RESOLUTION OF THE BUDGET AND FINANCE COMMITTEE OF THE NAVAJO NATION COUNCIL

23RD NAVAJO NATION COUNCIL - Third Year, 2017

AN ACTION

RELATING TO BUDGET AND FINANCE COMMITTEE; AMENDING THE NAVAJO NATION FISCAL YEAR BUDGET INSTRUCTIONS MANUAL TO REQUIRE BUDGETING FOR THE RETIREMENT PORTION OF THE FRINGE BENEFIT RATE FOR VACANT POSITIONS

BE IT ENACTED:

SECTION ONE. AUTHORITY

- A. The Budget and Finance Committee is empowered to promulgate rules and regulations relative to contracting, investments, and financial matters. 2 N.N.C § 301 (B)(1).
- B. The Budget and Finance Committee is responsible for approving the budget instructions for each fiscal year. 12 N.N.C. § 830(H)

SECTION TWO. FINDINGS

- A. The Navajo Nation Retirement Plan is currently funded at approximately 80 percent. Since the Retirement Program is not fully funded, the Navajo Nation funds its remaining liability through a portion of the fringe benefit rate. See pages 22 and 23. The Retirement Plan for Employees of the Navajo Nation: Legislative, Judicial, and Executive Branch Meeting, February 7, 2017, attached as **Exhibit A**.
- B. The current fringe benefit rate attributable to the Nation's Retirement Plan is estimated to be at the following levels for Fiscal Year (FY 2018):

Regular Employees and Council Delegates	24.5%
Commissioned Law Enforcement Officers	22.4%
Navajo Nation Judges	44.0%

See Exhibit A, page 23.

- C. Fringe rates for any fiscal year are determined based on the results from the beginning of the prior fiscal year. Fringe rates are determined as the sum of (1) the cost of benefits accruing during the fiscal year (normal cost) divided by expected payroll and (2) the 10-year amortization of the accumulated historical experience gains and losses divided by the expected payroll. See Exhibit A, page 22.
- D. The final fringe benefit rates for Fiscal Year 2018 are expected to be completed by March 2, 2017. See Exhibit A, page 22.

SECTION THREE. AMENDMENT

A. The Budget and Finance Committee hereby amends Budget Instruction Manual, Section VIII. B. 7. as follows:

> 7. Budgeting Fringe Benefits. Use the appropriate rates in Appendix E to calculate applicable fringe benefits for all budgeted positions and associated salaries. Fringe benefits must be budgeted for all personnel costs such as salaries, overtime and bonuses, including any changes made to the personnel salary. These amounts are to be budgeted in object code 2900. <u>Managers are to budget an amount equal to</u> the annual fringe rate attributable to retirement benefits for all vacant positions. These rates will be updated annually in Appendix E.

B. This amendment shall be effective upon the Budget and Finance Committee's approval and shall remain in effect until amended.

SECTION FOUR. DIRECTIVE TO OFFICE OF MANAGEMENT AND BUDGET

The Office of Management and Budget is directed to make the changes approved in Section Three of this resolution to the Budget Instruction Manual.

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Budget and Finance Committee of the Navajo Nation Council at a duly called meeting held at Window Rock, Navajo Nation (Arizona), at which a quorum was present and that the same was passed by a vote of 4 in favor and 0 opposed, this 7th day of March, 2017.

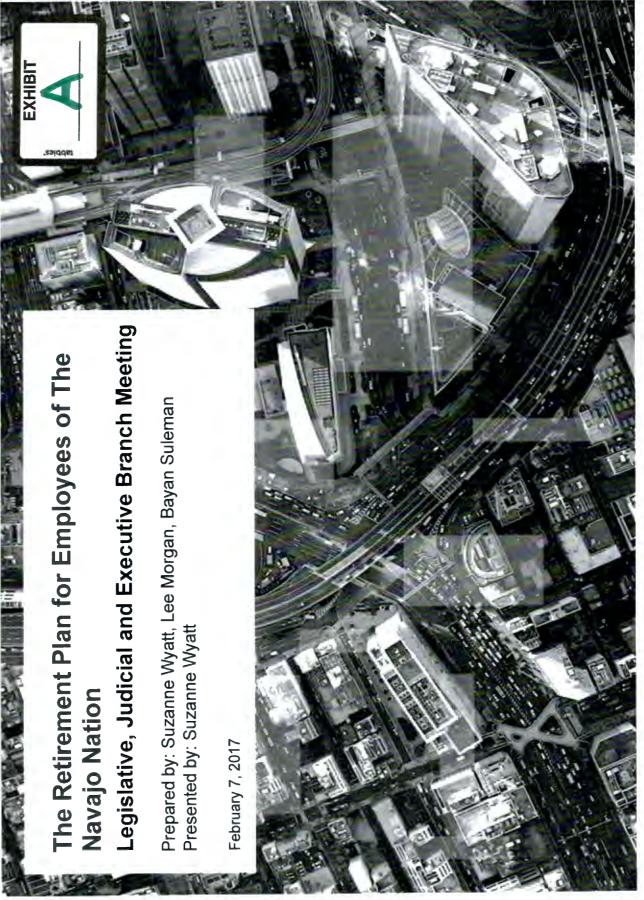
Seth Damon, Chairperson

Budget and Finance Committee

Motion: Honorable Tom T. Chee Second: Honorable Tuchoney Slim, Jr.



