

November 9, 2015

Board of Trustees
Teacher Retirement System of Texas
1000 Red River Street
Austin, TX 78701

**Subject: GASB 67 Reporting and Disclosure Information for the year ending
August 31, 2015**

Dear Board of Trustees,

This report provides information required by the Teacher Retirement System of Texas (TRS) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 "Financial Reporting for Pension Plans." The information provided herein was prepared for the purpose of assisting TRS to comply with the financial reporting and disclosure requirements of GASB No. 67.

The calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB No. 67 and is not applicable for purposes of funding the plan. A calculation of the plan's liability for other purposes may produce significantly different results. This report may be provided to parties other than TRS only in its entirety and only with the permission of TRS.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of August 31, 2015. The total pension liability was determined as of the end of the plan year, August 31, 2015. It is our opinion that the recommended assumptions are internally consistent, reasonable, and comply with the requirements under GASB No. 67.

This report is based upon information, furnished to us by TRS, 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 TRS.

The final section of the report titled "Calculation of the Single Discount Rate" is not a required disclosure item for your financial statements. However, it is possible that your auditors will request this information which is why it is included in the report.

Certain tables included in the Required Supplementary Information should include a 10-year history of information. As provided for in GASB No. 67, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB No. 67. The historical information in this report will begin with the information presented for the fiscal year ending August 31, 2014.

This report compliments the actuarial valuation report that was provided to TRS and should be considered together as a complete report for the plan year ending August 31, 2015. Please see the actuarial valuation report as August 31, 2015 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. The actuarial cost method used to determine the GASB No. 67 net pension liability is the Individual Entry Age Normal method as prescribed in GASB No. 67.

The projected cash flows from the employer are based on contributions for the most recent five year period, modified on consideration of subsequent events. Changes in statute in the 2013 legislative session and the subsequent follow through are indicators that the legislature is committed to an increase in funding levels for the pension funds. Considering the above events, projected employer contributions are based on current statutory funding levels.

The actuarial methods and assumptions have been selected by the Board of Trustees of the Teacher Retirement System of Texas based upon GRS analysis and recommendations. The Board of Trustees has sole authority to determine the actuarial assumptions used for the plan. The actuarial methods and assumptions are primarily based on a study of actual experience for the four year period ending August 31, 2014 and were adopted in September 2015. With the exception of the post-retirement mortality rates and the decrease in the assumption for general wage inflation, the changes to overall assumptions and methods had a minor impact on results. Post-Retirement Mortality rates for current and future retirees are prepared in accordance with the Actuarial Standards of Practice No. 35 which advises actuaries to *“adjust mortality rates to reflect mortality improvement prior to the measurement date and to include an assumption as to the expected mortality improvement after the measurement date.”*

To the best of our knowledge, the information contained with this report is accurate and fairly represents the actuarial position of the Teacher Retirement System of Texas. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Mr. Newton is a member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Lewis Ward
Consultant



Joe Newton, FSA, EA, MAAA
Sr. Consultant

SUMMARY OF POPULATION STATISTICS

The total pension liability described in this report is based on the plan membership as of August 31, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	377,738
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	252,560
Active Plan Members	<u>828,945</u>
Total Plan Members	1,459,243

The Average Expected Remaining Service Life (AERSL) of 6.9029 is based on the membership information as of the beginning of the fiscal year. The AERSL of the active employees was 11.3898 years. This calculates to a total remaining service years of $11.3898 \times 857,342 = 9,764,953.91$ years. Divided by the total membership of 1,414,607 as of August 31, 2014 yields an AERSL of 6.9029 years.

Measurement of the Net Pension Liability

The net pension liability is measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

A single discount rate of 8.000% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 8.000%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions, the employer contributions, and the state contributions will be made at the rates set by the legislature during the 2013 legislative session (please see the actuarial valuation report for a description of these rates).

Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, 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.

Actuarial Assumptions - The total pension liability is determined by an actuarial valuation. The actuarial assumptions used to determine the total pension liability were based on the results of an experience study for the four-year period ending August 31, 2014. The active mortality rates were based on 90% of the RP-2014 Employee Mortality Tables for males and females, with full generational mortality using Scale BB. the post-retirement mortality rates for healthy lives were based on the 2015 TRS of Texas Healthy Pensioner Mortality Tables, with full generational projection using Scale BB.

The following methods and assumptions were applied to this measurement period:

Valuation Date	August 31, 2015
Actuarial Cost Method	Individual Entry Age Normal actuarial cost method as required by GASB 67
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Single Discount Rate	8.00%
Long-term Expected Return	8.00%
Municipal Bond Rate	N/A*
Last year ending August 31 in the 2015 to 2114 projection period (100 years)	2114
Inflation	2.50%
Salary Increases	3.50% to 9.50% including inflation
Ad hoc post-employment benefit changes	None

* If a municipal bond rate was to be used, the rate would be 3.790% as of August 2015 (i.e. the weekly rate closest to but not later than the Measurement Date). The source for the rate is the Federal Reserve Statistical Release H.15, citing the Bond Buyer Index of general obligation bonds with 20 years to maturity and an average AA credit rating.

