



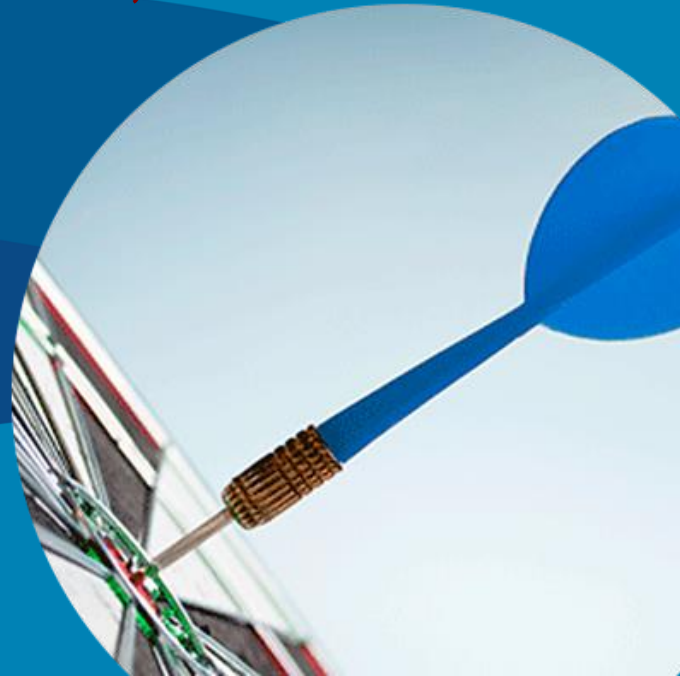
# Employees Retirement System of Texas Group Benefit Plan

## Actuarial Audit of the GASB 74 Valuation for the Measurement Period Ending August 31, 2019

May 20, 2020

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**Employees Retirement System of Texas Group Benefit Plan**  
**Actuarial Audit of the GASB 74 Valuation for the Measurement Period Ending August 31, 2019**

<b>Review Inputs</b>	<b>Yes</b>	<b>No</b>
<b>Data</b>		
Valuing appropriate population	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Data is correctly processed between staff-provided file and valuation system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Census data for individual testlives is appropriately used	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Assumptions</b>		
Demographic assumptions match pension valuations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Economic and healthcare related assumptions are appropriate for purpose	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Initial Age Rated Medical and Rx Costs</b>		
Approach used is reasonable and using appropriate data	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Review Model</b>		
<b>Review Individual Liability Projections (Test Life Review)</b>		
Assumptions used are reasonable and appropriate for purpose	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assumptions and methods applied as stated in the report*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Benefit provisions were correctly valued	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Individual test life results are within 5%	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Overall actual cash flows are consistent with projected benefit payments</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Review Report</b>		
Identifies responsible actuaries and intended purpose	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Includes census counts, benefit provisions, assumptions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Include Changes in Total OPEB Liability and sensitivity results	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Conclusion</b>		
Provides a fair and reasonable assessment of the liabilities of the post-retirement healthcare plan as prescribed by the requirements of Governmental Accounting Standards Board (GASB) Statement No. 74	<input checked="" type="checkbox"/>	<input type="checkbox"/>

\*Minor additional disclosures recommended



# Final Assessment

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- All findings are minor
  - Add some detail to assumption section of report
  - Consider decrement timing in future valuations
  - Continue to review forfeiture assumptions in future valuations
- Provides a fair and reasonable assessment of the liabilities of the post-retirement healthcare plan as prescribed by the requirements of Governmental Accounting Standards Board (GASB) Statement No. 74
  - Not over or underreporting liabilities
- Clean Actuarial Audit

# Purpose of the measurement

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- All assessments must be made considering the purpose of the measurement:
  - Fulfilling GASB 74 requirements
  - Largely unfunded
  - Accounting Only
  - Calculations need to be in accordance with the relevant Actuarial Standards of Practice (ASOPs)

# Review Inputs

## Data (ASOP 23)

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- Including appropriate population
  - Most active employees also participate in the ERS pension plan.
  - Active employees in higher education belong to the TRS pension plan, and ERS OPEB plan.
- Census data for individual test cases is appropriately used
- Data is correctly processed between staff file and valuation system

# Review Inputs

## Demographic Assumptions (ASOP 35)

- Most demographic assumptions are pension-related
  - For example, retirement, termination, mortality rates
  - Consistent with those used in ERS and TRS pension valuations, where applicable
  - Reasonable and typical approach in post-retirement healthcare valuations
- Some minor assumptions associated with terminations that are specific to OPEB valuation:
  - Do vested members leave contributions and retain eligibility or take refund?

