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South Dakota Department of Labor Retirement Plan

Retirement Plan Discussion

June 3, 2019

July 1, 2018 Retirement Plan Valuation Results

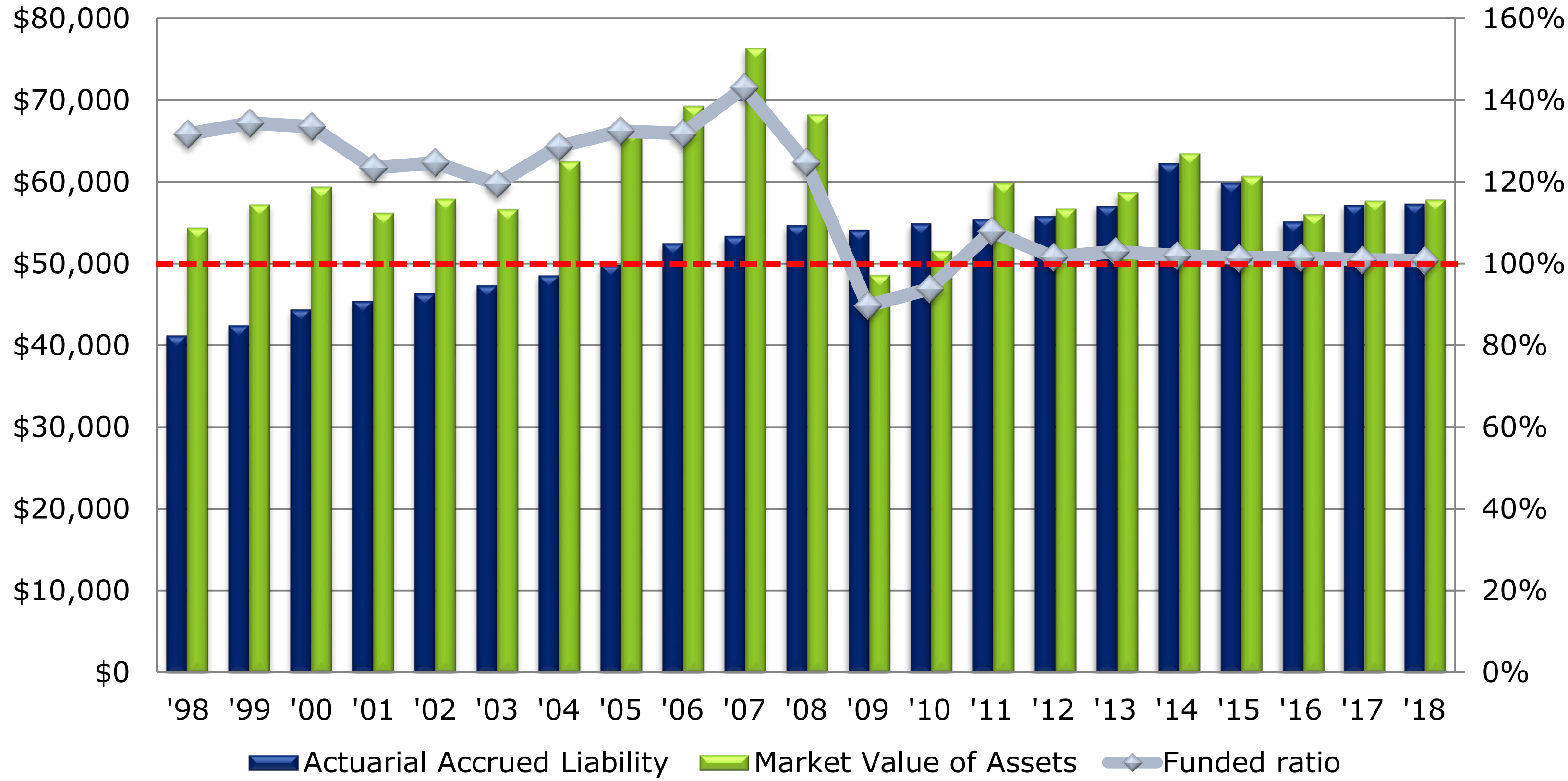
Summary of Valuation Results*

	Actuarial Liability	Market Value of Assets	Unfunded Actuarial Liability	Change in Unfunded Actuarial Liability
Amounts disclosed as of July 1, 2017	$57.2	$57.7	($0.5)	
Expected amounts as of July 1, 2018	$55.5	$56.0	($0.5)	$0.0
Change due to actual investment return	$55.5	$57.8	($2.3)	($1.8)
Change due to 1.8% 2018 COLA	$56.9	$57.8	($0.9)	$1.4
Change due to mortality assumption	$58.6	$57.8	$0.8	$1.7
Change due to COLA assumptions	$57.4	$57.8	($0.4)	($1.2)

*Numbers are rounded to the nearest one thousand dollars and as a result there are occasions when the rounded numbers do not tie out to the values shown in valuation report.