Below is a table providing the sensitivity of the net pension liability to changes in the discount rate. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher than the single discount rate:

**SENSITIVITY OF THE NET PENSION LIABILITY
TO THE SINGLE DISCOUNT RATE ASSUMPTION**

	Current Single Discount	
	Rate Assumption	
1% Decrease		1% Increase
7.00%	8.00%	9.00%
\$55,384,701,778	\$35,348,668,960	\$18,659,898,872

RECONCILIATION OF FIDUCIARY NET POSITION

for Year Ended August 31, 2015

	<u>Year Ending August 31, 2015</u>
Additions	
Contributions	
Non-Employer Contributing Entity	\$ 1,591,482,988
Employer	1,377,972,653
Employee	2,576,024,311
Other	<u>71,294,700</u>
Total Contributions	<u>\$ 5,616,774,652</u>
Investment Income	
Net Appreciation in Fair Value of Investments	\$ (7,025,769,595)
Interest and Dividends	6,872,214,348
Less Investment Expense	<u>(259,203,853)</u>
Net Investment Income	<u>\$ (412,759,100)</u>
Other	<u>\$ 3,733,133</u>
Total Additions	<u>\$ 5,207,748,685</u>
Deductions	
Benefit payments, including refunds of employee contributions	\$ 9,326,452,640
Pension Plan Administrative Expense	35,556,979
Other	<u>86,275,939</u>
Total Deductions	<u>\$ 9,448,285,558</u>
Net Increase (Decrease) in Net Position	\$ (4,240,536,873)
Net Position Restricted for Pensions	
Beginning of Year	<u>\$ 132,779,243,085</u>
End of Year	<u><u>\$ 128,538,706,212</u></u>

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION**Schedule of Changes in the Employer's Net Pension Liability and Related Ratios**

Fiscal year ending August 31,	2015	2014
Total Pension Liability		
Service Cost	\$ 4,225,448,833	\$ 3,965,994,265
Interest on the Total Pension Liability	\$ 12,555,645,919	11,813,445,940
Benefit Changes	\$ -	-
Difference between Expected and Actual Experience	\$ (1,588,618,832)	482,638,639
Assumption Changes	\$ (1,474,723,994)	2,028,541,342
Benefit Payments	\$ (8,935,111,459)	(8,548,642,525)
Refunds	\$ (391,341,181)	(410,600,319)
Net Change in Total Pension Liability	\$ 4,391,299,286	9,331,377,342
Total Pension Liability - Beginning	\$ 159,496,075,886	150,164,698,544
Total Pension Liability - Ending (a)	<u>\$ 163,887,375,172</u>	<u>\$ 159,496,075,886</u>
Plan Fiduciary Net Position		
Non-Contributing Entity	\$ 1,591,482,988	1,530,623,829
Employer Contributions	\$ 1,377,972,653	\$ 984,552,391
Employee Contributions	\$ 2,576,024,311	2,357,686,000
Pension Plan Net Investment Income	\$ (412,759,100)	19,434,430,034
Benefit Payments	\$ (8,935,111,459)	(8,548,642,525)
Refunds	\$ (391,341,181)	(410,600,319)
Pension Plan Administrative Expense	\$ (35,556,979)	(41,904,190)
Other	\$ (11,248,106)	84,954,006
Net Change in Plan Fiduciary Net Position	\$ (4,240,536,873)	15,391,099,226
Plan Fiduciary Net Position - Beginning	\$ 132,779,243,085	117,388,143,859
Plan Fiduciary Net Position - Ending (b)	<u>\$ 128,538,706,212</u>	<u>\$ 132,779,243,085</u>
Net Pension Liability - Ending (a) - (b)	35,348,668,960	26,716,832,801
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	78.43 %	83.25 %
Covered Employee Payroll	\$ 38,448,124,045	\$ 36,654,290,800
Net Pension Liability as a Percentage of Covered Employee Payroll	91.94 %	72.89 %
Notes to Schedule:		
N/A		

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of the Net Pension Liability (Historical)

Last 10 Fiscal Years

<u>FY Ending August 31,</u>	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a % of Total Pension Liability</u>	<u>Covered Payroll</u>	<u>Net Pension Liability as a % of Covered Payroll</u>
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013	\$ 150,164,698,544	\$ 117,388,143,859	\$ 32,776,554,685	78.17%	\$ 35,188,983,344	93.14%
2014	159,496,075,886	132,779,243,085	26,716,832,801	83.25%	36,654,290,800	72.89%
2015	163,887,375,172	128,538,706,212	35,348,668,960	78.43%	38,448,124,045	91.94%

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Contributions

FY Ending August 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	3,177,927,012	2,515,176,220	\$ 662,750,792	36,654,290,800	6.86%
2015	3,171,970,234	2,969,455,641	202,514,593	38,448,124,045	7.72%

NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date: August 31, 2014 (to determine contribution rate for fiscal year ending August 31, 2015).

Notes: Actuarially determined contribution rates are calculated as of August 31 preceding fiscal year. Members and employers contribute based on statutorily fixed rates.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	For funding purposes, the Ultimate Entry Age Normal actuarial cost method is used
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	29.8 years
Asset Valuation Method	5 Year smoothed market
Inflation	2.50%
Salary Increases	3.50% to 9.50% including inflation
Investment Rate of Return	8.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2011 valuation pursuant to an experience study of the period September 1, 2006 through August 31, 2010.
Mortality	Active Mortality: 1994 Group Annuity Mortality Table set back 6 years for both males and females. Post-Retirement: Client specific tables multiplied by 80%.

Other Information:

Notes There were no benefit changes during the year.

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The *single discount rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 8.000%; the municipal bond rate is 3.790%; and the resulting single discount rate is 8.000%.

The source of the municipal bond rate is the Federal Reserve Statistical Release H.15, citing the Bond Buyer Index of general obligation bonds with 20 years to maturity and mixed credit quality. In describing their index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Contributions Beginning September 1, 2015

