



**Cavanaugh Macdonald**  
CONSULTING, LLC

*The experience and dedication you deserve*



**Sixty-Sixth  
Annual Actuarial Report**

**OMAHA SCHOOL EMPLOYEES'  
RETIREMENT SYSTEM**

**as of January 1, 2018**





# Cavanaugh Macdonald

CONSULTING, LLC

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April 20, 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'.

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

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

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



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## EXECUTIVE SUMMARY

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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      |
| <b>(4) Total</b>                 | <b>4,872</b> | <b>4,808</b> | <b>1.3</b> |
| 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      |
| <b>(4) Total</b>                 | <b>2,697</b> | <b>2,654</b> | <b>1.6</b> |
| 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      |
| <b>(4) Total</b>                 | <b>7,569</b> | <b>7,462</b> | <b>1.4</b> |
| 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) |
|--|--------------------|
| <b>Net Assets, January 1, 2017</b>         | \$ 1,149           |
| • District, State and Member Contributions | + 92               |
| • Benefit Payments and Refunds             | - 121              |
| • Administrative Expenses                  | - 2                |
| • Investment Return                        | + 116              |
| <b>Net Assets, January 1, 2018</b>         | <b>\$ 1,234</b>    |



**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.

|   | <b>Actuarial Value (\$M)</b> |
|---|------------------------------|
| <b>Actuarial Assets, January 1, 2017</b>                | \$ 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                         |
| <b>Preliminary Actuarial Assets, January 1, 2018</b>    | \$ 1,365                     |
| • Application of Corridor                               | N/A                          |
| <b>Final Actuarial Assets, January 1, 2018</b>          | \$ 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:

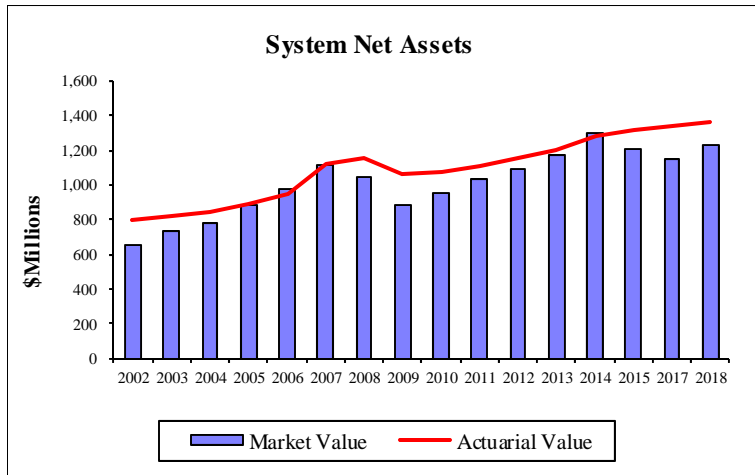
|                              | <u>9/1/2012</u> | <u>9/1/2013</u> | <u>9/1/2014</u> | <u>9/1/2015</u> | <u>1/1/2017</u> | <u>1/1/2018</u> |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Market Value of Assets       | \$ 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 different 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.

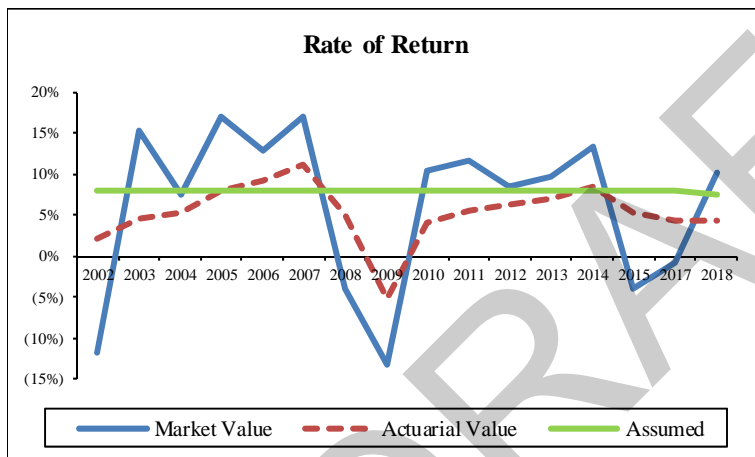




**EXECUTIVE SUMMARY**



*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):

|   |               |
|---|---------------|
| <b>Unfunded Actuarial Accrued Liability, January 1, 2017</b>  | \$ 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           |
| <b>Unfunded Actuarial Accrued Liability, January 1, 2018</b>  | <b>\$ 771</b> |

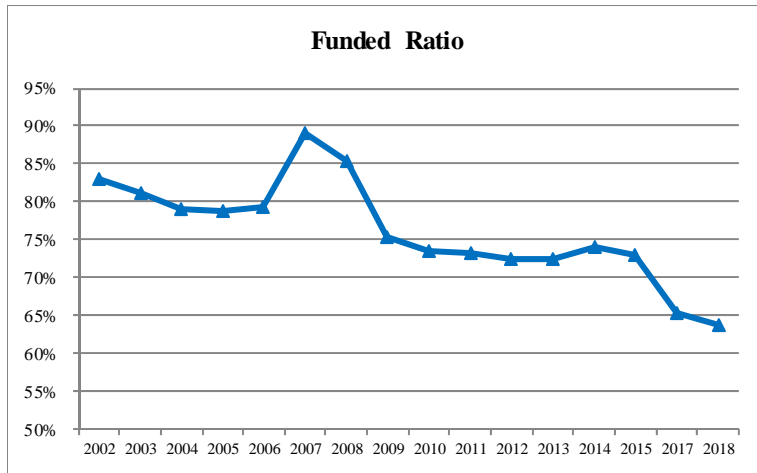
An evaluation of the unfunded actuarial accrued liability on a pure-dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both large numbers) is reflected. Another way to evaluate the unfunded actuarial accrued liability and the progress 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 |
|--|--------|--------|--------|--------|--------|--------|
| <b><i>Using Actuarial Value of Assets:</i></b> |        |        |        |        |        |        |
| Funded Ratio (AVA/AAL)                         | 73%    | 73%    | 74%    | 73%    | 65%    | 64%    |
| Unfunded AAL (AAL - AVA)                       | \$435  | \$454  | \$446  | \$486  | \$713  | \$771  |
| <b><i>Using Market Value of Assets:</i></b>    |        |        |        |        |        |        |
| 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:

| <b>Contribution Rate</b>                     | <b>Actuarial Valuation</b> |                 |
|--|----------------------------|-----------------|
|  | <b>1/1/2018</b>            | <b>1/1/2017</b> |
| 1. Normal Cost                               | 13.00%                     | 13.07%          |
| 2. UAAL Contribution                         | 14.05%                     | 13.22%          |
| 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<br>Value of Assets | Using Market<br>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**

|  | <b>Jan. 1, 2018</b> | <b>Jan. 1, 2017</b> | <b>% Chg</b> |
|--|---------------------|---------------------|--------------|
| <b>SYSTEM MEMBERSHIP</b>                         |                     |                     |              |
| 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          |
| <b>ASSETS AND LIABILITIES</b>                    |                     |                     |              |
| 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          |
| <b>SYSTEM CONTRIBUTIONS</b>                      |                     |                     |              |
| 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     |       |
| <b>Prior Valuation UAAL</b>   | 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) <sup>2</sup>  | 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 <sup>1</sup> | 0          | 0          | (88) <sup>3</sup> | 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         |       |
| <b>UAAL on Valuation Date</b> | <b>191</b>     | <b>223</b>     | <b>240</b> | <b>246</b> | <b>138</b>        | <b>198</b> | <b>349</b> | <b>390</b> | <b>406</b> | <b>437</b> | <b>455</b> | <b>446</b> | <b>486</b> | <b>713</b> | <b>771</b> |       |

<sup>1</sup>Included part-time members who are vested

<sup>2</sup>Increase in member contribution rate

<sup>3</sup>Actuarial 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)**

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**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        |
| <b>Total additions</b>   | <b>\$</b> | <b>208,790,000</b> |

**DEDUCTIONS**

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

**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<br>$[(1) \times 1.075] + [(2c) \times (1.075)^{1/2}]$         |    | 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<br>(4) – (3)   |    | (174,630,000)       |
| 6. Initial Actuarial Value of Assets as of January 1, 2018<br>(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*<br>(6), but not greater than (7a), nor less than (7b) |    | 1,365,013,000       |
| 9. Actuarial value divided by market value<br>(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<br>Actuarial Accrued Liability |           | 771,372,000          |
| Present Value of Future Normal Costs                                       |           | <u>397,004,000</u>   |
| <b>Total Assets</b>  | <b>\$</b> | <b>2,533,389,000</b> |

### 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> |
| <b>Total Liabilities</b>                | <b>\$</b> | <b>2,533,389,000</b> |



**EXHIBIT 4 – UNFUNDED ACTUARIAL ACCRUED LIABILITY**

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**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<br>(1) – (2)          |    | 2,136,385,000        |
| 4. Actuarial Value of Assets                         | \$ | <u>1,365,013,000</u> |
| 5. Unfunded Actuarial Accrued Liability<br>(3) – (4) |    | 771,372,000          |

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

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

| <b>Amortization Bases</b> | <b>Original Amount</b> | <b>1/1/2018 Remaining Payments</b> | <b>Date of Last Payment</b> | <b>Outstanding Balance as of 1/1/2018</b> | <b>Annual Contribution*</b> |
|---------------------------|------------------------|------------------------------------|-----------------------------|---|-----------------------------|
| 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                   |
| <b>Total</b>              |                        |                                    |                             | <b>\$ 771,372,000</b>                     | <b>\$ 49,161,450</b>        |

\* 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%         |

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## EXHIBIT 6 – ANALYSIS OF CONTRIBUTION RATE

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### 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<br>(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<br>(5)/(2b)                                     | 14.05%        |
| 7. Actuarial Recommended Contribution Rate<br>(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<br>(7) - (8d)                                   | 5.39%         |
| 10. Additional District Contribution<br>(9) * (2b)                        | \$ 18,861,681 |



## EXHIBIT 7 – CALCULATION OF ACTUARIAL GAIN/(LOSS)

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### 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<br>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  | \$ 2,124,319,000 |
| 2. | Actuarial Accrued Liability as of January 1, 2018  | \$ 2,136,385,000 |
| 3. | Liability Gain/(Loss)<br>(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<br>(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  | \$ 1,408,670,000 |
| 6. | Actuarial Value of Assets as of January 1, 2018  | \$ 1,365,013,000 |
| 7. | Asset Gain/(Loss)<br>(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)<br>(3) + (7)   | \$ (55,723,000)  |



## EXHIBIT 7 – CALCULATION OF ACTUARIAL GAIN/(LOSS)

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### 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:

| <b>Liability Sources</b>           | <b><u>\$Millions</u></b> |
|------------------------------------|--------------------------|
| 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>               |
| <b>Total Liability Gain/(Loss)</b> | <b>\$ (12.1)</b>         |
| <b>Asset Gain/(Loss)</b>           | <b>\$ (43.7)</b>         |
| <b>Net Actuarial Gain/(Loss)</b>   | <b>\$ (55.8)</b>         |

### 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.





SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER AND OTHER CONTRIBUTING ENTITIES

HISTORICAL FUNDING INFORMATION

Table with 4 columns: Year Ending, Annual Required Contribution (a), Total Employer Contribution\* (b), and Percentage of ARC Contribution (b) / (a). Rows range from 8/31/2005 to 12/31/2017.

