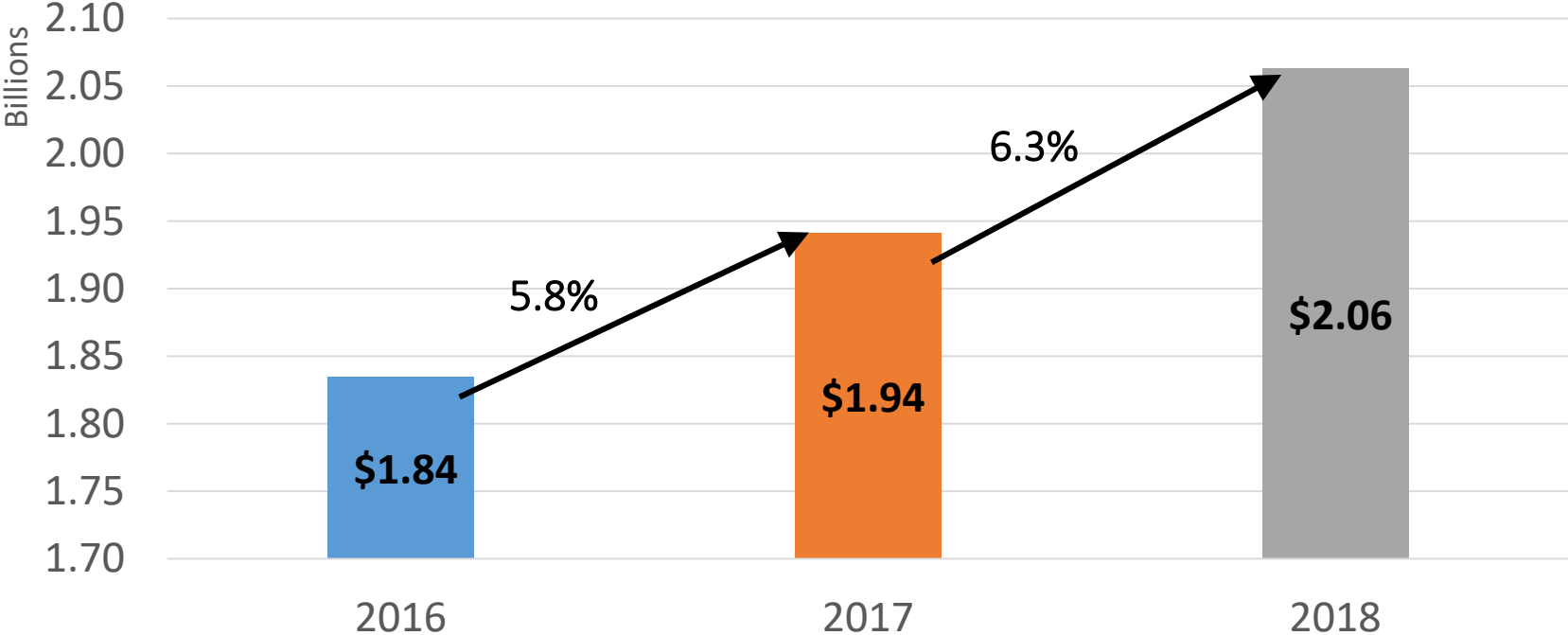
Milliman's Worksite Life Survey

- Specific to purely voluntary worksite life insurance products
- Not including true group, annual renewable term products
- Not including employer paid products
- 21 carriers and 63 products represented
- Note that information contains preliminary results