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for All Employees	Employer Normal Cost Contributions Related to Payroll of Future Employees	Total Contributions
1	37,016,264,799	\$ 2,604,226,380	\$ 39,620,491,179	\$ 2,665,171,066	\$ 3,050,777,821	\$ (70,834,958)	\$ 5,645,113,929
2	35,738,596,785	\$ 4,872,406,673	40,611,003,458	2,751,871,952	3,127,047,266	(108,167,428)	5,770,751,790
3	34,699,596,224	\$ 6,926,682,320	41,626,278,545	2,671,868,909	3,205,223,448	(153,772,348)	5,723,320,009
4	33,752,808,064	\$ 8,914,127,444	42,666,935,508	2,598,966,221	3,285,354,034	(197,893,629)	5,686,426,626
5	32,837,898,261	\$ 10,895,710,635	43,733,608,896	2,528,518,166	3,367,487,885	(241,884,776)	5,654,121,275
6	31,968,942,216	\$ 12,858,006,903	44,826,949,118	2,461,608,551	3,451,675,082	(285,447,753)	5,627,835,880
7	31,127,771,603	\$ 14,819,851,243	45,947,622,846	2,396,838,413	3,537,966,959	(329,000,698)	5,605,804,674
8	30,291,387,075	\$ 16,804,926,343	47,096,313,417	2,332,436,805	3,626,416,133	(373,069,365)	5,585,783,573
9	29,442,845,895	\$ 18,830,875,358	48,273,721,253	2,267,099,134	3,717,076,536	(418,045,433)	5,566,130,237
10	28,564,976,778	\$ 20,915,587,506	49,480,564,284	2,199,503,212	3,810,003,450	(464,326,043)	5,545,180,619
11	27,650,337,248	\$ 23,067,241,144	50,717,578,391	2,129,075,968	3,905,253,536	(512,092,753)	5,522,236,751
12	26,675,529,938	\$ 25,309,987,913	51,985,517,851	2,054,015,805	4,002,884,875	(561,881,732)	5,495,018,948
13	25,638,566,599	\$ 27,646,589,198	53,285,155,797	1,974,169,628	4,102,956,996	(613,754,280)	5,463,372,344
14	24,548,751,750	\$ 30,068,532,942	54,617,284,692	1,890,253,885	4,205,530,921	(667,521,431)	5,428,263,375
15	23,417,298,191	\$ 32,565,418,618	55,982,716,810	1,803,131,961	4,310,669,194	(722,952,293)	5,390,848,862
16	22,251,850,743	\$ 35,130,433,987	57,382,284,730	1,713,392,507	4,418,435,924	(779,895,635)	5,351,932,796
17	21,062,511,738	\$ 37,754,330,110	58,816,841,848	1,621,813,404	4,528,896,822	(838,146,128)	5,312,564,098
18	19,857,679,036	\$ 40,429,583,859	60,287,262,894	1,529,041,286	4,642,119,243	(897,536,762)	5,273,623,767
19	18,663,052,059	\$ 43,131,392,408	61,794,444,467	1,437,055,009	4,758,172,224	(957,516,911)	5,237,710,322
20	17,494,781,712	\$ 45,844,523,866	63,339,305,578	1,347,098,192	4,877,126,530	(1,017,748,430)	5,206,476,292
21	16,372,793,862	\$ 48,549,994,356	64,922,788,218	1,260,705,127	4,999,054,693	(1,077,809,875)	5,181,949,945
22	15,313,469,833	\$ 51,232,388,090	66,545,857,923	1,179,137,177	5,124,031,060	(1,137,359,016)	5,165,809,221
23	14,315,757,821	\$ 53,893,746,550	68,209,504,371	1,102,313,352	5,252,131,837	(1,196,441,173)	5,158,004,016
24	13,368,099,372	\$ 56,546,642,609	69,914,741,981	1,029,343,652	5,383,435,133	(1,255,335,466)	5,157,443,319
25	12,467,649,056	\$ 59,194,961,474	71,662,610,530	960,008,977	5,518,021,011	(1,314,128,145)	5,163,901,843
26	11,602,387,808	\$ 61,851,787,986	73,454,175,793	893,383,861	5,655,971,536	(1,373,109,693)	5,176,245,704
27	10,756,699,118	\$ 64,533,831,070	75,290,530,188	828,265,832	5,797,370,824	(1,432,651,050)	5,192,985,606
28	9,912,797,825	\$ 67,259,995,618	77,172,793,443	763,285,432	5,942,305,095	(1,493,171,903)	5,212,418,624
29	9,059,592,776	\$ 70,042,520,503	79,102,113,279	697,588,644	6,090,862,722	(1,554,943,955)	5,233,507,411
30	8,183,341,020	\$ 72,896,325,091	81,079,666,111	630,117,259	6,243,134,291	(1,618,298,417)	5,254,953,133
31	7,328,080,220	\$ 75,778,577,544	83,106,657,764	564,262,177	6,399,212,648	(1,682,284,421)	5,281,190,404
32	6,504,689,491	\$ 78,679,634,717	85,184,324,208	500,861,091	6,559,192,964	(1,746,687,891)	5,313,366,164
33	5,716,000,191	\$ 81,597,932,122	87,313,932,313	440,132,015	6,723,172,788	(1,811,474,093)	5,351,830,710
34	4,956,695,323	\$ 84,540,085,298	89,496,780,621	381,665,540	6,891,252,108	(1,876,789,894)	5,396,127,754
35	4,206,797,410	\$ 87,527,402,727	91,734,200,136	323,923,401	7,063,533,411	(1,943,108,341)	5,444,348,471
36	3,480,476,286	\$ 90,547,078,854	94,027,555,140	267,996,674	7,240,121,746	(2,010,145,151)	5,497,973,269
37	2,800,642,561	\$ 93,577,601,457	96,378,244,018	215,649,477	7,421,124,789	(2,077,422,752)	5,559,351,514
38	2,188,773,708	\$ 96,598,926,411	98,787,700,119	168,535,576	7,606,652,909	(2,144,496,166)	5,630,692,319
39	1,680,319,253	\$ 99,577,073,368	101,257,392,622	129,384,583	7,796,819,232	(2,210,611,029)	5,715,592,786
40	1,289,512,422	\$ 102,499,315,015	103,788,827,437	99,292,457	7,991,739,713	(2,275,484,793)	5,815,547,377
41	992,525,866	\$ 105,391,022,258	106,383,548,123	76,424,492	8,191,533,205	(2,339,680,694)	5,928,277,003
42	755,994,393	\$ 108,287,142,433	109,043,136,826	58,211,568	8,396,321,536	(2,403,974,562)	6,050,558,542
43	568,857,347	\$ 111,200,357,900	111,769,215,247	43,802,016	8,606,229,574	(2,468,647,945)	6,181,383,645
44	420,045,815	\$ 114,143,399,813	114,563,445,628	32,343,528	8,821,385,313	(2,533,983,476)	6,319,745,365
45	302,847,453	\$ 117,124,684,315	117,427,531,769	23,319,254	9,041,919,946	(2,600,167,992)	6,465,071,208
46	212,775,428	\$ 120,150,444,635	120,363,220,063	16,383,708	9,267,967,945	(2,667,339,871)	6,617,011,782
47	142,937,768	\$ 123,229,362,797	123,372,300,565	11,006,208	9,499,667,143	(2,735,691,854)	6,774,981,497
48	90,142,660	\$ 126,366,465,419	126,456,608,079	6,940,985	9,737,158,822	(2,805,335,532)	6,938,764,275
49	51,132,135	\$ 129,566,891,145	129,618,023,281	3,937,174	9,980,587,793	(2,876,384,983)	7,108,139,984
50	24,442,768	\$ 132,834,031,095	132,858,473,863	1,882,093	10,230,102,487	(2,948,915,490)	7,283,069,090

