

Arkansas State Employees  
& Public School Employees  
Health Benefits Program



# State and Public School Life & Health Insurance Task Force

July 25, 2017

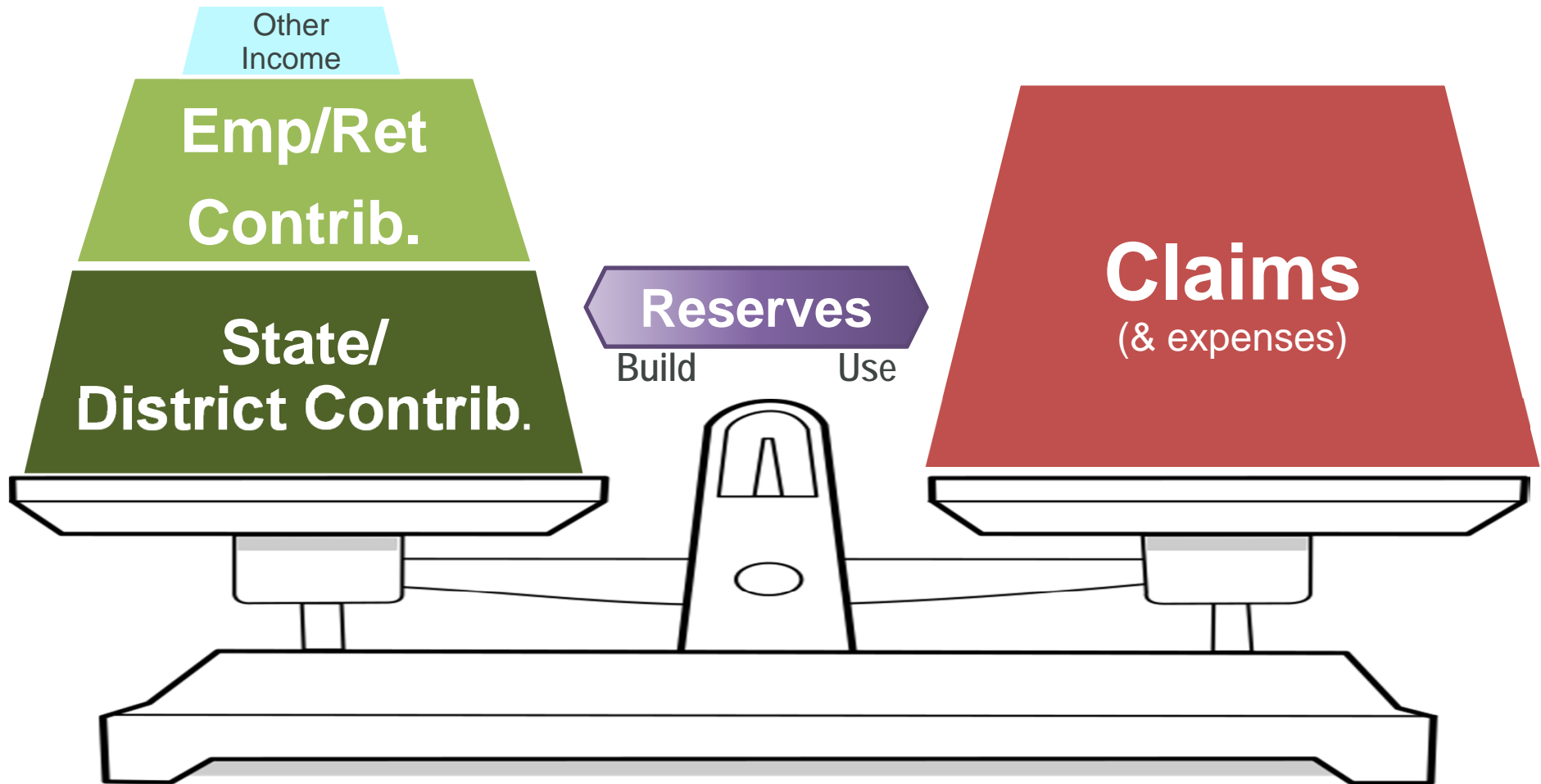
John Colberg, FSA, MAAA

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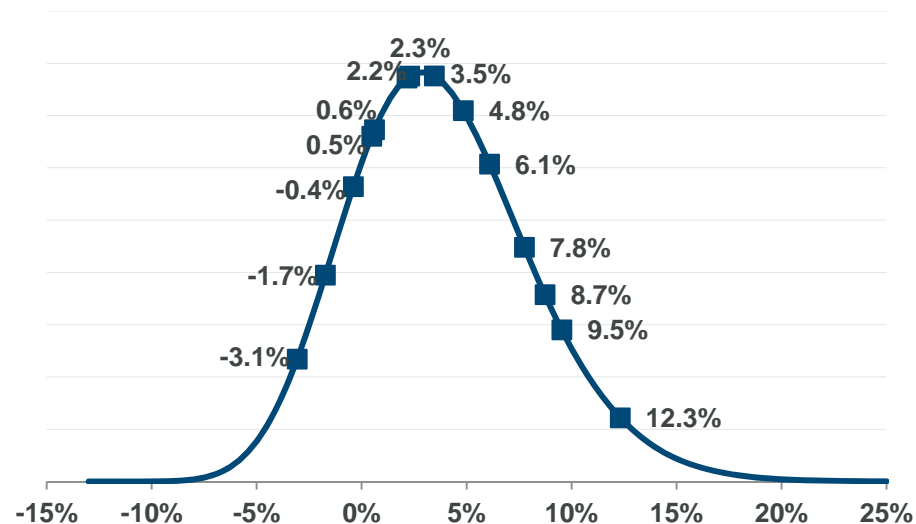
# Plan Funding Illustration



# Medical Trends



Medical Trends	ASE	PSE
per member per month		
- 2009 to 2010	6.1%	4.8%
- 2010 to 2011	2.3%	2.2%
- 2011 to 2012	7.8%	12.3%
- 2012 to 2013	3.5%	-1.7%
- 2013 to 2014	-0.4%	0.6%
- 2014 to 2015	0.5%	-3.1%
- 2015 to 2016	8.7%	9.5%
<b>AVERAGE</b>	<b>3.8%</b>	
