

October 25, 2019

Board of Trustees Educational Retirement Board of New Mexico P.O. Box 26129 Santa Fe, NM 87502-0129

# Subject:GASB 67/68 Reporting and Disclosure Information for the Educational Retirement<br/>Board of New Mexico (ERB) Fiscal Year Ending June 30, 2019

Dear Members of the Board:

This report provides information required by the Educational Retirement Board of New Mexico (ERB) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67, "Financial Reporting for Pension Plans." Additionally, this report provides information required by the governmental employers participating in ERB in connection with the GASB Statement No. 68, "Accounting and Financial Reporting for Pensions." It is our understanding this information will be used by governmental employers in financial reporting for the fiscal year ending June 30, 2020. The information provided herein was prepared for the purpose of assisting ERB and the governmental employers in the compliance with the financial reporting and disclosure requirements of GASB Statement Nos. 67 and 68.

The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than ERB only in its entirety and only with the permission of ERB.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of June 30, 2018. The total pension liability was rolledforward from the valuation date to the plan year ending June 30, 2019 using generally accepted actuarial principles. House Bill 360 made several changes that included benefit provisions for all new hires and the employer contributions which were effective July 1, 2019. Those changes have been reflected in the roll-forward and in the projections used to determine the single discount rate. Please see the actuarial valuation report as of June 30, 2018 for additional discussion of the actuarial valuation that was used in the roll-forward. For purposes of projecting future benefits, it is assumed that the full COLA will be paid in all future years. It is our opinion that the recommended assumptions are internally consistent, reasonable, and comply with the requirements under GASB Statement Nos. 67 and 68.

This report provides the Collective Pension Amounts under GASB Statement No. 68 which will be allocated to the governmental employers participating in ERB.

Board of Trustees October 25, 2019 Page 2

This report is based upon information, furnished to us by ERB, which include benefit provisions, membership information, and financial data. We did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided to us by ERB.

Certain tables included in the Required Supplementary Information should include a 10-year history of information. As provided for in GASB Statement Nos. 67 and 68, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB Statement Nos. 67 and 68. The historical information in this report will begin with the information presented for the ERB fiscal year ending June 30, 2013.

Paragraph 57 of GASB Statement No. 68 indicates that contributions to the pension plan subsequent to the measurement date of the Net Pension Liability and prior to the end of the employer's reporting period should be reported by the employer as a deferred outflow of resources related to pensions. The information contained in this report does not incorporate any contributions reported to ERB subsequent to June 30, 2019.

This report complements the actuarial valuation report as of June 30, 2019, provided for plan funding purposes, which was also provided to ERB and should be considered together as a complete report for the plan year ending June 30, 2019. Please see the actuarial valuation report as of June 30, 2018 and the Actuarial Experience Study report, dated April 21, 2017, for additional discussion of the actuarial valuation that was used in the roll-forward, including the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Mr. Falls and Mr. Randall are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted, Gabriel, Roeder, Smith & Company

R. Ryan Falls, FSA, MAAA, EA Senior Consultant

Dana Woolfrey, FSA, EA, MAAA Consultant & Actuary



### **Summary of Population Statistics**

The total pension liability described in this report is based on the plan membership as of June 30, 2018:

| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 48,919  |
|---|---------|
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits    | 47,512  |
| Active Plan Members   | 60,358  |
| Total Plan Members  | 156,789 |

### **Measurement of the Net Pension Liability**

The net pension liability is measured as the total pension liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the Board's adopted assumptions and methods).

A single discount rate of 7.25% was used to measure the total pension liability as of June 30, 2019. This single discount rate was based on an expected rate of return on pension plan investments of 7.25%. Based on the stated assumptions and the projection of cash flows, the pension plan's fiduciary net position and future contributions were sufficient to finance all projected future benefit payments of current plan members. As a result, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

A single discount rate of 5.69% was used to measure the Total Pension Liability as of June 30, 2018. This single discount rate was based on the expected rate of return on pension plan investments of 7.25% and a municipal bond rate of 3.62%. Based on the stated assumptions and the projection of cash flows, the pension plan's Fiduciary Net Position and future contributions were sufficient to finance the benefit payments through the year 2050. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2050 and the municipal bond rate was applied to all benefit payments after that date.

