# NORTH DAKOTA PUBLIC EMPLOYEES 

 RETIREMENT SYSTEMActuarial Valuation Report as of July 1, 2009

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November 11, 2009
Board Members
North Dakota Public Employees Retirement System
Bismarck, North Dakota
Members of the Board:
It is a pleasure to submit this report that presents the results of our actuarial valuation of the North Dakota Public Employees Retirement System as of July 1, 2009.

The census information on which our calculations are based and the financial information were provided by the Retirement Office staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We look forward to meeting with you to review this report and to answering any questions you may have.

Sincerely,


Brad Ramirez, FSA, FCA, MAAA, EA Consulting Actuary


John Monroe, ASA, MAAA, EA
Vice President \& Associate Actuary
Ko Schneider

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## I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2009. The employer contribution requirements presented in Section VI of the report are based on:

1. The present provisions of the North Dakota Public Employees Retirement System;
2. The characteristics of covered active members, inactive non-retired members, pensioners and beneficiaries as of July 1, 2009;
3. The assets of the System as of June 30, 2009; and
4. Actuarial assumptions regarding investment earnings, salary increases, and rates of retirement, disability, death, etc.

The purpose of the actuarial valuation is to determine the contribution sufficient to meet the long-term obligations to the members covered by the North Dakota Public Employees Retirement System in accordance with the benefit provisions of the System.

If each of the actuarial assumptions is exactly fulfilled, the true actuarial cost of the System will equal the cost projected by the actuarial calculations. However, this result is never achieved because of the length of time over which projections are made and because of the great number of variables that can affect the emerging costs. The cost, expressed as a percentage of payroll, will increase if the System experiences net actuarial losses and will decrease if the System experiences net actuarial gains.

## II. HIGHLIGHTS

> For the PERS Fund overall, the present rate of contributions is not sufficient to meet the actuarially determined requirement for 2009-2010, based upon the actuarial assumptions and financing objectives approved by the Board. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.
> The PERS Board should continue to review these results and projected future performance to determine appropriate measures to mitigate the difference between the actuarial and statutory (or approved) contribution rates.
> The employer actuarial contribution requirements for 2009-2010 are as follows:

|  |  | Amount | Percentage of <br> Payroll |
| :--- | ---: | :---: | :---: |
| Main System | Statutory/ <br> Approved <br> Rate |  |  |
| Judges | $\$ 52,956,485$ | $7.74 \%$ | $4.12 \%$ |
| National Guard | 569,858 | 10.48 | 14.52 |
| Law Enforcement with prior Main service | 49,565 | 3.71 | 6.50 |
| Law Enforcement without prior Main service | 517,062 | 9.11 | 8.31 |
|  | 64,896 | 6.83 | 6.43 |

> A comparison of this year's actuarial contribution rates to last year's rates as a percent of payroll are as follows:

|  | $2009-2010$ | $2008-2009$ |
| :--- | :---: | :---: |
| Main System | $7.74 \%$ | $6.26 \%$ |
| Judges | 10.48 | 8.99 |
| National Guard | 3.71 | 3.44 |
| Law Enforcement with prior Main service | 9.11 | 9.04 |
| Law Enforcement without prior Main service | 6.83 | 7.15 |

> The Main System statutory rate of $4.12 \%$ of payroll is less than the actuarially determined rate of $7.74 \%$ of payroll by $3.62 \%$ of payroll. Last year, the Main System statutory rate was less than the actuarially determined rate by $2.14 \%$ of payroll. The increase in the contribution rate deficit this year was primarily due to the investment loss.
> The return on the market value of assets for 2008-2009 for the PERS Fund was -24.04\%, and was $-5.21 \%$ for the preceding year.
> The return on the actuarial value of assets for 2008-2009 for the PERS Fund was $1.72 \%$ compared to the investment return assumption of $8.00 \%$. As a result, the PERS Fund experienced an investment loss on an actuarial value basis of approximately $\$ 100.5$ million.
> The ratio of the actuarial value of assets to the market value of assets for the PERS Fund is $122.5 \%$. Last year, this ratio was $91.4 \%$.
> The unrecognized investment losses represent about 23\% of the PERS Fund market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the $\$ 297$ million market losses is expected to have a significant impact on the System's future funded ratio and actuarial contribution requirement. This potential impact may be illustrated as follows:

- If the deferred losses were recognized immediately in the actuarial value assets, the funded percentage would decrease from $85.1 \%$ to $69.4 \%$.
- If the deferred losses were recognized immediately in the actuarial value of assets, the actuarial contribution requirement would increase as follows:

|  | 2009-2010 <br> Actuarial <br> Contribution <br> Rate | 2009-2010 <br> Rate <br> Reflecting <br> Deferred <br> Losses |
| :--- | :---: | :---: |
| Main System | $7.74 \%$ | $10.69 \%$ |
| Judges | 10.48 | 17.64 |
| National Guard | 3.71 | 5.70 |
| Law Enforcement with prior Main service | 9.11 | 10.92 |
| Law Enforcement without prior Main service | 6.83 | 7.20 |

> A comparison of this year's funded ratio for PERS to the prior year is as follows:

|  | July 1, 2009 | July 1, 2008 |
| :--- | ---: | ---: |
| Actuarial Value of Assets | $\$ 1,617,147,801$ | $\$ 1,609,810,342$ |
| Actuarial Accrued Liability | $1,901,200,756$ | $1,737,626,999$ |
| Funded Ratio | $85.1 \%$ | $92.6 \%$ |

> The actuarial valuation report as of July 1, 2009 is based on financial data as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
> Table 6 details actuarial gains and losses in the Main System for many of the measured demographic assumptions. The gain/(loss) by source is measured each year, and a detailed analysis of the System's demographic assumptions is reviewed every fourth or fifth year by the completion of an experience study. The next experience study is scheduled to be performed prior to the next actuarial valuation.
> The following changes were made in the plan provisions since the prior valuation:

- For active members in the Main System and the National Guard and Law Enforcement, the pre-retirement death benefit option of the member's accrued benefit payable for 60 months to the surviving spouse is no longer available.
- An actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year has been added, effective March 1, 2011.
> There were no changes to the actuarial assumptions since the preceding valuation.
> Effective July 1, 2009, employees of the Bureau of Criminal Investigation are required to participate in the Law Enforcement plan rather than the Main plan. A corresponding asset transfer will also take place. This is not reflected in this valuation.


## III. MEMBER CHARACTERISTICS

Detailed information for all non-retired members as of July 1, 2009 was provided by the Retirement Office. The data included name, sex, date of birth, months of service, members' accumulated account balances, and annual salary rate.

## Active Members

The age, service, compensation and account balance data for active members as of July 1, 2009 is summarized below:

|  | Main System | Judges | National Guard | Law <br> Enforcement with prior Main service | Law <br> Enforcement without prior Main service | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of active members | 19,686 | 47 | 36 | 144 | 30 | 19,943 |
| Average age | 47.0 | 57.0 | 34.4 | 41.2 | 35.2 | 47.0 |
| Average years of service | 10.4 | 16.8 | 3.6 | 8.7 | 2.5 | 10.4 |
| Total annual salary | \$684,333,238 | \$5,439,847 | \$1,336,097 | \$5,677,624 | \$949,790 | \$697,736,596 |
| Average annual salary | \$34,762 | \$115,741 | \$37,114 | \$39,428 | \$31,660 | \$34,987 |
| Total accumulated member contribution account balances | \$499,497,595 | \$4,005,004 | \$291,291 | \$3,746,848 | \$105,929 | \$507,646,667 |

For the Main System, the number of active members represents an increase of $3.4 \%$ over the 19,042 active members last year. Among the members continuing in active service since the prior valuation, and have two or more years of full-time service, salaries increased by an average of $6.6 \%$. Total payroll increased $8.9 \%$, which was more than assumed.

