

Committee on Actuarial Valuation of Retired Employees' Health Benefits (OPEB Committee)

August 31, 2021 / Daniel J. Rhodes, FSA, MAAA



Agenda

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Summary of Key Valuation Results

	June 30, 2021	June 30, 2020
Total OPEB Liability (TOL)	\$33,500,219,231	\$29,802,158,533
Plan Fiduciary Net Position (Assets)	2,584,625,788	2,061,307,299
Net OPEB Liability (NOL)	\$30,915,593,443	\$27,740,851,234
Plan Fiduciary Net Position as a percentage of Total OPEB Liability	7.72%	6.92%
	June 30, 2021	June 30, 2020
Service Cost at Beginning of Year	\$1,974,212,317	\$1,824,174,672
Covered Payroll ¹	18,184,883,000	17,974,758,000
	June 30, 2021	June 30, 2020
Actuarially Determined Contribution for Fiscal Year Ending	\$3,049,625,000	\$2,823,873,000
Actual Contribution for Fiscal Year Ending ²	1,214,750,155	1,162,966,849
Benefit Payments	1,100,633,395	1,084,668,452

The "waterfall" chart on slide 6 shows the components of the change in Net OPEB Liability (NOL) from the prior year.



¹Covered payroll is estimated for both 2020 and 2021 based on employer contributions ²Does not include \$475.2 million transfer from Public Employee Health Benefit Fund to Retiree Health Benefit Trust Fund in June 2020 or \$187.0 million in June 2021.

Changes from Prior Report

- Starting claims costs and short-term trend assumptions
 - Updated to be consistent with Q1 financial projections
- Plan election and migration assumptions
 - Based on 2021 open enrollment experience, initial Q1 projections assumed greater enrollment in 70/30 Medicare plan compared to prior year
 - The assumption was later revised after discussions with SHP regarding the expected resumption of concentrated efforts to increase participation in more cost-effective Medicare Advantage plans
- Updated demographic and economic assumptions from experience study of retirement systems
 - Mortality tables and improvement scales
 - Retirement, disability, and turnover rates
 - Salary scales
- Discount rate
 - From 2.21% to 2.16%, based on GO Bond index at Measurement Date
- No material plan changes reflected in valuation this year



Summary by Participant Type

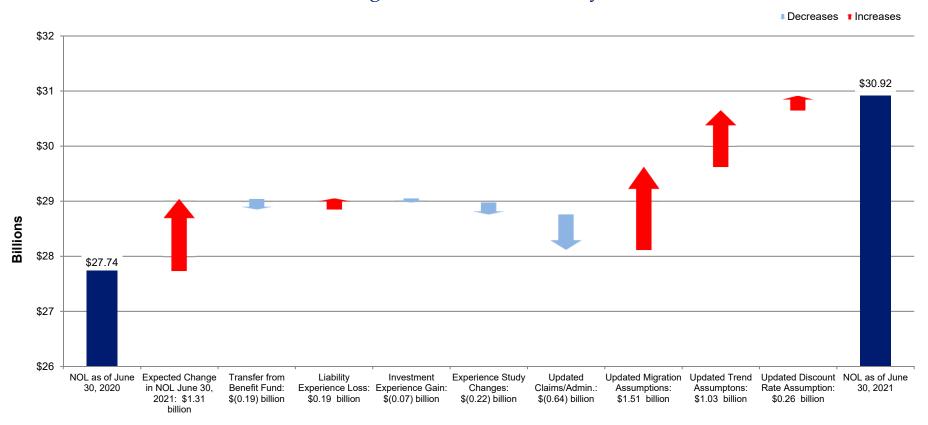
Total OPEB Liability as of June 30, 2021	Pre-65	Post-65	Total	
Active	\$12,381,836,713	\$8,001,154,239	\$20,382,990,952	
Vested	1,758,731,735	2,493,162,284	4,251,894,019	
Retired	2,356,534,926	5,968,924,172	8,325,459,098	
Beneficiary	7,274,150	7,594,122	14,868,272	
Disabled	196,099,894	328,906,996	525,006,890	
Total	\$16,700,477,418	\$16,799,741,813	\$33,500,219,231	

	As of December 31, 2020	As of December 31, 2019
Number of retirees	212,915	209,980
Number of spouses	21,241	18,367
Number of surviving spouses	2,877	2,877
Number inactive vested	47,306	45,096
Number of actives	<u>344,085</u>	<u>348,905</u>
Total number of participants and spouses	628,424	625,225

- Post-65 costs have increased somewhat since the prior valuation, due to the assumed increase in 70/30 Plan enrollment compared to Medicare Advantage plans.
- As a result, post-65 liability is now 50% of the TOL, up from 48% of the total last year.
- 61% of the TOL is for active employees.

