

New Orleans Fire



PENSION PLAN PROJECTIONS

December 15, 2014

★ Segal Consulting



I. Modeling Assumptions

II. Plan Options

III. Old Plan

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Disclosure

- Segal Consulting was retained by the Business Council of the City of New Orleans (BCNO) and the City of New Orleans through a cooperative endeavor agreement (CEA) in mid-October 2014 to provide actuarial and technical analysis to the Pension Task Force.
- This presentation is intended for the use of the Task Force, for the purpose of modeling projected plan liabilities of the City's Firefighters' Pension Relief Fund.
- Projections, by their nature, are not a guarantee of future results. They are intended to serve as estimates of future financial outcomes that are based on assumptions about future experience and the information available at the time the modeling is undertaken and completed. The charts included in this presentation show how the Plan would be affected if specific investment return, mortality, turnover, disability and retirement assumptions are met. Actual results may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.
- Segal was asked to provide options for the Task Force to review and weigh the legal risk if any. **Segal does not practice law or render legal advice. Legal interpretations on which the Task Force bases decisions are, as always, subject to the advice of counsel.**
- The various options shown are for the Pension Task Force to understand the financial impact and **are not recommendations.**
- The calculations included in this presentation were completed under the supervision of Eric J. Atwater, FSA, FCA, MAAA, EA and Deborah K. Brigham, FCA, ASA, MAAA, EA, with the assistance of Samantha Allen and Matt Powell.

Projection Assumptions

Introduction

- Segal conducted a high-level review of the assumptions and have made some modifications for modeling future plan cost. However, Segal's review is not a substitute for an in-depth experience study and will only be for purposes of modeling future cost.
- Segal reviewed plan experience based on information provided in the actuarial reports and held discussion with the Plan's actuary.
- Based on the information provided and discussion with the Plan's actuary, **we are modifying the salary growth and disabled mortality assumptions for purposes of modeling future plan liabilities and cost.** All other assumptions are the same as the 2014 valuation report.
- The next few pages summarize our findings and provides rationale, as well as the impact, for modifying the assumptions.
- **Also, we have assumed 100% of the DROP/PLOP is paid immediately for purposes of modeling all scenarios.**
 - The impact on the Annual Recommended Contribution (ARC) is essentially zero, assuming the City funds the ARC, since the DROP/PLOP payments were included in both the assets and liabilities.
 - However, the funded percentage declines if the payments are made immediately

Projection Assumptions

Salary Growth

Assumption	Current	Proposed	Commentary
Salary scale	5.00% for all ages and years of service	5.00% for first 15 years of service 4.50% for years 15 – 20 4.0% for years 20 – 25 3.5% after 25 years of service	<ul style="list-style-type: none"> • Pension earnings based on base pay, component from mileage, state supplemental pay, mandatory overtime and longevity pay <ul style="list-style-type: none"> – Component of pay from mileage and state supplemental pay increases 1.0% to 2.0% per year for inflation – Longevity pay is 2.0% per year after 3 years of service • Current assumption of 5.0% thus breaks down into 1.0% - 2.0% per year for career pathing, 1.0% - 2.0% per year for inflation, ~2.0% for longevity • Average increase about 5.1% over the last 5 years¹ • However, the current assumption likely overestimates pay increases for older/tenured employees, with a net tendency to overstate liabilities. • Segal feels the current assumption should be modified as it thinks the career pathing component of salary does not last an employee's entire career • Modifying the assumption lowers the Unfunded liability about \$4.9 million as of January 1, 2015 and lowers the average annual cost about \$0.9 million over the next 30 years²

¹ Based on increase in average earnings

² Based on nominal amount; about \$0.5 million average measured in today's dollars (i.e., present value) at 5.0% cost of capital