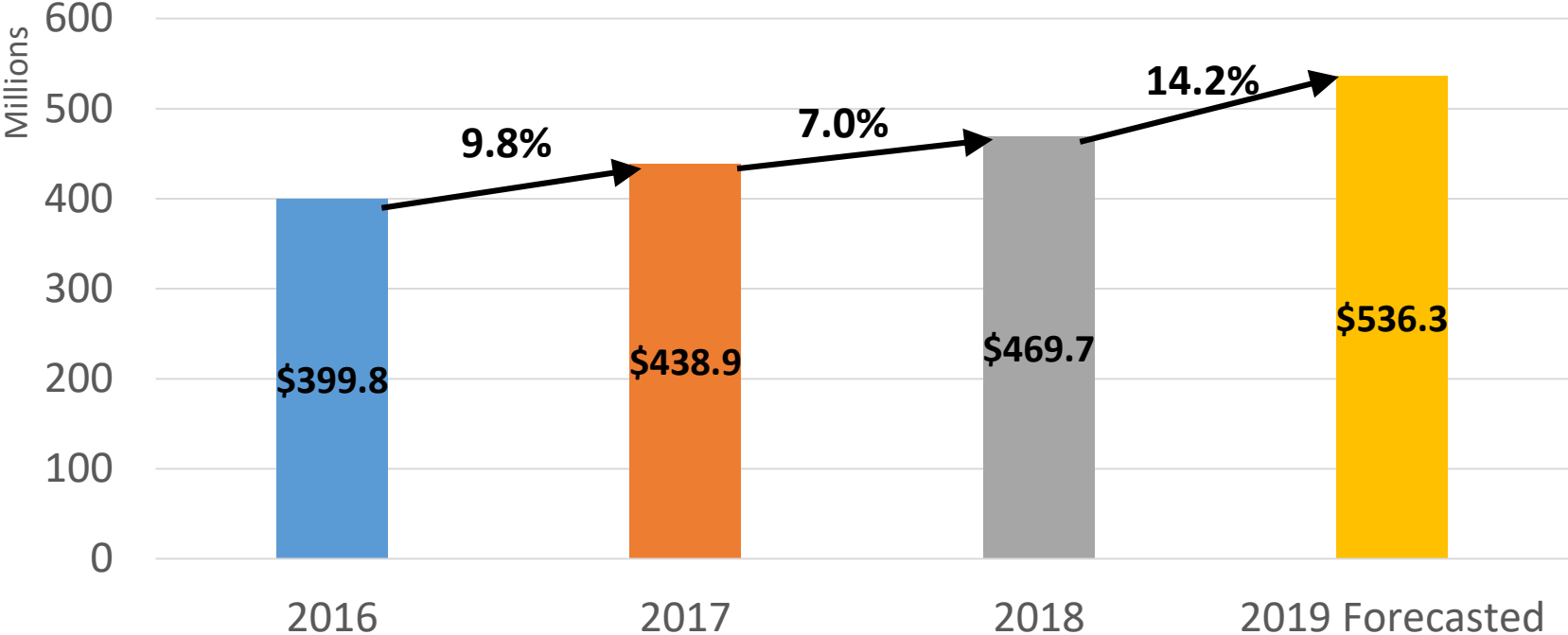
Participating Carriers

- 5Star Life Insurance
- Aflac
- Allstate
- Colonial (UNUM)
- Guardian
- Illinois Mutual
- Leaders Life Insurance
- Life Insurance Company of Alabama
- MassMutual
- New York Life
- Security Mutual Life of New York
- Texas Life Insurance
- Transamerica
- Trustmark
- Voya Financial
- Washington National
- Company A
- Company B
- Company C
- Company D
- Company E