\* 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**

| <b>Actuarial Valuation Date</b> | <b>Actuarial Value of Assets (a)</b> | <b>Actuarial Accrued Liability (AAL) (b)</b> | <b>Unfunded AAL (UAAL) (b - a)</b> | <b>Funded Ratio (a / b)</b> | <b>Covered Payroll (c)</b> | <b>UAAL as a Percentage of Covered Payroll [(b - a)/c]</b> |
|---------------------------------|--------------------------------------|--|------------------------------------|-----------------------------|----------------------------|--|
| 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**

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**ESTIMATED BENEFIT PAYMENTS\***

| <b>Year End</b> | <b>Currently<br/>In-Pay</b> | <b>Currently<br/>Not-In-Pay</b> | <b>Total</b>  |
|-----------------|-----------------------------|---------------------------------|---------------|
| 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**

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## **APPENDIX A – HISTORICAL BACKGROUND**

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### **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**

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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**

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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**

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### **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**

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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**

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### **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**

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### **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**

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### **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**

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### **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**

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## APPENDIX B – SUMMARY OF PLAN PROVISIONS

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### 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

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**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

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**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**

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**APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS**

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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**

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

| <b>Certificated:</b> |              | <b>Classified:</b> |              |
|----------------------|--------------|--------------------|--------------|
| <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:

| <b>Certificated:</b> |                                     |                 |  |
|----------------------|-------------------------------------|-----------------|--|
| <u>Age</u>           | <u>1<sup>st</sup> 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>1<sup>st</sup> 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

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|   |   |
|---|---|
| Probability of Electing a Refund:                         | The proportion of terminating vested members electing a refund of member contributions:<br><br>20% for Certificated members<br>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<br>1.0% for members hired on or after 7/1/2013   |

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## **APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS**

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### **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**

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APPENDIX D- MEMBERSHIP DATA

SUMMARY OF MEMBERSHIP DATA

|                         | <u>Active</u> | <u>Inactive<br/>Vesteds</u> | <u>Nonvested<br/>Terminations</u> | <u>Retirees</u> | <u>Beneficiaries</u> | <u>Disabled<br/>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<br>Date<br>January 1* | Total<br>Count | Active Members |                |              |                    |                    |                 | Number             |                       |         | Act/Ret<br>Ratio |
|---------------------------------|----------------|----------------|----------------|--------------|--------------------|--------------------|-----------------|--------------------|-----------------------|---------|------------------|
|                                 |                | Number         | Average<br>Age | Entry<br>Age | Average<br>Service | Annual<br>Pay (\$) | Pay<br>Increase | Inactive<br>Vested | Inactive<br>Nonvested | Retired |                  |
| 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.

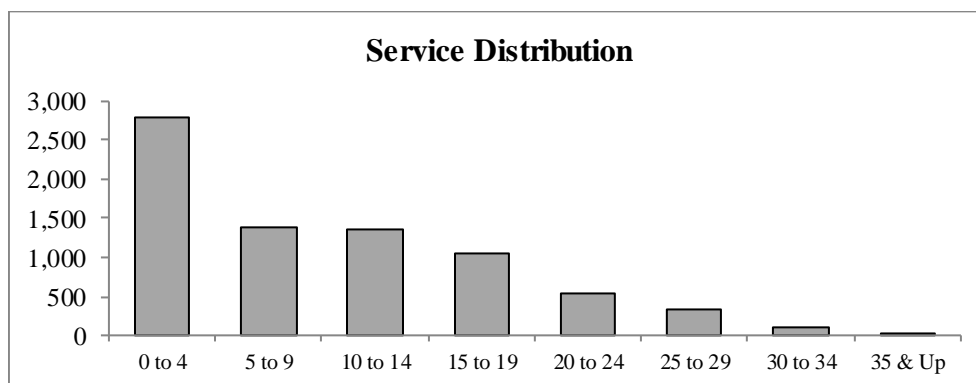
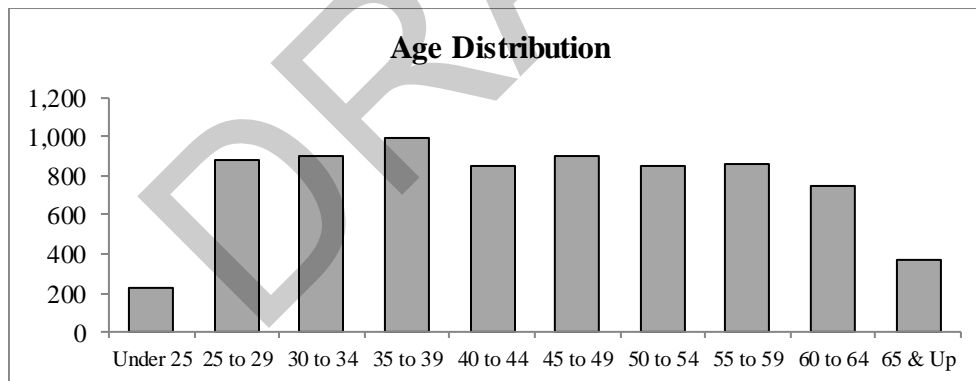


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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          |
| <b>Total</b> | <b>2,785</b> | <b>1,371</b> | <b>1,361</b> | <b>1,053</b> | <b>537</b> | <b>330</b> | <b>96</b> | <b>36</b> | <b>7,569</b> |