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Contributions Beginning September 1, 2015 (continued)

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for All Employees	Employer Normal Cost Contributions Related to Payroll of Future Employees	Total Contributions
51	9,295,916	\$ 136,170,639,793	136,179,935,709	715,786	10,485,855,050	(3,022,988,203)	7,463,582,633
52	3,255,217	\$ 139,581,178,885	139,584,434,102	250,652	10,748,001,426	(3,098,702,171)	7,649,549,907
53	1,382,444	\$ 143,072,662,511	143,074,044,955	106,448	11,016,701,462	(3,176,213,108)	7,840,594,802
54	532,732	\$ 146,650,363,347	146,650,896,079	41,020	11,292,118,998	(3,255,638,066)	8,036,521,952
55	137,337	\$ 150,317,031,144	150,317,168,480	10,575	11,574,421,973	(3,337,038,091)	8,237,394,457
56	19,428	\$ 154,075,078,265	154,075,097,692	1,496	11,863,782,522	(3,420,466,737)	8,443,317,281
57	3,326	\$ 157,926,971,808	157,926,975,135	256	12,160,377,085	(3,505,978,774)	8,654,398,567
58	-	\$ 161,875,149,513	161,875,149,513	-	12,464,386,513	(3,593,628,319)	8,870,758,194
59	-	\$ 165,922,028,251	165,922,028,251	-	12,775,996,175	(3,683,469,027)	9,092,527,148
60	-	\$ 170,070,078,957	170,070,078,957	-	13,095,396,080	(3,775,555,753)	9,319,840,327
61	-	\$ 174,321,830,931	174,321,830,931	-	13,422,780,982	(3,869,944,647)	9,552,836,335
62	-	\$ 178,679,876,704	178,679,876,704	-	13,758,350,506	(3,966,693,263)	9,791,657,243
63	-	\$ 183,146,873,622	183,146,873,622	-	14,102,309,269	(4,065,860,594)	10,036,448,675
64	-	\$ 187,725,545,463	187,725,545,463	-	14,454,867,001	(4,167,507,109)	10,287,359,892
65	-	\$ 192,418,684,099	192,418,684,099	-	14,816,238,676	(4,271,694,787)	10,544,543,889
66	-	\$ 197,229,151,202	197,229,151,202	-	15,186,644,643	(4,378,487,157)	10,808,157,486
67	-	\$ 202,159,879,982	202,159,879,982	-	15,566,310,759	(4,487,949,336)	11,078,361,423
68	-	\$ 207,213,876,981	207,213,876,981	-	15,955,468,528	(4,600,148,069)	11,355,320,459
69	-	\$ 212,394,223,906	212,394,223,906	-	16,354,355,241	(4,715,151,771)	11,639,203,470
70	-	\$ 217,704,079,503	217,704,079,503	-	16,763,214,122	(4,833,030,565)	11,930,183,557
71	-	\$ 223,146,681,491	223,146,681,491	-	17,182,294,475	(4,953,856,329)	12,228,438,146
72	-	\$ 228,725,348,528	228,725,348,528	-	17,611,851,837	(5,077,702,737)	12,534,149,100
73	-	\$ 234,443,482,242	234,443,482,242	-	18,052,148,133	(5,204,645,306)	12,847,502,827
74	-	\$ 240,304,569,298	240,304,569,298	-	18,503,451,836	(5,334,761,438)	13,168,690,398
75	-	\$ 246,312,183,530	246,312,183,530	-	18,966,038,132	(5,468,130,474)	13,497,907,658
76	-	\$ 252,469,988,118	252,469,988,118	-	19,440,189,085	(5,604,833,736)	13,835,355,349
77	-	\$ 258,781,737,821	258,781,737,821	-	19,926,193,812	(5,744,954,580)	14,181,239,232
78	-	\$ 265,251,281,267	265,251,281,267	-	20,424,348,658	(5,888,578,444)	14,535,770,214
79	-	\$ 271,882,563,298	271,882,563,298	-	20,934,957,374	(6,035,792,905)	14,899,164,469
80	-	\$ 278,679,627,381	278,679,627,381	-	21,458,331,308	(6,186,687,728)	15,271,643,580
81	-	\$ 285,646,618,065	285,646,618,065	-	21,994,789,591	(6,341,354,921)	15,653,434,670
82	-	\$ 292,787,783,517	292,787,783,517	-	22,544,659,331	(6,499,888,794)	16,044,770,537
83	-	\$ 300,107,478,105	300,107,478,105	-	23,108,275,814	(6,662,386,014)	16,445,889,800
84	-	\$ 307,610,165,058	307,610,165,058	-	23,685,982,709	(6,828,945,664)	16,857,037,045
85	-	\$ 315,300,419,184	315,300,419,184	-	24,278,132,277	(6,999,669,306)	17,278,462,971
86	-	\$ 323,182,929,664	323,182,929,664	-	24,885,085,584	(7,174,661,039)	17,710,424,545
87	-	\$ 331,262,502,905	331,262,502,905	-	25,507,212,724	(7,354,027,564)	18,153,185,160
88	-	\$ 339,544,065,478	339,544,065,478	-	26,144,893,042	(7,537,878,254)	18,607,014,788
89	-	\$ 348,032,667,115	348,032,667,115	-	26,798,515,368	(7,726,325,210)	19,072,190,158
90	-	\$ 356,733,483,793	356,733,483,793	-	27,468,478,252	(7,919,483,340)	19,548,994,912
91	-	\$ 365,651,820,887	365,651,820,887	-	28,155,190,208	(8,117,470,424)	20,037,719,784
92	-	\$ 374,793,116,410	374,793,116,410	-	28,859,069,964	(8,320,407,184)	20,538,662,780
93	-	\$ 384,162,944,320	384,162,944,320	-	29,580,546,713	(8,528,417,364)	21,052,129,349
94	-	\$ 393,767,017,928	393,767,017,928	-	30,320,060,380	(8,741,627,798)	21,578,432,582
95	-	\$ 403,611,193,376	403,611,193,376	-	31,078,061,890	(8,960,168,493)	22,117,893,397
96	-	\$ 413,701,473,211	413,701,473,211	-	31,855,013,437	(9,184,172,705)	22,670,840,732
97	-	\$ 424,044,010,041	424,044,010,041	-	32,651,388,773	(9,413,777,023)	23,237,611,750
98	-	\$ 434,645,110,292	434,645,110,292	-	33,467,673,492	(9,649,121,448)	23,818,552,044
99	-	\$ 445,511,238,049	445,511,238,049	-	34,304,365,330	(9,890,349,485)	24,414,015,845
100	-	\$ 456,649,019,000	456,649,019,000	-	35,161,974,463	(10,137,608,222)	25,024,366,241