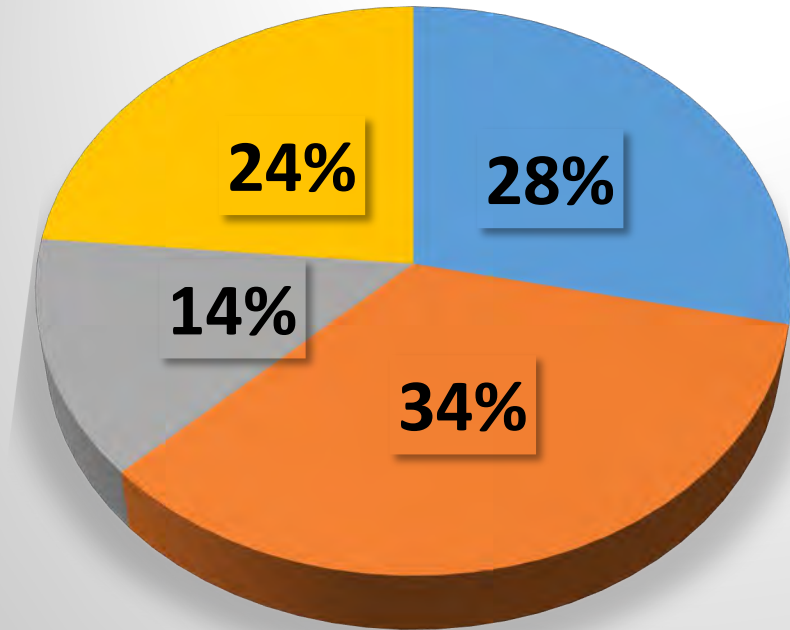
Worksite Life Inforce Growth



Worksite Life Sales Growth



Worksite Life Sales By Product Type

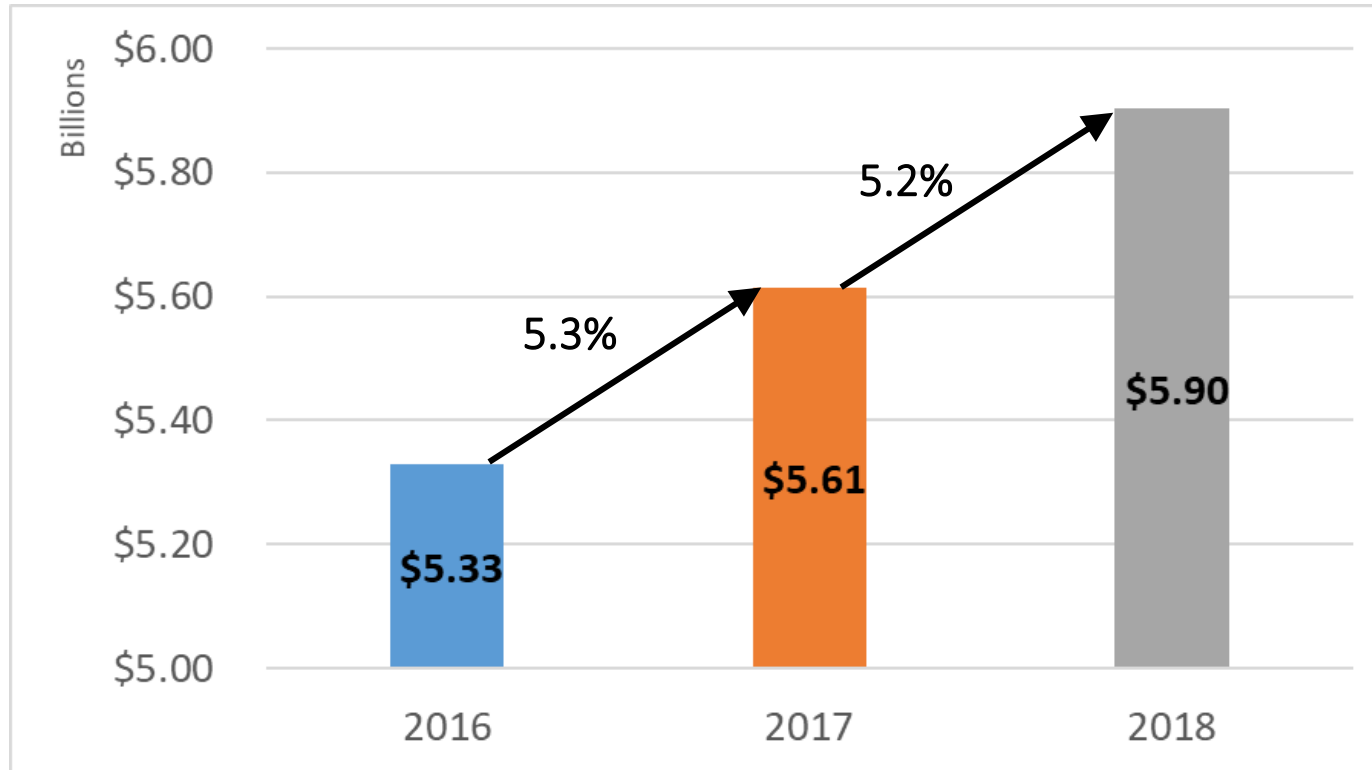


- Whole Life
- Universal Life
- Permanent Term
- Other Term

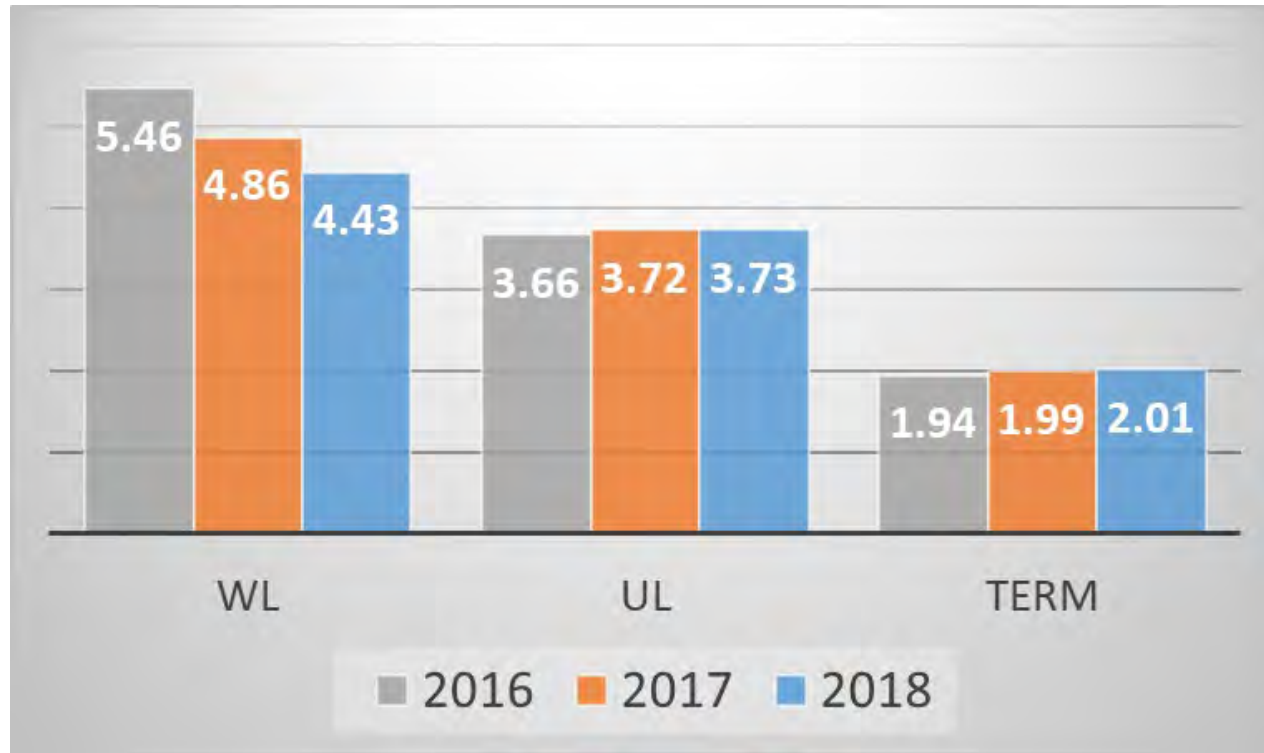
Valuation for Worksite Life



