



Cavanaugh Macdonald
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Sixty-Sixth
Annual Actuarial Report

OMAHA SCHOOL EMPLOYEES'
RETIREMENT SYSTEM

as of January 1, 2018





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

May 2, 2018

Board of Trustees
Omaha School Employees' Retirement System
3215 Cuming Street
Omaha, Nebraska 68131

Re: Sixty-Sixth Annual Actuarial Report

Members of the Board:

At your request, we have performed an actuarial valuation of the Omaha School Employees' Retirement System (OSERS) as of January 1, 2018. The major findings of the valuation are contained in this report, including the actuarial contribution rate and the additional School District contribution for the year ending December 31, 2018. There have been no changes to the System's actuarial assumptions or methods since the prior valuation. Legislation passed in the 2017 session modifies the benefit provisions for members hired on or after July 1, 2018, creating a new tier. Since there are no members in the current valuation who are subject to the new provisions, the change had no impact on the valuation results in this report.

In preparing this report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. While we found this information to be reasonably consistent and comparable with information used for other purposes, we did not audit the data. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.



The actuarial computations presented in this report are for purposes of determining the actuarial contribution amount for the System, as set out in the Nebraska State Statutes. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. For example, actuarial computations for purposes of fulfilling financial accounting requirements for the System under Governmental Accounting Standards No. 67 and No. 68 are presented in separate reports.

The consultants who worked on this assignment are pension actuaries. Cavanaugh Macdonald Consulting's advice is not intended to be a substitute for qualified legal or accounting counsel.

This is to certify that the independent consulting actuaries have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System. We, Patrice A. Beckham, FSA and Bryan K. Hoge, FSA, are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. We are available to answer any questions on the material contained in this report or to provide explanations or further details as may be appropriate.

We herewith submit the following report and look forward to discussing it with you.

Respectfully Submitted,

Cavanaugh Macdonald Consulting, LLC

A handwritten signature in black ink that reads 'Patrice Beckham' in a cursive script.

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink that reads 'Bryan K. Hoge' in a cursive script.

Bryan K. Hoge, FSA, EA, FCA, MAAA
Senior Actuary



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EXECUTIVE SUMMARY

The primary purposes of performing the actuarial valuation are as follows:

- to calculate the actuarial contribution rate necessary to maintain the solvency of the System, as set out in the Board of Trustees' Funding Policy,
- to determine the additional contribution amount, if any, from the School District given the fixed statutory contribution rates for members, the School District (101% of members' contributions), and the State of Nebraska;
- to evaluate the funded status of the System and disclose various asset and liability measures as of the valuation date;
- to determine the experience of the System since the last valuation; and
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

This report presents the results of the January 1, 2018 actuarial valuation of the Omaha School Employees' Retirement System (OSERS). The actuarial valuation results provide a "snapshot" view of the System's financial condition on January 1, 2018 based on the System's membership, benefit structure, and assets on that date. The valuation results reflect net unfavorable experience for the 2017 plan year as demonstrated by an unfunded actuarial accrued liability that was higher than expected, based on the results of the prior valuation. The largest source of unfavorable experience (\$44 million) resulted from not meeting the expected return of 7.50% on the actuarial value of assets.

Membership

The table on the following page summarizes the System's membership, by group, in the current and prior valuation. Over the last year, there has been a 2.4% increase in the System's total membership. The active member count increased from 7,462 to 7,569 (1.4%) and the number of members receiving a benefit increased from 4,542 to 4,678 (3.0%). Total projected payroll increased 4.2% from \$335.8 million in the January 1, 2017 valuation to \$349.9 million in the current valuation.

The 2017 session of the Nebraska Legislature created a new benefit structure for members hired on or after July 1, 2018 (referred to as Tier 4). The key change was a change to the minimum age from age 55 to 60 for retirement under Rule of 85. As a result, the cost of the Tier 4 benefit structure is lower than the cost of the prior benefit structures. Due to the effective date, there are no Tier 4 members in the current valuation so it had no impact on the valuation results in this report. Over time, as active members covered by the other benefit tiers leave covered employment and are replaced by Tier 4 members the cost of the System is expected to decrease slightly. However, it will take ten to fifteen years before the impact on the valuation is material.



EXECUTIVE SUMMARY

SYSTEM MEMBERSHIP	Jan. 1, 2018	Jan. 1, 2017	% Chg
1. Active Members			
a. Certificated			
(1) Tier 1	3,247	3,469	(6.4)
(2) Tier 2	988	1,023	(3.4)
(3) Tier 3	<u>637</u>	<u>316</u>	101.6
(4) Total	4,872	4,808	1.3
b. Classified			
(1) Tier 1	1,589	1,751	(9.3)
(2) Tier 2	701	736	(4.8)
(3) Tier 3	<u>407</u>	<u>167</u>	143.7
(4) Total	2,697	2,654	1.6
c. Total			
(1) Tier 1	4,836	5,220	(7.4)
(2) Tier 2	1,689	1,759	(4.0)
(3) Tier 3	<u>1,044</u>	<u>483</u>	116.1
(4) Total	7,569	7,462	1.4
2. Retirees and Disabled Members	4,426	4,295	3.1
3. Beneficiaries	252	247	2.0
4. Inactive Vested Members	1,043	1,035	0.8
5. Nonvested Terminations	413	347	19.0
6. Total	13,703	13,386	2.4

Assets

As of January 1, 2018, the System had total assets of \$1.234 billion measured on a market value basis. This was an increase of \$85 million from the prior valuation and represents an annualized rate of return of 10.1%, net of all expenses. The components of this change are shown in the following table:

	Market Value (\$M)
Net Assets, January 1, 2017	\$ 1,149
• District, State and Member Contributions	+ 92
• Benefit Payments and Refunds	- 121
• Administrative Expenses	- 2
• Investment Return	+ 116
Net Assets, January 1, 2018	\$ 1,234



EXECUTIVE SUMMARY

The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability (UAAL) and actuarial contribution rate. An asset valuation method, which smoothes the effect of market fluctuations, is used to determine the value of assets used in the valuation. This amount, called the “actuarial value of assets”, is equal to the expected asset value, based on the actuarial value in the prior valuation and the assumed investment return in the prior valuation of 7.5%, plus 25% of the difference between the actual market value and the expected asset value. The resulting value must be no less than 80% of market value and no more than 120% of market value (referred to as a “corridor”). The corridor did not apply this year as the actuarial value of assets was 111% of market value. The actuarial value of assets as of January 1, 2018 was \$1.365 billion, an increase of \$27 million from the prior year. The components of change in the actuarial value of assets from January 1, 2017 to January 1, 2018 are shown in the following table.

	Actuarial Value (\$M)
Actuarial Assets, January 1, 2017	\$ 1,338
• District, State and Member Contributions	+ 92
• Benefit Payments and Refunds	– 121
• Expected Investment Income (based on 7.5% assumption)	+ 100
• Actuarial Investment Gain/(Loss)	– 44
Preliminary Actuarial Assets, January 1, 2018	\$ 1,365
• Application of Corridor	N/A
Final Actuarial Assets, January 1, 2018	\$ 1,365

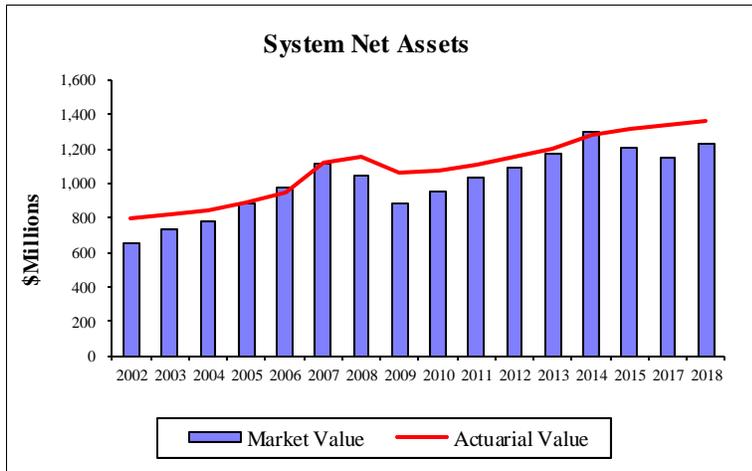
The dollar-weighted annualized rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was approximately 4.2%. A comparison of asset values on both the market and actuarial basis is shown below:

	<u>9/1/2012</u>	<u>9/1/2013</u>	<u>9/1/2014</u>	<u>9/1/2015</u>	<u>1/1/2017</u>	<u>1/1/2018</u>
Market Value of Assets	\$ 1,096	\$ 1,170	\$ 1,295	\$ 1,211	\$ 1,149	\$ 1,234
Actuarial Value of Assets	1,155	1,205	1,278	1,313	1,338	1,365
Actuarial Value/Market Value	105%	103%	99%	108%	116%	111%

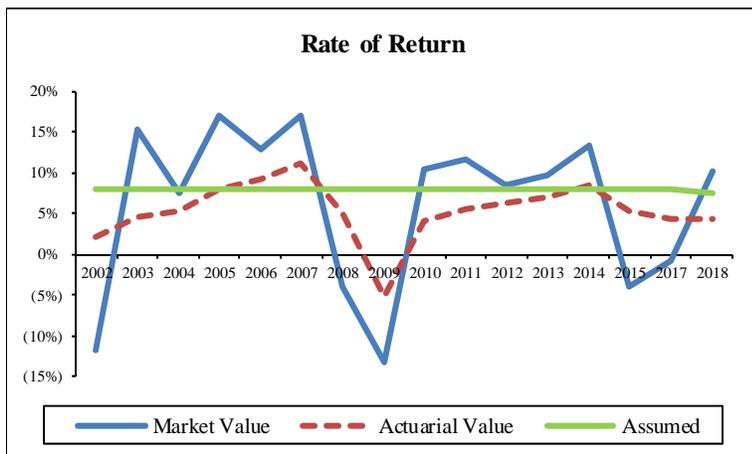
The actuarial value of assets continues to be higher than the market value of assets. However, the difference has declined and now the deferred or unrecognized investment loss is \$131 million, about 11% of the market value of assets. Absent favorable investment experience in future years to offset the recognition of this significant deferred loss, it will decrease the System’s funded ratio and increase the actuarial contribution rate as it is reflected through the asset smoothing method. The recognition of the deferred investment loss in future years is expected to cause the amount of any additional School District contributions to increase as well.



EXECUTIVE SUMMARY



With the use of an asset smoothing method, the actuarial value is expected to be both above and below the market value of assets over a long period of time. However, for most of this period, the actuarial value of assets has exceeded the market value of assets.



The estimated rate of return on both the actuarial and market value of assets for the last decade is shown in this graph. The asset smoothing method mitigates the volatility of market value returns as shown in the rates of return on the actuarial versus market value of assets.

Liabilities

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial accrued liability (UAAL). The unfunded actuarial accrued liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial accrued liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods will also impact the total actuarial accrued liability (AAL) and the unfunded portion thereof.

The unfunded actuarial accrued liability as of January 1, 2018 is shown below:

Actuarial Accrued Liability	\$ 2,136,385,000
Actuarial Value of Assets	<u>1,365,013,000</u>
Unfunded Actuarial Accrued Liability	\$ 771,372,000

Numerous factors contributed to the change in the System's UAAL during the 2017 plan year. The components are examined in the following discussion.



EXECUTIVE SUMMARY

Actuarial gains (or losses) result from actual experience that is more (or less) favorable than anticipated based on the actuarial assumptions. These “experience” (or actuarial) gains or losses are reflected in the UAAL and are measured as the difference between the expected unfunded actuarial accrued liability and the actual unfunded actuarial accrued liability, taking into account any changes due to assumption, method or benefit provision changes. Overall, the System experienced an actuarial loss of \$56 million. Investment experience on the actuarial value of assets during the 2017 plan year created an actuarial loss of \$44 million. There was also an actuarial loss of \$12 million on the actuarial accrued liability, largely due to retirement experience and actual salary increases that were higher than expected.

The change in the unfunded actuarial accrued liability between January 1, 2017 and January 1, 2018 is shown in the following table (in millions):

Unfunded Actuarial Accrued Liability, January 1, 2017	\$ 713
• Expected change in UAAL	
– Amortization method	+ 7
– Contributions less than the actuarial required contribution	+ 3
• Investment experience	+ 44
• Liability experience	+ 12
• Other experience	– 8
Unfunded Actuarial Accrued Liability, January 1, 2018	\$ 771

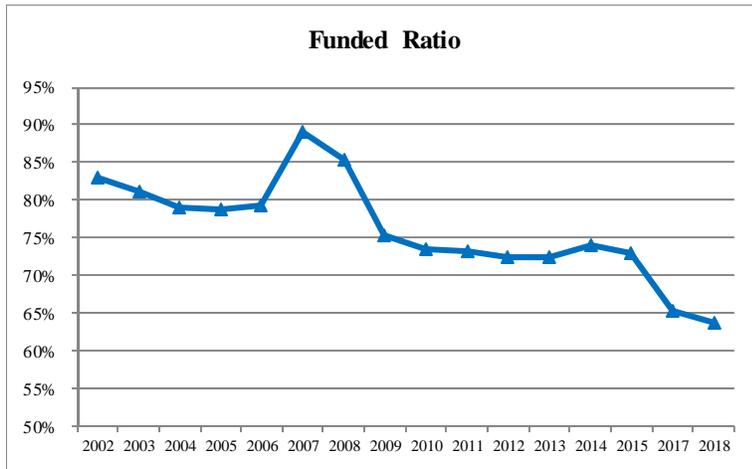
An evaluation of the unfunded actuarial accrued liability on a pure-dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both large numbers) is reflected. Another way to evaluate the unfunded actuarial accrued liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial accrued liability. Note that the funded ratio does not necessarily indicate whether or not additional funding is needed, nor does it indicate whether or not the plan has sufficient funds to settle all current obligations.