The source of the municipal bond rate as of June 30, 2018 is the rate for Fixed Income Market Data/Yield Curve/Data Municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index." In describing this index, Fidelity notes that the municipal curves are constructed using option adjusted analytics of a diverse population of over 10,000 tax exempt securities. The rate shown is as of the last date available on or before the measurement date.

The projection of cash flows used to determine this single discount rate assumed that plan member and employer contributions will be made at the current statutory levels. Additionally, contributions received through Alternative Retirement Plan (ARP) and the Return to Work Program are included in the projection of cash flows. These contributions are assumed to remain a level percentage of ERB payroll, where the percentage of payroll is based on the most recent five-year contribution history.



### Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption

Below is a table providing the sensitivity of the net pension liability to changes in the discount rate as of June 30, 2019. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

| Current Single                          |                |    |               |    |               |  |  |  |
|---|----------------|----|---------------|----|---------------|--|--|--|
| 1% Decrease Rate Assumption 1% Increase |                |    |               |    |               |  |  |  |
| 6.25%                                   |                |    | 7.25%         |    | 8.25%         |  |  |  |
| \$                                      | 10,228,778,073 | \$ | 7,577,302,491 | \$ | 5,384,280,133 |  |  |  |



# **Reconciliation of Plan Net Assets**

for Fiscal Year Ending June 30, 2019

| Fiscal Year                          | 2019 |                |  |  |
|--------------------------------------|------|----------------|--|--|
| Additions                            |      |                |  |  |
| Contributions                        |      |                |  |  |
| Employer                             | \$   | 400,576,784    |  |  |
| Employer for ARP members             |      | 5,972,272      |  |  |
| Member                               |      | 300,652,249    |  |  |
| Member service purchases             |      | 2,789,843      |  |  |
| Total Contributions                  | \$   | 709,991,148    |  |  |
| Net Investment Income                |      |                |  |  |
| Investment income                    | \$   | 1,152,429,985  |  |  |
| Investment expenses                  | •    | (114,060,175)  |  |  |
| Net Investment Income                | \$   | 1,038,369,810  |  |  |
| Total Additions                      | \$   | 1,748,360,958  |  |  |
| Deductions                           |      |                |  |  |
| Benefit payments and refunds         | \$   | 1,164,644,987  |  |  |
| Administrative expense               |      | 9,325,712      |  |  |
| Other                                |      | 0              |  |  |
| Total Deductions                     | \$   | 1,173,970,699  |  |  |
| Net Increase in Net Position         | \$   | 574,390,259    |  |  |
| Net Position Restricted for Pensions |      |                |  |  |
| Beginning of Year                    | \$   | 12,970,300,855 |  |  |
| End of Year                          | \$   | 13,544,691,114 |  |  |

This reconciliation only includes the items needed to reconcile the changes in Net Pension Liability during the fiscal year. The Reconciliation of Fiduciary Net Position required by GASB may require additional detail regarding the changes throughout the year.