Reserves Inforce



Reserves per Premium Inforce



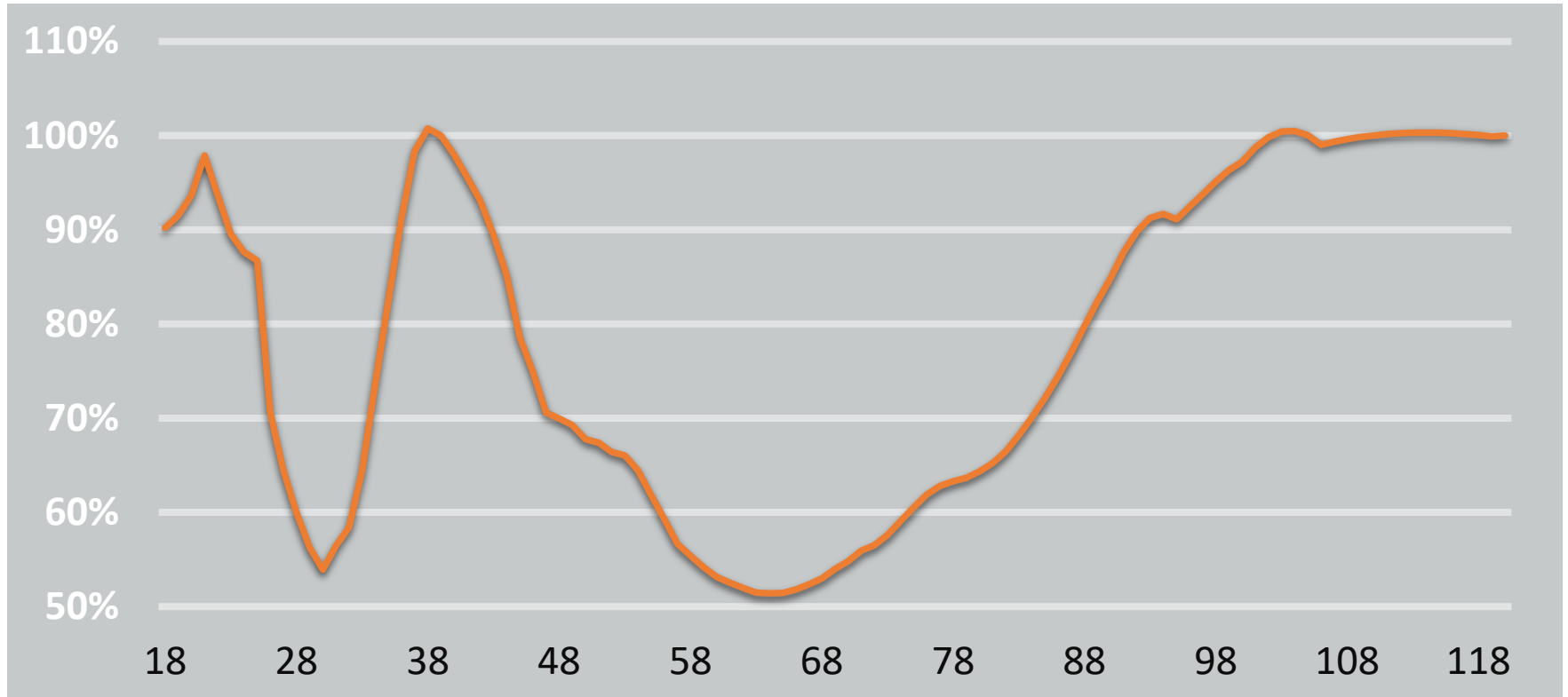
2017 CSO / VM20

- 2017 CSO
 - 3-year transition window ends January 1, 2020
- VM-20 & Principal Based Reserves
 - Simplified/Guarantee Issue mortality
 - Small Company Exemption



Mortality Table Comparison