The funded status information for OSERS is shown below (in millions):

	9/1/12	9/1/13	9/1/14	9/1/15	1/1/17	1/1/18
<i>Using Actuarial Value of Assets:</i>						
Funded Ratio (AVA/AAL)	73%	73%	74%	73%	65%	64%
Unfunded AAL (AAL - AVA)	\$435	\$454	\$446	\$486	\$713	\$771
<i>Using Market Value of Assets:</i>						
Funded Ratio (MVA/AAL)	69%	70%	75%	67%	56%	58%
Unfunded AAL (AAL - MVA)	\$497	\$490	\$429	\$588	\$902	\$902



EXECUTIVE SUMMARY



Changes in actuarial assumptions and methods, coupled with investment returns below the assumed rate and contributions below the actuarial rate significantly reduced the funded ratio over much of this period. However, with the adoption of the Board's current funding policy, the funded ratio is expected to increase steadily in the future assuming assumptions are met and the full actuarial contribution amounts are made.

Contributions

The actuarial contribution rate for the System consists of:

- a “normal cost” for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date,
- an “unfunded actuarial accrued liability contribution” for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

The actuarial contribution rate is computed based on the Board of Trustees’ funding policy. On that basis, the actuarial contribution rate (item 3 below) is equal to the normal cost rate plus the amortization payment on the UAAL. Effective with the January 1, 2017 valuation, OSERS amortizes the UAAL using a “layered” approach. Under this method, the UAAL is split into pieces or layers; the initial or legacy UAAL is amortized, as a level-percent of payroll, over a closed 30-year period that began with the September 1, 2013 valuation (26 years remain as of the January 1, 2018 valuation). All ensuing UAAL bases, including the increase in the UAAL due to the assumption changes in the 2017 valuation and changes in the UAAL due to actual experience that is different than expected, will be amortized, as a level-percent of payroll, over a new 25-year period commencing on the respective valuation date.

The actuarial contribution rate for the plan year ending December 31, 2018, and any resulting additional School District contribution, is computed based on the January 1, 2018 actuarial valuation. The ongoing, fixed contributions to the System are set by state statute and are shown below in item 4, “Statutory Contribution Rate”. They include the member contribution rate of 9.78%, the State contribution rate of 2%, and the School District contribution rate which is 101% of the member contribution rate.



EXECUTIVE SUMMARY

As a result, there is a contribution shortfall for the 2018 plan year of 5.39%, as shown in the table below:

Contribution Rate	Actuarial Valuation	
	1/1/2018	1/1/2017
1. Normal Cost	13.00%	13.07%
2. UAAL Contribution	<u>14.05%</u>	<u>13.22%</u>
3. Total Actuarial Contribution Rate	27.05%	26.29%
4. Statutory Contribution Rate	21.66%	21.66%
5. Contribution Shortfall/(Margin) (3) – (4)	5.39%	4.63%
6. Additional District Contribution (\$M)	\$18.9	\$15.5

The unfavorable experience on the actuarial value of assets during 2017 was the most significant contributing factor to the change in the System’s actuarial contribution rate since the prior valuation. Despite a strong return on the market value of assets (around 10%), the return on the actuarial value of assets was only 4% due to the significant deferred investment losses that existed in the 2017 valuation. As a result of this unfavorable experience, the actuarial contribution rate increased by 0.81% of covered payroll. Overall, there was an increase of 0.76% in the actuarial contribution rate from 26.29% in the January 1, 2017 to 27.05% in the January 1, 2018 valuation.

The difference in the actuarial contribution rate and the statutory contribution rate results in a contribution shortfall for 2018 of 5.39% of covered payroll, or \$18.9 million. Also, even with the favorable investment experience for the 2017 plan year, a \$131 million deferred investment loss still exists (market value is lower than actuarial value of assets). Absent favorable investment experience in future years to offset the recognition of the deferred loss, the actuarial contribution rate is expected to increase as the deferred investment loss is reflected through the asset smoothing method. If this occurs, the System’s funded status is expected to decrease and the contribution shortfall is expected to increase, possibly significantly (see the table on page 8 for an indication of the magnitude).

Comments

The January 1, 2018 actuarial valuation reflects a decline in the System’s funded ratio and a corresponding increase in the actuarial contribution rate and the amount of additional contributions required by the School District. The System’s unfunded actuarial accrued liability increased from \$713 million in the January 1, 2017 valuation to \$771 million in the current valuation. The funded ratio decreased from 65% in the prior valuation to 64% in the January 1, 2018 valuation. Unfavorable experience during the 2017 plan year occurred on both the System’s assets and liabilities. As a result of the unfavorable experience, the actuarial contribution rate increased by 1.03% of covered payroll.

The Nebraska statutes provide that the School District shall contribute the greater of (a) one hundred and one percent of the contributions made by the employees or (b) such amount as may be necessary to maintain the solvency of the System, as determined annually by the Board upon recommendation of the Actuary and the Trustees. The Trustees have adopted a Funding Policy that sets the criteria for determining the contribution amount necessary to maintain the solvency of the System. On this basis, the Actuarial Contribution Rate for the plan year ending December 31, 2018 is 27.05% of payroll. The total of contributions made by members, the State, and the School District for plan year ending December 31, 2018 is 21.66% of payroll, so the actuarial contribution rate exceeds the statutory contribution rates by



EXECUTIVE SUMMARY

5.39%. This contribution shortfall of \$18.9 million represents the additional required contribution by the School District needed for the 2018 plan year.

The deferred investment loss (actuarial value less market value of assets) is \$131 million as of January 1, 2018, down from \$189 million as of January 1, 2017. Absent favorable investment experience in future years, the deferred investment loss of \$131 million will eventually be reflected in the actuarial value of assets in future years. While the use of an asset smoothing method is a common method used by public retirement systems, it is important to identify the potential impact of the deferred investment experience. This is accomplished by comparing the key valuation results from the January 1, 2018 actuarial valuation using both the actuarial and market value of assets (see table below).

	Using Actuarial Value of Assets	Using Market Value of Assets
Actuarial Accrued Liability	\$2,136,385,000	\$2,136,385,000
Asset Value	<u>1,365,013,000</u>	<u>1,234,040,000</u>
Unfunded Actuarial Accrued Liability	\$ 771,372,000	\$ 902,345,000
Funded Ratio	63.89%	57.76%
Normal Cost Rate	13.00%	13.00%
UAAL Contribution Rate	<u>14.05%</u>	<u>16.46%</u>
Actuarial Contribution Rate	27.05%	29.46%
Total Statutory Contribution Rate	<u>(21.66%)</u>	<u>(21.66%)</u>
Contribution Shortfall	5.39%	7.80%

We conclude this executive summary by presenting comparative statistics and actuarial information from both the January 1, 2017 and January 1, 2018 valuations.



EXECUTIVE SUMMARY

	Jan. 1, 2018	Jan. 1, 2017	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Members	7,569	7,462	1.4
- Projected Payroll for Upcoming Fiscal Year	\$349.9M	\$335.8M	4.2
- Average Salary	46,233	44,998	2.7
2. Inactive Membership			
- Number Not in Pay Status	1,456	1,382	5.4
- Number of Retirees/Beneficiaries	4,678	4,542	3.0
- Total Annual Benefits in Pay	\$120.9M	\$116.0M	4.2
ASSETS AND LIABILITIES			
1. Net Assets			
- Market Value	\$1,234M	\$1,149M	7.4
- Actuarial Value	1,365M	1,338M	2.0
2. Projected Liabilities			
- Retired Members	\$1,275M	\$1,231M	3.6
- Inactive Members	37M	36M	2.8
- Active Members	<u>1,221M</u>	<u>1,168M</u>	4.5
- Total Liability	2,533M	2,434M	4.1
3. Actuarial Accrued Liability (AAL)	\$2,136M	\$2,051M	4.1
4. Unfunded Actuarial Accrued Liability	\$771M	\$713M	8.1
5. Funded Ratio			
a. Actuarial Value Assets/AAL	63.89%	65.25%	(2.1)
b. Market Value Assets/AAL	57.76%	56.01%	3.1
SYSTEM CONTRIBUTIONS			
1. Total Actuarial Contribution Rate	27.05%	26.29%	2.9
2. Statutory Contribution Rate			
a. Member Contribution Rate	9.78%	9.78%	0.0
b. Employer Contribution Rate	9.88%	9.88%	0.0
c. State Contribution Rate	<u>2.00%</u>	<u>2.00%</u>	0.0
d. Total	21.66%	21.66%	0.0
3. Contribution Shortfall/(Margin) (1.) - (2.d.)	5.39%	4.63%	16.4
4. Additional District Contribution	\$18,861,681	\$15,546,493	21.3

M = (\$)Millions

Note: Numbers may not add due to rounding



EXECUTIVE SUMMARY

HISTORICAL CHANGES IN THE OSERS UNFUNDED ACTUARIAL ACCRUED LIABILITY

(dollars in millions)

	Valuation Date															Total
	9/1/03	9/1/04	9/1/05	9/1/06	9/1/07	9/1/08	9/1/09	9/1/10	9/1/11	9/1/12	9/1/13	9/1/14	9/1/15	1/1/17	1/1/18	
Prior Valuation UAAL	163	191	223	240	246	138	198	349	390	406	437	455	446	486	713	
Amortization Method	4	5	6	7	5	3	4	6	2	8	9	10	9	12	7	97
Actual Contributions																
Less than ARC	0	0	2	0	3	0	0	2	4	0	2	0	0	0	3	16
More than ARC	0	0	0	(2)	0	(7)	(2)	0	0	(4)	0	(4)	(5)	(4)	0	(28)
Actual vs Expected Experience																
Investment	27	23	1	(10)	(29)	33	151	42	26	20	12	(6)	34	63	44	431
Salary	(5)	(6)	(1)	4	1	1	0	(13)	(15)	(12)	(6)	(8)	(3)	*	3	(60)
Retirement	3	0	3	2	2	3	(2)	(4)	(1)	4	4	6	9	*	7	36
Mortality	2	5	4	3	3	1	(2)	0	(2)	2	(2)	(1)	2	*	(1)	14
Termination of Employment	(4)	(1)	2	3	1	7	2	3	2	0	1	(1)	(2)	*	(1)	12
Other	1	3	0	(1)	(3)	(1)	0	0	0	13	(8)	(5)	(4)	(6)	(4)	(15)
Benefit Changes	0	0	0	0	(3) ²	0	0	0	0	0	(4)	0	0	0	0	(7)
Assumption Changes	0	0	0	0	0	20	0	0	0	0	10	0	0	138	0	168
Change to Actuarial Methods	0	3 ¹	0	0	(88) ³	0	0	5	0	0	0	0	0	0	0	(80)
Total Change for Year End	28	32	17	6	(108)	60	151	41	16	31	18	(9)	40	227*	58	
UAAL on Valuation Date	191	223	240	246	138	198	349	390	406	437	455	446	486	713	771	

¹Included part-time members who are vested

²Increase in member contribution rate

³Actuarial asset value reset to market value

* Not calculated. Total liability experience was a \$24 million loss, which is included in the total change at year end.

Note: Although a total column is shown, the amounts in each year are not additive because they are calculated on each valuation date and, therefore, represent a value at a different point in time.



EXHIBIT 1 – SUMMARY OF FUND ACTIVITY (MARKET VALUE OF ASSETS)

**SUMMARY OF FUND ACTIVITY
(Market Value Basis)**

For Period Ended December 31, 2017

NET ASSETS ON JANUARY 1, 2017 **\$ 1,148,582,000**

ADDITIONS

Salary deductions	\$ 35,145,000
School District contributions	48,248,000
Purchases of service	457,000
State service annuity receipts	1,650,000
Sec. 79-916 deposits	6,897,000
Income from investments, including realized and unrealized gains	116,393,000
Total additions	\$ 208,790,000

DEDUCTIONS

Retirement benefits	\$ (115,469,000)
Refunds to employees	(5,536,000)
Professional fees	(1,758,000)
Other	(80,000)
Personnel costs	(489,000)
Total deductions	\$ (123,332,000)

NET ASSETS ON JANUARY 1, 2018 **\$ 1,234,040,000**

Note: The asset balance as of January 1, 2018 was calculated on a Cash Basis. In prior valuations, the market value of assets was calculated on an Accrual Basis.



EXHIBIT 2 – ACTUARIAL VALUE OF NET ASSETS

ACTUARIAL VALUE OF NET ASSETS

As of January 1, 2018

1. Actuarial Value of Assets as of January 1, 2017	\$	1,337,983,000
2. Actual Contributions/Disbursements		
a. Contributions		92,397,000
b. Benefit payments		(121,005,000)
c. Net change		<u>(28,608,000)</u>
3. Expected Value of Assets as of January 1, 2018 $[(1) \times 1.075] + [(2c) \times (1.075)^{1/2}]$		1,408,670,000
4. Market Value of Assets as of January 1, 2018		1,234,040,000
5. Difference between Market and Expected Values (4) – (3)		(174,630,000)
6. Initial Actuarial Value of Assets as of January 1, 2018 (3) + [(5) x 25%]		1,365,013,000
7. Corridor as of January 1, 2018		
a. 120% of Market Value of Assets as of January 1, 2018		1,480,848,000
b. 80% of Market Value of Assets as of January 1, 2018		987,232,000
8. Final Actuarial Value of Assets as of January 1, 2018* (6), but not greater than (7a), nor less than (7b)		1,365,013,000
9. Actuarial value divided by market value (8) / (4)		110.6%
10. Market value less actuarial value	\$	(130,973,000)

* The estimated annualized rate of return on the actuarial value of assets for the period ended December 31, 2017 is about 4.2%



ACTUARIAL BALANCE SHEET

As of January 1, 2018

ASSETS

Actuarial Value of Assets	\$	1,365,013,000
Present Value of Contributions for Unfunded Actuarial Accrued Liability		771,372,000
Present Value of Future Normal Costs		<u>397,004,000</u>
Total Assets	\$	2,533,389,000

LIABILITIES

<u>Present Value of Future Benefits</u>		
Retirees, Beneficiaries, and Disableds	\$	1,274,528,000
Inactive Vesteds		35,152,000
Nonvested Terminations		2,269,000
Active Members		
Retirement benefits	\$	1,153,186,000
Termination benefits		58,268,000
Death benefits		<u>9,986,000</u>
		<u>1,221,440,000</u>
Total Liabilities	\$	2,533,389,000



EXHIBIT 4 – UNFUNDED ACTUARIAL ACCRUED LIABILITY

UNFUNDED ACTUARIAL ACCRUED LIABILITY

As of January 1, 2018

1. Present Value of Future Benefits	\$ 2,533,389,000
2. Present Value of Future Normal Costs	<u>397,004,000</u>
3. Actuarial Accrued Liability (1) – (2)	2,136,385,000
4. Actuarial Value of Assets	\$ <u>1,365,013,000</u>
5. Unfunded Actuarial Accrued Liability (3) – (4)	771,372,000



EXHIBIT 5 – AMORTIZATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

**AMORTIZATION OF THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)**

Amortization Bases	Original Amount	1/1/2018 Remaining Payments	Date of Last Payment	Outstanding Balance as of 1/1/2018	Annual Contribution*
2017 UAAL Base	\$ 574,871,000	26	1/1/2043	\$ 581,162,615	\$ 36,670,208
2017 Assumption Changes	137,727,000	24	1/1/2041	138,841,660	9,176,452
2018 Experience Base	51,367,725	25	1/1/2042	51,367,725	3,314,790
Total				\$ 771,372,000	\$ 49,161,450

* Contribution amount reflects mid-year timing.