# Review Inputs

## Economic Assumptions (ASOP 27)

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- Discount rate based on bond index as of measurement date
- Volatile, but...
- Mandated by GASB

# Review Inputs

## Healthcare-Related Assumptions (ASOP 6)

- Health care trend
  - How will claims and premiums increase going forward?
  - Can health care costs continue to outpace salary growth?
- Participation and Coverage
  - Not all retirees participate
  - How many will have spouse or family coverage?
  - Which health plans will retiree select?
- Age-adjusted claims
  - Reflects the impact of age on claims costs



# Review Inputs

## Health Care Cost Trend Rates (ASOP 6)

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- The forward looking health care trend assumptions are reasonable and consistent with the guidelines in ASOP 6
  - Initial rates are at least 7.00% for the first three years, declining to an ultimate rate of 4.50% by 2028.
  - Long-term percentage of the economy dedicated to healthcare would increase to approximately 23% by 2040 if healthcare spending grew at these rates and the US economy grew between 3.5% - 4.0% per year .
  - The 4.50% ultimate trend rate assumption includes margin above long-term GDP growth.
  - Rudd and Wisdom may want to consider extending the select period.
  - Rudd and Wisdom’s use of different trend rates for different plans and fee components is a best practice.

# Review Inputs

## Healthcare-Related Assumptions (ASOP 6)

- Participation and coverage assumptions agree well with recent plan experience
  - 98% participation assumption for eligible retirees
  - 32% of males and 19% of females are assumed to have a spouse covered; liabilities are included for children
  - 73% of Medicare retirees are assumed to participate in the Medicare Advantage plan
- Age-utilization curves are based on plan's own experience. Reasonable for a large plan; and the rates appear reasonable.

# Review Inputs

## Initial Per Capita Costs (ASOP 6)

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- There were no issues identified that had a material impact on the per capita cost development
  - The 2020 premiums were used as the basis of the initial costs for the fully-insured, Medicare Advantage plan
  - For the self-insured plans, the initial per capita health care costs for fiscal year 2020 were developed using claims data incurred in fiscal year 2018 and paid through November 2018
  - Claims were analyzed by plan, gender, relationship to patient and age-bracket
  - Incurral, trend, and rebate factors were applied to the FY2018 medical and pharmacy claims

# Review Inputs

## Initial Per Capita Costs (ASOP 6)

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- Trend factors are reasonable and vary by type
  - The medical claims growth rate assumption for Hospital/Facility for FY2019 and FY2020 is 2.5% and 6.5%, respectively
  - Other Medical Expense claims growth rate in FY2019 was assumed to be 7.6% and 4.2% in FY2020
  - The prescription drug claims growth rate is 8.7% for FY2019 and 12% for FY2020 for both the HealthSelect and HealthSelect MA plans.

# Review Inputs

## Initial Per Capita Costs (ASOP 6)

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- Revenue related to prescription drug plans
  - Formulary rebates are passed through from pharmaceutical manufacturers based on the utilization of brand drugs included on the PBMs formulary
  - For Medicare retirees who are enrolled in the Employer Group Waiver Plan (EGWP), ERS receipts include a direct CMS subsidy per individual per month, coverage gap discounts based on utilization of brand drugs, and catastrophic federal reinsurance for members whose prescription drug spend exceeds a prescribed threshold
  - The per capita prescription drug costs used in the valuation are net of revenue from manufacturer rebates and revenue related to the EGWP
  - We found the Rx rebate and revenue amounts used in the PCC development to be reasonable and in-line with data from other large health plans

# Review Inputs

## Initial Per Capita Costs (ASOP 6)

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- Taxes
  - The Medicare Advantage medical claims were assumed to include the Health Insurer Provider (HIP) Fee, valued at \$17.66 per retiree per month.
  - The August 31, 2019 liabilities incorporated the HIP and the anticipated impact of the “Cadillac Tax”.
  - The HIP Fee and the Cadillac Tax were permanently repealed on December 20, 2019.
  - The impact of the repeal should be reflected in the August 31, 2020 valuation report.