Male non-smoker ratio of 2017 CSO Ultimate to 2001 CSO Ultimate



SI and GI Mortality Table Comparison

35 Male non-smoker composite unloaded tables

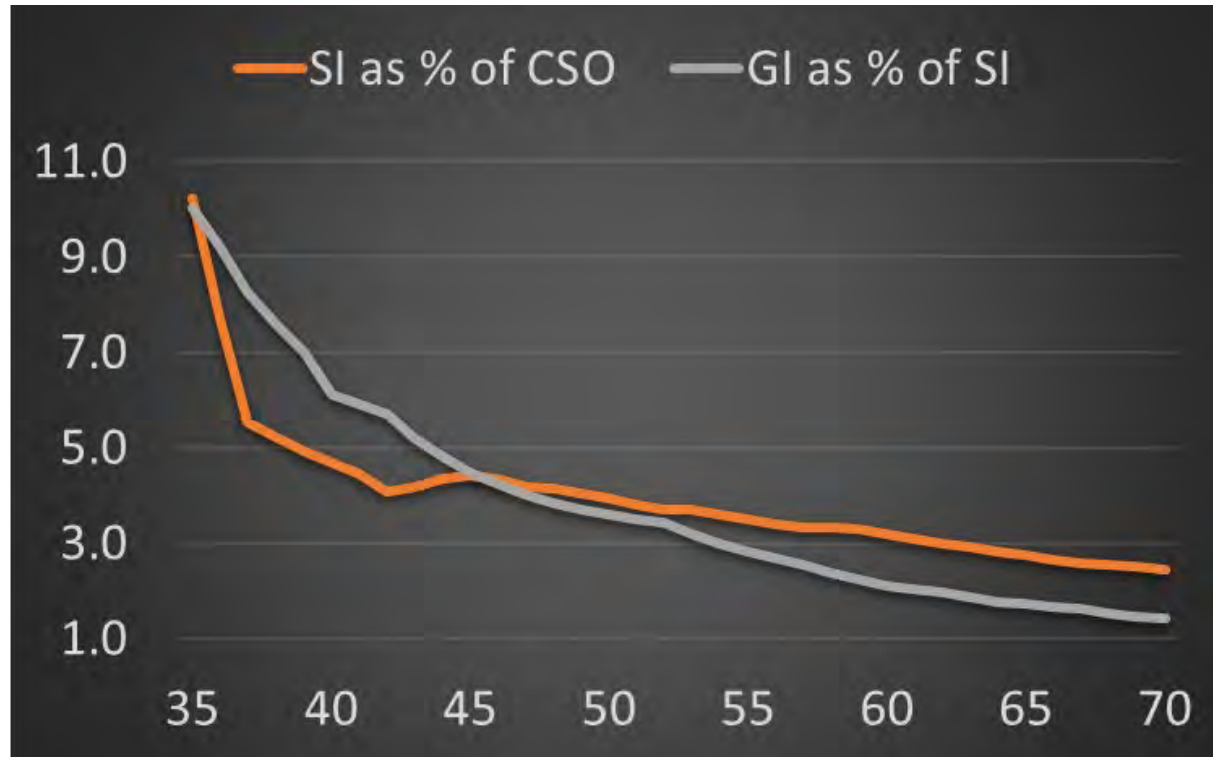
2017 Simplified Issue Mortality Tables Report and 2017 Guaranteed Issue Mortality Tables Report