Reconciliation of the Net OPEB Liability

Change in Net OPEB Liability



Roll Forward from Valuation Date to Measurement Date

Dec	ember 31, 2020 Valuation Liabilities Adjusted to June 30, 2021	
1.	Entry Age Normal Actuarial Liability as of December 31, 2020	\$32,426,166,974
2.	Normal Cost for Calendar 2021	2,131,390,625
3.	Expected Benefit Payments for Calendar 2021	699,100,531
4.	Discount Rate	2.16%
5.	Proration of Normal Cost (½ of 2.)	1,065,695,313
6.	Proration of Benefit Payments (½ of 3.)	349,550,266
7.	Interest (compound) on 1. for six months	348,331,662
8.	Interest (compound) on 5. for six months	11,448,020
9.	Interest (compound) on 6. for three months	1,872,472
10.	Adjusted Entry Age Normal Actuarial Liability (TOL) 1. + 5 6. + 7. + 8 9.	\$33,500,219,231
11.	Market Value of Assets	2,584,625,788
12.	Net OPEB Liability (NOL)	\$30,915,593,443



Comparative Results

GASB 74 Results	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
Total OPEB Liability	\$33,500,219,231	\$29,802,158,533	\$33,095,182,920	\$29,798,358,029
Plan Fiduciary Net Position (Assets)	2,584,625,788	2,061,307,299	1,455,683,423	1,310,172,550
Net OPEB Liability	\$30,915,593,443	\$27,740,851,234	\$31,639,499,497	\$28,488,185,479
Plan Fiduciary Net Position as a percentage of TOL	7.72%	6.92%	4.40%	4.40%
Discount Rate	2.16%	2.21%	3.50%	3.87%
Contributions	\$1,214,750,155	\$1,162,966,849	\$1,104,901,608	\$1,018,692,516
Covered Payroll	\$18,184,883,000	\$17,974,758,000	\$17,622,035,000	\$16,837,901,000
Contributions as a Percentage of Covered Payroll	6.68%	6.47%	6.27%	6.05%
Service Cost (w/o interest) for the Next Fiscal Year	\$2,131,390,625	\$1,974,212,317	\$1,824,174,672	\$1,539,091,679
Service Cost as a Percentage of Covered Payroll	11.72%	10.98%	10.35%	9.14%
Pre-65 Blended Claims Costs (Age 65)	\$14,834	\$13,844	\$13,658	\$13,008
Post-65 Blended Claims Costs (Age 65)	\$825	\$1,781	\$1,459	\$1,840
Retiree and Spouse Count on Previous Dec. 31	237,033	231,224	225,986	219,657
Vested Terminations Count on Previous Dec. 31	47,306	45,096	43,908	41,471
Active Count on Previous Dec. 31	344,085	348,905	346,173	344,411
Total Valuation Count on Previous Dec. 31	628,424	625,225	616,067	605,539

 Post-65 valuation average starting costs for 2021 include reduced premiums due to new Medicare Advantage contract



Reconciliation of Participant Data

Data Reconciliation from December 31, 2019 to December 31, 2020

	Actives	Vested	Retirees	Retiree Spouses	Disabled	Disabled Spouses	Beneficiaries	Total
Counts as of December 31, 2019	348,905	45,096	197,868	17,778	12,112	589	2,877	625,225
New Hires	27,251	0	0	0	0	C	0	27,251
Act to Vested	-4,880	4,880	0	0	0	C	0	C
Act to Ret	-8,796	0	8,796	0	0	C	0	0
Act to Dis	-321	0	0	0	321	C	0	0
Rehires	1,184	-1,067	-94	-14	-7	-2	0	0
Vest to "In Pay"	0	-1,037	927	0	110	C	0	0
Transfer to Vest	0	225	-48	-12	-165	C	0	0
Transfer to Ret	0	0	414	-22	-390	-1	-1	0
Transfer to Ret Sp	-26	-29	-9	85	0	-17	-4	0
Transfer to Dis	0	0	-52	0	52	C	0	0
Transfer to Dis Sp	-2	-1	0	-2	0	5	0	0
Death w/ Ben	0	-4	-7	-295	0	-18	324	0
Death w/o Ben OR to Non-Participating	-19,230	-939	-7,203	-1,258	-466	-51	-377	-29,524
"Pickups"	0	182	734	4,343	22	133	58	5,472
Net Movement	-4,820	2,210	<i>3,45</i> 8	2,825	-523	49	0	3, 199
Counts as of December 31, 2020	344,085	47,306	201,326	20,603	11,589	638	2,877	628,424

- Retirement mortality experience indicated more retiree deaths in 2020 compared to prior years
 - May be COVID-19 related
- Retirement actuary confirmed that deaths increased across all retirement systems in 2020

Plan Provisions

- Eligibility: Retirees from State, UNC, community colleges, local school systems, and certain other entities including some local governments
 - Employees hired on or after January 1, 2021, are not eligible for OPEB benefits
- Retirees contribute based on plan elected (and years of service for retirees hired after 10/1/2006)
- Benefit types
 - Pre-Medicare
 - 70/30 Plan
 - 80/20 Plan
 - Medicare-eligible
 - 70/30 Plan
 - Medicare Advantage Plan Base
 - Medicare Advantage Plan Enhanced
- Coverage duration: Lifetime



Please see our draft full valuation report dated August 16, 2021 for additional information regarding plan provisions, assumptions, data, and methods.

Thank You