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Topics for Discussion

- Retirement Plan Overview
- Increase Normal Retirement Age
- Preliminary Fiscal 2018 Fringe Rates
- Judges' Plan
- Law Enforcement Plan
- Certification

Retirement Plan Overview

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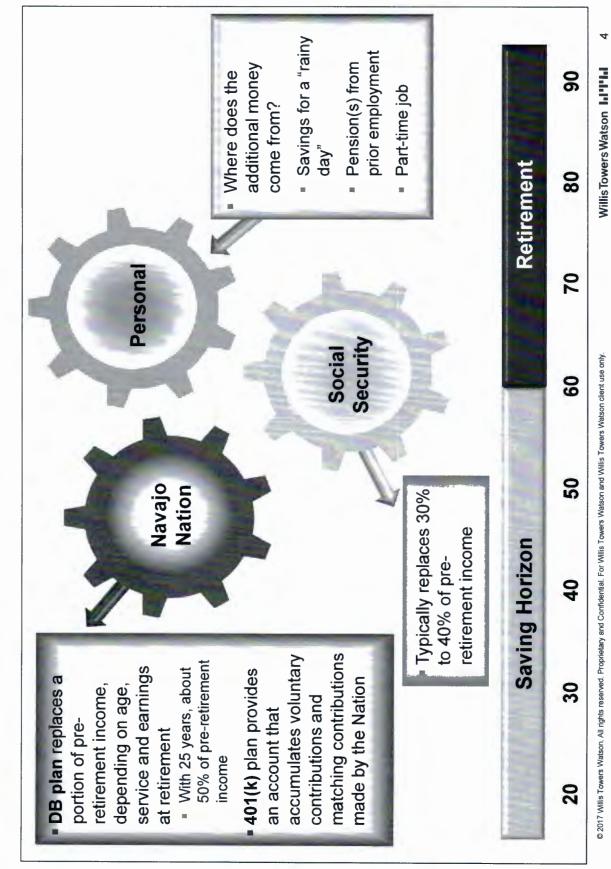
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Sources of Post-Retirement Income

Retirement Plan Provisions
Defined benefit retirement plan covers central government, including regular employees, judges and commissioned law enforcement officers ("CLEO"), the President and Vice President, political appointees, Council delegates, and participating certified chapters
 Frozen benefit obligations assumed by central government for Navajo Forest Products Industries ("NFPI") because operations shut down
 Frozen benefit obligations assumed by central government for Navajo Agricultural Products Industries ("NAPI") as a result of the debt reduction plan
In discussion with NACE on plans to settle frozen benefit obligations
Benefit equal to 2% of final average earnings times years and months of benefit service
Final average earnings are the highest 36 consecutive months of base salary rate during the last 120 months
 For judges appointed on or after 1/29/2003, 2.5% of final average earnings times up to 30 years of benefit service (i.e., maximum 75%)
 For judges appointed before 1/29/2003, benefit is equal to 50% for the first eight years and another 50% for the next seven years of benefit service times final year's pay (100% of final year's pay after 15 years of service)
Normal retirement age is 60 (age 55 for CLEO)
Early retirement reduced 5% per year prior to Normal Retirement Age
 Most DB plans have a normal retirement age at 65 (Social Security ranges from 65 to 67)
Ancillary benefits:
Pre-retirement spousal death and disability benefits
Optional forms, such as Joint and Survivor
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Census Date	Date	10/01/2016	10/01/2015	10/01/2014	10/01/2013
Participating Employees	Employees	William and	The Constant of the	N. STATES IN CO.	The literature and
1	Number	4,550	4,529	4,615	4,962
2	Valuation earnings	173,182,253	171,392,554	168,041,923	179,682,136
3	Average earnings	38,062	37,843	36,412	36,212
4	Average age	48.0	47.8	47.6	47.4
5	Average credited service	14.5	13.9	13.9	13.6
Participants v	Participants with Deferred Benefits	Philotter -	The second second	E EURINALISI	TT DESIGN
-	Number	4,620	4,638	4,510	4,105
7	Total annual pension	21,373,516	21,301,357	20,322,106	17,858,885
e S	Average annual pension	4,626	4,593	4,506	4,351
4	Average age	53.1	52.9	52.6	52.1
Participants	Participants Receiving Benefits	Contract of the state		Contraction of the	THE R. L. LEWIS CO., LANSING MICH.
-	Number	3,579	3,342	3,073	2,866
2	Total annual pension	34,491,030	31,606,977	28,142,774	25,673,571
ю	Average annual pension	9,637	9,458	9,158	8,958
4	Average age	68.6	68.3	68.1	67.8

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Data Summary by Group as of October 1, 2016

10/1/2016	10/1/2016 Data Summary by Group	Regular	Law Enforcement	Judges	NFPI	NACE	NAPI
Participati	Participatino Emplovees		Contraction of the local division of the loc	A DESCRIPTION OF	And in case of the	Contractor of	
-	Number	4,294	341	14	-	38	7
2	2 Valuation earnings	153,787,800	15,831,042	1,182,293	0	0	0
S	3 Average earnings	35,815	46,425	84,449	0	0	0
4	4 Average age	48.1	45.6	56.1	42.5	48.3	61.4
5	5 Average credited service	13.8	14.3	10.9	N/A	N/A	N/A
9	6 Total frozen benefits	485,582	7,342	0	2,030	98,342	59,261
Participant	Participants with Deferred Benefits		Design and the second	100 10 20121	Contraction of the local division of the loc	A LOW ALL	
+	Number	3,984	199	0	126	36	331
2	2 Total annual pension	18,540,194	1,180,776	0	302,099	88,949	1,261,499
S	3 Average annual pension	4,654	5,934	0	2,398	2,471	3,811
4	4 Average age	53.3	48.8	0.0	62.1	51.3	55.3
Participan	Participants Receiving Benefits	Thursday.	inter p	111111111	COMPANY AND A	D DURING D	A REAL
-	Number	2,984	316	24	223	20	93
3	2 Total annual pension	28,101,724	3,367,365	1,096,273	1,155,441	107,533	662,693
S	3 Average annual pension	9,417	10,656	45,678	5,181	5,377	7,126
4	4 Average age	68.6	63.9	69.3	73.6	69.1	67.9

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10/1/2016 Valuation Results Summary

Funded Status	Regular Employees *	Law Enforcement	Judges	NACE	NAPI	TOTAL
Actuarial Accrued Liability	\$ 800.9	\$ 89.3	\$ 15.6	\$ 2.5	\$ 17.5	\$ 925.8
Market Value of Assets	<u>641.6</u>	<u>76.2</u>	<u>13.0</u>	<u>1.7</u>	<u>0.6</u>	741.5
Shortfall/(Surplus)	159.3	13.1	2.6	0.8	8.5	184.3
Funded Status	80.1%	85.3%	83.3%	67.4%	51.4%	80.1%
Normal Cost	11.9	0.9	0.1	Frozen	Frozen	12.9