# **Schedules of Required Supplementary Information**

### Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

| Fiscal year ending June 30,                 | 2019               | 2018              | 2017              | 2016              | 2015              | 2014              | 2013               |
|---|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| Total Pension Liability                     |                    |                   |                   |                   |                   |                   |                    |
| Service Cost                                | \$ 523,131,668     | \$ 494,875,509    | \$ 357,631,074    | \$ 356,873,760    | \$ 346,956,028    | \$ 350,247,724    | \$ 348,266,697     |
| Interest on the Total Pension Liability     | 1,396,375,797      | 1,375,675,929     | 1,424,585,583     | 1,367,647,222     | 1,321,047,780     | 1,254,730,237     | 1,202,676,449      |
| Benefit Changes                             | (4,381,848,971)    | 0                 | 0                 | 0                 | 0                 | 0                 | 10,093,494         |
| Difference between Expected and             |                    |                   |                   |                   |                   |                   |                    |
| Actual Experience                           | (112,651,733)      | (184,089,981)     | (207,788,603)     | 42,491,846        | (86,722,485)      | (114,507,809)     | 0                  |
| Assumption Changes                          | 0                  | 659,787,674       | 4,371,799,749     | 0                 | 299,084,856       | 0                 | (5,035,689,829)    |
| Benefit Payments and Refunds                | (1,164,644,987)    | (1,107,441,427)   | (1,052,675,188)   | (1,012,730,730)   | (957,183,402)     | (907,214,467)     | (853,329,267)      |
| Net Change in Total Pension Liability       | \$ (3,739,638,226) | \$ 1,238,807,704  | \$ 4,893,552,615  | \$ 754,282,098    | \$ 923,182,777    | \$ 583,255,685    | \$ (4,327,982,456) |
| Total Pension Liability - Beginning         | 24,861,631,831     | 23,622,824,127    | 18,729,271,512    | 17,974,989,414    | 17,051,806,637    | 16,468,550,952    | 20,796,533,408     |
| Total Pension Liability - Ending (a)        | \$ 21,121,993,605  | \$ 24,861,631,831 | \$ 23,622,824,127 | \$ 18,729,271,512 | \$ 17,974,989,414 | \$ 17,051,806,637 | \$ 16,468,550,952  |
| Plan Fiduciary Net Position                 |                    |                   |                   |                   |                   |                   |                    |
| Employer Contributions                      | \$ 406,549,056     | \$ 388,723,983    | \$ 395,843,795    | \$ 396,988,557    | \$ 395,129,621    | \$ 362,462,537    | \$ 299,657,530     |
| Member Contributions                        | 303,442,092        | 290,007,133       | 295,982,532       | 295,946,396       | 294,560,840       | 271,513,574       | 250,529,546        |
| Pension Plan Net Investment Income          | 1,038,369,810      | 899,563,575       | 1,347,215,149     | 364,571,123       | 429,738,078       | 1,444,233,347     | 1,016,865,792      |
| Benefit Payments and Refunds                | (1,164,644,987)    | (1,107,441,427)   | (1,052,675,188)   | (1,012,730,730)   | (957,183,402)     | (907,214,467)     | (853,329,267)      |
| Pension Plan Administrative Expense         | (9,325,712)        | (9,908,319)       | (9,848,329)       | (9,660,510)       | (10,597,846)      | (16,617,970)      | (10,985,967)       |
| Other                                       | 0                  | 0                 | 0                 | 0                 | 0                 | 0                 | 0                  |
| Net Change in Plan Fiduciary Net Position   | \$ 574,390,259     | \$ 460,944,945    | \$ 976,517,959    | \$ 35,114,836     | \$ 151,647,291    | \$ 1,154,377,021  | \$ 702,737,634     |
| Plan Fiduciary Net Position - Beginning     | 12,970,300,855     | 12,509,355,910    | 11,532,837,951    | 11,497,723,115    | 11,346,075,824    | 10,191,698,803    | 9,488,961,169      |
| Plan Fiduciary Net Position - Ending (b)    | \$ 13,544,691,114  | \$ 12,970,300,855 | \$ 12,509,355,910 | \$ 11,532,837,951 | \$ 11,497,723,115 | \$ 11,346,075,824 | \$ 10,191,698,803  |
| Net Pension Liability - Ending (a) - (b)    | \$ 7,577,302,491   | \$ 11,891,330,976 | \$ 11,113,468,217 | \$ 7,196,433,561  | \$ 6,477,266,299  | \$ 5,705,730,813  | \$ 6,276,852,149   |
| Plan Fiduciary Net Position as a Percentage |                    |                   |                   |                   |                   |                   |                    |
| of Total Pension Liability                  | 64.13 %            | 52.17 %           | 52.95 %           | 61.58 %           | 63.97 %           | 66.54 %           | 61.89 %            |
| Covered Employee Payroll                    | \$ 2,797,685,921   | \$ 2,678,214,885  | \$ 2,728,361,993  | \$ 2,740,526,669  | \$ 2,730,320,345  | \$ 2,718,100,677  | \$ 2,706,170,349   |
| Net Pension Liability as a Percentage       |                    |                   |                   |                   |                   |                   |                    |
| of Covered Employee Payroll                 | 270.84 %           | 444.00 %          | 407.33 %          | 262.59 %          | 237.23 %          | 209.92 %          | 231.95 %           |
|   |                    |                   |                   |                   |                   |                   |                    |