Projection Assumptions

Disabled Mortality

Assumption	Current	Proposed	Commentary
Disabled Mortality	<ul style="list-style-type: none"> Disabled: 1994 Uninsured Pensioner Table set forward 5 years <ul style="list-style-type: none"> Disabled retiree life expectancy from age 60¹ = 17.3 years (or age 77.3) Healthy retiree life expectancy from age 60¹ = 21.2 years (or age 81.2) 	<ul style="list-style-type: none"> Same table as Healthy mortality 	<ul style="list-style-type: none"> About 40% of retirees, or about 239 out of 593 retirees, are valued using the disabled mortality assumption. Thus, their life expectancy is projected to be about 4 years shorter than the non-disabled retirees ² It is typical for the mortality experience between disabled and non-disabled public safety participants to be closer Thus, Segal feels the current assumption should be modified to match healthy mortality experience for purposes of modeling Modifying the assumption increases the Unfunded liability about \$16.6 million as of January 1, 2015 and the average annual cost³ about \$1.4 million over the next 30 years

¹ Based on UP-94 table, set forward 5 years for disabled participants

² From age 60; based on UP-94 table, set forward 5 years for disabled participants

³ Based on nominal amount; about \$0.7 million average measured in today's dollars (i.e., present value) at 5.0% cost of capital

Projection Assumptions

Healthy Mortality

Assumption	Current	Commentary
Healthy Mortality	<ul style="list-style-type: none"> • Healthy: 1994 Uninsured Pensioner Table (UP-94) <ul style="list-style-type: none"> – UP-94 life expectancy from age 60 = 21.2 years (or age 81.2) 	<ul style="list-style-type: none"> • Information provided by Plan actuary from National Vital Statistics System (NVSS) shows state of Louisiana mortality about 30% higher than national averages¹ • However, the data from NVSS includes all deaths and not necessarily those covered by a retirement plan in a major city • Recently updated Actuarial Standards of Practice (ASOPs) require the actuary to reflect mortality improvements if sufficient margin does not exist • The Plan has not conducted an experience study since 2000 so the exact margin is unknown. • If mortality improvements² are included in the current table, then the liability³ would be about \$30.4 million higher • Absent a detailed experience study, and based on New Orleans-area improvements in life expectancy lagging national increases⁴, we do not suggest a change in the mortality assumption for modeling purposes

¹ Age 55 – 64 year old participants for years 2001 thru 2007

² UP-94 projected with generational mortality improvements using Scale BB

³ Based on change in present value of benefits as of January 1, 2014

⁴ Source: institute for Health Metrics and Evaluation, 2013

Projection Assumptions

Retirement

Assumption	Current	Commentary
Retirement	<ul style="list-style-type: none"> Assumes 100% retire (or enter DROP) at earliest of age/service: 60/12 or 50/30 or 0/25) 	<ul style="list-style-type: none"> The current contribution requirements are based on every participant retiring at a single point (i.e., ~earliest of age/service: 60/12 or 50/30 or 0/25). The participant data as of January 1, 2014 shows about 5% (or 32 out of about 553) participants still working beyond the assumed retirement age Recently updated Actuarial Standards of Practice (ASOPs) do not recommended use of single rate Given participants do not all retire at a single point, we analyzed the impact of participants retiring based on a series of rates¹. The impact is a decrease in the Plan's liability² of about \$6.3 million. However, absent a detailed experience study, and given the perceived conservatism in the assumption, we do not suggest a change in the retirement assumption for modeling purposes

¹ Based on 50% of participants retiring at first eligibility, increasing 10% per year; Assumes 100% retirement at age 60

² Based on change in present value of benefits as of January 1, 2014

Projection Assumptions

Turnover and Disability

Assumption	Current	Commentary
Turnover	<ul style="list-style-type: none"> • Rates based on age and service. Higher rates during first 5 years of employment • Approximately 5.0% of new hires assumed to withdraw annually during first two years of employment 	<ul style="list-style-type: none"> • A participant hired at age 22 has about a 85% change of becoming vested (i.e., working 12 years) • Fire participants tend to have much lower turnover than general employees. However, turnover rates of about 5% for the first two years of service appear low • A higher actual turnover rate than expected will result in potentially higher than necessary funding/cost • We analyzed the sensitivity of the turnover rates¹ and the impact is a decrease in the Plan's average cost of about \$0.1 million over the next 30 years • However, absent a detailed experience study, and given the perceived conservatism in the assumption, we do not suggest a change in the turnover assumption for modeling purposes
Disability	<ul style="list-style-type: none"> • Rates vary based on age • Approximately 2.5% of participants in their 40s are assumed to be disabled annually (3.8% in 50s) • 80% are assumed to be service-related 	<ul style="list-style-type: none"> • The disability assumption accounts for about 10% of the total liability • The Plan has a high number of disabled retirees compared to typical plans • Further review needed to determine how well assumption is tracking plan experience • Absent a detailed experience study, and given the relative magnitude of the assumption, we do not suggest a change in the disability assumption for modeling purposes