* Includes NFPI

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	Plan Design Alternatives – Effective December 31, 2016	
-	Current design Normal retirement date: age 60 Early retirement date: age 55 Early retirement reduction: 5% per year 	
•	 New Plan Design – Immediate Implementation Normal retirement date: age 62 Early retirement date: age 55 Early retirement reduction: 5% per year 	
•	Phase-in Design 1 – Increase Retirement Age based on Year of Birth No change for participants who are 55 or older (within 5 years of normal retirement age) at effective date 	
	 For all others, increase Normal Kemementage by 2 months for each whole year under age 30 at enective date Normal Retirement Age is capped at age 62 Early retirement date: age 55 Early retirement reduction: 5% per year 	
•	Phase-in Design 2 – Retirement Age based on Service No change for participants who are 55 or older (within 5 years of normal retirement age) at effective date	
	 Normal Retirement Age equals earlier of: Age 60 and 25 years of service at effective date Age 61 and 10 years of service at effective date 	
	 Age 62 at effective date Early retirement date: age 55 Early retirement reduction: 5% per year 	
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n Retirement Plan –	- Increase Based on Year of Birth
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Year of Birth	Age at Effective Date (12/31/16)	Normal Retirement Age (NRA)	Months between age 55 and NRA	Benefit Reduction if Commencement is Age 55	Impact of Plan Change
1961 and earlier	55 or older	60	60	25.00%	No change
1962	54	60 and 2 months	62	25.83%	
1963	53	60 and 4 months	64	26.67%	ANNIH MARANE
1964	52	60 and 6 months	99	27.50%	
1965	51	60 and 8 months	68	28.33%	
1966	50	60 and 10 months	70	29.17%	
1967	49	61	72	30.00%	No change for retirement at 61 or older; An additional 5% reduction for early retirement
1968	48	61 and 2 months	74	30.83%	
1969	47	61 and 4 months	92	31.67%	SAMINAN CAL
1970	46	61 and 6 months	78	32.50%	
1971	45	61 and 8 months	80	33.33%	Nonina Con
1972	44	61 and 10 months	82	34.17%	
1973 and later	43 or younger	62	84	35.00%	No change for retirement at 62 or older; An additional 10% reduction for early retirement

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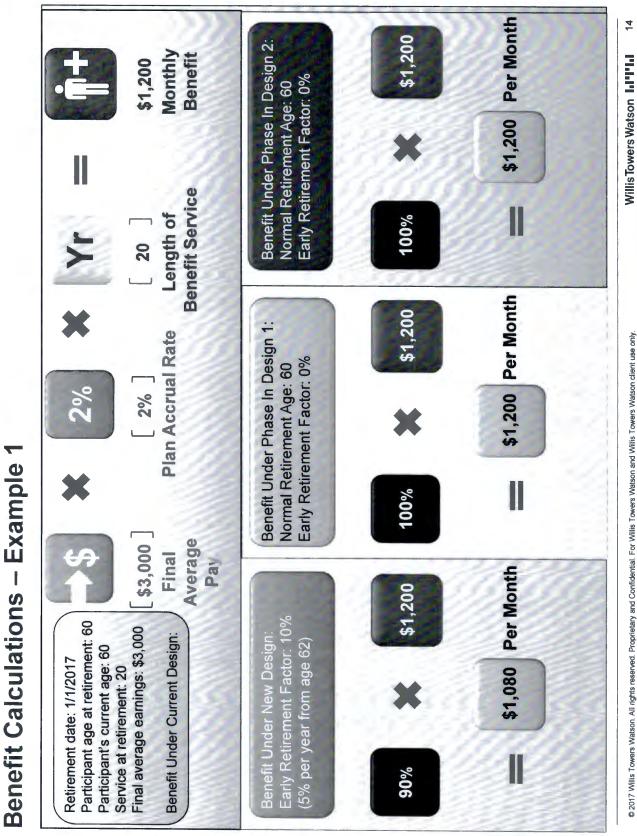
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Plan – Normal Retir sed on Service at Ef	lation Retirement Plan – Normal Retirement Date Change ign 2 – Increase Based on Service at Effective Date	ement Date Change	fective Date
	tion Retiremen n 2 - Increase E	Plan – Normal Retir	ised on Service at Ef

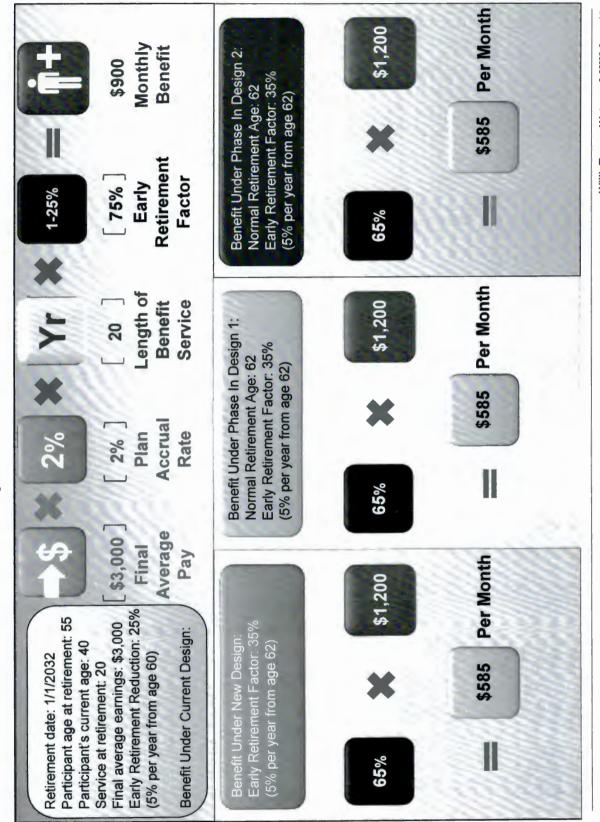
Age at Effective Date	Service at Effective Date	Normal Retirement Age (NRA)	Months between age 55 and NRA	Benefit Reduction if Commencement is Age 55	Impact of Plan Change
55	Any	60	60	25.00%	No change
Less than 55	At least 25 years	60	60	25.00%	No change
Less than 55	At least 10 years but less than 25 years	61	51	30.00%	No change for retirement at 61 or older; An additional 5% reduction for early retirement
Less than 55	Less than 10 years	62	8	35.00%	No change for retirement at 62 or older; An additional 10% reduction for early retirement