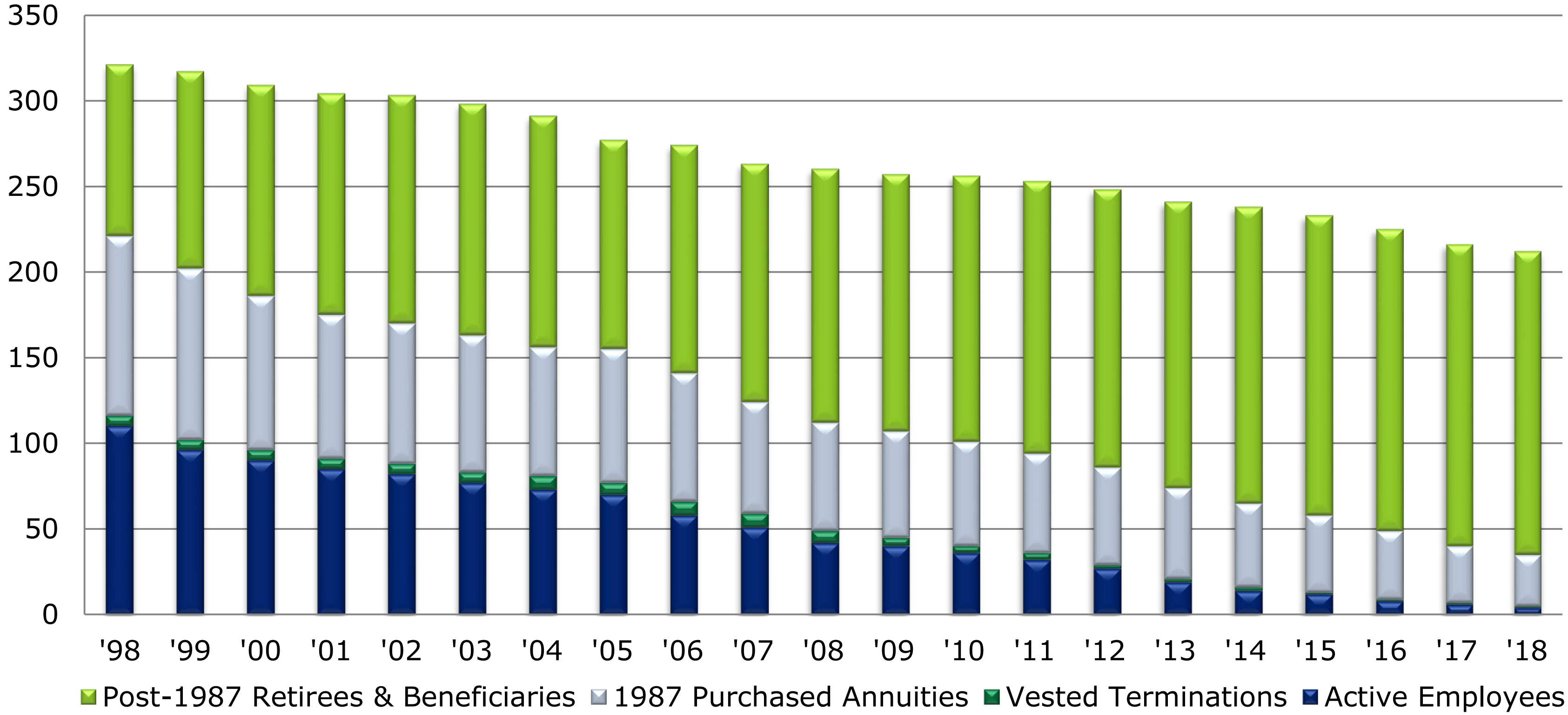
Assets and Liabilities as of July 1

(Results are in $thousands)



5% of the 2018 Actuarial Accrued Liability was attributable to active employees.