Standard Deviation	4.4%	

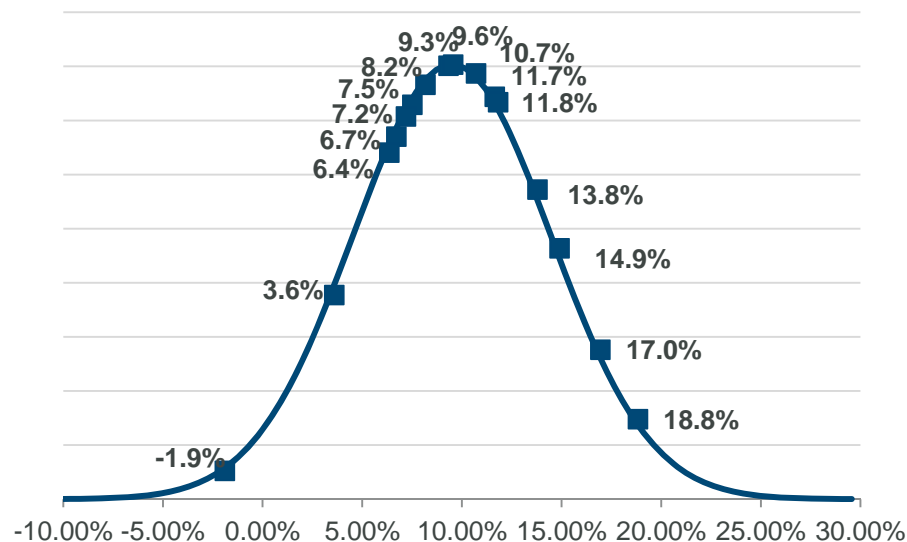


Assumed Trend Rate	3.5%	5.0%	6.0%	8.0%
Likelihood of Trends exceeding assumption	49.9%	36.7%	28.9%	16.6%

# Pharmacy Trends



Pharmacy Trends	ASE	PSE
per member per month		
- 2008 to 2009	8.2%	6.7%
- 2009 to 2010	9.3%	7.5%
- 2010 to 2011	10.7%	7.2%
- 2011 to 2012	17.0%	9.6%
- 2012 to 2013	11.7%	6.4%
- 2013 to 2014	3.6%	-1.9%
- 2014 to 2015	18.8%	11.8%
- 2015 to 2016	14.9%	13.8%
<b>AVERAGE</b>	<b>9.5%</b>	
Standard Deviation	5.0%	



Assumed Trend Rate	9.5%	10.0%	11.0%	12.5%
Likelihood of Trends exceeding assumption	50%	46%	38%	27%