1. Total UAAL Amortization Payments	\$ 49,161,450
2. Projected Payroll for plan year ending December 31, 2018	\$ 349,938,417
3. UAAL Amortization Payment Rate	14.05%



EXHIBIT 6 – ANALYSIS OF CONTRIBUTION RATE

ANALYSIS OF CONTRIBUTION RATE

The System is financed by contributions from the members, the School District and the State. Effective September 1, 2013, the members contribute 9.78% of pay. The District is obligated to pay the greater of (a) one hundred and one percent of the member contributions or (b) such amount as may be necessary to maintain the solvency of the System. Under the funding policy adopted by the Board in May 2013, the Actuarial Recommended Contribution rate (ARC) is the normal cost rate plus the contribution necessary to amortize the UAAL. Effective July 1, 2014, the State of Nebraska contributes 2.0% of pay.

1. Normal Cost	\$	41,702,834
2. a. Expected Payroll for Current Actives for Year End December 31, 2018		320,827,284
b. Total Expected Payroll for Year End December 31, 2018		349,938,417
3. Normal Cost Rate (1)/(2a)		13.00%
4. Unfunded Actuarial Accrued Liability at Valuation Date		771,372,000
5. UAAL Contribution at Mid-Year		49,161,450
6. UAAL Contribution Rate (5)/(2b)		14.05%
7. Actuarial Recommended Contribution Rate (3) + (6)		27.05%
8. Statutory Contribution Rate:		
(a) Member		9.78%
(b) District		9.88%
(c) State		<u>2.00%</u>
(d) Total		21.66%
9. Contribution Shortfall (7) - (8d)		5.39%
10. Additional District Contribution (9) * (2b)	\$	18,861,681



EXHIBIT 7 – CALCULATION OF ACTUARIAL GAIN/(LOSS)

CALCULATION OF ACTUARIAL GAIN/(LOSS)

The overall actuarial gain/(loss) is comprised of both a liability gain/(loss) and an actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of January 1, 2018.

1.	Expected Actuarial Accrued Liability		
	a. Actuarial Accrued Liability as of January 1, 2017	\$	2,050,581,000
	b. Normal cost for plan year ending December 31, 2017		40,205,000
	c. Benefit payments for plan year ending December 31, 2017		(121,005,000)
	d. Additional liability for state service annuities and service purchases		2,107,000
	e. Interest on a., b., c., and d. to end of year		152,431,000
	f. Expected Actuarial Accrued Liability	\$	<u>2,124,319,000</u>
2.	Actuarial Accrued Liability as of January 1, 2018	\$	2,136,385,000
3.	Liability Gain/(Loss) (1.f.) – (2)	\$	(12,066,000)
4.	Liability Gain/(Loss) as a Percent of Actuarial Accrued Liability		(0.56%)
5.	Expected Actuarial Value of Assets		
	a. Actuarial value of assets as of January 1, 2017	\$	1,337,983,000
	b. Contributions for plan year ending December 31, 2017 (including state service annuities and service purchases)		92,397,000
	c. Benefit payments for plan year ending December 31, 2017		(121,005,000)
	d. Interest on a., b., and c. to end of year		99,295,000
	e. Expected actuarial value of assets	\$	<u>1,408,670,000</u>
6.	Actuarial Value of Assets as of January 1, 2018	\$	1,365,013,000
7.	Asset Gain/(Loss) (6) – (5.e.)	\$	(43,657,000)
8.	Asset Gain/(Loss) as a Percent of Actuarial Value of Assets		(3.20%)
9.	Overall Actuarial Gain/(Loss) (3) + (7)	\$	(55,723,000)



EXHIBIT 7 – CALCULATION OF ACTUARIAL GAIN/(LOSS)

Gain/(Loss) By Source

The System experienced a net actuarial loss on liabilities of about \$12.1 million during the plan year ended December 31, 2017. The major components of this overall loss are shown below:

Liability Sources	<u>\$Millions</u>
Salary Increases	\$ (2.9)
Mortality	1.4
Terminations	1.2
Retirements	(7.4)
Disability	(0.1)
New Entrants/Rehires	(4.5)
Miscellaneous	<u>0.2</u>
Total Liability Gain/(Loss)	\$ (12.1)
Asset Gain/(Loss)	\$ (43.7)
Net Actuarial Gain/(Loss)	\$ (55.8)

Comments

The purpose of conducting an actuarial valuation of a retirement system is to determine the costs and liabilities for the benefits under the system, to determine the annual level of contribution required to support these benefits and, finally, to analyze the system's overall experience as it compares with the actuarial assumptions used in the valuation. The costs and liabilities of a retirement system reported in the valuation depend not only upon the level of benefits provided, but also upon factors such as investment return on invested funds, mortality rates for active and retired members, withdrawal rates among active members, rates at which salaries increase, and rates of retirement for ages at which members retire. The actuarial assumptions employed as to these and other contingencies in the current valuation are set forth in Appendix C of this report.

Net demographic actuarial experience for the year was a loss of \$12.1 million, about 0.6% of actuarial accrued liability. The largest sources of unfavorable experience were a \$7.4 million loss from retirement experience, a \$4.5 million loss due to new entrants and rehires, and a \$2.9 million loss due to higher salary increases than expected.

Another significant component of the experience for the year ending December 31, 2017 was the investment experience. Despite favorable asset experience on a market value basis, deferred asset losses from prior years resulted in a loss on the actuarial value of assets of \$43.7 million. As of January 1, 2018, there is a deferred investment loss of \$131 million. Absent favorable investment experience, the deferred loss will flow through the valuation over the next few years and increase both the UAAL and the actuarial contribution rate.



EXHIBIT 8 – SCHEDULE OF CONTRIBUTIONS

**SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER
AND OTHER CONTRIBUTING ENTITIES**

HISTORICAL FUNDING INFORMATION

Year Ending	Annual Required Contribution (a)	Total Employer Contribution* (b)	Percentage of ARC Contribution (b) / (a)
8/31/2005	\$22,459,221	\$20,210,403	89.99%
8/31/2006	24,311,628	26,766,000	110.10%
8/31/2007	28,143,388	24,981,000	88.76%
8/31/2008	19,491,557	26,162,000	134.22%
8/31/2009	24,103,114	25,918,000	107.53%
8/31/2010	30,900,224	29,182,000	94.44%
8/31/2011	34,180,566	30,255,000	88.52%
8/31/2012	32,957,547	37,109,000	112.60%
8/31/2013	35,032,074	33,623,000	95.98%
8/31/2014	34,225,147	38,198,000	111.61%
8/31/2015	34,614,093	39,562,000	114.29%
8/31/2016	37,665,061	40,564,000	107.70%
12/31/2016**	12,836,281	13,861,000	107.98%
12/31/2017	57,941,493	55,145,000	95.17%

* Includes State and School District contributions.

** For the short Plan Year from September 1, 2016 through December 31, 2016.

Note: The Total Employer Contribution for fiscal year ending 8/31/2014 was changed because during our work on the GASB reports, we discovered the Service Annuity contribution was different from what was initially reported to us. This figure now matches the number found in the GASB reports.



EXHIBIT 9 – SCHEDULE OF FUNDING PROGRESS

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a)/c]
9/1/2005	\$ 887,165,000	\$ 1,126,967,000	\$ 239,802,000	78.72%	\$ 231,708,783	103.49%
9/1/2006	948,938,000	1,195,354,000	246,416,000	79.39%	248,759,070	99.06%
9/1/2007	1,117,628,000 *	1,255,527,000	137,899,000	89.02%	272,844,149	50.54%
9/1/2008	1,149,289,000	1,346,999,000	197,710,000	85.32%	272,720,007	72.50%
9/1/2009	1,061,326,000	1,410,318,000	348,992,000	75.25%	287,770,291	121.27%
9/1/2010	1,078,269,000	1,467,850,000	389,581,000	73.46%	302,229,282	128.90%
9/1/2011	1,110,033,000	1,516,284,000	406,251,000	73.21%	310,228,916	130.95%
9/1/2012	1,155,495,000	1,592,738,000	437,243,000	72.55%	307,258,065	142.30%
9/1/2013	1,205,265,000	1,660,287,000	455,022,000	72.59%	313,946,237	144.94%
9/1/2014	1,277,546,000	1,723,970,000	446,424,000	74.10%	323,077,710	138.18%
9/1/2015	1,312,905,000	1,798,706,000	485,801,000	72.99%	333,166,135	145.81%
1/1/2017	1,337,983,000	2,050,581,000	712,598,000	65.25%	351,940,122 **	202.48%
1/1/2018	1,365,013,000	2,136,385,000	771,372,000	63.89%	359,359,507	214.65%

* The actuarial value of assets was reset to market value as of 9/1/2007.

** Covered Payroll was annualized for the short Plan Year in 2016.



EXHIBIT 10 – SOLVENCY TEST

SOLVENCY TEST

A short-term solvency test, which is one method of determining a system’s progress under its funding program, compares the plan’s present assets with: 1) the liability for active member contributions on deposit; 2) the liability for future benefits to present retirees; and (3) the liability for service already rendered by active members. In a system that has been following the level-percent of payroll financing discipline, the obligation for active member contributions on deposit (Item 1) and the liabilities for future benefits to present retired lives (Item 2) will be fully covered by present assets with the exception of rare circumstances. The obligation for service already rendered by active members (Item 3) will be partially covered by the remainder of present assets. Absent any significant benefit changes, if the system has been using level cost financing, the funded portion of Item 3 usually will increase over a period of time.

Actuarial Valuation*	Active Member Contributions	Retirees, Beneficiaries, and Inactives	Active Members Employer Financed Portion	Actuarial Value of Assets	Portion of Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
2012	\$249,903,000	\$955,399,000	\$387,436,000	\$1,155,495,000	100%	95%	0%
2013	272,347,000	1,001,953,000	385,987,000	1,205,265,000	100%	93%	0%
2014	281,672,000	1,058,156,000	384,142,000	1,277,546,000	100%	94%	0%
2015	292,731,000	1,129,399,000	376,576,000	1,312,905,000	100%	90%	0%
2017	306,276,000	1,266,557,000	477,748,000	1,337,983,000	100%	81%	0%
2018	316,337,000	1,311,949,000	508,099,000	1,365,013,000	100%	80%	0%

* The actuarial valuation date for years prior to 2017 was September 1.



EXHIBIT 11 – ESTIMATED BENEFIT PAYMENTS

ESTIMATED BENEFIT PAYMENTS*

<u>Year End</u>	<u>Currently In-Pay</u>	<u>Currently Not-In-Pay</u>	<u>Total</u>
2018	\$118,114,000	\$ 7,293,000	\$125,407,000
2019	118,075,000	12,000,000	130,075,000
2020	117,822,000	16,616,000	134,438,000
2021	117,375,000	21,384,000	138,759,000
2022	116,656,000	26,436,000	143,092,000
2023	115,840,000	31,620,000	147,460,000
2024	114,997,000	37,280,000	152,277,000
2025	114,072,000	43,219,000	157,291,000
2026	112,927,000	49,806,000	162,733,000
2027	111,545,000	56,667,000	168,212,000
2028	109,917,000	63,816,000	173,733,000
2029	107,939,000	71,538,000	179,477,000
2030	105,744,000	79,793,000	185,537,000
2031	103,345,000	88,245,000	191,590,000
2032	100,743,000	97,224,000	197,967,000

*Amounts shown are the cash flows for current members only, based on the current benefit structure and assuming that all actuarial assumptions are met in each future year. To the extent that actual experience deviates from that expected, results will vary. Amounts are shown in future nominal dollars and have not been discounted to the valuation date.



APPENDIX A

HISTORICAL BACKGROUND



APPENDIX A – HISTORICAL BACKGROUND

Historical Background

Since 1909, the Omaha School District has maintained a retirement system for its teachers. Since then, systems covering other employees were added. In 1951, the Nebraska Legislature consolidated the existing systems into one new System. Amendments of significance in the Nebraska statutes and federal Social Security Act have occurred from time to time. These changes in order of their occurrence are outlined briefly below:

1951 - New System

Prior to 1951, three separate retirement systems existed. In 1951 the Nebraska Legislature repealed these three separate systems and created the present single System covering all employees. This act provided, however, that a member of a pre-existing system might elect to retain his benefit and contribution rights under one of the former systems in lieu of the new System benefits and contributions. The members who so elected then became known by the following titles for retirement purposes:

- (1) Employees covered by the former Omaha Teachers Retirement System were known as "Teachers,"
- (2) Employees covered by the former Non-Teaching Employee Retirement System were known as "Non-Teachers,"
- (3) Employees covered by the former Cafeteria Employee Retirement System were known as "Cafeteria."

All other employees became members of the new System and received credit for membership service starting September 1, 1951. Benefits as well as contributions under the new System became directly related to a member's compensation by formula. The maximum covered annual compensation under the new System became \$5,000, but the maximum for Teachers, Non-Teachers and Cafeteria remained \$3,000.