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Benefit Calculations – Example 2

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(\$ in thousands)	Current Design	New Design	Phase In Design 1	Phase In Design 2
				Constanting of the second
Discount Rate	7.00%	7.00%	7.00%	7.00%
Normal cost*	\$12,878	\$11,939	\$12,379	\$12,374
Covered payroll*	173,182	173,182	173,182	173,182
 As a % of covered payroll 	7.4%	6.9%	7.1%	7.1%
Actuarial Accrued Liability	\$925,880	\$912,312	\$919,314	\$920,535
Present Value of all Future Benefits	\$1,010,189	\$990,186	\$999,297	\$1,000,602
Assets	\$741,547	\$741,547	\$741,547	\$741,547
Unfunded actuarial accrued liability (UAAL)	\$184,333	170,765	\$177,167	\$183,586
AAL Funded percentage	80.1%	81.3%	80.7%	80.6%
Change in Normal Cost		\$(939)	\$(499)	\$(504)
Change in AAL		\$(13,568)	\$(6,566)	\$(5,345)

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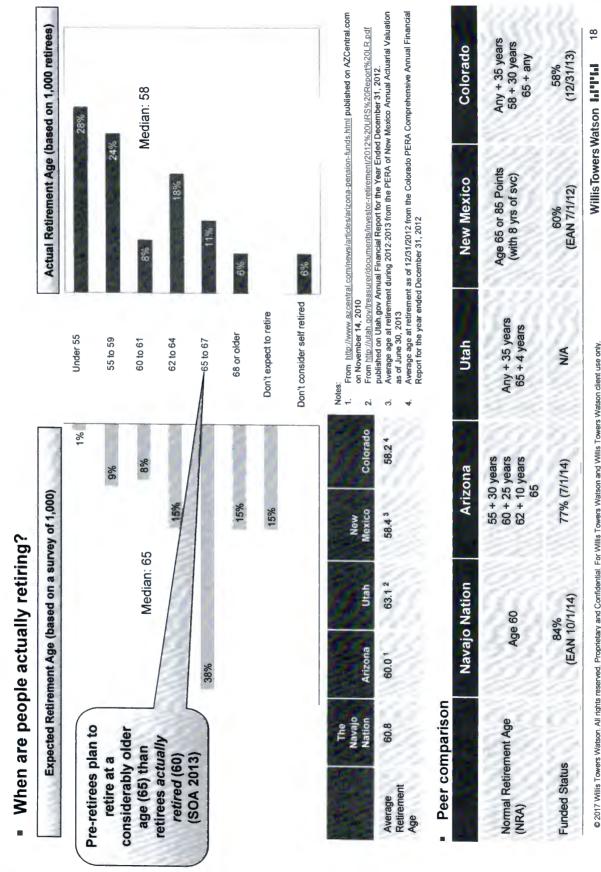
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Other Considerations

- Life expectancy for the general population in the U.S. has been increasing, which puts financial pressure on retirement systems. -
- In 1935 when Social Security was enacted, life expectancy was 60-62, today it is 85-87, which means fewer years of paying into the system and more years of payout.

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Savin	30
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- Administered Pension Systems was 2.8:1, today it is 1.5:1 according to the U.S. Census Bureau. In 1991 the ratio of Active Members (Worker) to Beneficiaries (Retiree) of State- and Locally-
- For the Nation's DB plan, this ratio was almost 5:1 at 10/1/02 and is less than 1.4:1 at 10/1/15.
- expectancy or trend in life expectancy as the general population of the U.S.. Navajo Nation's DB retirement plan participants may not have the same life



Other Considerations (continued)

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Advantages	Disadvantages
Cost savings	Employees may retire on the job
Encourages long service so institutional knowledge is retained	DB plan will be a less effective recruiting tool
Helps the plans worker to retiree ratio	Ability to work/health consideration at later ages
Longer attribution period for accruing benefit	Fewer job openings for younger, less expensive new hires
Early retirement windows may be effective for "rightsizing"	Less retirement security for those who retire earlier
Encourages employees to work until Medicare eligible and near full Social Security age	Impact on morale; perceived benefit cut
Improved sustainability of plan costs	
Improved generational equity	older sin hundered with a data with the
 Alignment of valuation assumptions may 	assumptions may change the financial impact
May need to recognized an increase in life exp	May need to recognized an increase in life expectancy or changes in termination/retirement behavior.

Other Considerations (continued)

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Preliminary Fiscal 2018 Fringe Rates

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Actuarial Accrued Liability \$ 844.7 \$ 883.6 \$ 925. Market Value of Assets <u>648.1</u> <u>659.0</u> <u>741</u> Shortfall/(Surplus) 189.6 224.6 184.	\$ 925.8 741.5 184.3
<u>648.1</u> <u>659.0</u> 189.6 224.6	<u>741.5</u> 184.3
189.6 224.6	184.3
Funded Status 76.7% 74.6% 80.1 ⁶	80.1%
Funding Policy Fringe Rates	aparta and
Employee Group FY 2012 FY 2013 FY 2014 ¹ FY 2015 ² FY 2016 FY	16 FY 2017 ³ FY 2018
Regular employees* 20.5% 22.6% 24.4% 23.0% 24.4% 2	% 27.1% 24.5%
CLEO 27.0% 29.0% 24.9% 25.0% 21.4% 2	% 27.9% 22.5%
Judges 46.0% 52.0% 32.7% 37.0% 35.2% 3	% 30.8% 44.0%