SI and GI Mortality Table Comparison

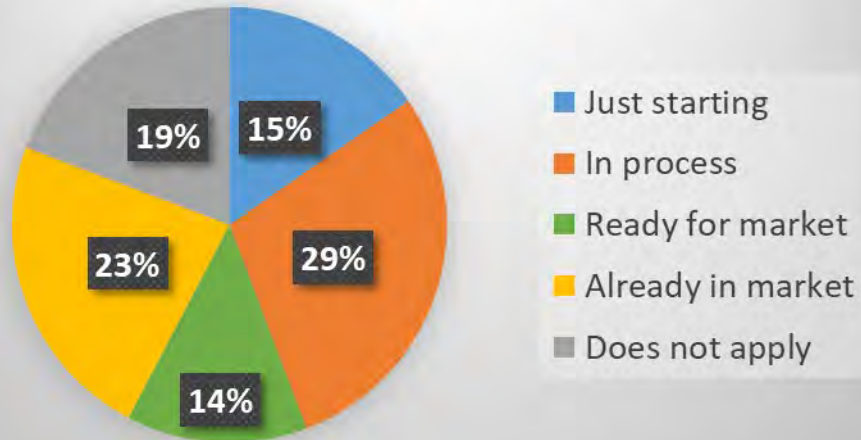
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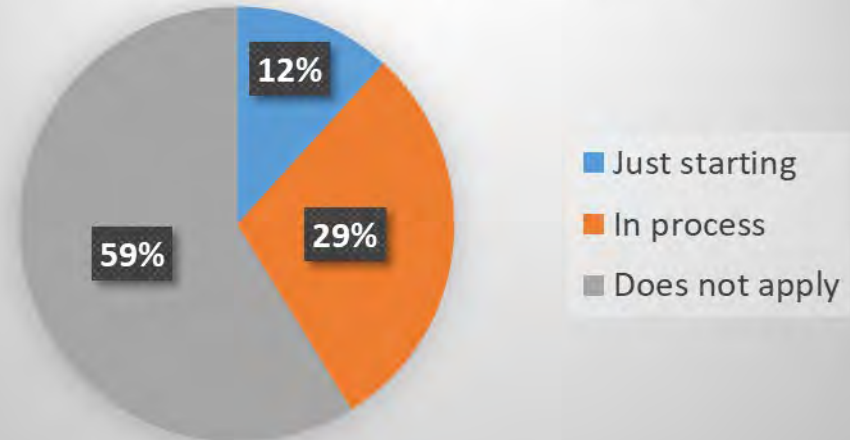


Compliance Updates

2017 CSO Implementation (by product)




VM-20 Implementation (by carrier)



Life PBR Exemption

- Premium threshold
 - Ordinary life premiums for each legal entity must be less than \$300M
 - Ordinary life premiums for associated group must be less than \$600M
- No “material” ULSGs
 - Must be a specified premium design (not shadow account)
 - “short” duration of secondary guaranteed based on issue age
 - PV(specified premiums) must be greater than PV(net premiums) over the maximum duration of secondary guarantee
- Previous requirements that are no longer
 - No RBC requirement of 450%
 - No requirement of unqualified actuarial opinion



2017 CSO and PBR: Company Perspective

Genni Knight, FSA, MAAA
August 27, 2019

Worksite – Universal Life Product:

- Small face amounts
 - Max = \$150K, Avg ~ \$30K
- SI / GI underwriting (group size, participation)
- Fixed credited rate
- Flex premium – but fixed payroll deduction
- No-lapse (secondary) guarantee – min premium
- Re-filed for 2017 CSO / PBR