Notes to Schedule:

The change in total pension liability due to assumption changes for the fiscal year ending June 30, 2013 includes the impact of the new assumptions adopted by the Board on April 26, 2013 as well as the change in the single discount rate between June 30, 2012 and June 30, 2013. The change for the fiscal year ending June 30, 2015 includes the impact of the new assumptions adopted by the Board on June 12, 2015. The change for the fiscal year ending June 30, 2017 includes the impact of the new assumptions adopted by the Board on April 21, 2017 as well as the change in the single discount rate between June 30, 2016 and June 30, 2017. The change for the fiscal year ending June 30, 2018 includes the change in the single discount rate. The change in discount rate for the fiscal year ending June 30, 2019 was included in the benefit changes category as it was due to the funding and benefit changes enacted by House Bill 360 per the response to Question 65 in the GASB 67 implementation guide. The covered employee payroll is the actual payroll, imputed from the total employer contribution for active members, for the fiscal year ending June 30.



# **Schedules of Required Supplementary Information**

Schedule of Employer Contributions

|           | Actuarially   |               | Contribution  |                  | Actual Contribution |
|-----------|---------------|---------------|---------------|------------------|---------------------|
| FY Ending | Determined    | Actual        | Deficiency    | Covered          | as a % of           |
| June 30,  | Contribution  | Contribution  | (Excess)      | Payroll          | Covered Payroll     |
|           |               |               |               |                  |                     |
| 2013      | \$480,700,326 | \$299,657,530 | \$181,042,796 | \$ 2,706,170,349 | 11.07 %             |
| 2014      | 479,884,486   | 362,462,537   | 117,421,949   | 2,718,100,677    | 13.34 %             |
| 2015      | 450,950,584   | 395,129,621   | 55,820,963    | 2,730,320,345    | 14.47 %             |
| 2016      | 465,340,519   | 396,988,557   | 68,351,962    | 2,740,526,669    | 14.49 %             |
| 2017      | 477,840,156   | 395,843,795   | 81,996,361    | 2,728,361,993    | 14.51 %             |
| 2018      | 546,593,275   | 388,723,983   | 157,869,292   | 2,678,214,885    | 14.51 %             |
| 2019      | 587,331,406   | 406,549,056   | 180,782,350   | 2,797,685,921    | 14.53 %             |

# **Notes to Schedule of Contributions**

| Valuation Date: | June 30, 2018  |
|-----------------|--|
| Notes           | Actuarially determined contribtuion rates are calculated as of June<br>30. Members and employers contribute based on statutorily fixed<br>rates. |
|                 | A new set of assumptions was adopted for the June 30, 2017 actuarial valuation and was first reflected for the ADEC determined for the           |

#### Methods and Assumptions for Actuarially Determined Contribution Rate for Fiscal Year:

fiscal year ending 2018.

| Actuarial Cost Method         | Entry Age Normal  |
|-------------------------------|---|
| Amortization Method           | Level Percentage of Payroll   |
| Remaining Amortization Period | Amortized over a closed 30-year period from June 30, 2012, ending<br>June 30, 2042  |
| Asset Valuation Method        | 5-year smoothed market  |
| Inflation                     | 2.50%   |
| Salary Increases              | Composed of 2.50% inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 10 years of service.                                    |
| Investment Rate of Return     | 7.25%   |
| Retirement Age                | Experience-based table of rates based on age and service. Adopted by the Board on April 21, 2017 in conjunction with the six year experience study for the period ending June 30, 2016.     |
| Mortality                     | Healthy Males: RP-2000 Combined Mortality Table with White Collar<br>adjustments, generational mortality improvements with Scale BB<br>from the table's base year of 2000.                  |
|                               | Healthy Females: GRS Southwest Region Teacher Mortality Table, set<br>back one year, generational mortality improvements in accordance<br>with Scale BB from the table's base year of 2012. |
| Other Information:            |   |
| Notes                         | House Bill 360 enacted several changes effective July 1, 2019. The changes included benefit provisions for new hires and employer contributions.  |