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4	Navajo Nation Fringe Rates – Background
ша	Fringe rates for any fiscal year are determined based on the results from the beginning of the prior fiscal year
•	For fiscal 2018, rates are set in early 2017 based on results at the beginning of fiscal 2017 (10/1/2016)
LL_	Fringe rates are determined as the sum of (1) and (2) below:
•	 The cost of benefits accruing during the fiscal year (normal cost) divided by expected payroll
	Explicitly include non-investment expenses paid from the trust
•	10-year amortization of the accumulated historical experience gains and losses divided by expected payroll. This amount includes:
	Experience gains/losses on active, deferred vested, and retiree participants
	Plan investment gains/losses relative to the expected return of 7.00%
	Layer future bases, as has been done historically (similar to pension cost under new GAS)
-	Preliminary rates are usually adjusted for changes in payroll
	 Retirement office provided updated payroll 2/2/17
	Final FY18 Fringe rate due 3/2/17
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Alternatives
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	\$ in 000's	% of Covered Payroll	\$ in 000's	% of Covered Payroll
	Discount R	Discount Rate = 7.00%	Discount R	Discount Rate = 6.50%
Covered Payroli		S. S. D. LOUIS	CINE STR	ID NE -
 Regular employees and Council Delegates 	\$158,424	STOLAR.	\$158,424	THE PARTY
 Commissioned Law Enforcement Officers 	13,533		13,533	
- Judges	1.225		1.225	
Total Normal Cost (with $\%$ year interest)	\$173,182		\$173,182	
Normal Cost				
 Regular employees and Council Delegates 	\$13,245	8.4%	\$14,682	9.3%
 Commissioned Law Enforcement Officers 	1,053	7.8%	1,170	8.6%
- Judges	154	12.6%	168	13.7%
Total 10-year Amortizations of UAL	\$14,452		\$16,020	
Amortization of UAL	C. L. L. XI	and the second s	La Maria	
 Regular employees and Council Delegates 	\$25,632	16.2%	\$31,827	20.1%
 Commissioned Law Enforcement Officers 	1,978	14.6%	2,654	19.6%
- Judges	385	31.4%	475	38.8%
Total Fringe Rate	\$27,995		\$34,956	
Fringe Rates	AL TOP IS A		ALC: NOT	
 Regular employees and Council Delegates 	\$38,877	24.5%	\$46,509	29.4%
 Commissioned Law Enforcement Officers 	3,031	22.4%	3,824	28.3%
- Judges	539	44.0%	643	52.5%
Total Fringe Rate	\$42,447		\$50,976	

Notes: Normal cost and amortization amounts includes interest for half a year. Normal cost includes expenses. © 2017 Wills Towers Watson. All rights reserved. Proprietary and Confidential. For Willis Towers Watson and Wills Towers Watson client use only.

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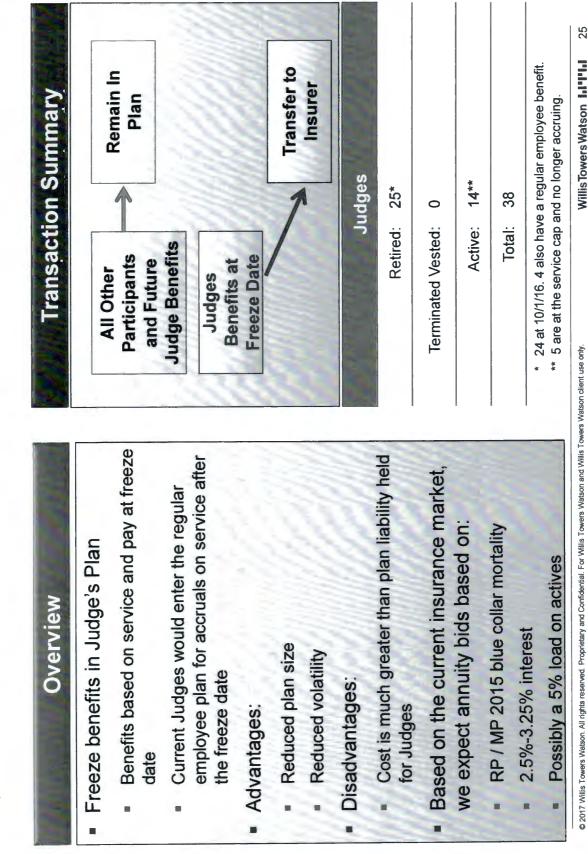
Judges' Plan (Recap from 11/22/16 meeting)

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Buy-Out Judge's Plan

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Financial impact				
10/1/15	Current Plan	Freeze and Start in Regular Employee Plan	Estimated Annuity Buy-Out	
Retirees	10,863,000	10,863,000	16,295,000	
Active	4,882,000	3,224,000	5,480,000	
Total	15,745,000	14,087,000	21,775,000	
Assets	12,409,000	12,409,000	12,409,000	
(Shortfall)	(3,336,000)	(1,678,000)	(9,366,000)	
Savings/(Cost)	N/A	1,658,000	(7,688,000)	
Normal Cost	118,000	147,000*	147,000*	
* 14 Judges accruing at 2.0%	14 Judges accruing at 2.0% rather than 9 accruing at 2.5%.			
Freezing the plan ge	enerated a short term	Freezing the plan generated a short term savings, but increases the cost of benefits	the cost of benefits	
acci ulig.				
 Judges service cap begin to accrue aga 	o (15 years under the old ain; however, they would	Judges service cap (15 years under the old plan and 30 under the new) would be "winners" and begin to accrue again; however, they would lose pay increases on their frozen Judge's benefit.) would be "winners" and · frozen Judge's benefit.	
 Judges not at the ser 2.0% and would lose 	ervice cap would be "los se pay increases on their	Judges not at the service cap would be "losers" and have their benefit accruals cut from 2.5% to 2.0% and would lose pay increases on their frozen Judge's benefit	accruals cut from 2.5% to	
The plan can be fro:	The plan can be frozen without an annuity buy-out	y buy-out		
2017 Willie Towner Motion All dights research	an and Monfedoreial. Ear Millin Trusson Materia and Millin Trusson Melabora dianet una anti-	Toware Materia Alanti Lea onto		

Buy-Out Judge's Plan

Comparison of Judges Plan to Neighboring States and Federal Judges – Benefits Available to a New Hire (from June 2014 Study)