# PSE Projected Assets



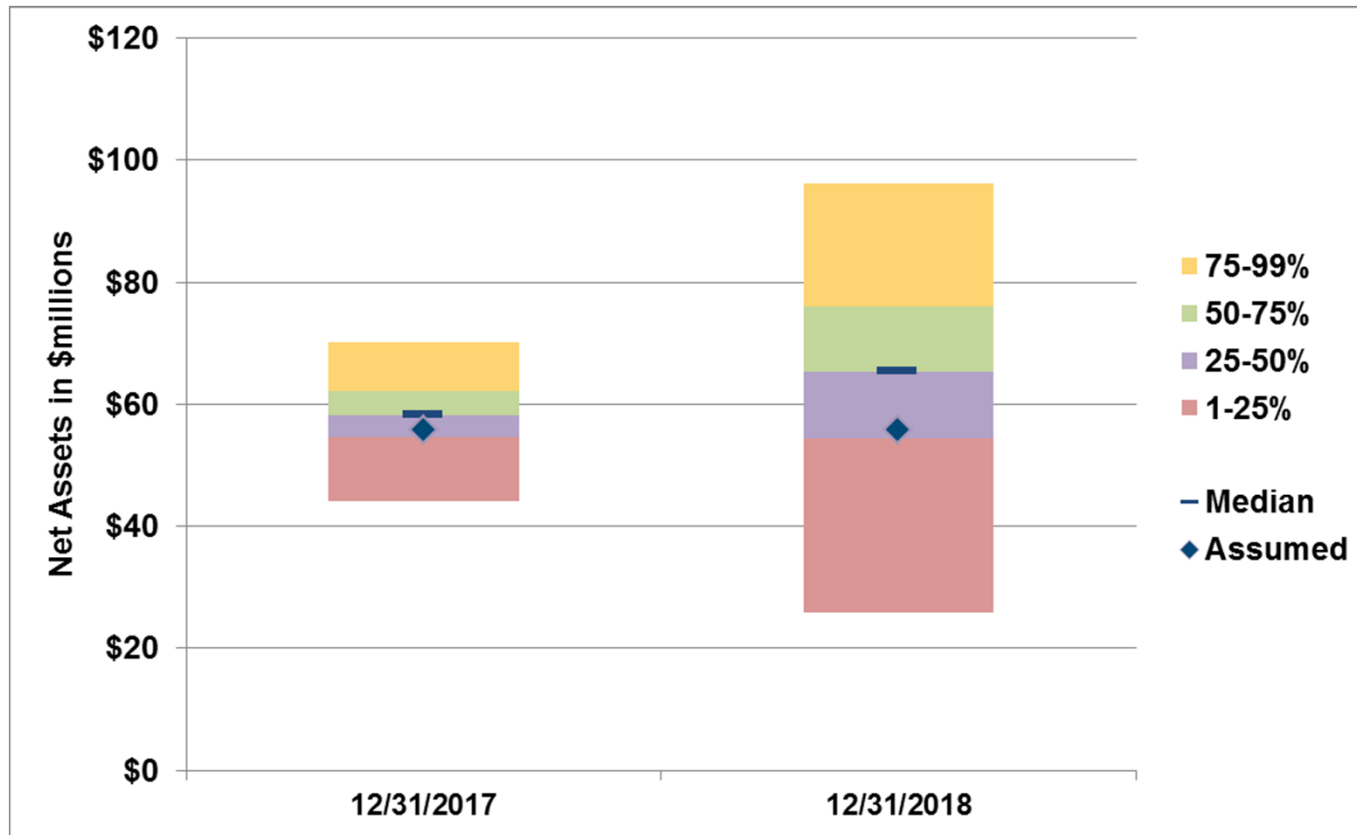
(In Millions \$)

PSE	As of	Actuals		Projected	
		12/31/2016	5/31/2017	12/31/2017	12/31/2018
Net Assets before IBNR		\$ 136.3	\$ 169.3	\$ 129.7	\$ 124.6
IBNR Reserve		(31.1)	(27.1)	(27.1)	(27.1)
Reserve for Premiums 2017 & prior		(29.6)	(30.4)	(3.8)	-
Premium Reserve for 2018		n/a	n/a	(2.4)	(1.2)
Catastrophic Reserve		(10.9)	(40.5)	(40.5)	(40.5)
<b>Net Assets Available</b>		<b>\$ 64.7</b>	<b>\$ 71.3</b>	<b>\$ 55.8</b>	<b>\$ 55.8</b>

# PSE Projected Assets



The graph below shows the distribution of assets under random trend scenarios with asset values ranked from smallest to largest and grouped into quartiles.



The scenarios do not reflect the likelihood of variations in other factors such as changes in income or population.