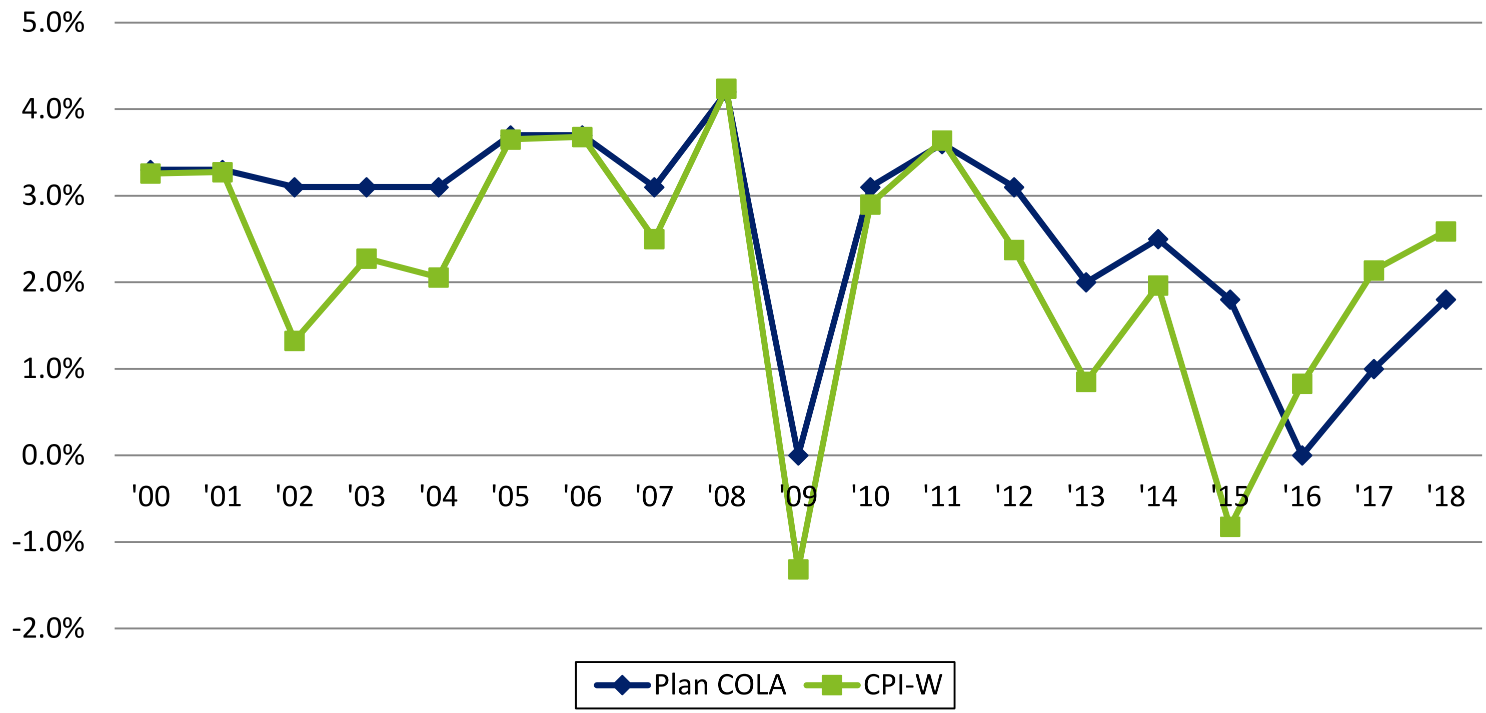
Plan Participation - History



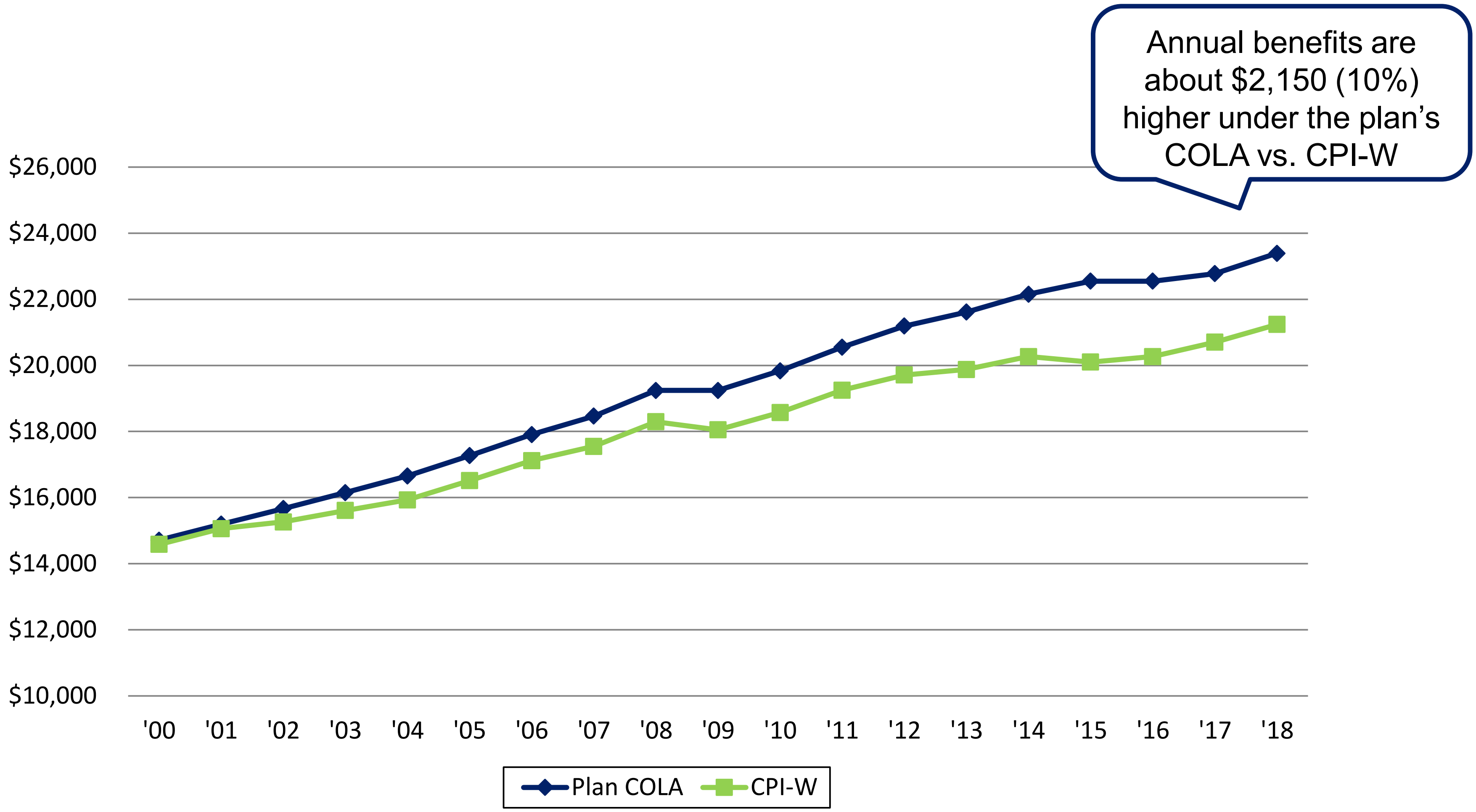
Demographic Information as of 7/1/2018	Post 1987 Retirees & Beneficiaries	1987 Purchased Annuities	Vested Terminations	Active Employees
Counts	177	30	1	4
Average Age	73.0	87.7	58.4	64.5