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Plan Fiduciary Net Position Beginning September 1, 2015

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 8.00%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 128,538,706,212	\$ 5,645,113,929	\$ 11,625,713,875	\$ 36,445,903	\$ 10,047,044,873	\$ 132,568,705,234
2	132,568,705,234	5,770,751,790	10,055,596,640	34,047,639	10,436,064,174	138,685,876,919
3	138,685,876,919	5,723,320,009	10,588,100,437	32,183,455	10,902,759,888	144,691,672,924
4	144,691,672,924	5,686,426,626	11,121,664,934	30,580,121	11,360,907,129	150,586,761,624
5	150,586,761,624	5,654,121,275	11,666,103,659	29,145,504	11,809,944,556	156,355,578,292
6	156,355,578,292	5,627,835,880	12,212,594,460	27,833,710	12,249,031,064	161,992,017,065
7	161,992,017,065	5,605,804,674	12,754,989,982	26,620,624	12,677,851,022	167,494,062,155
8	167,494,062,155	5,585,783,573	13,305,481,833	25,478,294	13,095,677,943	172,844,563,545
9	172,844,563,545	5,566,130,237	13,868,572,947	24,373,898	13,500,900,033	178,018,646,971
10	178,018,646,971	5,545,180,619	14,448,467,262	23,288,200	13,891,297,901	182,983,370,029
11	182,983,370,029	5,522,236,751	14,756,162,075	22,216,803	14,275,546,662	188,002,774,564
12	188,002,774,564	5,495,018,948	15,379,824,095	21,150,411	14,651,606,529	192,748,425,535
13	192,748,425,535	5,463,372,344	16,018,915,328	20,069,846	15,004,987,627	197,177,800,333
14	197,177,800,333	5,428,263,375	16,672,550,519	18,984,433	15,332,360,425	201,246,889,181
15	201,246,889,181	5,390,848,862	17,334,687,126	17,900,867	15,630,486,312	204,915,636,363
16	204,915,636,363	5,351,932,796	18,001,591,304	16,824,771	15,896,338,633	208,145,491,716
17	208,145,491,716	5,312,564,098	18,663,307,333	15,761,063	16,127,264,897	210,906,252,315
18	210,906,252,315	5,273,623,767	19,313,485,004	14,716,731	16,321,132,281	213,172,806,628
19	213,172,806,628	5,237,710,322	19,938,637,340	13,707,948	16,476,562,271	214,934,733,931
20	214,934,733,931	5,206,476,292	20,526,729,913	12,743,421	16,593,257,811	216,194,994,699
21	216,194,994,699	5,181,949,945	21,065,017,749	11,833,572	16,672,034,893	216,972,128,216
22	216,972,128,216	5,165,809,221	21,541,234,905	10,983,229	16,714,923,496	217,300,642,799
23	217,300,642,799	5,158,004,016	21,954,500,187	10,190,710	16,724,716,954	217,218,672,872
24	217,218,672,872	5,157,443,319	22,312,298,811	9,446,317	16,704,129,953	216,758,501,016
25	216,758,501,016	5,163,901,843	22,615,353,686	8,745,951	16,655,708,062	215,954,011,284
26	215,954,011,284	5,176,245,704	22,874,620,491	8,080,220	16,581,688,093	214,829,244,371
27	214,829,244,371	5,192,985,606	23,105,516,417	7,438,222	16,483,330,482	213,392,605,820
28	213,392,605,820	5,212,418,624	23,324,752,820	6,806,758	16,360,585,787	211,634,050,653
29	211,634,050,653	5,233,507,411	23,544,913,150	6,180,856	16,212,116,254	209,528,580,313
30	209,528,580,313	5,254,953,133	23,779,783,680	5,552,318	16,035,330,526	207,033,527,973
31	207,033,527,973	5,281,190,404	23,980,589,611	4,948,948	15,828,901,597	204,158,081,415
32	204,158,081,415	5,313,366,164	24,130,999,647	4,372,863	15,594,250,084	200,930,325,152
33	200,930,325,152	5,351,830,710	24,233,018,767	3,827,353	15,333,557,707	197,378,867,449
34	197,378,867,449	5,396,127,754	24,298,931,100	3,307,236	15,048,613,517	193,521,370,384
35	193,521,370,384	5,444,348,471	24,356,092,046	2,802,461	14,739,682,825	189,346,507,172
36	189,346,507,172	5,497,973,269	24,380,758,035	2,319,514	14,406,848,782	184,868,251,675
37	184,868,251,675	5,559,351,514	24,343,818,846	1,871,206	14,052,462,970	180,134,376,107
38	180,134,376,107	5,630,692,319	24,218,042,154	1,469,109	13,681,501,714	175,227,058,876
39	175,227,058,876	5,715,592,786	23,961,638,193	1,131,889	13,302,319,103	170,282,200,683
40	170,282,200,683	5,815,547,377	23,560,110,464	867,680	12,926,414,207	165,463,184,123
41	165,463,184,123	5,928,277,003	23,048,036,862	664,102	12,565,412,202	160,908,172,364
42	160,908,172,364	6,050,558,542	22,466,970,085	502,323	12,228,610,303	156,719,868,802
43	156,719,868,802	6,181,383,645	21,828,553,613	375,705	11,923,728,706	152,996,051,834
44	152,996,051,834	6,319,745,365	21,143,442,057	276,738	11,658,132,486	149,830,210,891
45	149,830,210,891	6,465,071,208	20,418,398,245	200,405	11,439,013,229	147,315,696,677
46	147,315,696,677	6,617,011,782	19,658,056,692	142,090	11,273,643,649	145,548,153,326
47	145,548,153,326	6,774,981,497	18,869,600,353	97,185	11,169,370,695	144,622,807,981
48	144,622,807,981	6,938,764,275	18,056,681,542	63,237	11,133,660,876	144,638,488,354
49	144,638,488,354	7,108,139,984	17,223,447,294	38,064	11,174,249,168	145,697,392,148
50	145,697,392,148	7,283,069,090	16,372,517,571	20,529	11,299,207,098	147,907,130,236