1955 Amendments

On September 24, 1955, Omaha School employees voted to become participants in the federal Social Security program. All Social Security benefits are payable in addition to the System benefits. As a result of Social Security coverage, changes were made in the benefit and contribution formulas of the System effective August 31, 1955. In general, the changes reduced contributions and benefits to 60% of the rates formerly in effect. In addition, the maximum covered compensation was increased from \$5,000 to \$6,000 except for Teachers, Non-Teachers and Cafeteria which remained at \$3,000.

The amount contributed by the School District was also reduced to 60% of the rates in effect prior to the change and the School District's contributions, matching the refunds paid upon the withdrawal or death of employees, were retained in the retirement fund rather than being returned to the School District.

1963 Amendments

Effective September 1, 1963, several changes were made in the new System. The limit on covered compensation for contributions and benefits of members was removed.



APPENDIX A – HISTORICAL BACKGROUND

The service retirement annuity credit was increased in order to integrate with the modifications in federal Social Security between 1955 and 1963. The disability annuity for members was increased to 100% of the service retirement annuity accrued to date of disability and the restriction as to the number of years for which it was payable was removed. The offset in the benefit formula for the Nebraska State Service Annuity credit was placed on a year-to-year basis for all members, increasing the annuity credit for service after September 1, 1951 for active and retired alike.

The employees who were participating as Teachers, Non-Teachers and Cafeteria began to make contributions and receive benefit credits at the same rates as other members of the System. It should be noted that any employee who retained rights under a pre-existing system still receives credit in accordance with the provisions of the former system if this is more than the credit, after the State service annuity offset, would be under the 1963 amendments.

The contribution rate for employees was changed to integrate with the modifications in Social Security and was no longer subject to revision depending upon the degree of actuarial soundness of the System as had been provided in 1962. The School District became solely responsible for maintaining the solvency of the System on the basis of annual actuarial valuations. The School District again became entitled to refunds equal to the refunds paid upon withdrawal or death of employees.

The restriction prohibiting the crediting of interest on refunds to employees who withdraw from employment during the first ten years of service was removed. Thus, all employees who withdraw after one year or more of service receive interest on their contributions made since September 1, 1951.

1965 Amendments

Effective September 1, 1965, a pre-retirement survivor's annuity was added to the System for long-service employees. This change gave an employee with 25 or more years of service protection at death approximately equivalent in value to the vesting which already existed at termination of employment for an employee with the same period of service.

Effective January 1, 1966, the Social Security tax base was increased from \$4,800 to \$6,600 per year. This change became effective in the System's contribution and benefit formulas as of September 1, 1966.

1967 Amendments

The 77th Session of the Nebraska Legislature enacted LB 494 which amended the Nebraska School Retirement System, effective October 23, 1967. A major change was the increase in the State service annuity credit from \$1.50 to \$3.00 per month for each year of credited service after July 1, 1968 and the removal of the 35 year limitation on credited State service. For the purpose of determining the new State service annuity offset in calculating the net Omaha annuity, the additional \$1.50 per month for each year of service after July 1, 1968 is not applicable, but removal of the 35 year limitation does apply. This means that the State service annuity offset is still determined on the basis of \$1.50 per month for each year of service. The increase in the State service annuity offset by virtue of eliminating the 35 year limitation represents a lower cost to the Omaha System for those members having more than 35 years of State service by age 65.



APPENDIX A – HISTORICAL BACKGROUND

Another change with regard to the State service annuity was the manner in which the funds are transferred from the State to the Omaha System to pay these annuities. For retirements occurring after the effective date of the amendments (October 23, 1967), the State transfers the commuted value (equivalent single sum) of the individual State service annuity to the Omaha System and then the payment of the monthly annuity to the retired member is the School District's responsibility.

In 1967 the eligibility provisions for the pre-retirement survivors' annuity and the vested retirement rights were changed, reducing the service required from 25 years to 20 years and thereby granting these options to a larger number of employees.

Effective January 1, 1968, the federal Social Security taxable wage base was increased from \$6,600 to \$7,800 per year. This change became effective in the System's contribution and benefit formulas as of September 1, 1968.

1969 Amendments

The 80th Session of the Nebraska Legislature enacted LB 530 which amended the System effective August 11, 1969. The provisions of this bill improved the benefit structure of the System in two ways. The membership annuity credits (credits after 9/1/51) were increased approximately 10% and the Social Security wage base was "frozen" at the \$7,800 level for purposes of calculating benefit credits and employee contributions.

By freezing the Social Security base, benefit credits and employee contributions for service after September 1, 1969 will not be reduced by virtue of future increases in the Social Security wage base. The System benefits will remain integrated with the Social Security program at the level provided by the \$7,800 base.

1972 Amendments

During 1972, the Nebraska Legislature enacted LB 1116 which amended the System. These amendments were to become effective for retirements occurring on or after September 1, 1972. The provisions of this bill improved the benefit structure of the System and liberalized the eligibility condition for qualification upon termination for the deferred vested retirement benefit.

The benefits of the System were improved by increasing the membership annuity credits (credits after 9/1/51) by approximately 20% over those in existence on September 1, 1971.

In order to be eligible upon resignation to elect a deferred vested service annuity, the years of creditable service was reduced from 20 years to 15 years.

1973 Amendments

The 1973 Session of the Nebraska Legislature enacted LB 445 which created increases in the State service annuity of the Nebraska School Retirement System. LB 445 provides for (a) a State service annuity credit of \$3.00 per month for each year of creditable service for all emeritus members and for all full time school employees who retire on or after July 1, 1973 and (b) for increases in the State service annuity for members who retired prior to July 1, 1973 based upon the difference between the Consumers Price Index on the date of retirement and July 1, 1973.



APPENDIX A – HISTORICAL BACKGROUND

1976 Amendments

The 1976 Session of the Nebraska Legislature enacted LB 994 which increased the membership annuity credits (credits after 9/1/51) by 20%.

The members' contributions were increased to 2.90% of compensation up to \$7,800 per year plus 5.25% of salary in excess of that amount.

1979 Amendments

The 1979 Session of the Nebraska Legislature changed the mandatory retirement date from age 65 to age 70. Late retirement benefits are actuarially increased from what would have been payable at the normal retirement date.

1982 Amendments

The 1982 Session of the Nebraska Legislature enacted LB 131 which made considerable changes to the System. LB 131 was approved by the Governor on February 19, 1982.

The most major revision in the System was to change the previous primary benefit formula from the step rate formula based on each year of salary to a final average compensation formula. The primary benefit formula became 1.5% of final average compensation for each year of creditable service not in excess of 30. Final average compensation was then defined to be 1/36 of the total compensation received during the three fiscal years of highest compensation. Also, the creditable service not in excess of 30 years was allowed to continue to accrue after the fiscal year in which the employee attains age 65. In addition, the State service annuity offset of \$1.50 per year of creditable service was removed with respect to the final average compensation formula. The prior provisions of the System were retained as a minimum benefit, recognizing creditable service for those provisions through the earlier of the date of retirement or August 31, 1983.

Another major revision in the System was to change the step rate formula for employee contributions to a level 4.90% of compensation. In addition, the provision entitling the School District to receive refunds of its own contributions equal to the contributions refunded to employees was removed.

The early retirement date was liberalized. Previously an employee needed to have either 35 years of creditable service or to have attained age 60 with 25 years of creditable service. Now an employee can retire early if he has at least 10 years of creditable service and has attained age 55.

The actuarial equivalent of the annuity payable at the end of the fiscal year in which the employee attains age 65 was changed in the following two ways:

1. For employees retiring before age 62, the monthly formula retirement annuity is a reduced amount based on the actuarial equivalent of the annuity deferred to the employee's 62nd birthday. If retirement is at age 62 or later, there is no actuarial reduction. Previously there was an actuarial reduction, based on the benefit deferred to age 65, for any retirement before age 65.
2. For employees retiring on or after age 65, the monthly formula retirement annuity is to be based on total years of creditable service (not in excess of 30) and the employee's entire compensation history at date of retirement. Consequently, for retirements after the fiscal year in which the employee attains age 65 there is no longer an actuarial increase from the benefit available at the normal retirement date.



APPENDIX A – HISTORICAL BACKGROUND

The eligibility provision to elect a deferred vested service annuity upon resignation was changed from 15 years of creditable service to 10 years.

1983 Amendments

The 1983 Session of the Nebraska Legislature enacted LB 488 which created benefit increases effective September 1, 1983 for members having retired before February 21, 1982. The amount of benefit increase was limited to the smaller of:

1. The percentage increase in the Consumer Price Index for all Urban consumers from the effective date of retirement to June 30, 1983 applied to benefits being paid and
2. The sum of \$1.50 per month for each year of creditable service and \$1.00 per month for each completed year of retirement from the effective date of retirement to June 30, 1983, actuarially adjusted for joint and survivor elections.

1985 Amendments

The 1985 Session of the Nebraska Legislature enacted LB 215 which removed the 30 year limit on years of service used in the benefit formula, provided for vesting after five years of service rather than ten years, and reduced the eligibility period for disability from ten years of service to five years of service.

LP215 also provided for the employer “pick up” of employee contribution under IRC 414(h), thereby allowing employee contributions to be made on a pre-tax basis.

Unisex factors are now being used for determining early retirement reductions and actuarial equivalents for joint and survivor optional benefits.

1986 Amendments

The 1985 Session of the Nebraska Legislature enacted LB 1048 which granted increases in benefits for most retirees to reflect cost-of-living increases over the last several years. The increases ranged up to a maximum of 10.5%.

1987 Amendments

A "window of opportunity" was created for the buy-in or buy-back of service credits for participants qualifying for that right.

1989 Amendments

LB 237 was enacted by the 1989 Session of the Nebraska Legislature and provided: annual benefit accruals of 1.65% of final average compensation (up from 1.50%), unreduced benefits if a member retires with 35 or more years of service, a five year certain and life thereafter annuity as the normal form of benefit (instead of just a life annuity), employee contributions of 5.8% of pay (up from 4.9%), and increased benefits to retirees (the increases ranged up to 9.0%). There were some other changes as a result of this bill, but none that had a direct actuarial cost impact.



APPENDIX A – HISTORICAL BACKGROUND

1992 Amendments

The 1992 Session of the Nebraska Legislature enacted LB 1001 which increased annual benefit accruals from 1.65% of final average compensation to 1.70%, and increased benefits to retirees (3% increase per year of retirement, not exceeding 9% total increase), a change in the preretirement joint and survivor option to allow it to become effective automatically after 20 years of service, and allowed employees to “buy-in” their time with other public school systems by means of a tax-deferred rollover of their refund from that System.

1995 Amendments

The 1995 Session of the Nebraska Legislature enacted LB 505 which increased annual benefit accruals from 1.70% to 1.80% of final average compensation. It also provided for unreduced retirement benefits when the sum of age and service equals or exceeds 85 (still maintaining the age 55 minimum), and reduced early retirement reductions to .25% per month prior to age 62. Early retirement at 84, 83, or 82 points is also allowed with a maximum reduction of 3%, 6% and 9% respectively. Employee contributions were increased to 6.3% of pay. The bill also provided for a one time increase to current retirees of 3% per year since retirement (not to exceed 9%), or if larger, 90% restoration of the purchasing power of their original pension. There are other changes resulting from this bill, which are not included since they did not have a direct actuarial impact. One change with no actuarial impact but worth noting is the provision for employer “pick up” of employee contributions to the System used to buy in outside service, pursuant to Section 414(h) of the Internal Revenue Code.

1998 Amendments

The 1998 Session of the Nebraska Legislature enacted LB 497 which increased annual benefit accruals from 1.80% to 1.85% of final average compensation. The bill also provided for a one time increase to current retirees of 3% per year since retirement (not to exceed 9%) and provides an annual automatic cost of living adjustment, not greater than 1.5%, beginning January 1, 2000.

2000 Amendments and Cost of Living Adjustment

The 2000 session of the Nebraska Legislature enacted LB 155 which increased accruals from 1.85% to 2.00% of final average compensation.

Pursuant to LB 497, the OSERS Board and the Omaha School District Board authorized a 1.5% discretionary COLA beginning January 1, 2000 in addition to the automatic COLA.

2001 Amendments and Cost of Living Adjustment

The 2001 session of the Nebraska Legislature enacted LB 711 which provided that certain members who previously left employment due to pregnancy could purchase their “lost” service. It also provided a post-retirement supplemental benefit to assist with medical costs. The supplement commences 10 years after retirement, beginning at \$10 per month for each year retired and increasing by \$10 each year to a maximum of \$250 per month. For retirees with less than twenty years of service, the benefit is reduced proportionately.

Additionally, the OSERS Board and the Omaha School Board authorized a discretionary COLA to restore full purchasing power, beginning January 1, 2001, in addition to the automatic COLA.



APPENDIX A – HISTORICAL BACKGROUND

2002 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2002.

2003 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2003.

2004 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2004.

2005 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2005.

2006 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2006.

2007 Amendment and Cost of Living Adjustment

The 2007 session of the Nebraska Legislature enacted Section 79-9, 113 which changed the employee contribution rate from 6.30% of compensation to 7.30% and provided for an employer contribution equal to 101% of the employee contribution rate.

The automatic 1.5% COLA was granted beginning January 1, 2007.

2008 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2008.

2009 Amendment and Cost of Living Adjustment

The 2009 session of the Nebraska Legislature enacted Legislative Bill 187 (LB 187), which increased the State's contribution from 0.7% to 1.0% of covered pay from July 1, 2009 to July 1, 2014. On July 1, 2014 the State's contribution returns to 0.7%. LB 187 also increased the employee contribution rate from 7.30% of compensation to 8.30%. The School District's contribution is equal to 101% of the employee contribution rate so the District's contribution rate increased from 7.373% of compensation to 8.383% as a result of the increase in the member contribution rate.

The automatic 1.5% COLA was granted beginning January 1, 2009.

2010 Amendment and Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2010.



APPENDIX A – HISTORICAL BACKGROUND

2011 Amendment and Cost of Living Adjustment

The 2011 session of the Nebraska Legislature enacted Legislative Bill 382 (LB 382), which increased the Member's contribution from 8.30% of compensation to 9.30%. The School District's contribution is equal to 101% of the employee contribution rate so the District's contribution rate increased from 8.383% of compensation to 9.393% as a result of the increase in the member contribution rate. LB 382 also extended the 1% of payroll contribution by the State from July 1, 2014 to July 1, 2017.