	Navajo Nation	Arizona	Utah	New Mexico	Colorado	Federal
Benefit at Normal Retirement	2.5% x Final Average Pay x Years of Service (YOS) (max of 75%)	Starting January 1, 2014, new members are only eligible for a 401(k)-style retirement system.	(5.0% x First 10 YOS + 2.25% x Next 10 YOS + 1.0% x Thereafter) x Final Average Pay	3.75% x Final Salary x YOS (max of 75%)	2.5% x Final Average Pay x YOS (max of 100% of FAP)	Final Salary
Final Average Pay	Highest 36 months out of the last 120	NIA	Highest 2 years in Judicial Service	Final Salary	Average of highest three periods of 12 consecutive months	Final Salary
Normal Retirement Age (NRA)	Age 60	AIN	25 YOS Age 55 & 20 YOS Age 62 & 10 YOS Age 70 & 6 YOS	Age 60 & 15 YOS Age 64 & 5 YOS	35 YOS Age 58 & 30 YOS Age 65	Age 65 & 80 points (age + YOS)
Early Retirement	Age 55, reduced 5%/year	NIA	Not Permitted	Not Permitted	Varies, Approximate reduction 5%/year	YOS >= 8, Reduced 2%/year up to a maximum of 20%
Vesting	100% after 4 YOS or at NRA	N/A	6 YOS	5 YOS	5 YOS	14 YOS
Normal Form	Life Annuity	NA	Life Annuity	Life Annuity	Life Annuity	Life Annuity

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Comparison of Judges Plan to Neighboring States and Federal Judges – Benefits Available to a New Hire (from June 2014 Study) (cont'd)

	Navajo Nation	Arizona	Utah	New Mexico	Colorado	Federal
Pre-retirement death benefit	50% QPSA	NA	Refund of participant's contributions + 65% of participant's most recent 12 months of compensation	75% of participant's vested benefit	YOS<1 or Not Retirement Eligible: Lump Sum YOS>=1, Varies from 25% of FAP to Full Accrued Benefits	At least 25% but not more than 50% of the average annual salary
Disability Benefit	Benefit payable immediately for life without reduction	N/A	None	YOS>=5, Accrued Vested Benefit	Service Projected to age 65 up to a maximum of 20 years	10>YOS>=5, 40% of Final Salary YOS>=10, Final Salary
COLA	Ad Hoc	NIA	Up to 4% annual	None	2.0% annual if asset returns are positive	Equal to change in price index
Employee Contributions	No	N/A	Yes, currently 0%	10.5% of payroll	10.5% of payroll	2.7% of payroll
Funded Status	74%	58%	75%	51%	61%	N/A

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Law Enforcement Plan (Recap from 4/22/16 meeting) 29

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Comparison to Neighboring States and Federal Public Safety Members – Benefits Available in the most prevalent plan to a New Hire

		BIIOTIN	Otal		COLORADO	rederal (FERS)
Benefit at Normal Retirement	2% x Years of Service (YOS) x FAE	2.5% x Years of Service (YOS) (max 80%) x FAE	1.5% x Years of Service (YOS) x FAE + a 1.33% DC contribution ²	3% x Years of Service (YOS) (max 90%) x FAE	[2% x 1 st 10 YOS + 2.5% x YOS above 10] x FAE ³	[1.7% x 1 st 20 YOS + 1% x YOS above 20] x FAE
Final Average Earnings (FAE)	Highest 36 months out of the last 120	Highest 60 months out of the last 240	Highest 5 years	Highest 60 months	Highest 3 years	Highest 3 years
Pensionable earnings	Base Pay = Hourly Rate x 2080 / 12 (adjusted if part- time)	Base wages, shift and military differential wages, compensatory time, holiday and overtime pay, longevity pay	Salary	Salary	Base salary, including longevity pay, sick leave pay, vacation leave pay, shift differential, and certain overtime	Basic salary, including shift rates; but excluding overtime, bonuses, etc.
Normal Retirement Age (NRA)	55	52.5 w/ 25 YOS	65 w/ 4 YOS 25 YOS	60 w/ 6 YOS 25 YOS	55 w/25 YOS	62 w/ 5 YOS 50 w/ 20 YOS 25 YOS
Early Retirement	Age 45, reduced 5%/year from 55	Same as Normal	62 w/ 10 YOS or 60 w/ 20 YOS, AE reduction	Same as Normal	50 or 30 YOS, reduced to be equivalent	55-57 w/ 10 YOS, reduced 5%/year before 62
Vesting	4 YOS or at NRA	25 YOS (EEC are vested)	4 YOS (EEC are vested)	6 YOS (EEC are vested)	5 YOS (EEC are vested)	5 YOS
Terminated Vested Benefit	Same as early retirement	Deferred normal retirement benefit	Deferred normal retirement benefit	Deferred normal retirement benefit	Deferred normal retirement benefit	Deferred normal or early retirement benefit
Normal Form	Life Annuity	Unreduced 80% J&S	Life annuity	Life Annuity	Life Annuity	Unreduced 50% J&S

1 - Hybrid plan where the DC contribution = 12% less pension cost. Employees contributions may be required if pension cost exceeds 10%. Participants can opt out of the Hybrid plan for a flat 12% employer contribution.

2 - Plus a "separate retirement account" for contributions in excess of cost, currently 0%.