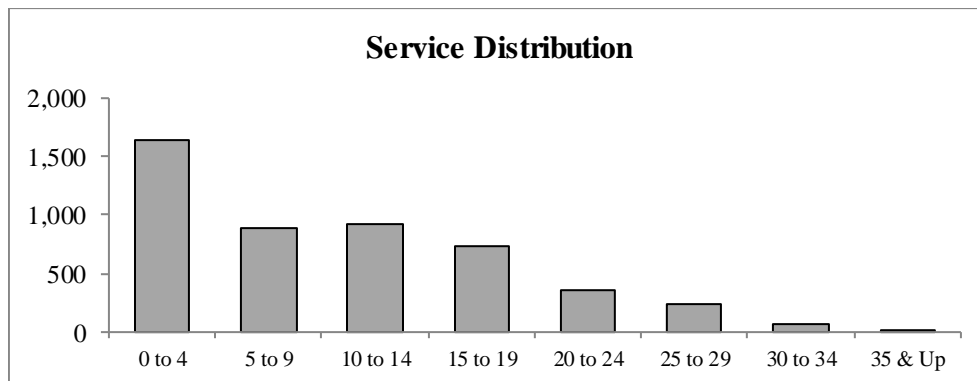
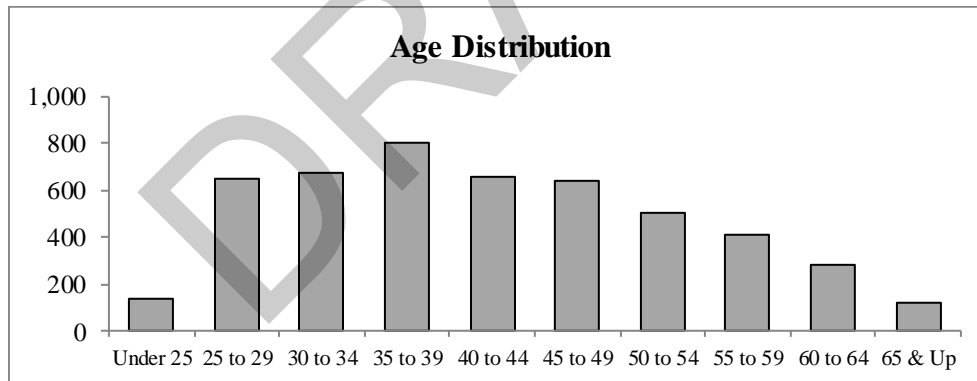


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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          |
| <b>Total</b> | <b>1,639</b> | <b>883</b> | <b>929</b> | <b>733</b> | <b>360</b> | <b>243</b> | <b>67</b> | <b>18</b> | <b>4,872</b> |



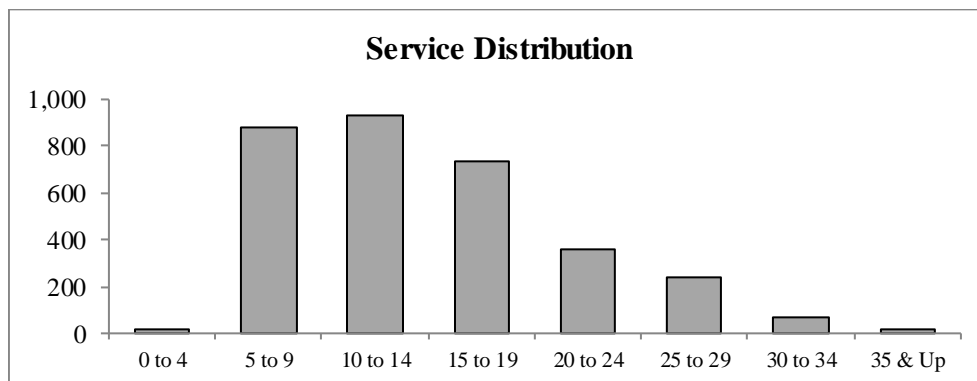
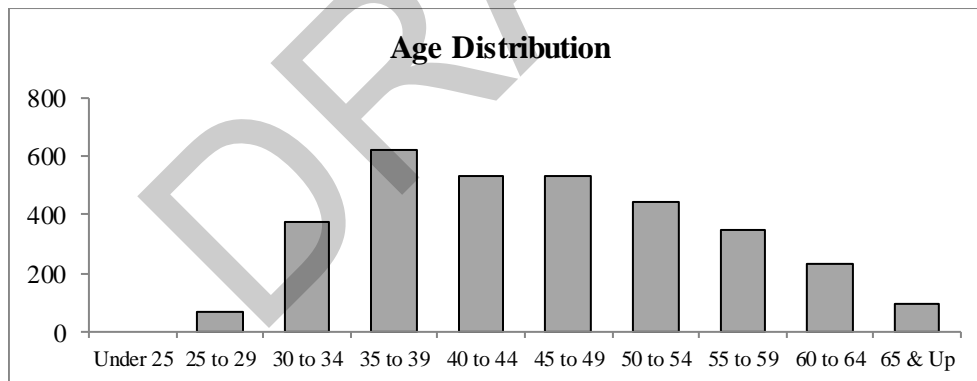


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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           |
| <b>Total</b> | <b>21</b> | <b>880</b> | <b>925</b> | <b>733</b> | <b>360</b> | <b>243</b> | <b>67</b> | <b>18</b> | <b>3,247</b> |