¹ Assumes current rates are 50% higher turnover during first 5 years of service, then 25% higher turnover until 12 years of service

Projection Assumptions and Methods

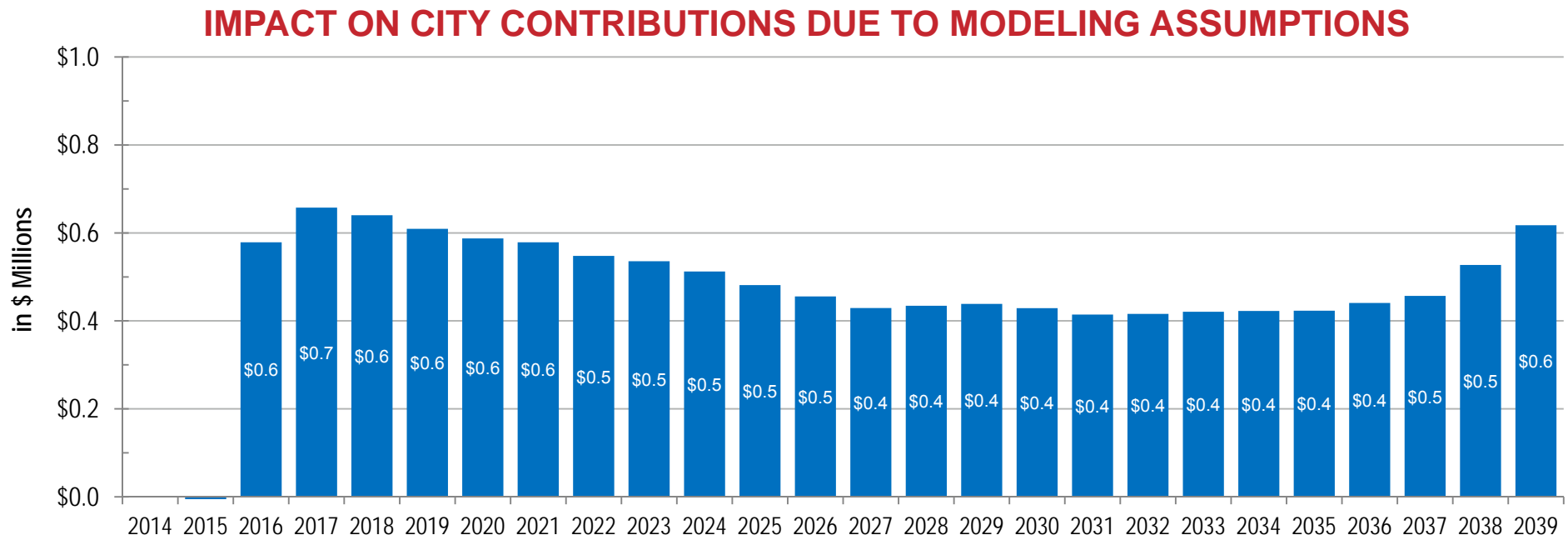
Participant Data	Census data as of January 1, 2014
Projection Methodology	Liabilities are projected forward assuming all economic and demographic assumptions are met. No cost-of-living-adjustments (i.e., COLAs) are assumed.
New Entrants	New entrants are assumed to replace participants who exit such that the total headcount remains constant. The new entrants' age, salary, etc. is based on hires over the last 5 years
Salary Increases	5.00% for first 15 years of service, 4.50% for 15 – 20 years of service, 4.0% for 20 – 25 years of service, 3.50% thereafter
Payroll Growth	~ 2.50% (see Appendices for details; Not used for Unfunded amortization payment)
Discount Rate	7.50%
Investment Return	7.50% (unless specifically stated)
Market Value of Assets	\$84.8M as of January 1, 2014; projected at \$80.6M as of January 1, 2015
Actuarial Value of Assets	Reset to Market Value of Assets as of January 1, 2015 Seven-year smoothing of investment gains/losses with 20% corridor around market value
Employer Contribution	Assumes City contributions of \$14.3M for FY '14 and \$24.4M for FY '15 Residual amount to meet actuarially determined contribution beginning FY '16 unless specifically stated; Consists of Net Normal Cost and payment on Unfunded Actuarial Accrued Liability (UAAL); Payment on UAAL based on closed 30-year, level-dollar amortization
Employee Contributions	10.00% and 6.66% of pay for 2015 for participants with less than or more than 20 years of service respectively 10.00% of pay for years after 2015 and thereafter for all participants
Funding Method	Entry Age Normal
Administrative Expenses	\$0.2M; increasing 3.0% annually
DROP/PLOP accounts	Assumes 100% of DROP/PLOP accounts paid immediately