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Plan Fiduciary Net Position Beginning September 1, 2015 (continued)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 8.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
51	147,907,130,236	7,463,582,633	15,410,076,367	9,815	11,520,825,234	151,481,451,921
52	151,481,451,921	7,649,549,907	14,541,293,516	4,593	11,848,149,532	156,437,853,251
53	156,437,853,251	7,840,594,802	13,668,692,050	2,201	12,286,389,095	162,896,142,897
54	162,896,142,897	8,036,521,952	12,798,587,461	924	12,844,873,258	170,978,949,723
55	170,978,949,723	8,237,394,457	11,934,526,437	286	13,533,275,688	180,815,093,145
56	180,815,093,145	8,443,317,281	11,079,414,391	60	14,361,792,082	192,540,788,057
57	192,540,788,057	8,654,398,567	10,236,201,219	10	15,341,208,160	206,300,193,555
58	206,300,193,555	8,870,758,194	9,407,683,702	-	16,482,951,637	222,246,219,683
59	222,246,219,683	9,092,527,148	8,596,616,229	-	17,799,152,400	240,541,283,002
60	240,541,283,002	9,319,840,327	7,805,708,665	-	19,302,702,759	261,358,117,423
61	261,358,117,423	9,552,836,335	7,037,752,506	-	21,007,317,351	284,880,518,603
62	284,880,518,603	9,791,657,243	6,295,643,511	-	22,927,591,801	311,304,124,135
63	311,304,124,135	10,036,448,675	5,582,580,320	-	25,079,057,344	340,837,049,835
64	340,837,049,835	10,287,359,892	4,901,998,200	-	27,478,234,335	373,700,645,862
65	373,700,645,862	10,544,543,889	4,257,488,351	-	30,142,695,904	410,130,397,303
66	410,130,397,303	10,808,157,486	3,652,611,524	-	33,091,147,320	450,377,090,585
67	450,377,090,585	11,078,361,423	3,090,862,313	-	36,343,520,707	494,708,110,403
68	494,708,110,403	11,355,320,459	2,575,527,936	-	39,921,084,347	543,408,987,273
69	543,408,987,273	11,639,203,470	2,109,615,741	-	43,846,569,326	596,785,144,328
70	596,785,144,328	11,930,183,557	1,695,218,689	-	48,144,334,177	655,164,443,372
71	655,164,443,372	12,228,438,146	1,333,476,491	-	52,840,570,095	718,899,975,122
72	718,899,975,122	12,534,149,100	1,024,327,336	-	57,963,533,895	788,373,330,781
73	788,373,330,781	12,847,502,827	766,484,821	-	63,543,810,653	863,998,159,440
74	863,998,159,440	13,168,690,398	557,320,641	-	69,614,602,901	946,224,132,098
75	946,224,132,098	13,497,907,658	392,767,967	-	76,212,051,548	1,035,541,323,337
76	1,035,541,323,337	13,835,355,349	267,512,430	-	83,375,578,919	1,132,484,745,175
77	1,132,484,745,175	14,181,239,232	175,533,630	-	91,148,230,231	1,237,638,681,008
78	1,237,638,681,008	14,535,770,214	110,692,238	-	99,576,997,279	1,351,640,756,263
79	1,351,640,756,263	14,899,164,469	67,024,408	-	108,713,132,542	1,475,186,028,867
80	1,475,186,028,867	15,271,643,580	39,042,616	-	118,612,464,626	1,609,031,094,457
81	1,609,031,094,457	15,653,434,670	21,980,619	-	129,335,717,073	1,753,998,265,580
82	1,753,998,265,580	16,044,770,537	12,025,816	-	140,948,833,590	1,910,979,843,891
83	1,910,979,843,891	16,445,889,800	6,423,965	-	153,523,315,722	2,080,942,625,448
84	2,080,942,625,448	16,857,037,045	3,365,724	-	167,136,587,728	2,264,932,884,496
85	2,264,932,884,496	17,278,462,971	1,739,126	-	181,872,405,007	2,464,082,013,349
86	2,464,082,013,349	17,710,424,545	888,854	-	197,821,314,734	2,679,612,863,775
87	2,679,612,863,775	18,153,185,160	450,515	-	215,081,169,678	2,912,846,768,098
88	2,912,846,768,098	18,607,014,788	227,093	-	233,757,694,745	3,165,211,250,539
89	3,165,211,250,539	19,072,190,158	114,201	-	253,965,106,824	3,438,248,433,320
90	3,438,248,433,320	19,548,994,912	57,336	-	275,826,788,959	3,733,624,159,855
91	3,733,624,159,855	20,037,719,784	28,725	-	299,476,021,118	4,053,137,872,031
92	4,053,137,872,031	20,538,662,780	14,351	-	325,056,770,892	4,398,733,291,353
93	4,398,733,291,353	21,052,129,349	7,113	-	352,724,548,264	4,772,509,961,852
94	4,772,509,961,852	21,578,432,582	3,466	-	382,647,329,178	5,176,735,720,147
95	5,176,735,720,147	22,117,893,397	1,628	-	415,006,553,223	5,613,860,165,139
96	5,613,860,165,139	22,670,840,732	716	-	449,998,201,250	6,086,529,206,404
97	6,086,529,206,404	23,237,611,750	290	-	487,833,959,270	6,597,600,777,134
98	6,597,600,777,134	23,818,552,044	114	-	528,742,475,504	7,150,161,804,568
99	7,150,161,804,568	24,414,015,845	48	-	572,970,718,035	7,747,546,538,400
100	7,747,546,538,400	25,024,366,241	22	-	620,785,441,084	8,393,356,345,703