# Review Inputs

## Initial Per Capita Costs (ASOP 6)

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- Expenses and Fees
  - The FY2020 administrative expenses were project to be \$189.24 PMPY for medical for HealthSelect and an additional \$9.00 for prescription drugs for HealthSelect and HealthSelect Medicare Advantage.
  - The medical fee is guaranteed from BCBSTX through FY2023. The prescription drug fee is guaranteed from UnitedHealthcare/Optum through FY2022.
  - Capitation fees were also projected for FY2020 using FY2018 capitation costs and applying trend. No trend was used for FY2019 and a 3% trend was used for FY2020

# Review Model

## Test Life Review

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- 11 actives
- 8 post-retirement (7 retiree, 1 beneficiaries)
- 3 inactives
- Test lives chosen to produce greatest assurance of overall result
  - Employee types, age, service where greatest population centers
- Rudd and Wisdom sent full test life detail
  - Transparency
  - Can ascertain rather than surmise



# Review Model

## Test Life Review - Results

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- All test cases were within 5%
- Observed differences were explainable
  - Rounded ages vs. exact, etc.
  - Should not impact aggregate results
- Highly successful replication of test lives

# Review Model

## Test Life Review - Findings

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- Benefits and assumptions were applied as disclosed in the report
- Some minor additional disclosures needed
  - Pertaining to termination - how many that terminate prior to retirement will come back and utilize healthcare benefits later when eligible?
  - Decrement timing

# Review Model - Test Life Review

## Findings, Application of forfeiture assumption

- Forfeiture assumption: If member terminates prior to retirement, will they
  - leave their contributions and receive pension and post-retirement healthcare; or
  - receive a refund of contributions?
  - Important due to dichotomy of liability: refund = none
- ERS forfeiture not a pension assumption any more
  - Using greatest economic value method
  - May continue to be most reasonable
  - Will not be maintained by pension actuary – something to stay aware of
- TRS forfeiture determined by R&W and need to disclose
- Applying forfeiture to term vesteds that left in the last year
- All reasonable, just omitted from assumption section of report

# Review Model - Test Life Review

## Findings, Application of decrement timing

- Rudd and Wisdom assumes probabilities for retirement, termination, death and disability apply at beginning of year
- Not consistent with application of pension assumptions in pension valuations
  - ERS all middle of year
  - TRS retirement end of year, TRS other middle of year
- Not a major finding
  - But can cause some differences in accrued liabilities and normal costs on an individual basis

# Review Model

## Cash Flow Checks (ASOP 6)

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- 1<sup>st</sup> year expected benefit payments compared to actual benefits for 3 valuations. (\$'s in millions)

Fiscal Year Ending	2017	2018	2019
Expected benefits	\$881.7	\$882.7	\$816.4
Actual benefits	\$877.7	\$735.8	\$828.8
% difference	-0.5%	-16.6%	1.5%

- In general, the actual benefit payments for the year following the valuation date have agreed well with the projected benefit payments from the respective OPEB valuation.
- Third party administrator and pharmacy benefit manager changes produced greater savings than expected in 2018

# Conclusion

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- All findings are minor
  - Add some detail to assumption section of report
  - Consider decrement timing in future valuations
  - Continue to review forfeiture assumptions in future valuations
- Provides a fair and reasonable assessment of the liabilities of the post-retirement healthcare plan as prescribed by the requirements of Governmental Accounting Standards Board (GASB) Statement No. 74
  - Not over or underreporting liabilities
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# Signature Page

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- This report may be provided to parties other than ERS only in its entirety and only with the permission of the Board.
- The signing actuaries are independent of the plan sponsor.
- The undersigned are Members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in this presentation.