The automatic 1.5% COLA was granted beginning January 1, 2011.

2012 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2012.

2013 Amendments and Cost of Living Adjustment

The 2013 session of the Nebraska Legislature enacted Legislative Bill 553 (LB 553), which increased the Member contribution rate from 9.30% of pay to 9.78% of pay. The School District's contribution is equal to 101% of the employee contribution rate so the District's contribution rate increased from 9.393% of pay to 9.878% of pay as a result of the increase in the member contribution rate. LB 553 also ended the scheduled decrease in the State contribution rate and instead increased the State contribution from 1.0% of pay to 2.0% of pay, effective July 1, 2014. LB 553 also created a new benefit structure for members hired on or after July 1, 2013. For these members, annual cost of living adjustments will be the lesser of 1.0% or CPI, and the final average compensation is defined as 1/60 of the total compensation received during the five fiscal years of highest compensation.

The automatic 1.5% COLA was granted beginning January 1, 2013.

2014 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2014.

2015 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2015.



APPENDIX A – HISTORICAL BACKGROUND

2016 Amendments and Cost of Living Adjustment

The 2016 session of the Nebraska Legislature enacted Legislative Bill 447 (LB 447), which created a new benefit structure for members hired on or after July 1, 2016. The changes result in the same benefit structure for new OSERS members as for new members of the Nebraska School Retirement System. These members will not receive the supplemental medical COLA offered to employees hired before July 1, 2016. Other changes for these employees include a revised early retirement benefit reduction schedule and different retirement eligibility requirements.

The automatic 1.5% COLA was granted beginning January 1, 2016.

2017 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2017.

2018 Amendments and Cost of Living Adjustment

The 2017 session of the Nebraska Legislature enacted Legislative Bill 415 (LB 415), which created a new benefit structure for members hired on or after July 1, 2018. The changes result in the same benefit structure for new OSERS members as for new members of the Nebraska School Retirement System. The changes for these employees include a revised early retirement benefit reduction schedule and different retirement eligibility requirements.

The 2018 session of the Nebraska Legislature enacted Legislative Bill 1005 (LB 1005), which also affects the benefit provisions for members hired on or after July 1, 2018. As a result of LB 1005, the Board has the authority to set the actuarial assumptions used to determine the benefit amounts payable under optional forms of payment for members hired on or after July 1, 2018.

The automatic 1.5% COLA was granted beginning January 1, 2018.



APPENDIX B

SUMMARY OF PLAN PROVISIONS



APPENDIX B – SUMMARY OF PLAN PROVISIONS

Contributions

Employee Contributions: Employees contribute 9.78% of compensation, effective September 1, 2013. Such contributions are payable each year while employed. Contributions accumulated with interest are refundable at resignation unless the vested retirement benefit has been elected and at death unless the pre-retirement survivor's benefit has been elected.

State Contribution: The State contributes annually an amount equal to 2.0% of the members' compensation, effective July 1, 2014.

School District Contribution: The School District contributes the greater of (a) one hundred and one percent of the contributions by the employees or (b) such amount as may be necessary to maintain the solvency of the system, as determined annually by the board upon recommendation of the actuary and the trustees.

Interest Credited on Refunds: Contributions made prior to September 1, 1951 and refunded at withdrawal or death are not credited with interest. Contributions after September 1, 1951 are credited with interest at the rate declared annually by the Board of Education upon the recommendation of the Board of Trustees.

Benefits

General: The System provides annuities upon retirement from service or disability and upon death to designated survivors.

The service retirement formula is 2.0% per year of creditable service times the final average compensation.

Final average compensation is defined as 1/36 of the total compensation received during the three fiscal years of highest compensation for members hired before July 1, 2013. For members hired on or after July 1, 2013, final average compensation is defined as 1/60 of the total compensation received during the five fiscal years of highest compensation.

Annuities are paid for life, with 5 years guaranteed. Optional forms of payment are available.

The disability annuity, the pre-retirement survivor annuity and the vested retirement right are summarized in the following sections.

Benefits in pay status are subject to an annual cost of living adjustment equal to the lesser of 1.5% or CPI for members hired before July 1, 2013. There is an additional COLA if surplus assets exist beginning January 1, 2000. Effective October 3, 2001, a medical cost of living adjustment is payable to retired members. Such amount will commence 10 years after retirement and shall be an amount equal to \$10 per month for each year retired (subject to a maximum of \$250 per month), prorated for years of service less than 20. For members hired on or after July 1, 2013, the annual cost of living adjustment is capped at 1.0%.

Members hired on or after July 1, 2016 are not eligible to receive the medical COLA benefit.



APPENDIX B – SUMMARY OF PLAN PROVISIONS

Retirement Annuities: An employee hired before July 1, 2016 may begin receiving a retirement benefit once the employee has left the employment of the School district, selected a retirement date and

- (a) has completed 35 years of creditable service,
- or
- (b) has 10 years of creditable service (with at least five of those years being creditable Omaha service) and attained age 55,
- or
- (c) remained employed until his or her 65th birthday and completed at least five years of creditable Omaha service.

If an employee who was hired before July 1, 2016 begins receiving an annuity after age 62, or when age and service equals or exceeds 85, there is no adjustment for the retirement annuity. If, however, such employee begins receiving an annuity before age 62, the annuity shall be reduced by 0.25% for each month prior to age 62, but if 84 points have been achieved then the reduction is limited to 3%, if 83 points, 6%, and 82 points, 9%.

An employee hired on or after July 1, 2016 and before July 1, 2018 may begin receiving a retirement benefit once the employee has left the employment of the School district, selected a retirement date and

- (a) has attained age 55 and the sum of the member's attained age and creditable service totals 85,
- or
- (b) has 5 years of creditable service and attained age 60.

For employees who were hired on or after July 1, 2016 and before July 1, 2018, if an employee begins receiving an annuity before age 65, such annuity shall be reduced by 0.25% for each month prior to age 65. If, however, the employee has achieved 85 points and is at least age 55, then there is no reduction to the annuity.

An employee hired on or after July 1, 2018 may begin receiving a retirement benefit once the employee has left the employment of the School district, selected a retirement date and

- (a) has attained age 60 and the sum of the member's attained age and creditable service totals 85,
- or
- (b) has 5 years of creditable service and attained age 60.

For employees who were hired on or after July 1, 2018, if an employee begins receiving an annuity before age 65, such annuity shall be reduced by 0.25% for each month prior to age 65. If, however, the employee has achieved 85 points and is at least age 60, then there is no reduction to the annuity.

Disability Retirement Annuities: Each employee who becomes totally disabled and who has completed five or more years of creditable Omaha service is entitled to a disability retirement annuity equal to the amount of service annuity earned to date of disability. Alternatively, the employee may defer the disability retirement and accrue service and compensation increases in the interim. The disability retirement annuity is payable each month until disability ceases, if before unreduced retirement, or death.



APPENDIX B – SUMMARY OF PLAN PROVISIONS

Pre-Retirement Survivor Annuities: Upon the death of a member who has completed 20 or more years of creditable service and who has not retired, a pre-retirement survivor annuity shall be paid to the member's primary beneficiary. The survivor must be a spouse or one other person whose attained age in the calendar year of the member's death is no more than 10 years less than the attained age of the member in such calendar year. The survivor annuity is the actuarial equivalent of the member's annuity accrued to the date of death, determined on the basis of the member's and beneficiary's attained ages on said date. The survivor annuity is payable in lieu of a refund of the member's accumulated contributions. However, a member may elect out of the survivor annuity and specify that such a refund be paid in lieu of the annuity. An election out of the pre-retirement survivor annuity is entirely independent of the election of a joint and survivor option at retirement. Within 60 days after the member's death, the beneficiary may request a refund of the member's accumulated contributions instead of the annuity; provided, however, that the member may direct the System to pay only an annuity.

If the member (not retired) has less than 20 years of creditable service, or the beneficiary does not meet the requirements stated above, a refund of the member's accumulated contributions shall be paid.

Vested Retirement Right: Each employee who has completed five or more years of creditable Omaha service is eligible upon resignation to elect a deferred vested benefit, first payable as an unreduced amount at age 65, in lieu of a refund of his accumulated contributions. With ten or more years of total creditable service (including at least five years of creditable Omaha service), the deferred vested benefit could commence, unreduced, at age 62 for employees who were hired before July 1, 2016. If benefits start before age 62 (but not earlier than attained age 55), the benefit shall then be reduced as described above.

For employees who were hired on or after July 1, 2016 and before July 1, 2018, the deferred vested benefit could commence, unreduced, at age 65. If benefits start before age 65 (but not earlier than attained age 55), the benefit shall then be reduced as described above.

For employees who were hired on or after July 1, 2018, the deferred vested benefit could commence, unreduced, at age 65. If benefits start before age 65 (but not earlier than attained age 60), the benefit shall then be reduced as described above.



APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

The valuation assumptions and methods used in conducting the current actuarial valuation are as follows:

Actuarial Assumptions

Investment Return Assumption: 7.50% per annum, compounded annually, net of expenses.

Mortality Rates: RP-2014 Mortality Table for males, set forward one year.
RP-2014 Mortality Table for females, set back one year.

Future mortality rates are projected on a generational basis using Scale MP-2016, which reflects the expectation that mortality rates will decline over time.

Disabled retirees use the RP-2014 Disabled Retiree Mortality Table, without generational improvement.

Disability: None assumed.

Termination of Employment: Illustrative rates of termination are as follows:
(prior to retirement eligibility)

Certificated:

Percent Terminating	
<u>Duration</u>	<u>Rate</u>
1	11.25%
5	8.00
10	4.50
15	2.25
20	1.00
25	1.00

Classified:

Percent Terminating		
<u>Duration</u>	<u>Male</u>	<u>Female</u>
1	11.00%	15.00%
5	6.00	9.00
10	2.40	4.00
15	1.00	1.75
20	1.00	1.00
25	1.00	1.00



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Retirement Rates: Early retirement rates are assumed to occur according to the schedule illustrated below:

Certificated:		Classified:	
<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
55	10%	55	3%
56	6	56	3
57	6	57	3
58	6	58	3
59	8	59	3
60	12	60	5
61	12	61	10

Unreduced retirement rates are assumed to occur according to the schedule illustrated below:

Certificated:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	60%	
56	50	35%
57	45	35
58	45	35
59	45	25
60	35	25
61	25	25
62	25	25
63	25	25
64	30	30
65	35	35
66	35	35
67	35	35
68	35	35
69	100	35
70	100	100



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	20%	
56	10	12%
57	10	12
58	10	12
59	15	12
60	15	12
61	15	20
62	20	20
63	20	20
64	20	20
65	25	35
66	20	23
67	20	23
68	20	23
69	20	23
70	100	100

Deferred vested members are assumed to retire at first unreduced retirement age.

Salary Scale:

Salaries are assumed to increase according to the schedule illustrated below:

<u>Duration</u>	<u>Annual Salary Increase</u>	
	<u>Certificated</u>	<u>Classified</u>
0	5.75%	6.25%
1	5.75	5.75
2	5.75	5.25
3	5.75	5.00
4-6	5.75	4.75
7-11	5.75	4.25
12-14	5.75	3.75
15-21	5.25	3.75
22+	4.25	3.75

Note: Salaries are assumed to increase by 2.0% for members who have not yet finalized their contract negotiations as of the valuation date.

Pre-Retirement Survivor Annuity:

It is assumed that females are three years younger than males, and that all members are married.



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Probability of Electing a Refund:	The proportion of terminating vested members electing a refund of member contributions: 20% for Certificated members 40% for Classified members
Assumed Interest Rate Credited on Employee Contributions:	2.75% compounded annually.
Inflation (CPI):	2.75% compounded annually.
Total Payroll Growth:	3.25% compounded annually.
Decrement Timing:	Middle of year
Cost of Living Adjustments:	1.5% for members hired before 7/1/2013 1.0% for members hired on or after 7/1/2013



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the individual entry-age actuarial cost method, and has the following characteristics.

- (i) The annual normal costs for individual active member are sufficient to accumulate the value of the member's pension at time of retirement.
- (ii) Each annual normal cost is a constant percentage of the member's year-by-year projected pensionable compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry-age of the member and the assumed exit-ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability (UAAL).

Asset Valuation Method

Assets are valued at expected value at the valuation date plus 25% of the difference between the market value and expected value. As a starting point for implementation of this asset valuation method, the actuarial value of assets as of September 1, 1996 was set equal to the market value. As of September 1, 2007, the actuarial value was again reset to market value. The smoothing method was again implemented in the 2008 valuation. Effective September 1, 2008, the actuarial value must fall within a corridor of 80% to 120% of market value.

UAAL Amortization Method

Effective with the January 1, 2017 valuation, OSERS amortizes the UAAL using a "layered" approach. Under this method, the UAAL is split into pieces; the first piece is amortized over, as a level-percent of pay, over a closed 30-year period beginning with the September 1, 2013 valuation (so 26 years remain as of the January 1, 2018 valuation). All ensuing UAAL bases that result from future actuarial experience will be amortized, as a level-percent of pay, over a new 25-year period commencing on the respective valuation date.



APPENDIX D
MEMBERSHIP DATA



APPENDIX D– MEMBERSHIP DATA

SUMMARY OF MEMBERSHIP DATA

	<u>Active</u>	<u>Inactive</u> <u>Vesteds</u>	<u>Nonvested</u> <u>Terminations</u>	<u>Retirees</u>	<u>Beneficiaries</u>	<u>Disabled</u> <u>Members</u>	<u>Total</u>
Members on 1/1/2017	7,462	1,035	347	4,278	247	17	13,386
Terminated – vested	(137)	137	0	0	0	0	0
Terminated – refund due	(177)	0	177	0	0	0	0
Terminated – refunded	(196)	(79)	(97)	0	0	0	(372)
Retired	(216)	(24)	0	241	0	(1)	0
Disability retirement	(2)	(2)	0	0	0	4	0
Death	(11)	(2)	0	(113)	(12)	0	(138)
Payments ended	0	0	0	0	(6)	0	(6)
New beneficiaries	0	0	0	0	23	0	23
New Alternate Payees	0	0	0	0	0	0	0
New members	767	0	43	0	0	0	810
Rehires	79	(22)	(57)	0	0	0	0
Corrections/adjustments	0	0	0	0	0	0	0
Members on 1/1/2018	7,569	1,043	413	4,406	252	20	13,703

There were 125 active members who were part of a bargaining group that did not have a settled contract as of the date the data was received. This group included security employees. At the direction of OSERS staff, we assumed that these groups will receive a 2.0% increase effective January 1, 2018.