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Comp	Benefit

NUTANA NA	Navajo Nation	Arizona	Utah	New Mexico	Colorado	Federal (FERS)
Pre-retirement surviving spouse benefit	50% QPSA	Line of duty -100% of FAE less child benefit Otherwise – 80% of AD benefit	LS = 75% highest annual salary + EEC refund + QPSA up to 100% based on YOS	On duty 50%; Off duty 30%% of FAE or 100% QPSA, if greater	On duty 70%; Off duty 40-50%% of base pay	LS = 50% of final salary + \$15,000 increased by COLA (\$30,792.98 on/after 12/1/11) + if 10 YOS, annuity = 50% QPSA
Pre-retirement surviving child benefit	None	Up to 20% of AD benefit until 18 (23 student) + a guardian benefit	None	Coordinated with spouse benefit	Coordinated with spouse benefit	Annuity until 18 (22 if student) or if disabled, if employed at death
Disability Benefit	Up to 60% ² of FAE less other disability benefits	Accidental (AD) ³ – greater of 50% FAE or pension	Pension accrued during disability plan payments or immediate unreduced if no disability coverage	Immediate unreduced retirement benefit with service projected to NRA if in the line of duty	Total 70%; Occupational 40%-50% of base pay	60% 12 months then 40% less SS disability then retirement benefit with service projected to 62
Cost of Living Adjustments (COLAs)	Ad Hoc	2%-4% by formula when asset returns exceed 10.5% & at least 60% funded	Up to 2.5% annually	2% annually for 7 years	Annually evaluated from 0% to 3% or CPI	Yes ∼ 2.4%/year
Service Purchase	Military and other governmental	Military and other governmental	Military, other governmental, private school	Military and air time	Military, other governmental, and private	Military, civilian, volunteer
DROP1	No	No	No	No	Yes	No, but phased retirement
Notes: 1 – Deferred Retirement Option Plan 2 – 60% if service related; otherwise based on service - 0% if less than 4; 15% for 4-6; 30% for >6-13; and 40% for >13 3 – Catastrophic in the line of duty pays 90% of FAE for 60 months then 62.5%. Smaller benefits for ordinary and tempc	tion Plan otherwise based on service of duty pays 90% of FAE f	Notes: 1 – Deferred Retirement Option Plan 2 – 60% if service related; otherwise based on service - 0% if less than 4; 15% for 4-6; 30% for >6-13; and 40% for >13. 3 – Catastrophic in the line of duty pays 90% of FAE for 60 months then 62.5%. Smaller benefits for ordinary and temporary disability.	sr 4-6; 30% for ⊳6-13; and	40% for >13. y and temporary disability		

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Comparison to Neighboring States and Federal Public Safety Members – Funding and Other Post Retirement Benefits

AN ALCONDON	Navajo Nation	Arizona	Utah	New Mexico	Colorado	Federal (FERS)
Employee Contributions	None	Currently 11.65% (Min of 7.65%)	Currently 0%	8.72%	Increasing from 8% in 2014 to 12% in 2022	4.9%
Employer Policy Contribution Rate	25.8% (8.9% NC)	42.4% ¹ (12.2% NC)	12.0% ³ (10.1% NC)	25.6% (20.9% NC)	8%	11.9% (NC less EEC)
Funding Policy	Current cost plus shortfall/(surplus) over rolling 10 years	Current cost plus shortfall/(surplus) over 21 years ending 6/30/37	Current cost plus shortfall/(surplus) over 20 years	Statutory rates not less than current cost plus fund shortfall 30 years	Statutory rates	FERS Aggregate Normal Cost less employee contributions
Funded Status	80% at 10/1/15	49% at 7/1/15	117% ³ at 1/1/14	121% at 6/30/15	101% at 1/1/14	91% at 9/30/14
Assumed Future Return on Assets (Discount Rate)	7.00%	7.85%	7.50%	7.75%	7.50%	5.25%
Post Retirement Health	Ŷ	Yes \$100-\$260/month towards state coverage	Varies by Employer, Medicare supplement	Yes, optional, retiree pays reduced premium based on service	Yes, optional, retiree pays premium	Yes, continuation of subsidized active coverage
DC Plan	Yes - Match of 50% of 1st 6%	Yes - No ER contributions	Yes - No ER contributions	Yes – 457 w/o ER contributions	Few ERs provide a 457	Thrift Savings Plan w/ 1% ER contribution
Social Security	Yes	Varies by Employer ²	Varies by Employer	Varies by Employer	Ŷ	Yes plus a SS bridge to 62 if retire with an unreduced FERS benefit
Notes: 1 - Special phase-in rule allows a rate as	low as 38.6	%.				

2 – In Arizona, the following positions are frequently excluded from Section 218 agreements: Fire personnel and Police officers 3 – Tier II only. Excludes 18.5% employer contributions towards funding old formula.

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	Coordination with Social Security and Medicare
•	The federal government provides Social Security benefits, which are separate from State and Federal employer benefit programs. Social Security and employer benefit programs, along with the member's personal savings, are each considered essential components of a member's total post-retirement income requirements.
•	 Public employees were not provided Social Security coverage when the Social Security Act was enacted in 1935. Beginning in 1951, each state was authorized to enter into a voluntary agreement with the federal government to provide Social Security coverage to employees of the state. This type of public employer agreement is termed a Section 218 agreement because it is authorized by Section 218 of the Social Security Act.
	 Positions that are specifically excluded from coverage under the provisions of Section 218 are not subject to Social Security withholding and deductions under those provisions.
	 Positions that are specifically excluded from coverage under the provisions of Section 218 are not subject to Medicare taxes under those provisions.
	 However, the Omnibus Budget Reconciliation Act of 1985 (OBRA '85) made state and local employees hired after March 31, 1986 subject to mandatory Medicare coverage, unless specifically excluded by law. This means public employees hired after that date must be covered for Medicare - even employees in positions, such as fire or police positions, that are typically excluded from a Section 218 agreement.
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0	Coordination with Social Security and Medicare (continued)
	Social Security contributions (withholding):
	 Retirement (OASDI): 6.2% employee + 6.2% employer, each up to the taxable wage base (\$118,500 in 2016)
	Medicare (HI): 1.45% employee + 1.45% employer (higher amounts for very high paid)
-	Social Security retirement benefit for 2016 is the sum of:
	a) 90 percent of the first \$856 of his/her average indexed monthly earnings, plus
	b) 32 percent of his/her average indexed monthly earnings over \$856 and through \$5,157, plus
	c) 15 percent of his/her average indexed monthly earnings over \$5,157
	Average indexed monthly earnings is an indexed career average
	For someone earning \$55,000 at retirement in 2016, their Social Security benefit would be:
	 \$22,000/year or a 40% replacement at full Social Security Normal Retirement Age of 66
	* ~\$17,000/year or a 30% replacement if taken at earliest Social Security Retirement Age of 62
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Peer Comparison – Participant Illustration

- Future retirement benefit for a newly hired member
- Benefit amounts are for a full career Hired at age 25, retirement at age 55, final pay = \$55,000