# PSE Rate Projections



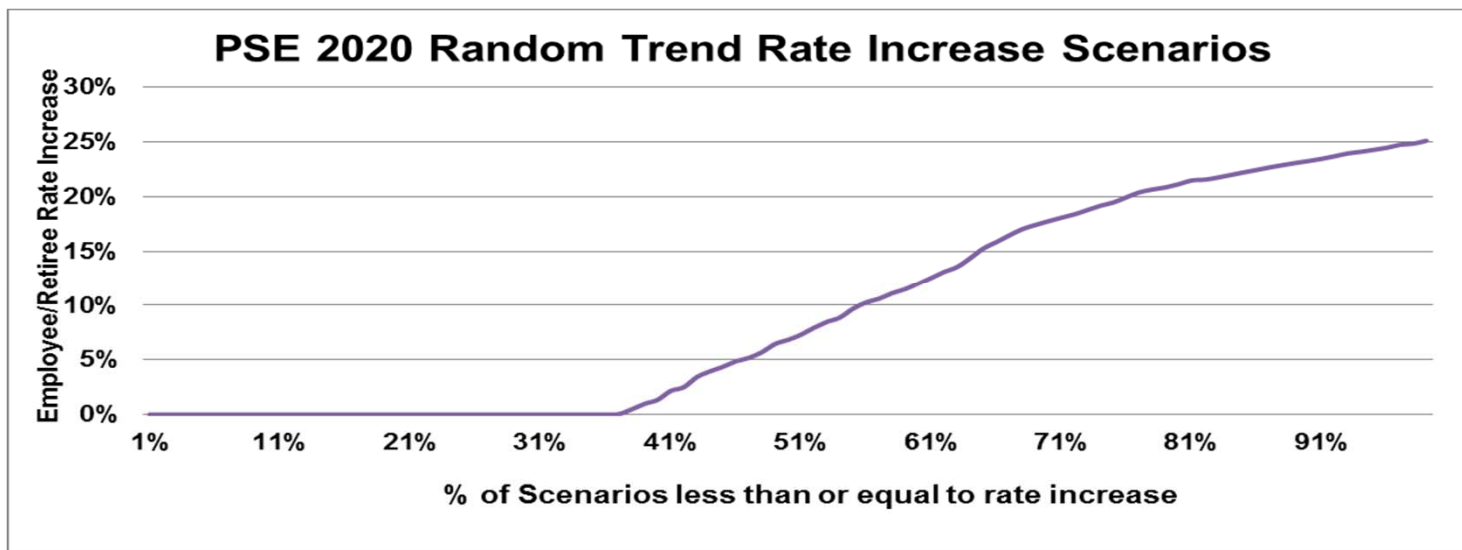
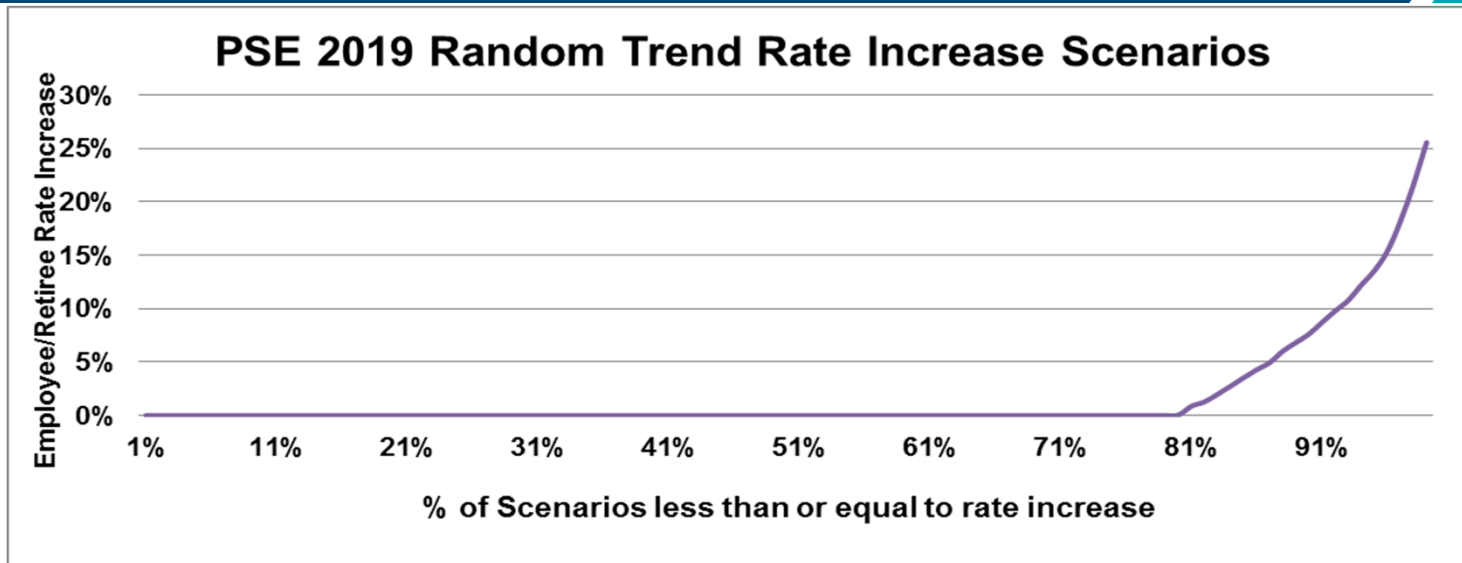
The table below shows the minimum aggregate increase in employee/retiree contributions needed under each scenario. The actual increase by plan and tier would be determined by the Board.