APPENDIX D– MEMBERSHIP DATA

HISTORICAL SUMMARY OF MEMBERS

The following table displays selected historical data that was used in the actuarial valuation for the System.

Valuation Date January 1*	Total Count	Active Members						Number			Act/Ret Ratio
		Number	Average			Inactive Vested	Inactive Nonvested	Retired			
			Age	Entry Age	Service	Annual Pay (\$)	Pay Increase				
1998	8,204	5,680	44.2	33.7	10.5	28,912		330		2,194	2.59
1999	8,564	5,864	43.9	34.0	9.9	29,493	2.01%	386		2,314	2.53
2000	8,885	6,057	43.8	34.1	9.7	30,544	3.56%	380		2,448	2.47
2001	9,156	6,259	44.0	34.4	9.6	32,091	5.06%	368		2,529	2.47
2002	9,409	6,383	43.9	34.5	9.4	33,406	4.10%	384		2,642	2.42
2003	9,425	6,279	44.0	34.5	9.5	33,877	1.41%	385		2,761	2.27
2004	9,711	6,399	44.2	34.6	9.6	34,698	2.42%	473		2,839	2.25
2005	10,124	6,623	44.1	34.8	9.3	35,234	1.54%	485		3,016	2.20
2006	10,522	6,972	44.1	34.9	9.2	35,732	1.41%	442		3,108	2.24
2007	10,769	7,041	44.2	35.1	9.1	36,720	2.77%	483		3,245	2.17
2008	11,228	7,313	44.2	35.2	9.0	37,725	2.74%	515		3,400	2.15
2009	11,480	7,438	44.5	35.5	9.0	38,686	2.55%	553		3,489	2.13
2010	11,644	7,491	44.7	35.4	9.3	39,152	1.20%	566		3,587	2.09
2011	11,602	7,215	45.1	35.2	9.9	40,394	3.17%	680		3,707	1.95
2012	11,881	7,315	44.9	35.0	9.9	40,793	0.99%	723		3,843	1.90
2013	12,152	7,372	44.9	34.9	10.0	41,731	2.30%	813		3,967	1.86
2014	12,477	7,415	44.7	34.8	9.9	42,427	1.67%	937		4,125	1.80
2015	12,938	7,393	44.5	34.7	9.8	44,050	3.83%	984	210	4,351	1.70
2017	13,386	7,462	44.5	34.1	10.4	44,998	2.15%	1035	347	4,542	1.64
2018	13,703	7,569	44.5	34.1	10.4	46,233	2.74%	1,043	413	4,678	1.62

* Years prior to 2017 have a valuation date of September 1.

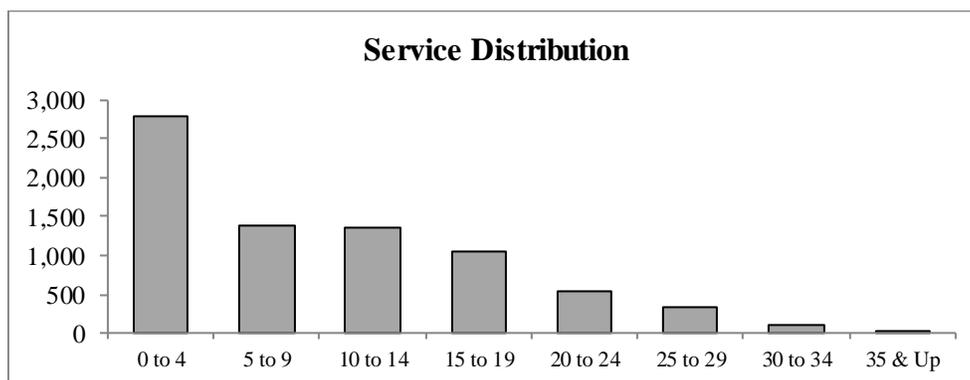
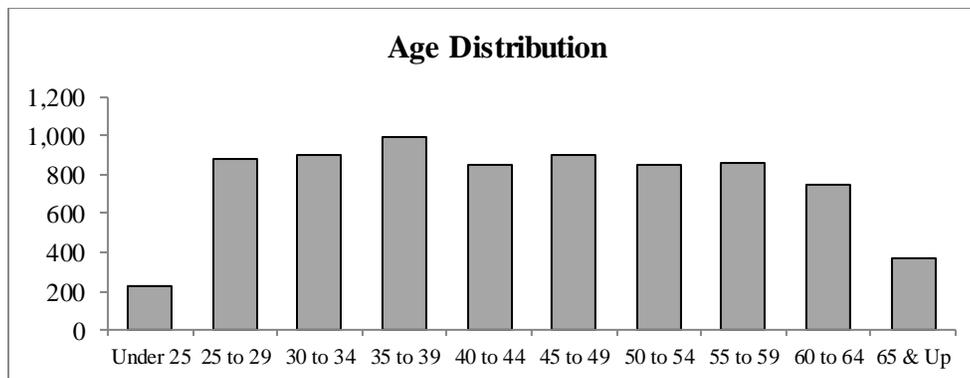


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Total

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	229	0	0	0	0	0	0	0	229
25 to 29	792	83	0	0	0	0	0	0	875
30 to 34	437	366	92	0	0	0	0	0	895
35 to 39	297	227	386	83	0	0	0	0	993
40 to 44	220	132	186	280	33	0	0	0	851
45 to 49	205	142	174	204	153	22	1	0	901
50 to 54	170	127	151	142	112	127	20	2	851
55 to 59	172	122	168	156	105	89	47	4	863
60 to 64	185	109	140	122	101	54	18	14	743
65 & Up	78	63	64	66	33	38	10	16	368
Total	2,785	1,371	1,361	1,053	537	330	96	36	7,569



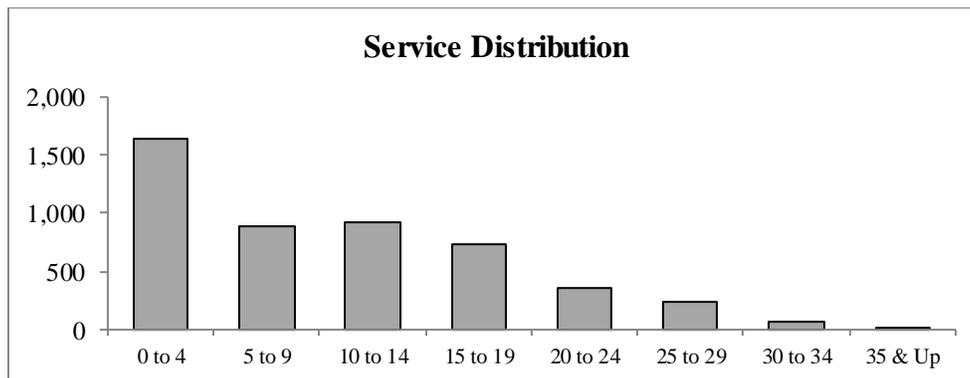
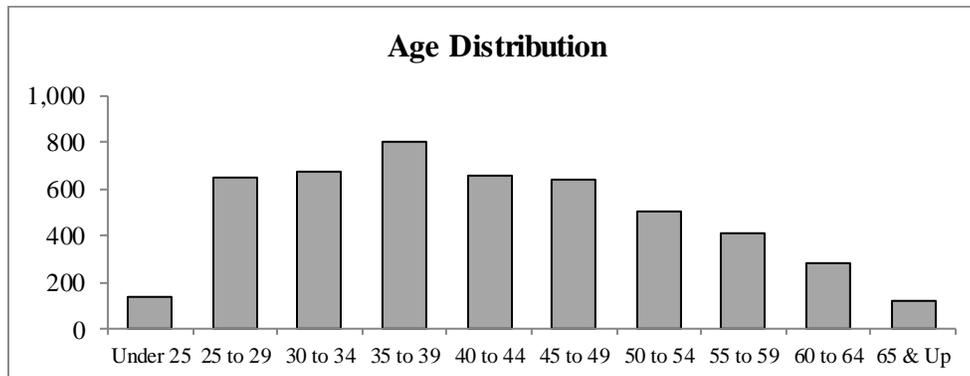


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Certificated - Total

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	137	0	0	0	0	0	0	0	137
25 to 29	585	65	0	0	0	0	0	0	650
30 to 34	300	298	74	0	0	0	0	0	672
35 to 39	187	183	359	72	0	0	0	0	801
40 to 44	125	97	156	251	28	0	0	0	657
45 to 49	106	87	116	166	140	19	1	0	635
50 to 54	64	52	82	89	84	117	15	1	504
55 to 59	59	43	73	74	55	68	36	2	410
60 to 64	51	40	57	53	43	24	9	7	284
65 & Up	25	18	12	28	10	15	6	8	122
Total	1,639	883	929	733	360	243	67	18	4,872



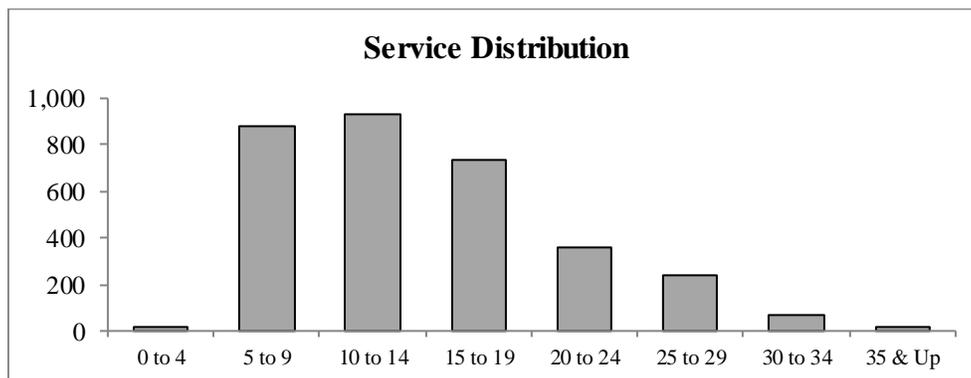
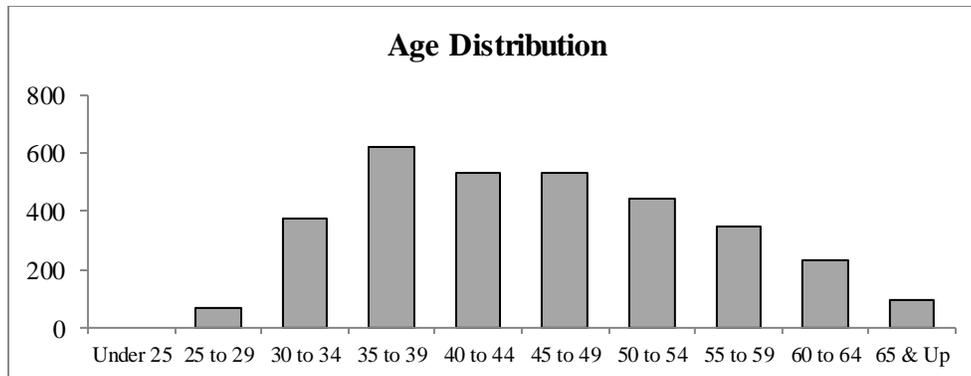


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Certificated - Tier 1

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	4	64	0	0	0	0	0	0	68
30 to 34	3	298	73	0	0	0	0	0	374
35 to 39	6	182	359	72	0	0	0	0	619
40 to 44	2	97	155	251	28	0	0	0	533
45 to 49	2	87	116	166	140	19	1	0	531
50 to 54	1	52	81	89	84	117	15	1	440
55 to 59	1	42	73	74	55	68	36	2	351
60 to 64	1	40	56	53	43	24	9	7	233
65 & Up	1	18	12	28	10	15	6	8	98
Total	21	880	925	733	360	243	67	18	3,247





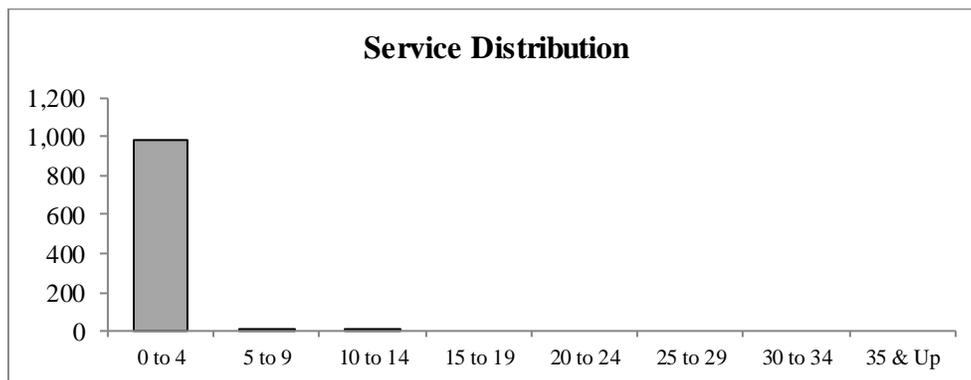
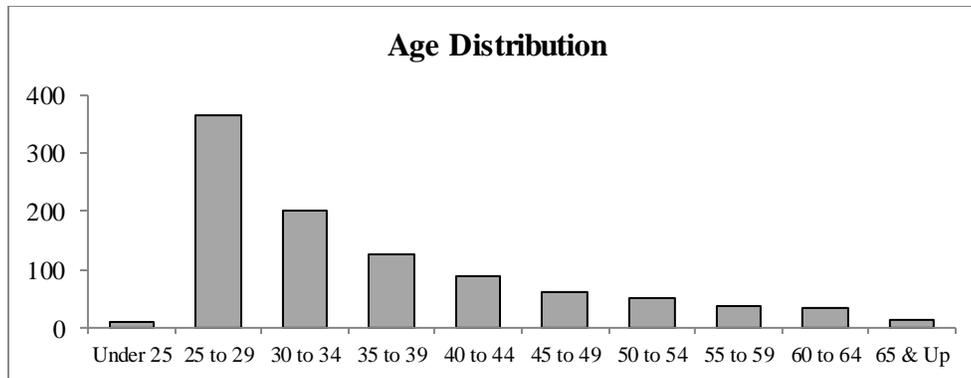
APPENDIX D- MEMBERSHIP DATA