SINGLE DISCOUNT RATE DEVELOPMENT

Present Values of Projected Benefits Beginning September 1, 2015

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=-((c)/(1+sdr) ^a ((a)-.5)
1	\$ 128,538,706,212	\$ 11,625,713,875	\$ 11,625,713,875	\$ -	\$ 11,186,848,392	\$ -	\$ 11,186,848,392
2	132,568,705,234	10,055,596,640	10,055,596,640	-	8,959,261,462	-	8,959,261,462
3	138,685,876,919	10,588,100,437	10,588,100,437	-	8,734,914,606	-	8,734,914,606
4	144,691,672,924	11,121,664,934	11,121,664,934	-	8,495,455,368	-	8,495,455,368
5	150,586,761,624	11,666,103,659	11,666,103,659	-	8,251,234,526	-	8,251,234,526
6	156,355,578,292	12,212,594,460	12,212,594,460	-	7,997,924,142	-	7,997,924,142
7	161,992,017,065	12,754,989,982	12,754,989,982	-	7,734,383,659	-	7,734,383,659
8	167,494,062,155	13,305,481,833	13,305,481,833	-	7,470,547,650	-	7,470,547,650
9	172,844,563,545	13,868,572,947	13,868,572,947	-	7,209,910,166	-	7,209,910,166
10	178,018,646,971	14,448,467,262	14,448,467,262	-	6,954,983,454	-	6,954,983,454
11	182,983,370,029	14,756,162,075	14,756,162,075	-	6,576,941,577	-	6,576,941,577
12	188,002,774,564	15,379,824,095	15,379,824,095	-	6,347,141,498	-	6,347,141,498
13	192,748,425,535	16,018,915,328	16,018,915,328	-	6,121,194,258	-	6,121,194,258
14	197,177,800,333	16,672,550,519	16,672,550,519	-	5,899,040,026	-	5,899,040,026
15	201,246,889,181	17,334,687,126	17,334,687,126	-	5,678,995,871	-	5,678,995,871
16	204,915,636,363	18,001,591,304	18,001,591,304	-	5,460,629,205	-	5,460,629,205
17	208,145,491,716	18,663,307,333	18,663,307,333	-	5,241,995,481	-	5,241,995,481
18	210,906,252,315	19,313,485,004	19,313,485,004	-	5,022,788,899	-	5,022,788,899
19	213,172,806,628	19,938,637,340	19,938,637,340	-	4,801,268,545	-	4,801,268,545
20	214,934,733,931	20,526,729,913	20,526,729,913	-	4,576,743,106	-	4,576,743,106
21	216,194,994,699	21,065,017,749	21,065,017,749	-	4,348,854,142	-	4,348,854,142
22	216,972,128,216	21,541,234,905	21,541,234,905	-	4,117,748,842	-	4,117,748,842
23	217,300,642,799	21,954,500,187	21,954,500,187	-	3,885,877,056	-	3,885,877,056
24	217,218,672,872	22,312,298,811	22,312,298,811	-	3,656,672,482	-	3,656,672,482
25	216,758,501,016	22,615,353,686	22,615,353,686	-	3,431,795,297	-	3,431,795,297
26	215,954,011,284	22,874,620,491	22,874,620,491	-	3,214,016,726	-	3,214,016,726
27	214,829,244,371	23,105,516,417	23,105,516,417	-	3,005,980,502	-	3,005,980,502
28	213,392,605,820	23,324,752,820	23,324,752,820	-	2,809,724,731	-	2,809,724,731
29	211,634,050,653	23,544,913,150	23,544,913,150	-	2,626,153,223	-	2,626,153,223
30	209,528,580,313	23,779,783,680	23,779,783,680	-	2,455,879,833	-	2,455,879,833
31	207,033,527,973	23,980,589,611	23,980,589,611	-	2,293,165,052	-	2,293,165,052
32	204,158,081,415	24,130,999,647	24,130,999,647	-	2,136,618,653	-	2,136,618,653
33	200,930,325,152	24,233,018,767	24,233,018,767	-	1,986,714,518	-	1,986,714,518
34	197,378,867,449	24,298,931,100	24,298,931,100	-	1,844,553,944	-	1,844,553,944
35	193,521,370,384	24,356,092,046	24,356,092,046	-	1,711,938,040	-	1,711,938,040
36	189,346,507,172	24,380,758,035	24,380,758,035	-	1,586,733,112	-	1,586,733,112
37	184,868,251,675	24,343,818,846	24,343,818,846	-	1,466,971,351	-	1,466,971,351
38	180,134,376,107	24,218,042,154	24,218,042,154	-	1,351,288,871	-	1,351,288,871
39	175,227,058,876	23,961,638,193	23,961,638,193	-	1,237,946,625	-	1,237,946,625
40	170,282,200,683	23,560,110,464	23,560,110,464	-	1,127,039,093	-	1,127,039,093
41	165,463,184,123	23,048,036,862	23,048,036,862	-	1,020,873,294	-	1,020,873,294
42	160,908,172,364	22,466,970,085	22,466,970,085	-	921,422,163	-	921,422,163
43	156,719,868,802	21,828,553,613	21,828,553,613	-	828,925,217	-	828,925,217
44	152,996,051,834	21,143,442,057	21,143,442,057	-	743,433,841	-	743,433,841
45	149,830,210,891	20,418,398,245	20,418,398,245	-	664,759,498	-	664,759,498
46	147,315,696,677	19,658,056,692	19,658,056,692	-	592,597,355	-	592,597,355
47	145,548,153,326	18,869,600,353	18,869,600,353	-	526,693,637	-	526,693,637
48	144,622,807,981	18,056,681,542	18,056,681,542	-	466,669,645	-	466,669,645
49	144,638,488,354	17,223,447,294	17,223,447,294	-	412,161,991	-	412,161,991
50	145,697,392,148	16,372,517,571	16,372,517,571	-	362,776,853	-	362,776,853