## **Governmental Employer Financial Statements**

Pension Expense for Fiscal Year Ending June 30, 2019 To be used for Governmental Employer Reporting for Fiscal Years Ending Between June 30, 2019 and June 30, 2020

#### Expense

| 10. Total Pension Expense   | \$<br>(2,355,738,434) |
|---|-----------------------|
| 9. Recognition of Deferred Outflow (Inflow) of Resources due to Assets      | <br>82,517,033        |
| 8. Recognition of Deferred Outflow (Inflow) of Resources due to Liabilities | 1,251,393,741         |
| 7. Other Changes in Plan Fiduciary Net Position                             | 0                     |
| 6. Administrative Expense   | 9,325,712             |
| 5. Projected Earnings on Plan Investments                                   | (933,191,322)         |
| 4. Member Contributions   | (303,442,092)         |
| 3. Current-Period Benefit Changes   | (4,381,848,971)       |
| 2. Interest on the Total Pension Liability                                  | 1,396,375,797         |
| 1. Total Service Cost   | \$<br>523,131,668     |

### Recognition of Deferred Outflows and Inflows of Resources

According to paragraph 33 of GASB No. 68, *differences between expected and actual experience* and *changes in assumptions* are recognized in pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the 2019 fiscal year, the expected remaining service lives of all employees was 556,601 years for ERB. Additionally, the ERB plan membership (active employees and inactive employees) was 156,789. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the 2019 fiscal year is 3.55 years.

Additionally, *differences between projected and actual earnings on pension plan investments* should be recognized in pension expense using a systematic and rational method over a closed five-year period.

For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.



# **Governmental Employer Financial Statements**

### Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods For ERB Fiscal Year Ending June 30, 2019 To be used for Governmental Employer Reporting for Fiscal Years Ending Between June 30, 2019 and June 30, 2020

#### A. New Deferred Outflows and Inflows of Resources by Source Established in Fiscal Year

|   | Outflows<br>of Resources |   | 0  | Inflows<br>f Resources | Net Outflows<br>of Resources |               |  |
|---|--------------------------|---|----|------------------------|------------------------------|---------------|--|
| 1. Differences between expected and actual experience | \$                       | 0 | \$ | 112,651,733            | \$                           | (112,651,733) |  |
| 2. Assumption Changes                                 |                          | 0 |    | 0                      |                              | 0             |  |
| 3. Net Difference between projected and actual        |                          |   |    |                        |                              |               |  |
| earnings on pension plan investments                  |                          | 0 |    | 105,178,488            |                              | (105,178,488) |  |
| 4. Total  | \$                       | 0 | \$ | 217,830,221            | \$                           | (217,830,221) |  |

#### B. Outflows and Inflows of Resources by Source to be recognized in Current Pension Expense

|   | Outflows<br>of Resources | C  | Inflows<br>f Resources | Net Outflows<br>of Resources |               |
|---|--------------------------|----|------------------------|------------------------------|---------------|
| 1. Differences between expected and actual experience | \$<br>8,678,705          | \$ | 140,371,937            | \$                           | (131,693,232) |
| 2. Assumption Changes                                 | 1,383,086,973            |    | 0                      |                              | 1,383,086,973 |
| 3. Net Difference between projected and actual        |                          |    |                        |                              |               |
| earnings on pension plan investments                  | <br>195,063,686          |    | 112,546,653            |                              | 82,517,033    |
| 4. Total  | \$<br>1,586,829,364      | \$ | 252,918,590            | \$                           | 1,333,910,774 |

#### C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

|   | Outflows<br>of Resources |               | Inflows<br>of Resources |             | -  | Net Outflows<br>of Resources |
|---|--------------------------|---------------|-------------------------|-------------|----|------------------------------|
| 1. Differences between expected and actual experience | \$                       | 0             | \$                      | 198,590,941 | \$ | (198,590,941)                |
| 2. Assumption Changes                                 |                          | 1,067,660,121 |                         | 0           |    | 1,067,660,121                |
| 3. Net Difference between projected and actual        |                          |               |                         |             |    |                              |
| earnings on pension plan investments                  |                          | 105,793,545   |                         | 267,164,697 |    | (161,371,152)                |
| 4. Total  | \$                       | 1,173,453,666 | \$                      | 465,755,638 | \$ | 707,698,028                  |