NOTE: Projections due not include cash contributions resulting from the settlement agreement, nor longevity payments in dispute.

Impact of Modeling Assumptions

The following compares the impact on the City's pension contributions under the valuation and the modeling assumptions.

- The impact of the modeling assumptions increases the cost, on average, about \$0.5 million over the next 30 years in today's dollars.
- The modification to the disabled mortality assumption increases the average cost about \$1.4 million annually and is offset by about \$0.9 million due to the change in the salary scale.



Note: Assumes City contributes 100% of ARC annually beginning in FY '16.



I. Modeling Assumptions

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Breakdown of Future Plan Cost

	Plan	
	Old Plan	“New” Plan
	~3.33% DB Plan	2.75% DB Plan
A. Total Contribution Rate¹ – Includes both Employee and City contributions as percentage of payroll	24.0%	20.2%
B. Employee Contribution Rate – Employee contributions as percentage of payroll	10.0%	10.0%
C. City Contribution Rate [(A) - (B)] – City contributions as percentage of payroll	14.0%	10.2%
D. Employee % of Total [(B) / (A)] – Employee contributions as percentage of total cost	~42%	~50%

¹ Based on Entry Age Normal Cost in 30 years using valuation assumptions

Impact of 2014 Legislation

The following compares the projected City pension contributions for the changes made in 2014 under the valuation assumptions and assuming the City contributes 100% of the Annual Recommended Contribution (ARC) annually.

- The savings gradually increase as new hires replace current employees, saving about \$1.0 million, on average, over the next 25 years.
- The November 11th presentation did not reflect the 2014 plan change. Thus, the average City contribution over the next 30 years is about \$34.0 million, instead of the \$35.0 million shown in the November 11th presentation based on the valuation assumptions.
- The average City contribution is about \$34.4 million over the next 30 years, reflecting the 2014 plan change and the modeling assumptions.



Note: Assumes City contributes 100% of ARC annually beginning in FY '16.

Impact of Various Plan Provisions or “Levers”

“Lever”	Description	Reduction in Unfunded as of January 1, 2015 (in millions)	Reduction in Average Annual Cost Over Next 30 Years (in millions)	Reduction in Average Annual Cost Over Next 30 Years in Today’s Dollars ² (in millions)
Statute	Calculate retirement benefits based on 2.5% for first 12 years of service plus 3.33% for next 18 years for <u>current active participants</u>	\$5.1	\$0.1	\$0.1
Employee Contributions	Increase employee contributions 1% for <u>all participants</u>	---	\$0.4	\$0.2
Vesting	Extend 100% vesting to 15 years for <u>future hires only</u>	---	\$0.6	\$0.2
Hard Freeze	Freeze all pension accruals for current participants and future hires; Close Plan to new entrants	\$37.6	\$5.5 ¹	\$2.7 ¹

¹ Net of about \$2.4 million average annual cost (\$1.1 million on present value basis) for Social Security replacement plan