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Senior Consultant



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Senior Consultant

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# Appendix



# Present value of future benefits (PVFB)

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- Computed by projecting the total future net benefits (claims and expenses less retiree paid premiums) from the Plan, using actuarial assumptions, and then discounting the cash flow to the valuation date.
  - Will later be allocated between Total OPEB Liability and Future Service Costs
- Greatest likelihood of match between valuation systems
- If PVB matches, likely that obligations are being accounted for in either Total OPEB Liability or Service Costs

# Active Results (PVB)

Test Life	Employee Type	Age	Service	Gender	GRS	R&W	% Diff
1	Reg Class	42.5	15.3	Female	289,962	290,103	0%
2	Reg Class	44.0	9.6	Male	207,488	212,271	2%
3	Reg Class	26.9	2.3	Male	107,009	105,201	-2%
4	Reg Class	47.8	2.6	Female	70,671	71,564	1%
5	Reg Class	23.8	1.0	Female	82,093	81,142	-1%
6	LECOS	46.2	22.0	Male	367,755	379,553	3%
7	LECOS	26.8	3.5	Male	235,758	235,857	0%
8	LECOS	38.6	3.5	Female	180,094	181,099	1%
9	Higher Education	49.3	21.0	Male	266,695	267,540	0%
10	Higher Education	43.5	4.0	Female	123,013	126,491	3%
11	ORP	46.4	6.0	Female	140,617	140,984	0%

- All well within the range of reasonableness for individual test cases



# Post-Retirement Results (PVB)

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Test Life	Retiree Type	Coverage Type	Primary Age	Gender	GRS	R&W	% Diff
1	Reg Class	Member Only	63.2	Female	140,239	144,782	3%
2	Reg Class	Member + Spouse	73.6	Male	91,048	92,467	2%
3	Reg Class	Survivor Spouse Only	79.7	Female	3,776	3,933	4%
4	LECOS	Member Only	56.1	Male	236,099	233,056	-1%
5	LECOS	Member + Spouse	60.8	Male	258,854	253,867	-2%
6	Non-Deducted Retiree	Member Only	67.4	Female	97,348	101,630	4%
7	TRS Retiree	Member + Spouse	59.8	Female	270,271	276,173	2%
8	Optional Retirement Plan	Member + Spouse	64.3	Male	222,405	233,645	5%

- All well within the range of reasonableness for individual test cases



# Inactive Results (PVB)

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Test Life	Inactive Type	Age	Service	Gender	GRS	R&W	% Diff
1	Reg Class	54.95	14.75	Female	143,325	145,845	2%
2	LECOS	38.52	14.42	Male	148,679	154,458	4%
3	TRS	50.00	14.00	Male	157,449	162,111	3%

- All well within the range of reasonableness for individual test cases

# Accrued Liability and Normal Costs

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- Allocate PVFB to Accrued Liability and Normal Costs
- More likely variation in actuarial models
- If not a close match
  - Do we observe that one is high and one is low?
    - Cost method is differently assigning past accruals and future normal cost, but everything accounted for in one bucket or the other
  - Can we identify the source of the difference?
    - And is it likely to skew aggregate results?

# Accrued Liability and Normal Costs

Test Life	Employee Type	Age	Service	OPEB Liability			Service Cost		
				GRS	R&W	% Diff	GRS	R&W	% Diff
1	Reg Class	42.5	15.3	185,004	186,857	1%	8,687	8,657	0%
2	Reg Class	44.0	9.6	113,334	119,332	5%	7,213	7,064	-2%
3	Reg Class	26.9	2.3	16,003	15,677	-2%	5,494	5,713	4%
4	Reg Class	47.8	2.6	17,334	17,846	3%	4,431	4,521	2%
5	Reg Class	23.8	1.0	7,371	6,381	-13%	4,742	5,073	7%
6	LECOS	46.2	22.0	306,458	312,362	2%	13,964	11,356	-19%
7	LECOS	26.8	3.5	53,300	54,895	3%	9,249	9,579	4%
8	LECOS	38.6	3.5	55,933	57,301	2%	9,882	10,000	1%
9	Higher Education	49.3	21.0	181,301	192,368	6%	9,013	8,140	-10%
10	Higher Education	43.5	4.0	32,228	31,162	-3%	6,191	6,121	-1%
11	ORP	46.4	6.0	49,354	48,433	-2%	6,330	6,102	-4%

## Comments

- 1 Decrement timing. Higher termination rates in early years exacerbates differences.
- 2 Decrement timing. GRS 3.5 years until 60% retirement rate, R&W 4 years.
- 3 Decrement timing. GRS 4 years of termination rates until retirement eligibility, R&W 5.

- Deviations are understood and do not create concern regarding overall results