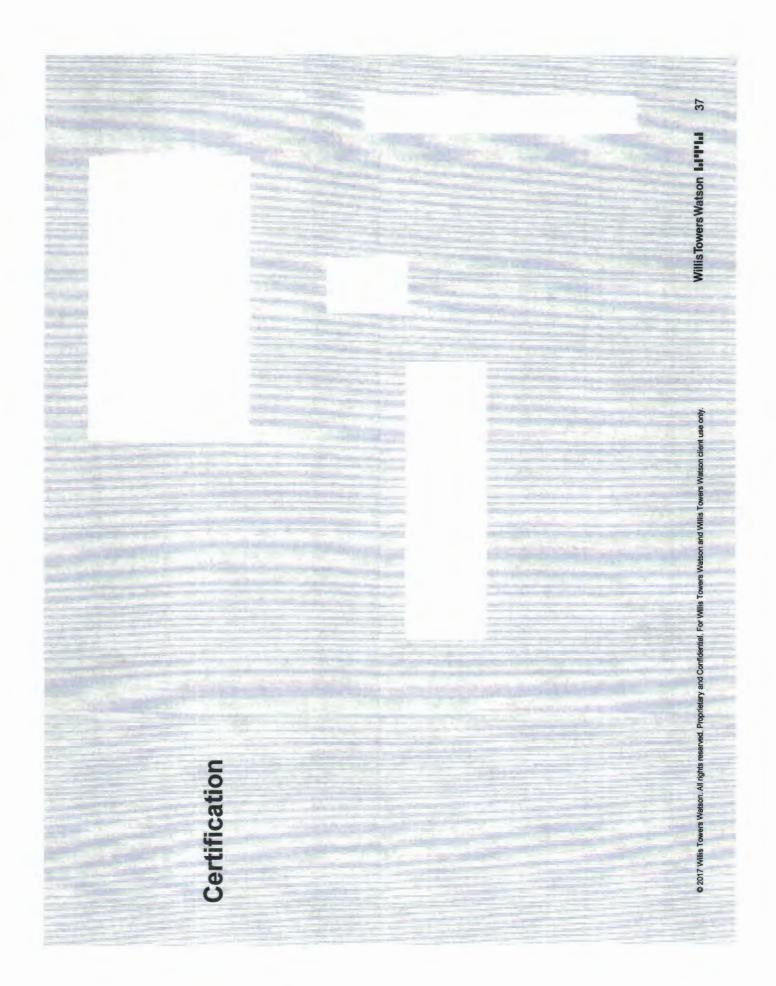
	Navajo Nation	Arizona	Utah	New Mexico	Colorado	Federal (FERS)
DB Retirement Plan Annuity Benefit	2.0% x 30 x \$53,161 = \$31,897/year at age 55	2.5% x 30 x \$51,404 = \$38,553/year at age 55	1.5% x 30 x \$51,404 = \$23,132/year at age 55	3.0% x 30 x \$51,404 = \$46,264/year at age 55	(2.0% × 10 + 2.5% × 20) × \$53,161 = \$37,213/year at age 55	(1.7% x 20 + 1% x 10) x \$53,161 = \$23,391/year at age 55
401(k) or other retirement savings ¹	Assume 9% contributions (6% EE+ 3% ER)	Assume 6% contributions (6% EE+ 0% ER)	Assume 7.33% contributions (6% EE+ 1.33% ER)	Assume 6% contributions (6% EE+ 0% ER)	Assume 6% contributions (6% EE+ 0% ER)	Assume 7% contributions (6% EE+ 1% ER)
Replacement Ratio (DB + 401(k))	58% DB + 31% 401(k) = 89%	70% DB + 21% 401(k) = 91%	42% DB + 25% 401(k) = 67%	84% DB + 21% 401(k) = 105%	68% DB + 21% 401(k) = 89%	43% DB + 24% 401(k) = 67%
 Replacement 	 Replacement Target = 7 	'5%-80% from all sources	all sources			

- A replacement income without COLA should be increased about 20% to account for 2% inflation
- Replacement Ratios in the chart above do not include benefits from Social Security, where applicable
- OASDI is estimated to replace roughly 30% at age 62 and includes COLA
- HI is not available until 65

1 – Assumes 3.5% salary increases and 6% investment return. Notes:

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	Trends
-	Utah – effective July 1, 2011, defined benefit plan (highest 3 years of pay times 2.5% per year of service up to 20 + 2% above 20) was closed to new hires and replaced with a choice between a defined contribution and a hybrid
	A defined contribution = 12% employer only
	A hybrid = consisting of a pension of highest 5 years of pay times 1.5% per year of service + a DC contribution equal to 12% less the pension cost. Employee contributions may be required if the pension cost exceeds 10%
•	Arizona – effective in 2012, 25 years of service are required for a pension benefit
	New benefits effective 7/1/17
	New Mexico – effective July 1, 2013, new hires are eligible for a new formula (called tier 2)
	Eliminated 20% service boost, increase FAE period from 3 years to 5 years, later retirement
•	Arizona – early 2016 Senate bill proposes smaller pension benefits to newly hired police and firefighters and reducing cost-of-living increases for current retirees
	Estimate it would save \$3.6 billion during the next 30 year
	Supported by Police and firefighter unions, the mayors of Phoenix and Mesa
•	In summary:
	Cost cutting measures - lower multipliers, lower COLAs, longer FAE periods, later retirement ages
	Risk cutting measures – mover towards fixed ER contributions and DC
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Certification

assumptions outlined in the actuarial valuation report as of October 1, 2015 and descriptions of the data, assumptions, methods, plan provisions and limitations presentation dated December 8, 2016, unless stated otherwise. Therefore, the of the valuation reports and their use should be considered part of this The results included in this presentation are based on the data and presentation.

Standards of the American Academy of Actuaries to render the actuarial opinions The undersigned consultants with actuarial credentials meet the Qualification contained herein. To our knowledge, our objectivity is not impaired by any relationship between the plan sponsor and our employer, Towers Watson Delaware Inc.

Sincerely yours,

Jus Wy

Suzanne Wyatt, FSA, EA, MAAA Senior Consulting Actuary

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