² Measured in today’s dollars (i.e., present value) using 5.0% cost of capital



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Old Plan

Highlights

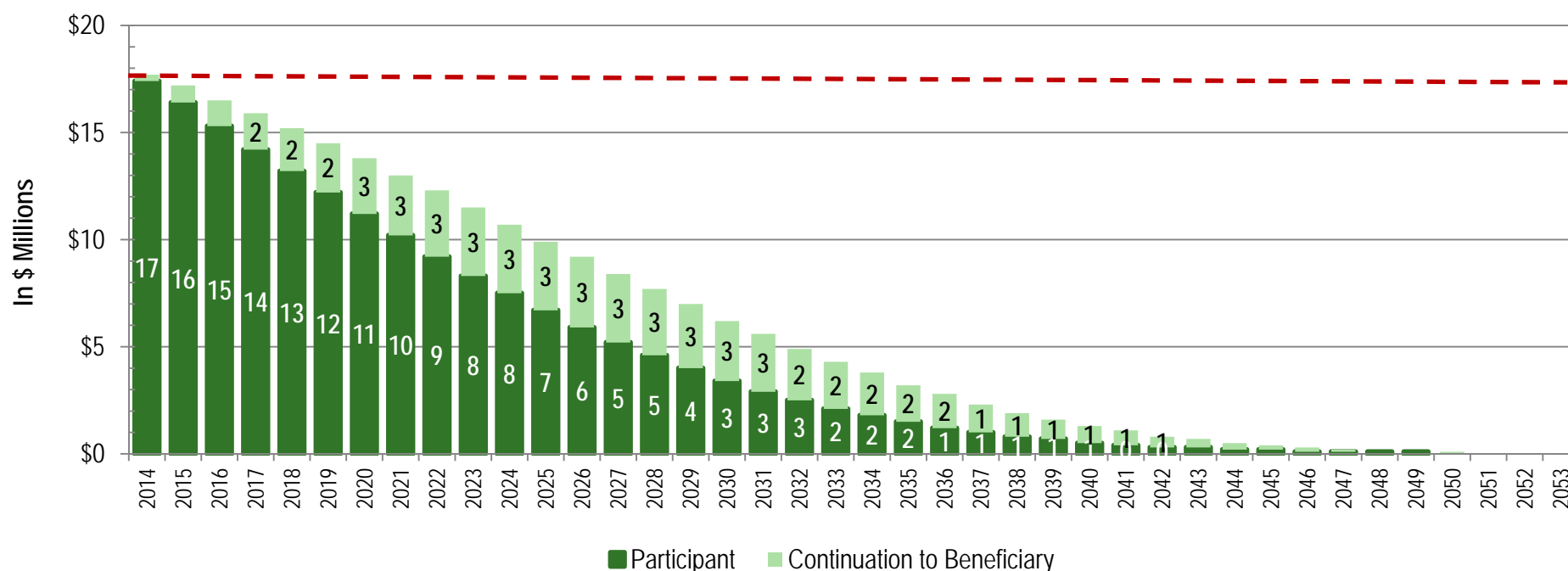
- The original scope of Segal's engagement did not include modeling the Old Plan cost since it is on a pay-as-you-go basis. However, BCNO asked Segal to project the future cost of the Old Plan to provide the projected future cost.
- Segal consulted with the Plan's actuary on the assumptions used to project the cost for the Old Plan and modeled the future cost under various scenarios for sensitivity analysis.
 - Plan beneficiaries receive 100% of the retirees benefit if he/she is deemed to die from certain causes
 - To match liabilities, Segal assumed 100% of the retirees are married and 100% of the benefit continues to the beneficiary even though the actuarial report states it is using either a 50% or 75% Joint-and-Survivor (J&S) annuity
- Segal analyzed the plan assuming future mortality improvements. However, the impact was very minimal given the average age of the group. Thus, Segal analyzed the sensitivity of the cash flows under the following scenarios:
 - Scenario #1—assuming 0% continuation to the beneficiary
 - Scenario #2—assuming 50% continuation to the beneficiary
 - Scenario #3—assuming 80% married and 50% continuation
- If the benefit is assumed to continue to 50%, instead of the 100%, of the beneficiaries then the Plan would pay about \$18.1 million less (or about 10% less) in today's dollars over the next 30 years.
- The Plan would pay about \$36.1 million less (or about 20% less) in today's dollars over the next 30 years if there were no continuation to beneficiaries.

Old Plan

Projected Benefit Payments

The following shows the projected payments for the Old Plan under the valuation assumptions.

- The benefits decline gradually over time with the projected payments cut in half in about 12 years or about 2024.
- The payments continue for the next 25 to 30 years due to the beneficiary continuation even though the group has an average age of about 76.7 as of January 1, 2014.
- If there were no beneficiaries, the payments would be cut in half in about 10 years and decline much more rapidly.