**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Certificated - Tier 2

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	11	0	0	0	0	0	0	0	11
25 to 29	363	1	0	0	0	0	0	0	364
30 to 34	201	0	1	0	0	0	0	0	202
35 to 39	125	1	0	0	0	0	0	0	126
40 to 44	88	0	1	0	0	0	0	0	89
45 to 49	61	0	0	0	0	0	0	0	61
50 to 54	49	0	1	0	0	0	0	0	50
55 to 59	36	1	0	0	0	0	0	0	37
60 to 64	33	0	1	0	0	0	0	0	34
65 & Up	14	0	0	0	0	0	0	0	14
Total	981	3	4	0	0	0	0	0	988



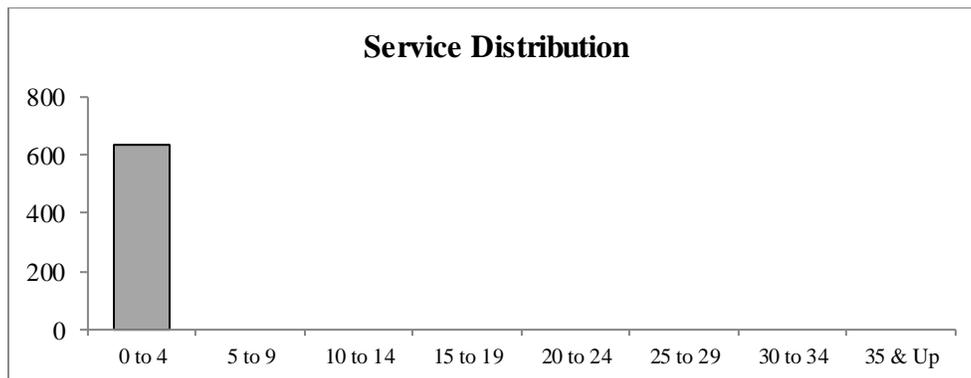
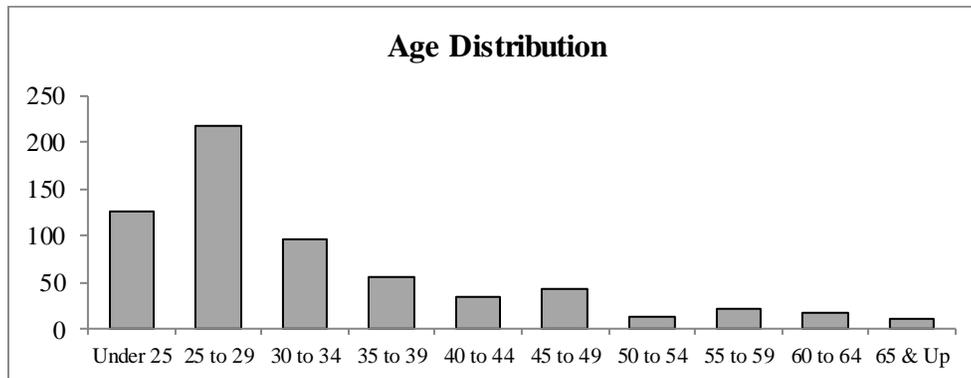


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Certificated - Tier 3

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	126	0	0	0	0	0	0	0	126
25 to 29	218	0	0	0	0	0	0	0	218
30 to 34	96	0	0	0	0	0	0	0	96
35 to 39	56	0	0	0	0	0	0	0	56
40 to 44	35	0	0	0	0	0	0	0	35
45 to 49	43	0	0	0	0	0	0	0	43
50 to 54	14	0	0	0	0	0	0	0	14
55 to 59	22	0	0	0	0	0	0	0	22
60 to 64	17	0	0	0	0	0	0	0	17
65 & Up	10	0	0	0	0	0	0	0	10
Total	637	0	637						



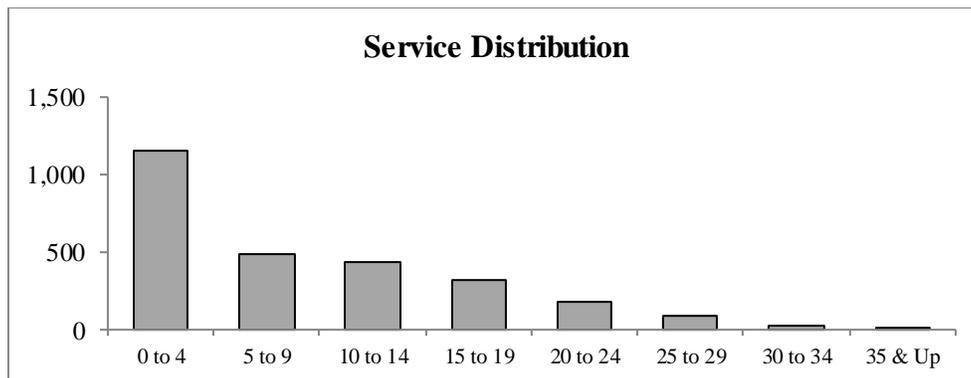
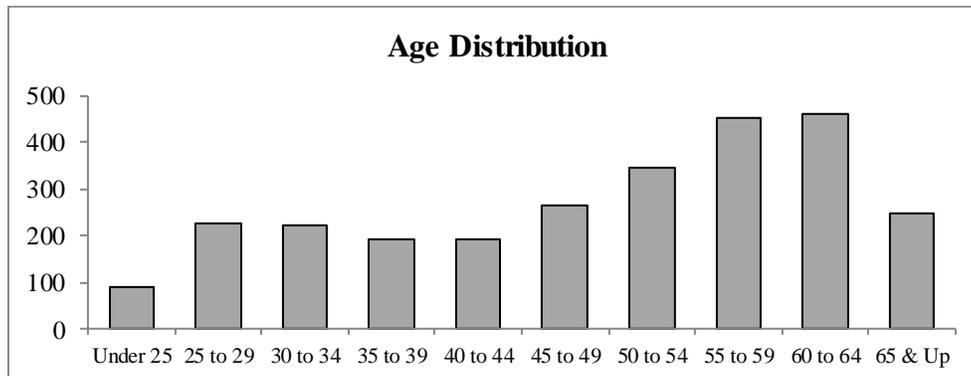


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Classified - Total

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	92	0	0	0	0	0	0	0	92
25 to 29	207	18	0	0	0	0	0	0	225
30 to 34	137	68	18	0	0	0	0	0	223
35 to 39	110	44	27	11	0	0	0	0	192
40 to 44	95	35	30	29	5	0	0	0	194
45 to 49	99	55	58	38	13	3	0	0	266
50 to 54	106	75	69	53	28	10	5	1	347
55 to 59	113	79	95	82	50	21	11	2	453
60 to 64	134	69	83	69	58	30	9	7	459
65 & Up	53	45	52	38	23	23	4	8	246
Total	1,146	488	432	320	177	87	29	18	2,697



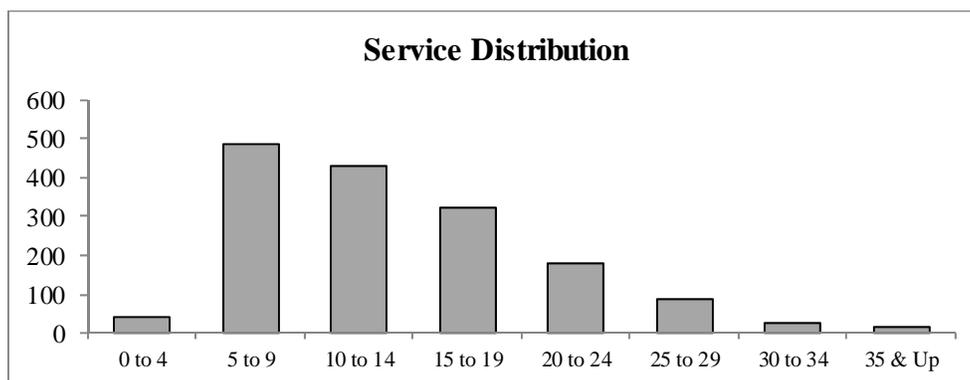
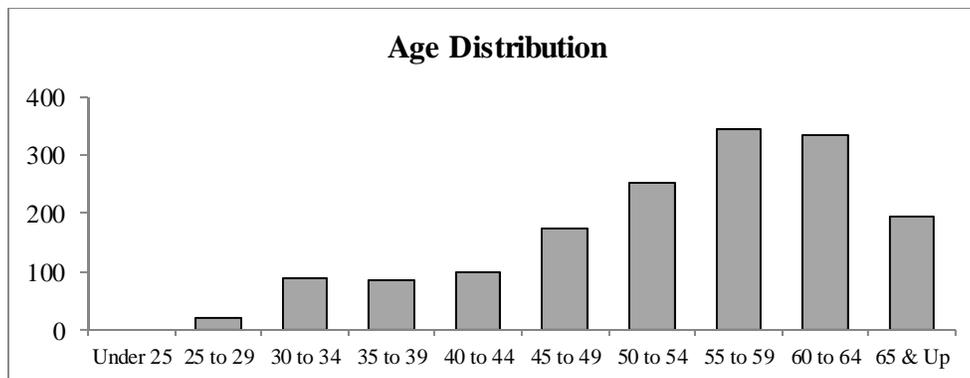


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Classified - Tier 1

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	3	18	0	0	0	0	0	0	21
30 to 34	4	68	18	0	0	0	0	0	90
35 to 39	2	44	27	11	0	0	0	0	84
40 to 44	0	35	30	29	5	0	0	0	99
45 to 49	7	55	58	38	13	3	0	0	174
50 to 54	11	75	69	53	28	10	5	1	252
55 to 59	4	78	95	82	50	21	11	2	343
60 to 64	8	69	83	69	58	30	9	7	333
65 & Up	1	45	51	38	23	23	4	8	193
Total	40	487	431	320	177	87	29	18	1,589



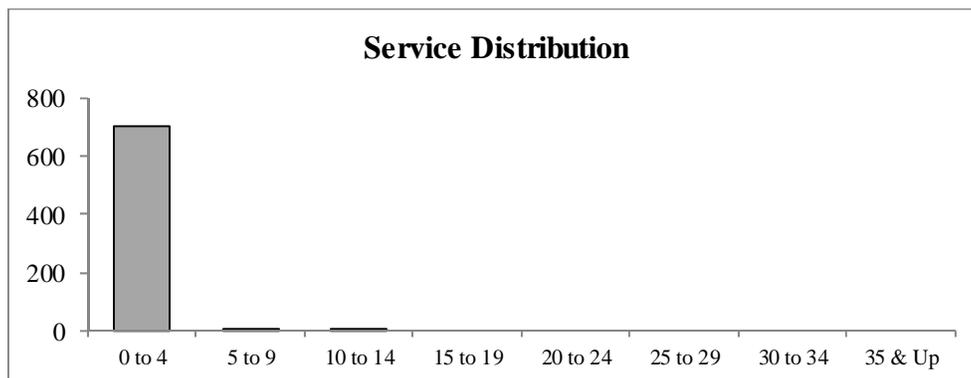
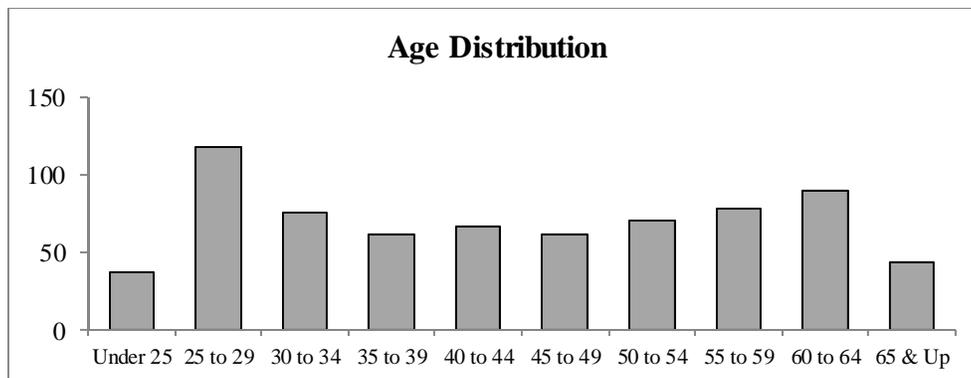


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Classified - Tier 2

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	37	0	0	0	0	0	0	0	37
25 to 29	118	0	0	0	0	0	0	0	118
30 to 34	76	0	0	0	0	0	0	0	76
35 to 39	62	0	0	0	0	0	0	0	62
40 to 44	66	0	0	0	0	0	0	0	66
45 to 49	62	0	0	0	0	0	0	0	62
50 to 54	70	0	0	0	0	0	0	0	70
55 to 59	77	1	0	0	0	0	0	0	78
60 to 64	89	0	0	0	0	0	0	0	89
65 & Up	42	0	1	0	0	0	0	0	43
Total	699	1	1	0	0	0	0	0	701