	2018	2019	2020	2021
1) <b>5% Medical / 11% Pharmacy all years</b>	0%	0%	20%	20%
2) <b>3.8% Medical / 9.5% Pharmacy all years</b>	0%	0%	2%	22%
3) <b>0.7% Medical / 7.2% Pharmacy through May 2018, then 5%/11%</b>	0%	0%	0%	23%
4) <b>9% Medical / 13% Pharmacy through May 2018, then 5%/11%</b>	0%	12%	21%	16%

No increases in State contributions and 1% annual increases in District contributions assumed.



# PSE Rate Projections



# ASE Projected Assets



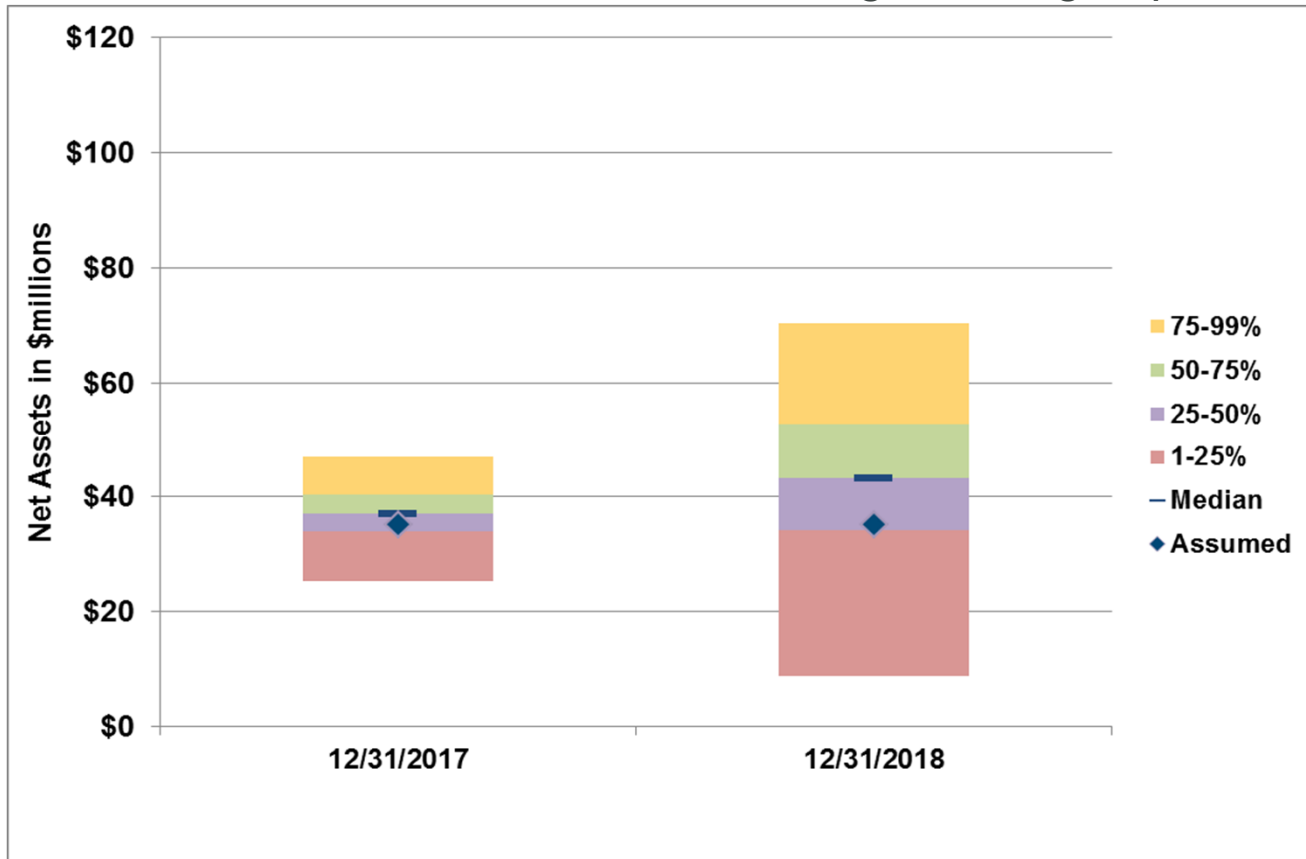
(In Millions \$)

ASE	As of	Actuals		Projected	
		12/31/2016	5/31/2017	12/31/2017	12/31/2018
Net Assets before IBNR		\$ 101.0	\$ 115.1	\$ 111.6	\$ 93.6
IBNR Reserve		(29.7)	(27.7)	(27.7)	(27.7)
Reserve for Premiums 2017 & prior		(40.1)	(31.3)	(18.8)	(5.5)
Premium Reserve for 2018		n/a	n/a	(9.4)	(4.7)
Catastrophic Reserve		(10.7)	(20.6)	(20.6)	(20.6)
<b>Net Assets Available</b>		<b>\$ 20.5</b>	<b>\$ 35.5</b>	<b>\$ 35.0</b>	<b>\$ 35.0</b>

# ASE Projected Assets



The graph below shows the distribution of assets under random trend scenarios with asset values ranked from smallest to largest and grouped into quartiles.