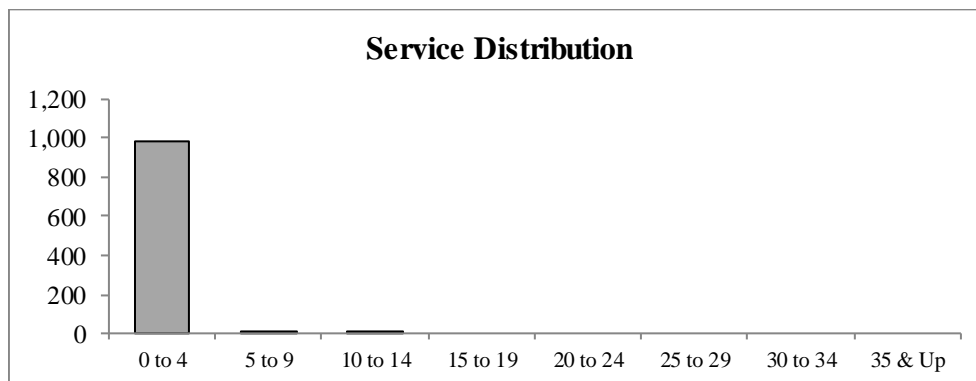
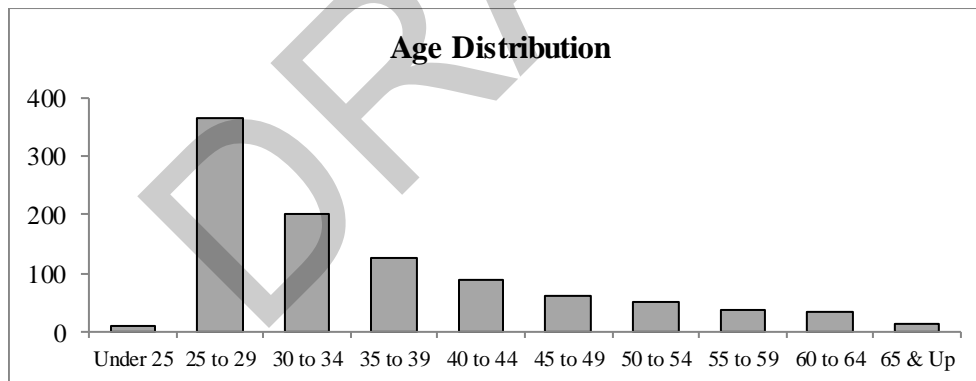
**APPENDIX D- MEMBERSHIP DATA**

**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         |
| <b>Total</b> | <b>981</b> | <b>3</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>988</b> |



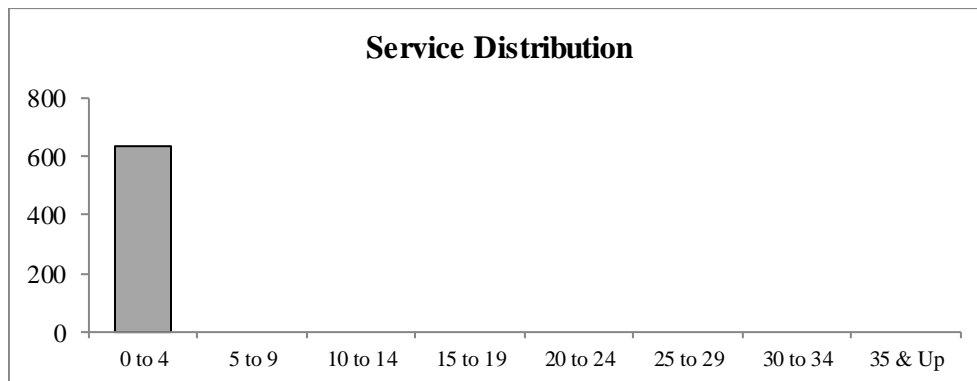
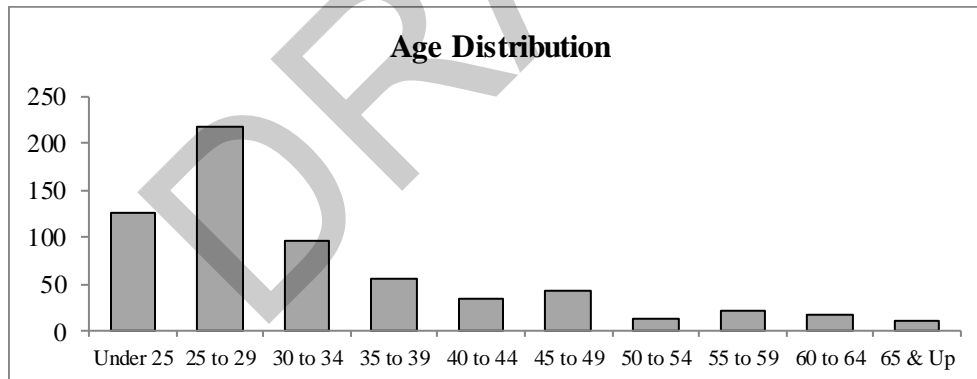


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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         |
| <b>Total</b> | <b>637</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>637</b> |