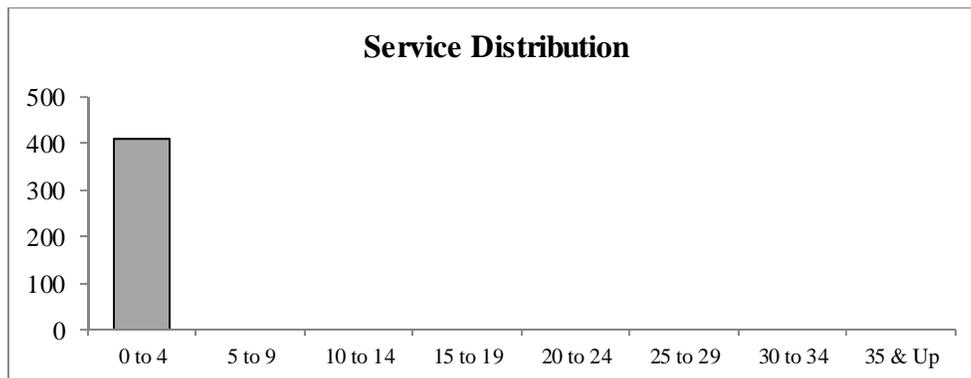
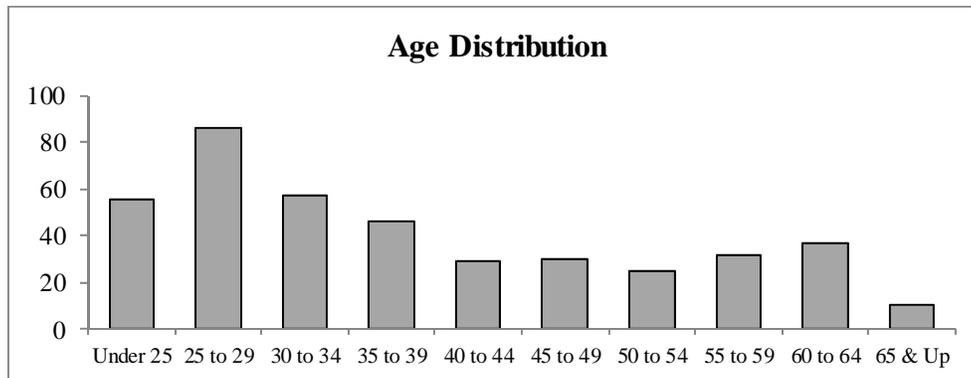


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of January 1, 2018

Classified - Tier 3

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	55	0	0	0	0	0	0	0	55
25 to 29	86	0	0	0	0	0	0	0	86
30 to 34	57	0	0	0	0	0	0	0	57
35 to 39	46	0	0	0	0	0	0	0	46
40 to 44	29	0	0	0	0	0	0	0	29
45 to 49	30	0	0	0	0	0	0	0	30
50 to 54	25	0	0	0	0	0	0	0	25
55 to 59	32	0	0	0	0	0	0	0	32
60 to 64	37	0	0	0	0	0	0	0	37
65 & Up	10	0	0	0	0	0	0	0	10
Total	407	0	407						



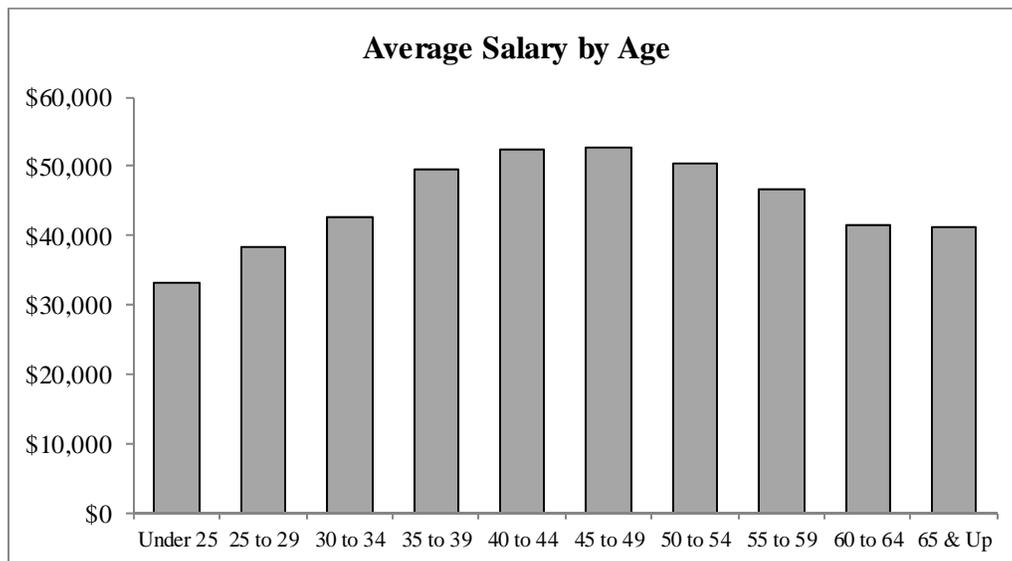


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
SUMMARY OF ACTIVE MEMBERS**

as of January 1, 2018

Total

Age	Number			Salaries		
	Males	Females	Total	Males	Females	Total
Under 25	36	193	229	\$ 1,330,822	\$ 6,289,299	\$ 7,620,121
25 to 29	179	696	875	6,711,847	26,821,440	33,533,287
30 to 34	219	676	895	9,293,484	28,989,628	38,283,112
35 to 39	265	728	993	13,927,949	35,413,221	49,341,170
40 to 44	225	626	851	12,771,777	31,775,049	44,546,826
45 to 49	223	678	901	13,401,976	34,128,687	47,530,663
50 to 54	219	632	851	11,660,879	31,203,446	42,864,325
55 to 59	220	643	863	11,839,728	28,420,330	40,260,058
60 to 64	225	518	743	10,052,307	20,693,603	30,745,910
65 & Up	136	232	368	5,920,447	9,292,498	15,212,945
Total	1,947	5,622	7,569	\$ 96,911,216	\$ 253,027,201	\$ 349,938,417



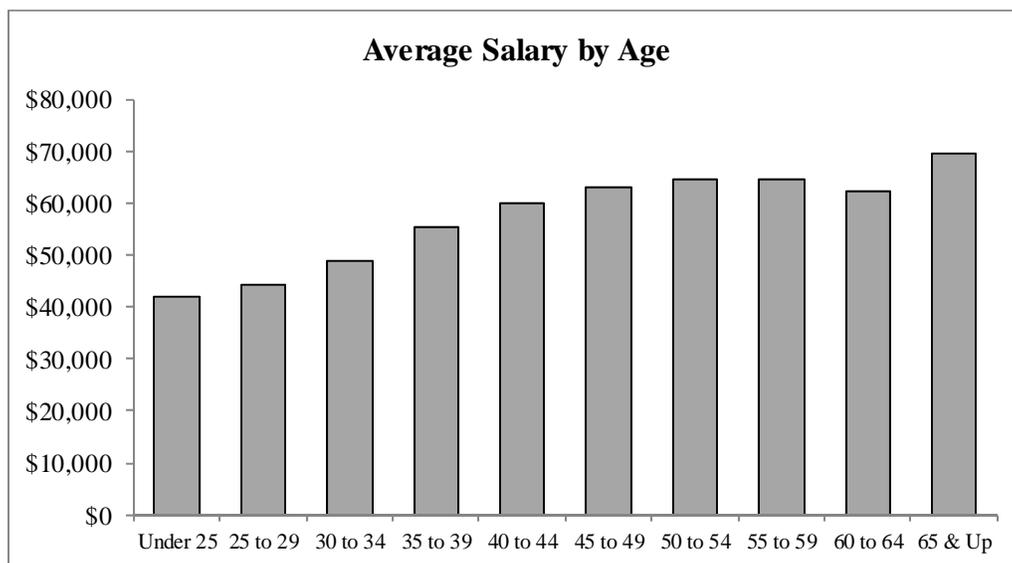


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
SUMMARY OF ACTIVE MEMBERS**

as of January 1, 2018

Certificated

Age	Number			Salaries		
	Males	Females	Total	Males	Females	Total
Under 25	19	118	137	\$ 792,607	\$ 4,969,342	\$ 5,761,949
25 to 29	118	532	650	5,178,743	23,702,711	28,881,454
30 to 34	147	525	672	7,045,897	25,884,905	32,930,802
35 to 39	210	591	801	12,032,802	32,435,109	44,467,911
40 to 44	172	485	657	10,902,524	28,570,432	39,472,956
45 to 49	157	478	635	10,740,396	29,383,929	40,124,325
50 to 54	100	404	504	6,615,961	25,941,137	32,557,098
55 to 59	90	320	410	6,012,824	20,483,126	26,495,950
60 to 64	68	216	284	4,091,831	13,535,271	17,627,102
65 & Up	41	81	122	2,990,509	5,471,919	8,462,428
Total	1,122	3,750	4,872	\$ 66,404,094	\$ 210,377,881	\$ 276,781,975



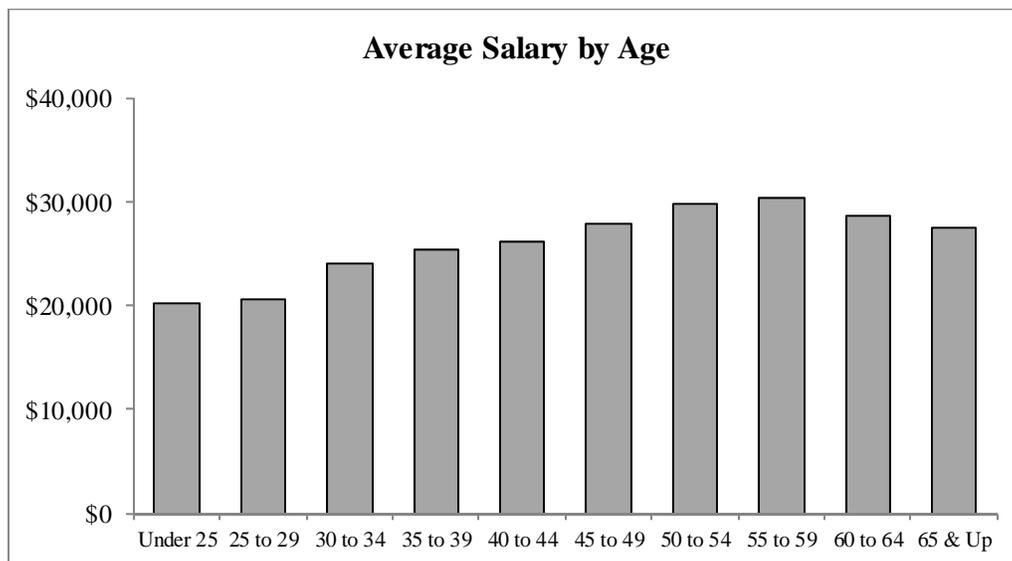


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
SUMMARY OF ACTIVE MEMBERS**

as of January 1, 2018

Classified

Age	Number			Salaries		
	Males	Females	Total	Males	Females	Total
Under 25	17	75	92	\$ 538,215	\$ 1,319,957	\$ 1,858,172
25 to 29	61	164	225	1,533,104	3,118,729	4,651,833
30 to 34	72	151	223	2,247,587	3,104,723	5,352,310
35 to 39	55	137	192	1,895,147	2,978,112	4,873,259
40 to 44	53	141	194	1,869,253	3,204,617	5,073,870
45 to 49	66	200	266	2,661,580	4,744,758	7,406,338
50 to 54	119	228	347	5,044,918	5,262,309	10,307,227
55 to 59	130	323	453	5,826,904	7,937,204	13,764,108
60 to 64	157	302	459	5,960,476	7,158,332	13,118,808
65 & Up	95	151	246	2,929,938	3,820,579	6,750,517
Total	825	1,872	2,697	\$ 30,507,122	\$ 42,649,320	\$ 73,156,442

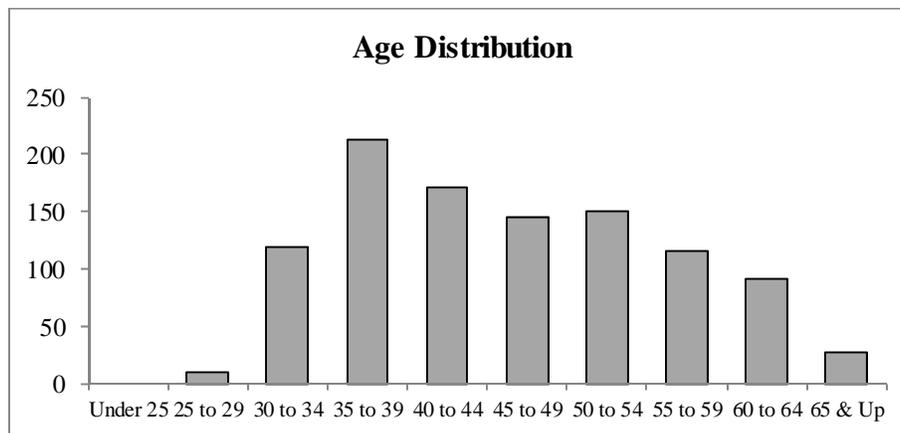




**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
SUMMARY OF DEFERRED VESTED MEMBERS**

as of January 1, 2018

Age	Number			Monthly Benefit at Unreduced Retirement		
	Males	Females	Total	Males	Females	Total
Under 25	0	0	0	\$ 0	\$ 0	\$ 0
25 to 29	5	5	10	1,935	1,622	3,557
30 to 34	25	95	120	11,027	44,560	55,587
35 to 39	49	163	212	29,819	99,760	129,579
40 to 44	35	136	171	28,210	94,227	122,437
45 to 49	27	119	146	20,170	71,214	91,384
50 to 54	39	111	150	38,432	69,189	107,621
55 to 59	14	101	115	13,061	63,458	76,519
60 to 64	14	77	91	7,084	33,917	41,001
65 & Up	4	24	28	1,750	8,323	10,073
Total	212	831	1,043	\$ 151,488	\$ 486,270	\$ 637,758





**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM
SUMMARY OF RETIREES, BENEFICIARIES AND DISABLED
MEMBERS**

as of January 1, 2018

Age	Number			Total Monthly Benefit		
	Males	Females	Total	Males	Females	Total
Under 55	4	13	17	\$ 1,606	\$ 13,621	\$ 15,227
55 to 59	51	158	209	116,906	419,487	536,393
60 to 64	139	414	553	348,320	1,094,697	1,443,017
65 to 69	302	879	1,181	789,407	1,880,918	2,670,325
70 to 74	341	734	1,075	816,586	1,576,096	2,392,682
75 to 79	224	517	741	512,971	916,581	1,429,552
80 to 84	146	334	480	330,913	565,822	896,735
85 to 89	60	194	254	120,937	294,512	415,449
90 to 94	25	101	126	57,106	143,841	200,947
95 & Up	7	35	42	13,930	64,786	78,716
Total	1,299	3,379	4,678	\$3,108,682	\$6,970,361	\$10,079,043