SINGLE DISCOUNT RATE DEVELOPMENT

PVs of Projected Benefits Beginning September 1, 2015 (continued)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
51	\$ 147,907,130,236	\$ 15,410,076,367	\$ 15,410,076,367	\$ -	\$ 316,158,701	\$ -	\$ 316,158,701
52	151,481,451,921	14,541,293,516	14,541,293,516	-	276,235,591	-	276,235,591
53	156,437,853,251	13,668,692,050	13,668,692,050	-	240,425,095	-	240,425,095
54	162,896,142,897	12,798,587,461	12,798,587,461	-	208,444,827	-	208,444,827
55	170,978,949,723	11,934,526,437	11,934,526,437	-	179,974,310	-	179,974,310
56	180,815,093,145	11,079,414,391	11,079,414,391	-	154,702,872	-	154,702,872
57	192,540,788,057	10,236,201,219	10,236,201,219	-	132,341,676	-	132,341,676
58	206,300,193,555	9,407,683,702	9,407,683,702	-	112,620,323	-	112,620,323
59	222,246,219,683	8,596,616,229	8,596,616,229	-	95,287,919	-	95,287,919
60	240,541,283,002	7,805,708,665	7,805,708,665	-	80,112,242	-	80,112,242
61	261,358,117,423	7,037,752,506	7,037,752,506	-	66,880,080	-	66,880,080
62	284,880,518,603	6,295,643,511	6,295,643,511	-	55,396,097	-	55,396,097
63	311,304,124,135	5,582,580,320	5,582,580,320	-	45,483,121	-	45,483,121
64	340,837,049,835	4,901,998,200	4,901,998,200	-	36,979,810	-	36,979,810
65	373,700,645,862	4,257,488,351	4,257,488,351	-	29,738,649	-	29,738,649
66	410,130,397,303	3,652,611,524	3,652,611,524	-	23,623,677	-	23,623,677
67	450,377,090,585	3,090,862,313	3,090,862,313	-	18,509,723	-	18,509,723
68	494,708,110,403	2,575,527,936	2,575,527,936	-	14,281,136	-	14,281,136
69	543,408,987,273	2,109,615,741	2,109,615,741	-	10,831,188	-	10,831,188
70	596,785,144,328	1,695,218,689	1,695,218,689	-	8,058,881	-	8,058,881
71	655,164,443,372	1,333,476,491	1,333,476,491	-	5,869,628	-	5,869,628
72	718,899,975,122	1,024,327,336	1,024,327,336	-	4,174,844	-	4,174,844
73	788,373,330,781	766,484,821	766,484,821	-	2,892,553	-	2,892,553
74	863,998,159,440	557,320,641	557,320,641	-	1,947,418	-	1,947,418
75	946,224,132,098	392,767,967	392,767,967	-	1,270,768	-	1,270,768
76	1,035,541,323,337	267,512,430	267,512,430	-	801,402	-	801,402
77	1,132,484,745,175	175,533,630	175,533,630	-	486,904	-	486,904
78	1,237,638,681,008	110,692,238	110,692,238	-	284,300	-	284,300
79	1,351,640,756,263	67,024,408	67,024,408	-	159,393	-	159,393
80	1,475,186,028,867	39,042,616	39,042,616	-	85,971	-	85,971
81	1,609,031,094,457	21,980,619	21,980,619	-	44,815	-	44,815
82	1,753,998,265,580	12,025,816	12,025,816	-	22,703	-	22,703
83	1,910,979,843,891	6,423,965	6,423,965	-	11,229	-	11,229
84	2,080,942,625,448	3,365,724	3,365,724	-	5,447	-	5,447
85	2,264,932,884,496	1,739,126	1,739,126	-	2,606	-	2,606
86	2,464,082,013,349	888,854	888,854	-	1,233	-	1,233
87	2,679,612,863,775	450,515	450,515	-	579	-	579
88	2,912,846,768,098	227,093	227,093	-	270	-	270
89	3,165,211,250,539	114,201	114,201	-	126	-	126
90	3,438,248,433,320	57,336	57,336	-	58	-	58
91	3,733,624,159,855	28,725	28,725	-	27	-	27
92	4,053,137,872,031	14,351	14,351	-	13	-	13
93	4,398,733,291,353	7,113	7,113	-	6	-	6
94	4,772,509,961,852	3,466	3,466	-	3	-	3
95	5,176,735,720,147	1,628	1,628	-	1	-	1
96	5,613,860,165,139	716	716	-	0	-	0
97	6,086,529,206,404	290	290	-	0	-	0
98	6,597,600,777,134	114	114	-	0	-	0
99	7,150,161,804,568	48	48	-	0	-	0
100	7,747,546,538,400	22	22	-	0	-	0
Totals					\$ 197,682,335,692	\$ -	\$ 197,682,335,692