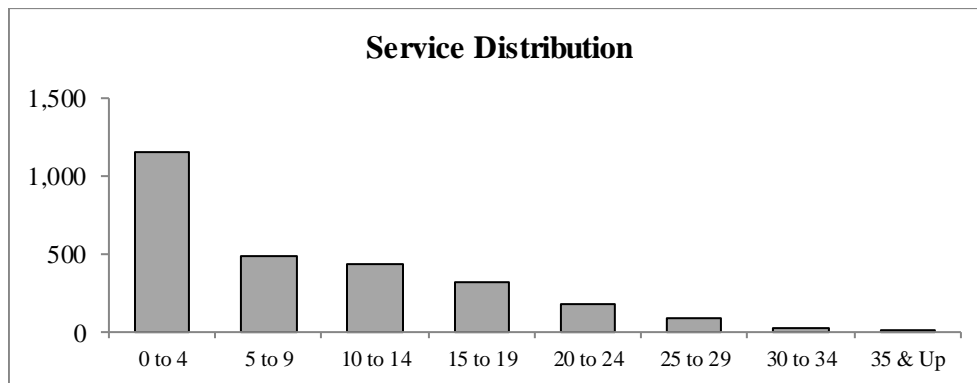
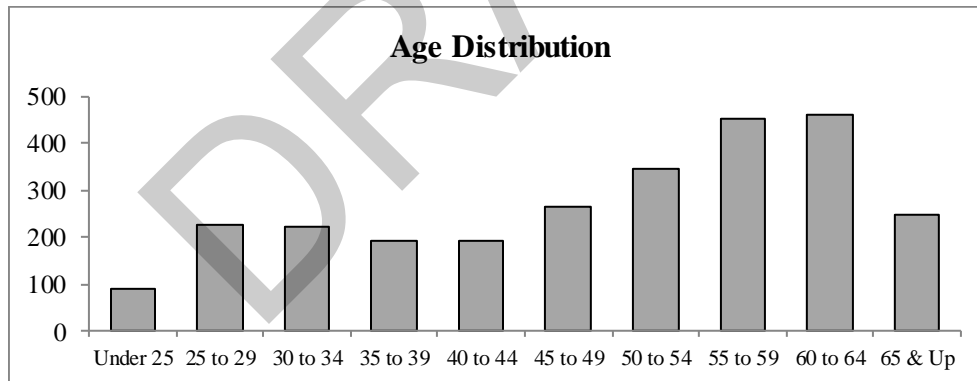


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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          |
| <b>Total</b> | <b>1,146</b> | <b>488</b> | <b>432</b> | <b>320</b> | <b>177</b> | <b>87</b> | <b>29</b> | <b>18</b> | <b>2,697</b> |





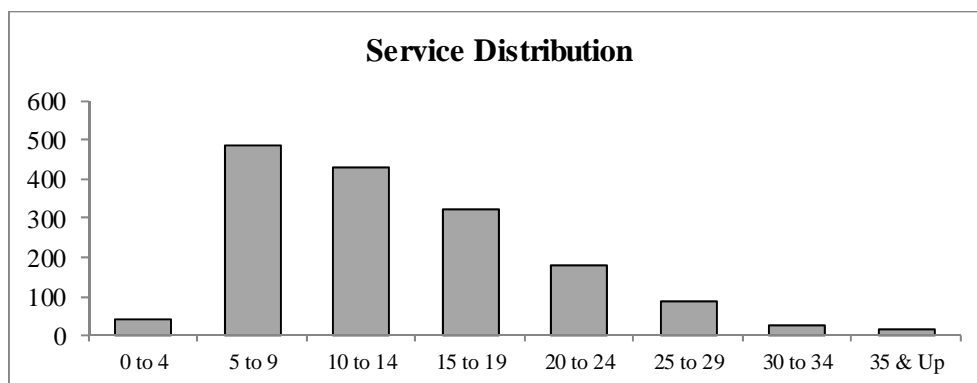
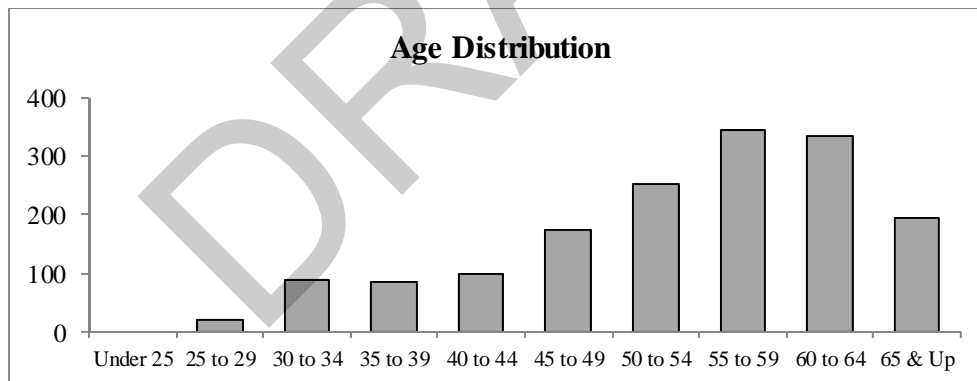
**APPENDIX D- MEMBERSHIP DATA**

**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          |
| <b>Total</b> | <b>40</b> | <b>487</b> | <b>431</b> | <b>320</b> | <b>177</b> | <b>87</b> | <b>29</b> | <b>18</b> | <b>1,589</b> |