The scenarios do not reflect the likelihood of variations in other factors such as changes in income or population.

# ASE Rate Projections

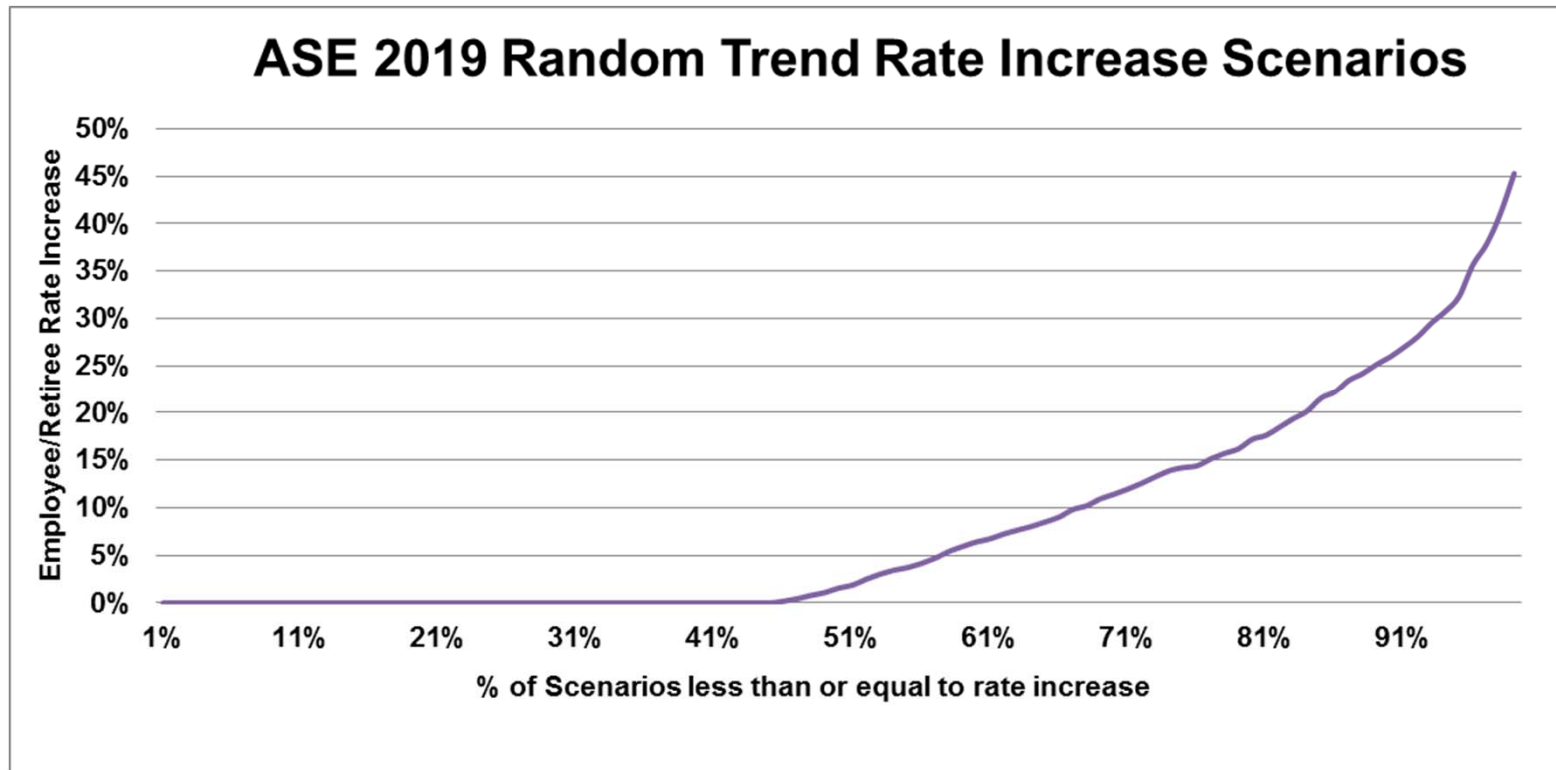


The table below shows the minimum aggregate increase in employee/retiree contributions needed under each scenario. The actual increase by plan and tier would be determined by the Board.