Old Plan

Change in Pay-as-you-go Cost

The following compares the reduction in the annual pay-as-you-go cost for the Old Plan.

Fiscal Year	Change in Annual Contributions (in millions)			
	Valuation Assumptions	50% Continuation to Beneficiary	80% Married, 50% Continuation to Beneficiary	0% Continuation to Beneficiary
2015	(\$0.5)	(\$0.9)	(\$1.0)	(\$1.3)
2016	(\$1.2)	(\$1.8)	(\$1.9)	(\$2.4)
2017	(\$1.8)	(\$2.7)	(\$2.8)	(\$3.5)
2018	(\$2.5)	(\$3.5)	(\$3.7)	(\$4.5)
2019	(\$3.2)	(\$4.4)	(\$4.6)	(\$5.5)
2020	(\$3.9)	(\$5.2)	(\$5.5)	(\$6.5)
2021	(\$4.7)	(\$6.1)	(\$6.4)	(\$7.5)
2022	(\$5.4)	(\$7.0)	(\$7.3)	(\$8.5)
2023	(\$6.2)	(\$7.8)	(\$8.1)	(\$9.4)
2024	(\$7.0)	(\$8.6)	(\$8.9)	(\$10.2)
2025	(\$7.8)	(\$9.4)	(\$9.7)	(\$11.0)
2026	(\$8.5)	(\$10.2)	(\$10.5)	(\$11.8)
2027	(\$9.3)	(\$10.9)	(\$11.2)	(\$12.5)
2028	(\$10.0)	(\$11.6)	(\$11.9)	(\$13.1)
2029	(\$10.7)	(\$12.2)	(\$12.5)	(\$13.7)
2030	(\$11.5)	(\$12.9)	(\$13.2)	(\$14.3)
2031	(\$12.1)	(\$13.5)	(\$13.7)	(\$14.8)
2032	(\$12.8)	(\$14.0)	(\$14.2)	(\$15.2)
2033	(\$13.4)	(\$14.5)	(\$14.7)	(\$15.6)
2034	(\$13.9)	(\$14.9)	(\$15.1)	(\$15.9)
2035	(\$14.5)	(\$15.4)	(\$15.5)	(\$16.2)
2036	(\$14.9)	(\$15.7)	(\$15.9)	(\$16.5)
2037	(\$15.4)	(\$16.0)	(\$16.2)	(\$16.7)
2038	(\$15.8)	(\$16.3)	(\$16.4)	(\$16.9)
2039	(\$16.1)	(\$16.6)	(\$16.7)	(\$17.0)
2040	(\$16.4)	(\$16.8)	(\$16.9)	(\$17.2)
2041	(\$16.6)	(\$17.0)	(\$17.0)	(\$17.3)
2042	(\$16.9)	(\$17.1)	(\$17.2)	(\$17.4)
2043	(\$17.0)	(\$17.2)	(\$17.3)	(\$17.4)
2044	(\$17.2)	(\$17.3)	(\$17.4)	(\$17.5)

Questions?



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Glossary of Terms

Actuarial Accrued Liability (AAL)

The portion of the Present Value of Projected Benefits (PVB) that has been accrued (or earned) to date. AAL is also expressed as difference between PVB and actuarial present value of future normal costs, or the accumulated normal costs attributable to the years before the valuation date.

Annual Required Contribution (ARC)

Sum of Normal Cost (NC) and amortization of Unfunded Actuarial Accrued Liability (UAAL). This is the amount actuarially determined to ensure that, if paid on an ongoing basis, there will be sufficient resources available for future benefit payments.

Normal Cost (NC)

Represents portion of PVB allocated to the current year by the funding method.

Present Value of Projected Benefits (PVB)

Present value of all future benefit payments for current retirees and active employees, taking into account actuarial assumptions including discount rate, Salary growth, turnover, mortality, disability, retirement and other experience.

Unfunded Actuarial Accrued Liability (UAAL)

The difference between the Actuarial Accrued Liability and the Actuarial Value of Assets.