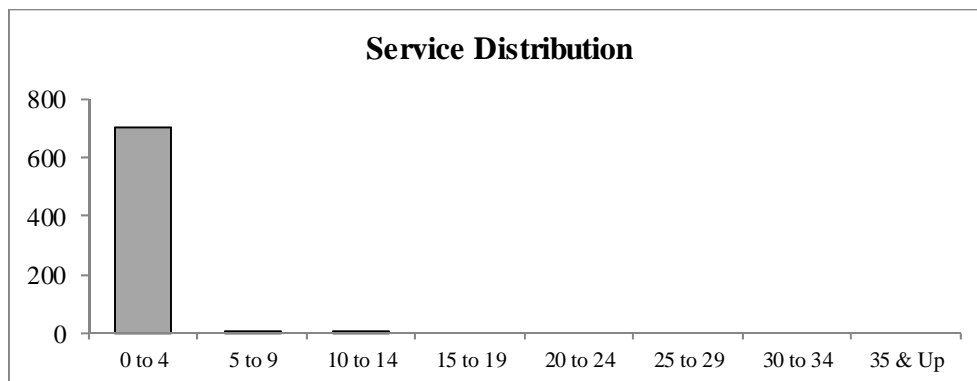
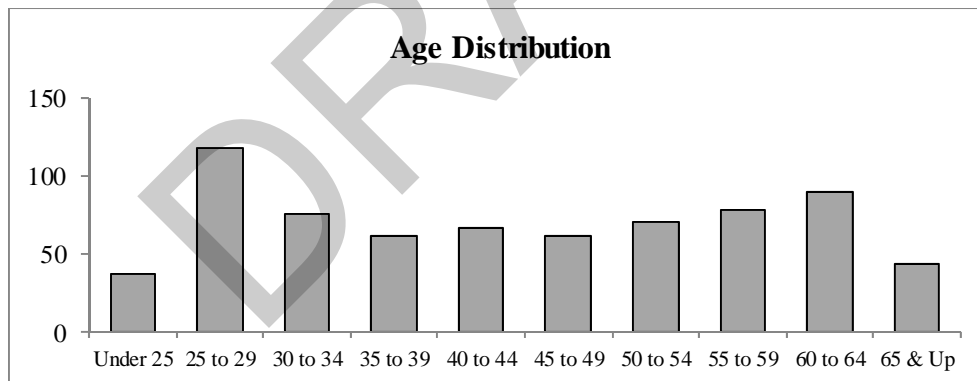


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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         |
| <b>Total</b> | <b>699</b> | <b>1</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>701</b> |



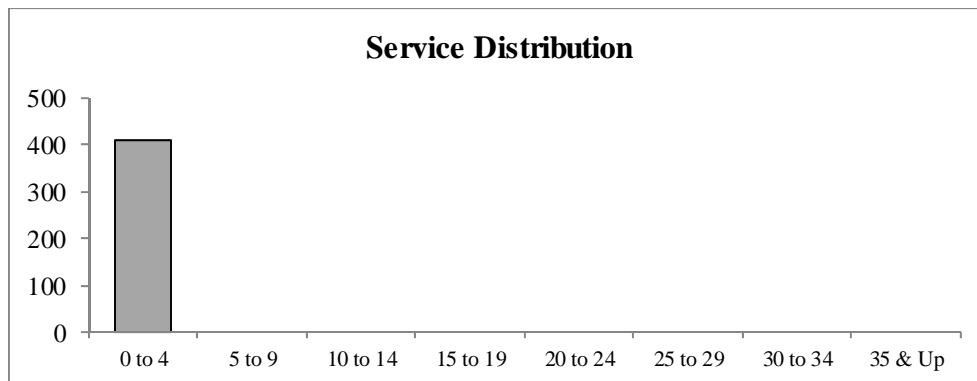
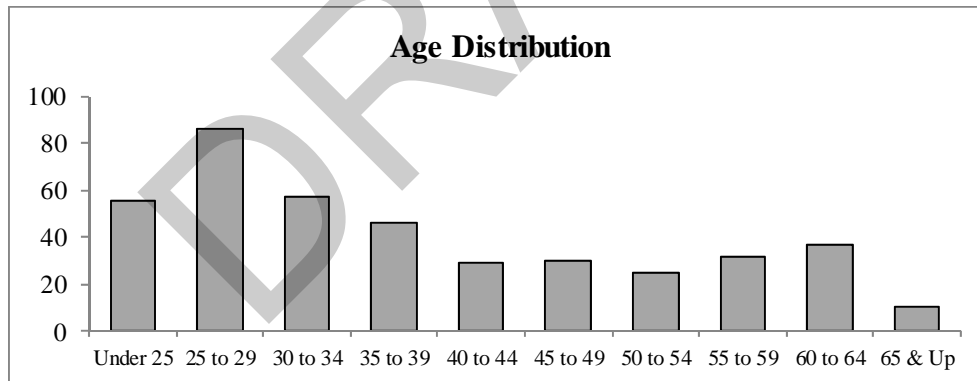


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF ACTIVE MEMBERS**

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         |
| <b>Total</b> | <b>407</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>407</b> |



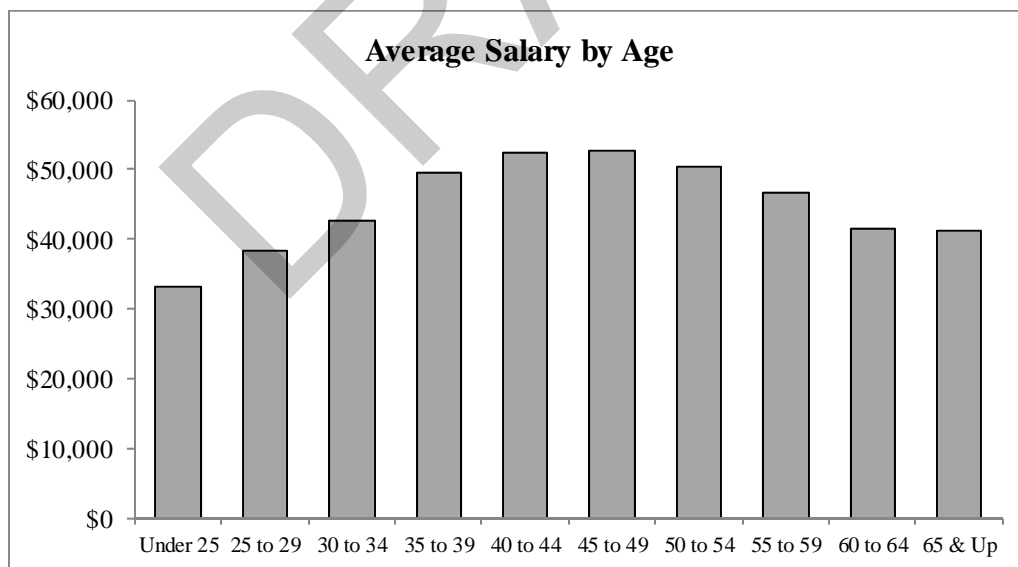


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF ACTIVE MEMBERS**

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            |
| <b>Total</b> | <b>1,947</b> | <b>5,622</b> | <b>7,569</b> | <b>\$ 96,911,216</b> | <b>\$ 253,027,201</b> | <b>\$ 349,938,417</b> |