	2018	2019	2020	2021
1) <b>5% Medical / 11% Pharmacy all years</b>	0%	14%	33%	21%
2) <b>3.8% Medical / 9.5% Pharmacy all years</b>	0%	0%	35%	20%
3) <b>0.3% Medical / 10.4% Pharmacy through May 2018, then 5%/11%</b>	0%	0%	32%	25%
4) <b>9% Medical / 13% Pharmacy through May 2018, then 5%/11%</b>	0%	32%	27%	18%

No increases in State contribution rates are assumed.

# ASE Rate Projections



2019 Rate Increase	0%	10%	20%	30%	40%
% of scenarios less than or equal to increase	45.0%	66.9%	83.3%	92.7%	97.2%

# Summary



- Low recent trends have pushed off potential significant increases in employee/retiree contributions to 2019 or 2020
  - ASE at risk for significant increase in rate for 2019 (but could be zero)
  - PSE at low risk for required increase in rate for 2019
- Elimination of unfilled budgeted positions without a compensating increase in the ASE State Contribution rate will reduce ASE reserves.
- Increases in contribution rates or reductions in benefits help preserve reserves for future years. Conversely, benefit improvements will increase the risk of rate increases for 2019 and beyond.



# CHEIRON



**Classic Values, Innovative Advice.**

*Cheiron (pronounced kī '· ron), the immortal centaur from Greek mythology, broke away from the pack and was educated by the Gods. Cheiron became a mentor to classical Greek heroes, then sacrificed his immortality and was awarded in eternity as the constellation Sagittarius.*



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# Appendix A – 2017 & 2018 Contribution Rates



## PSE: Contribution Rates\*

Tier	Active		
	Premium	Classic	Basic
Employee Only	\$183.46	\$46.02	\$11.26
Employee & Spouse	\$831.20	\$354.62	\$272.78
Employee & Child(ren)	\$470.54	\$158.42	\$121.86
Family	\$833.44	\$358.32	\$275.62

Tier	Retiree			
	Premium	Classic	Basic	Medicare
Retiree Only	\$641.14	\$273.30	\$148.50	\$100.78
Retiree & NME SP	1,457.18	565.78	269.72	783.92
Retiree & Child(ren)	1,192.60	469.82	238.52	757.10
Retiree & NME SP&CH	2,008.64	746.20	335.72	1,521.48
Retiree & ME SP	795.12	N/A	N/A	263.04
Retiree & ME SP & CH	1,346.58	N/A	N/A	888.58

\*Including \$75.00/Month Wellness Credit For Active Employees



# Appendix A – 2017 & 2018 Contribution Rates



## ASE: Contribution Rates\*

Tier	Active		
	Premium	Classic	Basic
Employee Only	\$107.92	\$47.88	\$0.00
Employee & Spouse	\$390.46	\$250.32	\$136.46
Employee & Child(ren)	\$216.34	\$112.74	\$29.00
Family	\$498.88	\$315.18	\$165.46

Tier	Retiree			
	Premium	Classic	Basic	Medicare
Retiree Only	\$266.40	\$206.36	\$158.48	\$166.82
Retiree & NME SP	681.88	541.74	427.88	582.30
Retiree & Child(ren)	492.28	388.68	304.94	392.70
Retiree & NME SP&CH	907.76	724.06	574.34	808.18
Retiree & ME SP	514.78	N/A	N/A	399.66
Retiree & ME SP & CH	740.66	N/A	N/A	625.54