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Projected Counts and Payroll—Valuation Assumptions

January 1	Active Headcount		
	Current Participants	Future Hires	Total
2014	553		553
2015	523	30	553
2016	501	52	553
2017	479	74	553
2018	461	92	553
2019	436	117	553
2020	412	141	553
2021	386	167	553
2022	357	196	553
2023	340	213	553
2024	317	236	553
2025	295	258	553
2026	278	275	553
2027	261	292	553
2028	245	308	553
2029	220	333	553
2030	198	355	553
2031	178	375	553
2032	161	392	553
2033	143	410	553
2034	128	425	553
2035	113	440	553
2036	101	452	553
2037	81	472	553
2038	67	486	553
2039	45	508	553
2040	27	526	553
2041	15	538	553
2042	5	548	553
2043	0	553	553

January 1	Covered Payroll			
	Current Participants	Future Hires	Total	% Increase
2014	\$29.4	\$0.0	\$29.4	
2015	\$28.9	\$1.1	\$30.0	2.1%
2016	\$28.7	\$1.9	\$30.7	2.2%
2017	\$28.7	\$2.9	\$31.5	2.8%
2018	\$28.8	\$3.7	\$32.5	3.2%
2019	\$28.4	\$4.9	\$33.2	2.2%
2020	\$28.0	\$6.1	\$34.1	2.6%
2021	\$27.2	\$7.5	\$34.7	1.6%
2022	\$26.0	\$9.1	\$35.1	1.3%
2023	\$25.9	\$10.2	\$36.2	3.1%
2024	\$25.0	\$11.8	\$36.8	1.7%
2025	\$24.3	\$13.4	\$37.7	2.4%
2026	\$23.9	\$14.8	\$38.7	2.7%
2027	\$23.3	\$16.3	\$39.6	2.4%
2028	\$22.8	\$17.9	\$40.7	2.6%
2029	\$21.1	\$20.0	\$41.0	0.9%
2030	\$19.6	\$22.0	\$41.6	1.5%
2031	\$18.3	\$24.1	\$42.4	1.8%
2032	\$17.2	\$26.1	\$43.4	2.2%
2033	\$15.9	\$28.3	\$44.2	1.9%
2034	\$14.7	\$30.4	\$45.1	2.1%
2035	\$13.6	\$32.6	\$46.2	2.4%
2036	\$12.7	\$34.8	\$47.5	2.8%
2037	\$10.7	\$37.5	\$48.2	1.5%
2038	\$9.3	\$40.0	\$49.2	2.1%
2039	\$6.4	\$43.0	\$49.5	0.5%
2040	\$4.1	\$46.0	\$50.1	1.3%
2041	\$2.3	\$48.7	\$51.0	1.7%
2042	\$0.8	\$51.2	\$52.0	2.0%
2043	\$0.0	\$53.4	\$53.4	2.7%

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Projected Normal Cost—Valuation Assumptions

January 1	Normal Cost			
	Gross	Employee Contributions	Net	Net as % of Pay
2015	\$6.9	(\$2.7)	\$4.2	13.8%
2016	\$7.0	(\$3.0)	\$4.0	13.1%
2017	\$7.3	(\$3.1)	\$4.2	13.2%
2018	\$7.3	(\$3.1)	\$4.2	12.9%
2019	\$7.5	(\$3.2)	\$4.3	13.0%
2020	\$7.7	(\$3.3)	\$4.4	12.9%
2021	\$7.8	(\$3.3)	\$4.5	12.9%
2022	\$8.1	(\$3.4)	\$4.7	13.3%
2023	\$8.2	(\$3.5)	\$4.7	13.0%
2024	\$8.4	(\$3.6)	\$4.8	13.1%
2025	\$8.7	(\$3.7)	\$5.0	13.2%
2026	\$8.9	(\$3.8)	\$5.1	13.2%
2027	\$9.1	(\$3.9)	\$5.2	13.2%
2028	\$9.1	(\$3.9)	\$5.2	12.8%
2029	\$9.3	(\$3.9)	\$5.4	13.0%
2030	\$9.5	(\$4.0)	\$5.5	13.1%
2031	\$9.7	(\$4.1)	\$5.6	13.3%
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2026	278	275	553
2027	261	292	553
2028	245	308	553
2029	220	333	553
2030	198	355	553
2031	178	375	553
2032	161	392	553
2033	143	410	553
2034	128	425	553
2035	113	440	553
2036	101	452	553
2037	81	472	553
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2042	5	548	553
2043	0	553	553