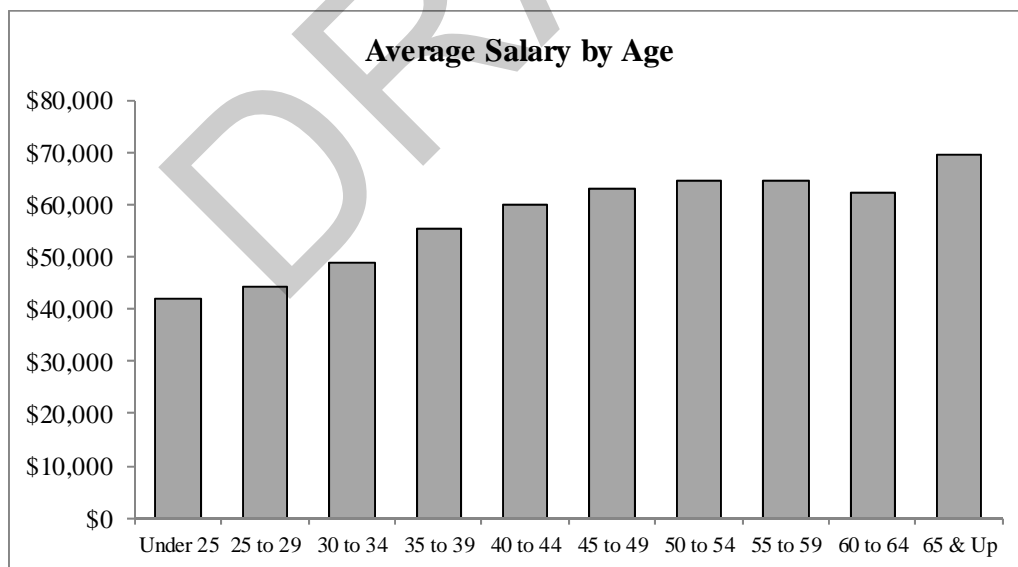


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF ACTIVE MEMBERS**

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             |
| <b>Total</b> | <b>1,122</b> | <b>3,750</b> | <b>4,872</b> | <b>\$ 66,404,094</b> | <b>\$ 210,377,881</b> | <b>\$ 276,781,975</b> |





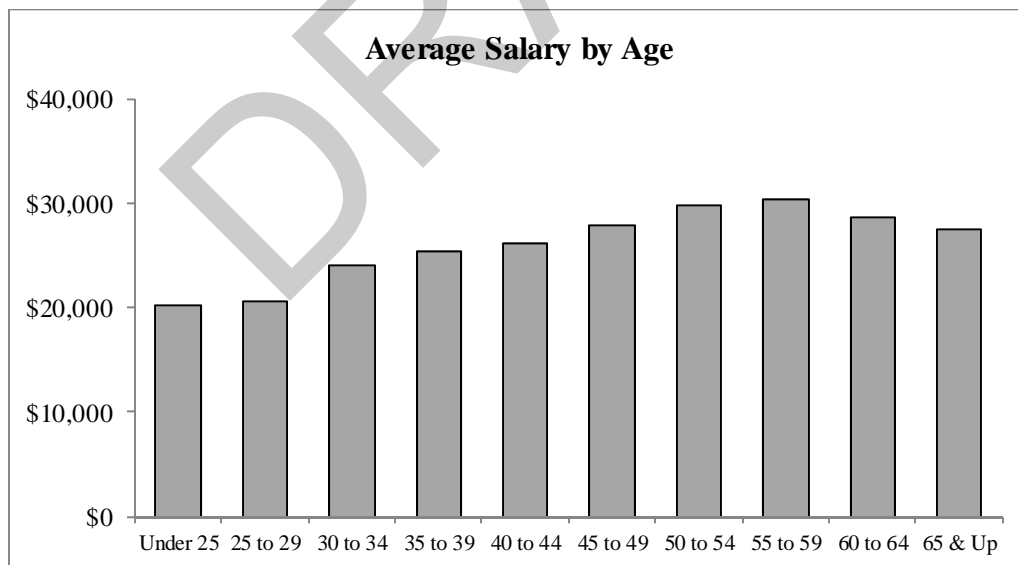


**OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF ACTIVE MEMBERS**

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            |
| <b>Total</b> | <b>825</b> | <b>1,872</b> | <b>2,697</b> | <b>\$ 30,507,122</b> | <b>\$ 42,649,320</b> | <b>\$ 73,156,442</b> |





**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            |
| <b>Total</b> | <b>212</b> | <b>831</b> | <b>1,043</b> | <b>\$ 151,488</b>                       | <b>\$ 486,270</b> | <b>\$ 637,758</b> |





**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              |
| <b>Total</b> | <b>1,299</b> | <b>3,379</b> | <b>4,678</b> | <b>\$3,108,682</b>    | <b>\$6,970,361</b> | <b>\$10,079,043</b> |