W/S UL – 2017 CSO / PBR:

- No CSSI table – use 2017 CSO (adjustments)
- Updated 7702 test, surrender charges, GCOI
 - Otherwise no changes to product
- No-lapse guarantee – non-material per VM-01
 - Anticipate passing DET, so NPR will be operative reserve
- PBR reserve coding still in process

Living Benefit Chronic Illness Accelerated Death Benefit Rider (UL):

- Benefit as lump sum (X%) or monthly (Y%) of face amount
- LTC-type triggers (2 of 6 ADL's, cognitive impairment)
- Monthly deductions waived while on claim
- Available only at issue
- Underwriting = same as base (SI / GI)
- Separate charge (increases target premium)
- Policy values reduced as claim paid out

LB CI ABR (Trad): 2017 CSO / PBR

- Lump sum benefit only, rider for SI term / whole life
- Considerations / challenges
 - Separate module / functionality in reserving software
 - Reserve (pre-PBR) calculated as difference between Base + Rider, and Base. Post PBR....
 - Modeling all possible state transitions based on multiple decrements = extremely complex
 - Premiums while on claim, and after claim
 - Verify that \sum benefits is same whether or not rider has claim

LTC and Chronic Illness Riders



Rider Benefits

Rider	Products Offering Rider	Election Rate
Child Term	58	10.2%
Accidental Death	53	18.1%
Waiver of Premium	49	23.6%
LTC/Chronic illness	33	45.0%
Spouse	30	7.9%
Critical illness	26	21.2%
Guaranteed Purchase Option	23	19.1%

Rider Benefits

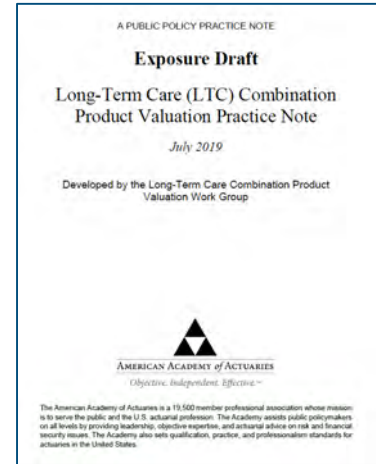
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LTC Combo Valuation Update



LTC Combo Product Valuation Practice Note

- July 2019
- Presented to NAIC LTC AWG August 2019
- Emerging practices for STAT, GAAP, Tax



[https://www.actuary.org/sites/default/files/2019-07/Exposure LTC Combo PN 07192019.pdf](https://www.actuary.org/sites/default/files/2019-07/Exposure_LTC_Combio_PN_07192019.pdf)

Practice Note Q #1:

- Are statutory LTC rider reserves usually developed **independent** of life reserves, **or** as an **integrated** calculation?
 - Separate reserve calculations, LTC on a 1 year preliminary term basis
 - Acceleration and extension of benefits
- Addresses LTC Model Reg, UL Model Reg, VM-20
 - Uncertainty around valuing accelerated benefits on integrated basis (e.g. comingled premiums on a UL policy)

Practice Note Q #2:

- When are Provisions for Adverse Deviation (PADs) required ... and how are they derived ... ?
 - Test PADs for multiple assumptions at once and review reasonableness of results
 - Goal of increasing reserves over unpadding levels
 - VM-20 specifies derivation of mortality (could be an implicit PAD)

Practice Note Q #3:

- What **mortality basis** is used in the development of statutory LTC rider reserves?
 - 1994 GAM required for LTC reserves
 - Technically possible to use required life mortality (base policy) and '94 GAM (LTC rider)
 - Use of '94 GAM (LTC EOB) may produce insufficient reserves in the tail
 - Using a lower valuation mortality may help assure adequacy

Practice Note Q #4:

- What issues arise when utilizing **lapse assumptions** in the development of statutory LTC rider reserves?
 - Health insurance reserves model regulation
 - Mortality + Other Terminations
 - LTC Model 641, Section 18A
 - Precludes voluntary terminations

Practice Note Q #7:

- What are the considerations in the development of statutory **disabled life reserves** ..?
 - Calculated using claim termination rates, benefit utilization
 - Some companies reflect recoveries
 - Some companies reflect site of care (current, or initial) and transitions between sites of care.

Other Practice Note Q's

- #5: Tax Reserves
- #6: GAAP Reserves
- #8 YRT premiums or charges



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