#### D. Deferred Outflows and Deferred Inflows of Resources by Year to be recognized in Future Pension Expenses

| Fiscal Year Ending | Outflows            |    | Inflows     |    | Net Outflows |  |
|--------------------|---------------------|----|-------------|----|--------------|--|
| June 30            | <br>of Resources    | 0  | f Resources | C  | of Resources |  |
| 2020               | \$<br>1,068,973,924 | \$ | 232,993,653 | \$ | 835,980,271  |  |
| 2021               | 104,133,283         |    | 173,237,507 |    | (69,104,224) |  |
| 2022               | 346,459             |    | 38,488,782  |    | (38,142,323) |  |
| 2023               | 0                   |    | 21,035,696  |    | (21,035,696) |  |
| 2024               | 0                   |    | 0           |    | 0            |  |
| Thereafter         | 0                   |    | 0           |    | 0            |  |
| Total              | \$<br>1,173,453,666 | \$ | 465,755,638 | \$ | 707,698,028  |  |



# **Governmental Employer Financial Statements**

### Recognition of Deferred Outflows and Inflows of Resources For ERB Fiscal Year Ending June 30, 2019 To be used for Governmental Employer Reporting for Fiscal Years Ending Between June 30, 2019 and June 30, 2020

| Year<br>Established Initial Amor   | Initial<br>Recognition<br>punt Period | Current Year<br>Recognition | Remaining<br>Recognition | Remaining<br>Recognition<br>Period |
|--|---------------------------------------|-----------------------------|--------------------------|------------------------------------|
| Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities     |                                       |                             |                          |                                    |
| 2015 (86,722   | 2,485) 3.9                            | 92 0                        | 0                        | 0.00                               |
| 2016 42,491  | 1,846 3.7                             | 77 8,678,705                | 0                        | 0.00                               |
| 2017 (207,788  | 8,603) 3.6                            | 55 (56,928,385)             | ) (37,003,448)           | 0.65                               |
| 2018 (184,089  | 9,981) 3.5                            | 56 (51,710,669)             | (80,668,643)             | 1.56                               |
| 2019 (112,651  | 1,733) 3.5                            | 55 (31,732,883)             | ) (80,918,850)           | 2.55                               |
| Total  |                                       | (131,693,232)               | ) (198,590,941)          |                                    |
| Deferred Outflow (Inflow) due to Assumption Changes   2015 299,084,856 3.92 0 0 0.00                   |                                       |                             |                          |                                    |
| 2016   | 0 3.7                                 |                             | 0                        | 0.00                               |
| 2017 4,371,799   | 9,749 3.6                             | 55 1,197,753,356            | 778,539,681              | 0.65                               |
| 2018 659,787   | 7,674 3.5                             | 56 185,333,617              | 289,120,440              | 1.56                               |
| 2019   | 0 3.5                                 | 55 0                        | 0                        | 2.55                               |
| Total  |                                       | 1,383,086,973               | 1,067,660,121            |                                    |
|  |                                       |                             |                          |                                    |
| Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments |                                       |                             |                          |                                    |
| 2015 449,815   | 5,293 5.0                             | 0 89,963,057                | 0                        | 0.00                               |
| 2016 523,770   | 0,842 5.0                             | 00 104,754,169              | 104,754,166              | 1.00                               |
| 2017 (457,554  | 4,772) 5.0                            | 00 (91,510,955)             | ) (183,021,907)          | 2.00                               |
| 2018 1,732   | 2,299 5.0                             | 00 346,460                  | 1,039,379                | 3.00                               |
| 2019 (105,178  | 8,488) 5.0                            | 00 (21,035,698)             | ) (84,142,790)           | 4.00                               |
| Total  |                                       | 82,517,033                  | (161,371,152)            |                                    |