Plan Participation – Projection

Comparison of Actual COLA Rates to Inflation (CPI-W)



Sample Annual Benefit for pre-1999 Retiree* Comparing Actual COLA paid to Inflation (CPI-W)



*Sample retiree with $23,388 annual benefit as of July 1, 2018

Determination of Cost of Living Adjustment for July 1, 2018

The average asset value during April 2019 was **$56,493,133** which provides for a 1.3% COLA to be paid on July 1, 2019 if approved by the Board.

COLA	PVFB	COLA	PVFB	COLA	PVFB
0.1%	$49,561,000	1.3%	$56,031,000	2.5%	$63,747,000
0.2%	$50,059,000	1.4%	$56,622,000	2.6%	$64,456,000
0.3%	$50,564,000	1.5%	$57,222,000	2.7%	$65,175,000
0.4%	$51,076,000	1.6%	$57,832,000	2.8%	$65,907,000
0.5%	$51,596,000	1.7%	$58,450,000	2.9%	$66,649,000
0.6%	$52,122,000	1.8%	$59,078,000	3.0%	$67,404,000
0.7%	$52,657,000	1.9%	$59,715,000	3.1%	$68,170,000
0.8%	$53,199,000	2.0%	$60,361,000	3.2%	$68,948,000
0.9%	$53,749,000	2.1%	$61,018,000	3.3%	$69,739,000
1.0%	$54,307,000	2.2%	$61,685,000	3.4%	$70,543,000
1.1%	$54,873,000	2.3%	$62,362,000	3.5%	$71,360,000
1.2%	$55,448,000	2.4%	$63,049,000		