\*Including \$75.00/Month Wellness Credit For Active Employees

# Appendix B – 2017 & 2018 Plan Design



	ASE Premium	PSE Premium	ASE Classic	PSE Classic	ASE Basic	PSE Basic
Monthly Plan HSA Contribution (Ind./Family)	n/a	n/a	\$25/\$50	\$0	\$25/\$50	\$0
<b><i>In-Network:</i></b>						
Deductible - Individual	\$500	<b>\$1,000</b>	\$2,500	\$2,000	<b>\$6,450</b>	<b>\$4,250</b>
Co-Insurance Limit - Individual (after Deductible)	\$2,500	\$2,500	\$3,950	\$4,450	n/a	<b>\$2,200</b>
Med. Out-of-Pocket Max (Ded. + Co-Ins. + Med. Co-Pay) **	\$3,000	<b>\$3,500</b>	<b>\$6,450</b>	<b>\$6,450</b>	<b>\$6,450</b>	<b>\$6,450</b>
Deductible - Family	\$1,000	<b>\$2,000</b>	\$5,000	\$3,000	<b>\$12,900</b>	<b>\$8,500</b>
Co-Insurance Limit - Family (after Deductible)	\$5,000	\$5,000	\$7,900	\$6,675	n/a	<b>\$4,400</b>
Med. Out-of-Pocket Max (Ded. + Co-Ins. + Med. Co-Pay)	\$6,000	<b>\$7,000</b>	<b>\$12,900</b>	\$9,675	<b>\$12,900</b>	<b>\$12,900</b>
Coinsurance Rate	80%/20%	80%/20%	80%/20%	80%/20%	100%/0%	<b>80%/20%</b>
Physician Office Visit - Primary Care - Co-Pay	\$25	\$25				
Physician Office Visit - Specialist - Co-Pay	\$50	\$50				
Rx - Deductible	None	None	Incl. w/ Med.	Incl. w/ Med.	Incl. w/ Med.	Incl. w/ Med.
Rx - Tier 1 - Generic	\$15	\$15	*	*	*	*
Rx - Tier 2 - Preferred Brand	\$40	\$40	*	*	*	*
Rx - Tier 3 - Non-Preferred Brand	\$80	\$80	*	*	*	*
Rx - Specialty	\$100	\$100	*	*	*	*
Rx - Out of Pocket Maximum (Individual/Family)	\$3,600/\$7,200	<b>\$3,100/\$6,200</b>	Incl. w/ Med.	Incl. w/ Med.	Incl. w/ Med.	Incl. w/ Med.
Hospital / Facility - Inpatient & SNF - Co-Pay Per Admission*	\$0	\$0				
Hospital / Facility - Outpatient - Co-Pay*	\$0	\$0				
Urgent Care Visit	\$100	\$100				
Emergency Room Visit	\$250	\$250				
Emergency Transportation - Ambulance	\$50	\$50				
High Tech Radiology - Co-Pay (1st Procedure Only)*	\$0	\$0				
Rehab / Therapy - Outpatient - Physical/Speech/Occup	\$25	\$25				
Rehab / Therapy - Outpatient - Chiropractic - Co-Pay	\$25	\$25				
<b><i>Out-of-Network:</i></b>						
Deductible - Individual/Family	\$2,000/\$4,000	\$2,000/\$4,000	\$4,000/\$8,000	\$3,000/\$6,000	<b>not covered</b>	<b>not covered</b>
Co-Insurance	60%/40%	60%/40%	60%/40%	60%/40%	<b>not covered</b>	<b>not covered</b>
Co-Insurance Limit - Individual/Family (after Deductible)	None	None	None	None	<b>not covered</b>	<b>not covered</b>
Max. Out-of-Pocket (Deductible + Co-Insurance )	None	None	None	None	<b>not covered</b>	<b>not covered</b>

\*Deductible & Co-Insurance also applies

\*\* An embedded individual OOP Max is applied within the family OOP max



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# Appendix C – Assumptions, Use & Disclosures



- Based on actual 2017 enrollment through May and calendar year 2016 claims paid through May 2017.
- Annual trends (unless otherwise indicated) of
  - 5% medical
  - 11% pharmacy
  - 2% expenses
- Pharmacy trends are 10% above allowed cost trends due to copay/cost-share leveraging.
- No changes to State Contribution amounts, and minimum District contributions increasing consistent with past increases.
- Wellness participation is 90% for PSE and 88% for ASE.
- Pharmacy rebates will be 5% of pharmacy claims higher than historical levels.
- No change to desired contingency reserves.
- Reserve allocations to reduce contributions remain at 50% for first year, 30% for second year, and 20% for third year.
- 1,200 employees migrate out of premium for PSE, and 300 for ASE. ME retirees increase 400 per year for PSE and 200 per year for ASE.
- Rates shown on the rating worksheets are prior to any risk adjustments.



- Medical claims trend distributions
  - Assumed to follow gamma distribution with mean of 3.8%, standard deviation of 4.4%, and skewness of 45%
- Pharmacy claims trend distributions
  - Assumed to follow a normal distribution with mean of 9.5% and standard deviation of 5.0%
- To simplify calculations, assumed independence
  - Between ASE & PSE
  - From one year to the next
  - Between medical and pharmacy

# Appendix C – Assumptions, Use & Disclosures



- Projections are based on medical claim experience for April 2016 through March 2017 and on pharmacy claims experience for June 2016 through May 2017, both paid through May 2017, adjusted for demographic, benefits, and network changes. Additional details about assumptions and methods will be provided in follow-up documentation to EBD.
- In preparing the information in this presentation, we relied on information (some oral and some written) supplied by the EBD and the Plan's vendors. This information includes, but is not limited to, the plan provisions, employee eligibility data, financial information, and claims data. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. This presentation does not reflect future changes in benefits, penalties, taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010, related legislation, or regulations.
- Cheiron's analysis was prepared exclusively for the Employee Benefits Division of the State of Arkansas for the specific purpose of providing projections and options to the Arkansas State and Public School Life and Health Insurance Board. Other users of this document are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.
- The figures in this presentation are preliminary and subject to change or modification as more detailed information is gathered and depending upon decisions made by the Board.

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