January 1	Covered Payroll			
	Current Participants	Future Hires	Total	% Increase
2014	\$29.4	\$0.0	\$29.4	
2015	\$28.8	\$1.1	\$29.8	1.8%
2016	\$28.5	\$1.9	\$30.4	2.0%
2017	\$28.3	\$2.9	\$31.2	2.5%
2018	\$28.4	\$3.7	\$32.1	2.9%
2019	\$27.9	\$4.9	\$32.7	2.0%
2020	\$27.4	\$6.1	\$33.5	2.4%
2021	\$26.6	\$7.5	\$34.0	1.6%
2022	\$25.4	\$9.1	\$34.5	1.4%
2023	\$25.3	\$10.2	\$35.5	2.9%
2024	\$24.3	\$11.8	\$36.1	1.7%
2025	\$23.6	\$13.4	\$37.0	2.3%
2026	\$23.1	\$14.8	\$37.9	2.5%
2027	\$22.4	\$16.3	\$38.7	2.2%
2028	\$21.8	\$17.9	\$39.7	2.4%
2029	\$20.1	\$20.0	\$40.0	1.0%
2030	\$18.6	\$22.0	\$40.7	1.5%
2031	\$17.3	\$24.1	\$41.4	1.7%
2032	\$16.2	\$26.1	\$42.3	2.1%
2033	\$14.8	\$28.2	\$43.1	2.0%
2034	\$13.6	\$30.4	\$44.0	2.0%
2035	\$12.5	\$32.5	\$45.0	2.3%
2036	\$11.5	\$34.7	\$46.2	2.7%
2037	\$9.6	\$37.3	\$46.9	1.5%
2038	\$8.2	\$39.7	\$47.9	2.1%
2039	\$5.7	\$42.7	\$48.3	0.9%
2040	\$3.6	\$45.5	\$49.1	1.6%
2041	\$2.0	\$48.0	\$50.0	1.9%
2042	\$0.7	\$50.4	\$51.2	2.2%
2043	\$0.0	\$52.5	\$52.5	2.7%

Appendices

Projected Normal Cost—Modeling Assumptions

January 1	Normal Cost			
	Gross	Employee Contributions	Net	Net as % of Pay
2015	\$6.5	(\$2.8)	\$3.7	12.5%
2016	\$6.6	(\$3.0)	\$3.6	11.8%
2017	\$6.8	(\$3.1)	\$3.7	11.7%
2018	\$6.9	(\$3.2)	\$3.7	11.5%
2019	\$7.0	(\$3.3)	\$3.7	11.4%
2020	\$7.1	(\$3.4)	\$3.8	11.3%
2021	\$7.2	(\$3.4)	\$3.8	11.2%
2022	\$7.4	(\$3.5)	\$3.9	11.4%
2023	\$7.5	(\$3.6)	\$3.9	11.1%
2024	\$7.6	(\$3.6)	\$4.0	11.1%
2025	\$7.8	(\$3.7)	\$4.1	11.1%
2026	\$7.9	(\$3.8)	\$4.1	10.9%
2027	\$8.1	(\$3.9)	\$4.2	10.9%
2028	\$8.1	(\$4.0)	\$4.2	10.5%
2029	\$8.2	(\$4.0)	\$4.2	10.6%
2030	\$8.4	(\$4.1)	\$4.3	10.5%
2031	\$8.5	(\$4.1)	\$4.4	10.5%
2032	\$8.6	(\$4.2)	\$4.4	10.4%
2033	\$8.8	(\$4.3)	\$4.5	10.4%
2034	\$8.9	(\$4.4)	\$4.5	10.3%
2035	\$9.1	(\$4.5)	\$4.6	10.3%
2036	\$9.3	(\$4.6)	\$4.6	10.0%
2037	\$9.4	(\$4.7)	\$4.8	10.1%
2038	\$9.5	(\$4.8)	\$4.7	9.9%
2039	\$9.7	(\$4.8)	\$4.8	10.0%
2040	\$9.9	(\$4.9)	\$4.9	10.1%
2041	\$10.1	(\$5.0)	\$5.1	10.1%
2042	\$10.3	(\$5.1)	\$5.2	10.1%
2043	\$10.6	(\$5.3)	\$5.3	10.2%