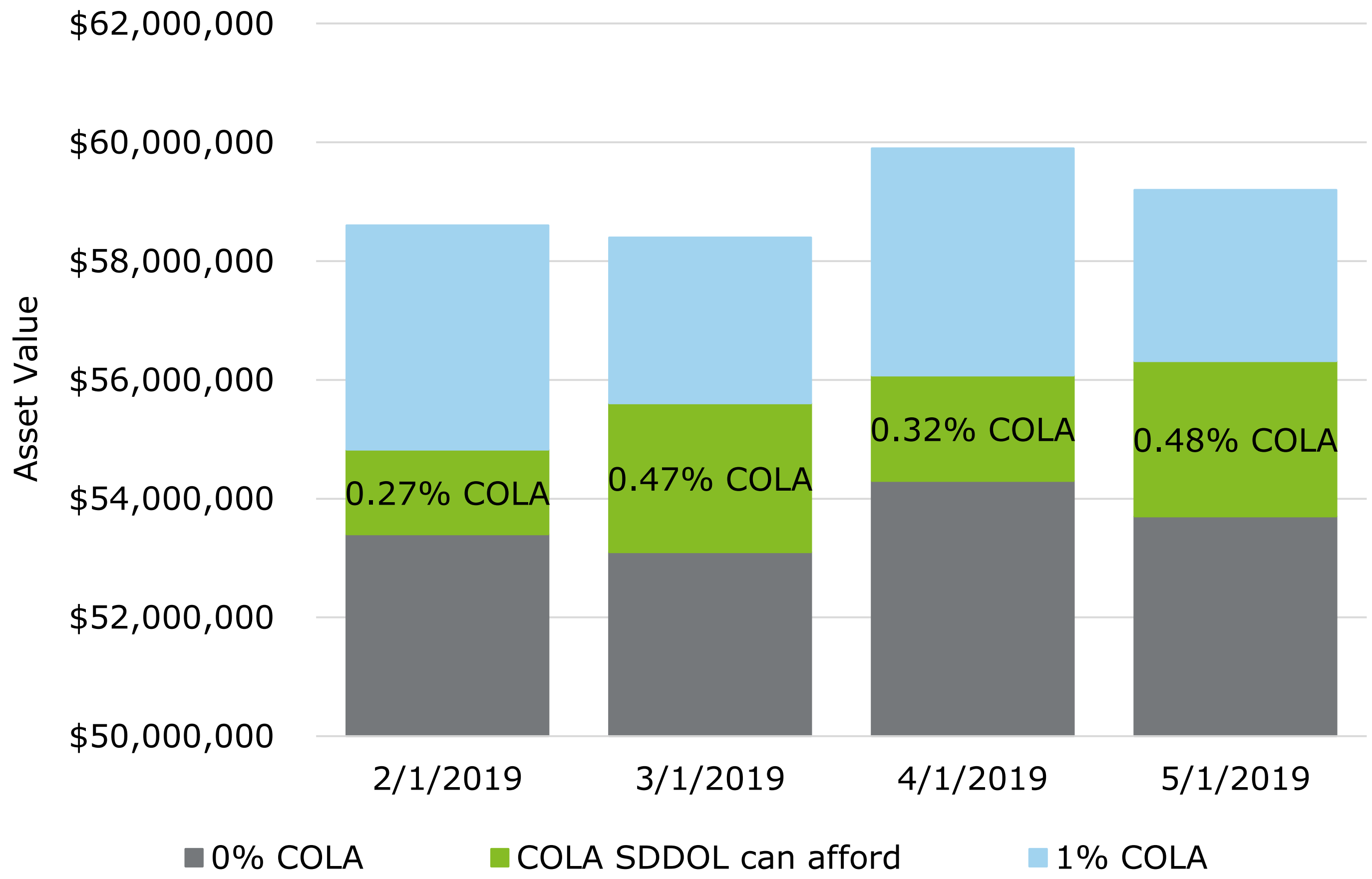
Annuity Purchase

Summary of RFP Responses

Insurer	Quote Provided?	Reason for Decline
Mass Mutual	Yes	
Principal	Yes	
OneAmerica	No	Plan complexity for deferred participants. They would reconsider if a deal were done with only retirees.
Prudential	No	Due to mortality profile, they did not feel they would provide a competitive bid.
Legal & General	No	Due to mortality profile, they did not feel they would provide a competitive bid.
Pacific Life	No	Plan complexity for deferred participants. They would reconsider if a deal were done with only retirees.

Annuity Purchase Estimates Feb 2019 – May 2019

As of May 1, 2019, South Dakota Department of Labor can afford a 0.48% COLA*.



* Based on preliminary RFP response. Final purchasable COLA is estimated to be 20-30 basis points higher. Methods and assumptions used for this analysis are provided in the Appendix.

Participants Not Yet in Payment

Current State:

- There were five participants in the Plan that were not in payment status (four active employees and one terminated vested employee); ranging from age 58-69 as of October 31, 2018
- The remaining participants could work another 10 years
- Active participants are still accruing benefits

Potential Concerns:

- Insurers see the deferred provisions as complex and may choose not to bid
- Insurers will only take on "frozen" benefits (i.e. either a benefit that is actually frozen or accrued to date type benefit, which would appear frozen)
- Running a plan for 1-2 participants may be inefficient

Potential Solutions:

- Freeze active benefits
  - Allow in-service distributions; or
  - Provide separate benefit to impacted employees
- Grant future service for the few participants still accruing and then freeze
  - This requires non-discrimination testing
- Purchase annuities for retirees/beneficiaries and maintain the plan for deferred participants

Partial Termination Example

The following highlights movement of the actual bids provided by each insurer throughout the process:

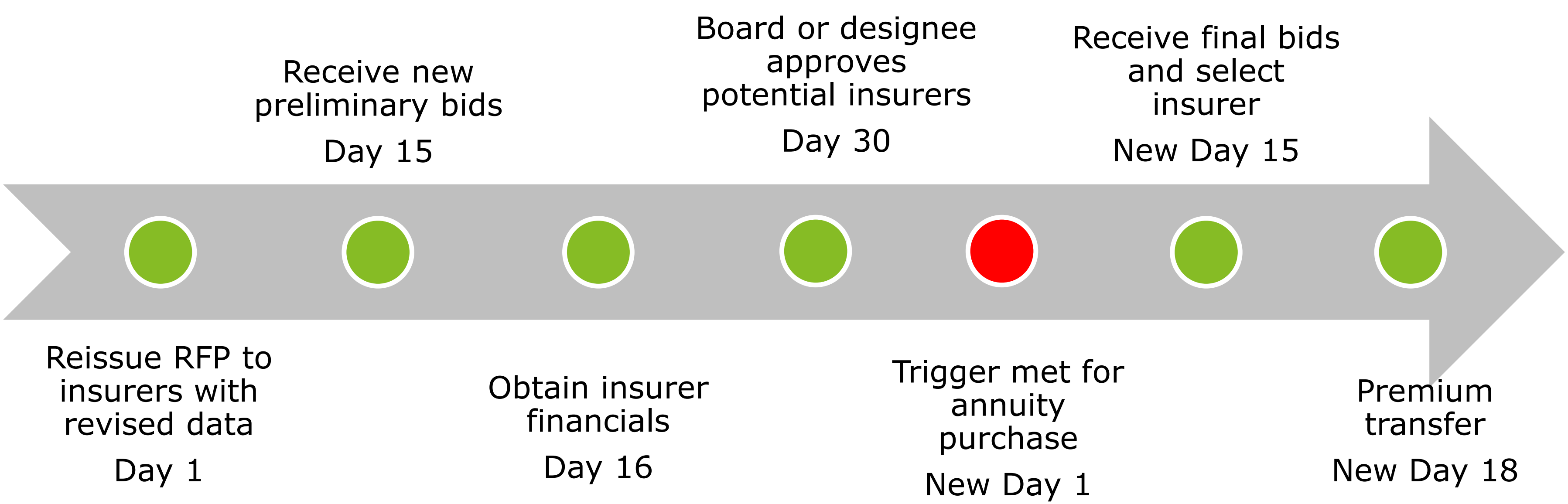
Bidding Insurer Information				
Insurer	**Account Type**	**Preliminary Bid**	**Round 1 Bid**	**Round 2 Bid**
Insurer #1	Commingled Separate Account	$171,000,000	$163,000,000	$158,200,000
Insurer #2	Commingled Separate Account	$171,720,000	$164,497,000	$162,000,000
Insurer #3	General Account	$172,471,885	$168,924,207	
Insurer #4	General Account	$172,935,375	$172,454,232	
Insurer #5	Commingled Separate Account	$172,779,259	$167,311,437	$164,316,645

Comments:

- Insurers start high and decrease bids throughout the process as they do not want to give away their true "best price".
- Preliminary bids are higher than bids received on the final bid day, as the insurer wants the plan sponsor to be comfortable with the budgeted number as market movements can cause an increase in price between the preliminary bid date and final bid date.
- Some insurers offer separate account products, which increase the security of the benefit. As such, the plan sponsor may not always prefer to choose the cheapest price.

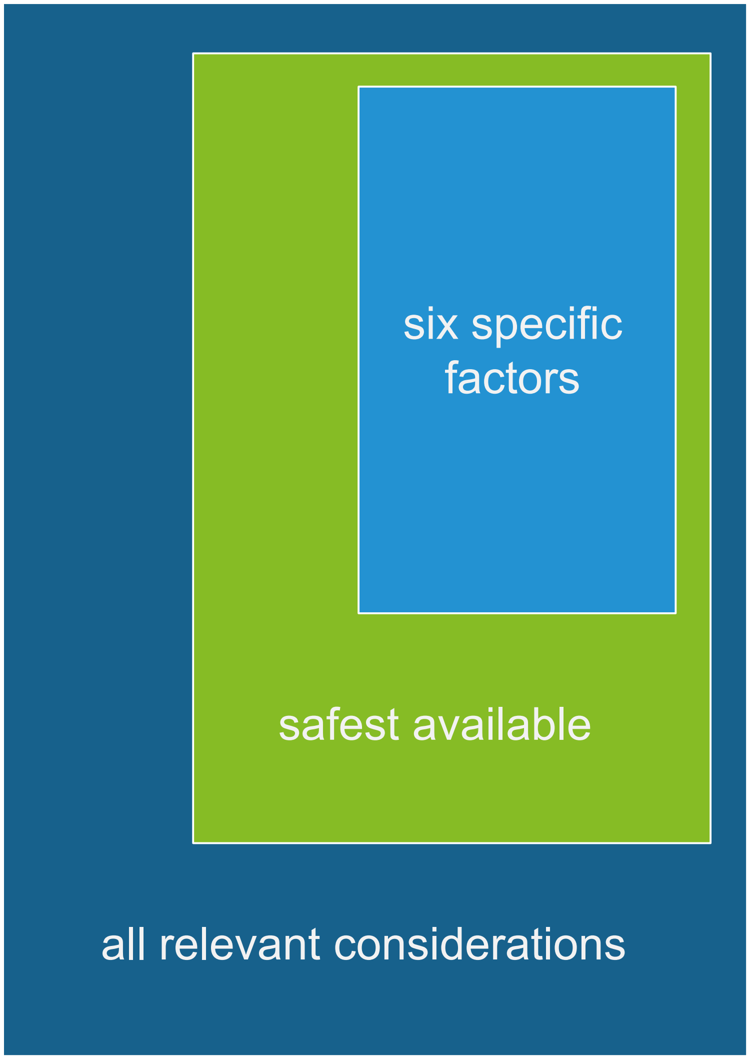
Process Overview

- For illustration purposes, below is a high level timeline for finalizing an annuity purchase once the decision is made to move forward and determine a trigger
  – Approximately one month is need to prepare for annuity purchase prior to trigger
  – Following insurer selection, benefits can be fully transferred to an insurer in 2-3 months, however the insurer can be financially responsible for payments using the current payor until the transition is completed



DOL IB 95-1 Hierarchy

DOL IB 95-1 is the guidance for plan fiduciaries for selecting an insurer and the annuity contract structure.



Department of Labor Interpretive Bulletin 95-1, issued in 1995, is still the most specific regulatory guidance for these transactions.

IB 95-1 lists six specific factors which must be considered, among other things:

- Quality and diversification of investment portfolio
- Size of insurer relative to size of proposed contract
- Level of insurer’s capital and surplus
- Insurer’s lines of business and other liability exposures
- Structure of contract and any supporting guarantees (i.e. Separate Account structures)
- Extent of guarantees provided by state guaranty associations

To obtain the safest available annuity, there are “other things” which a prudent expert today should consider, e.g.:

- Earnings and profitability
- ALM and other risk management practices
- Stress testing results
- Other sources of financial support
- Corporate governance

Other relevant considerations, beyond “safest available” criteria, may be in plan participants’ best interest:

- Administration capabilities of insurer
- Additional benefits provided under contract, if applicable

Appendix

Methods and Assumptions

- The annuity purchase prices developed here were based upon preliminary annuity purchase prices for in-payment participants provided by two insurers in February 2019. The quotes are used as the basis for the analysis. The quotes assume a liability transfer date of May 1, 2019 and are based upon data provided as of October 31, 2018.
- Projections in future months for in-payment participants are calculated using the single interest rate that would produce a liability equal to the quote for the 3% Fixed COLA. The interest rate is adjusted monthly with movements in the Intermediate FTSE Pension Liability Index to estimate the purchase price available for varying measurement dates.
- Additionally, an annuity purchase price was estimated for participants not yet in payment using the FTSE Pension Liability Index – Short Duration with a 15% load to account for the additional premium an insurer would charge for the risk associated with deferred lives.
- All estimated quotes were developed assuming a mortality assumption of 97% of RP2014, projected generationally with Scale MP-2018, white collar rates for females and total dataset rates for males.

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