Distributions of the active members by sex, age, and service are presented in Tables $8-\mathrm{A}, 8$-B and 8 C of the Appendix. Tables 9-A, 9-B and 9-C present a distribution of these same members by sex, age, and salary. The table on the following page shows a breakdown of the active members who are currently eligible for benefits, as well as those who have not yet met the vesting requirements.

There are 20 members originally from the Main System that continue to be active members in the Judges System; two members from the Judges System are active in the Main System; 22 members originally from the Main System are active members in the Highway Patrol System; 9 members from the Highway Patrol System continue to be active members in the Main System. Liabilities for these members are carried in each system based on their service in that system.

The following table shows the number of active participants eligible for retirement:

| Active Members Eligible for: | Main System | Judges | National Guard | Law <br> Enforcement with prior Main service | Law <br> Enforcement without prior Main service | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirement: |  |  |  |  |  |  |
| Normal | 723 | 6 | 1 | 25 | 0 | 755 |
| Rule of 85 | 1,035 | 6 | N/A | 0 | 0 | 1,041 |
| Early Retirement | 3,378 | 14 | 1 | 15 | 0 | 3,408 |
| Total Retirement | 5,136 | 26 | 2 | 40 | 0 | 5,204 |
| Deferred Retirement | 8,992 | 12 | 13 | 52 | 8 | 9,077 |
| Total vested | 14,128 | 38 | 15 | 92 | 8 | 14,281 |
| Nonvested | 5,558 | 9 | 21 | 52 | 22 | 5,662 |
| Total | 19,686 | 47 | 36 | 144 | 30 | 19,943 |

## Inactive Members

There were 3,270 inactive members (including 1 from Judges, 3 from National Guard, 10 from Law Enforcement with prior Main service, and 2 from Law Enforcement without prior Main Service) as of July 1, 2009 with vested rights to deferred retirement benefits. The average deferred monthly benefit for this group was $\$ 362$. There were also 27 members from the Main System and 6 members from National Guard on leave of absence. For these groups, a liability is carried for their deferred retirement benefits.

There were 2,025 inactive members that are due refunds (including 8 from National Guard, 3 from Law Enforcement with prior Main service, and 2 from Law Enforcement without prior Main Service).

## IV. BENEFIT EXPERIENCE

## New Awards

During the fiscal year ended in June 2009, 501 pensions became effective. The average monthly benefit for these pensioners was $\$ 1,130$ and their average age at retirement was 63.2. Last year, the average benefit among new pensioners was $\$ 1,148$. The new pensioners are presented in Tables 10A, 10-B, 10-C, 11-A, 11-B and 11-C in Appendix B by sex, type of pension, monthly benefit and age on retirement date.

A breakdown of the new pension awards by type compared to last year is as follows:

|  | July 1, 2009 | July 1, 2008 |
| :--- | :---: | :---: |
| Normal | 166 | 191 |
| Rule of 85 | 194 | 186 |
| Early | 127 | 99 |
| Disability | $\underline{14}$ | $\underline{11}$ |
| Total | 501 | 487 |

## Pensioners

Since benefits became payable under the current retirement program, a total of 9,012 retirement pensions have been awarded, of which 6,461 remained on the June 2009 rolls (including 22 retired Judges and 23 retired members of the National Guard/Law Enforcement). In addition, 74 pensions were in suspended status as of June 30, 2009. Distributions of the pensioners are presented in Tables $12-\mathrm{A}, 12-\mathrm{B}, 12-\mathrm{C}, 13-\mathrm{A}, 13-\mathrm{B}$ and $13-\mathrm{C}$ in Appendix B by sex, type of pension, monthly benefit amount and current age.

For the pensions in force on July 1, 2009, the average monthly benefit was $\$ 891$, an increase from $\$ 890$ a year earlier. The average age of these pensioners on the valuation date was 71.9 years.

## Beneficiaries

As of July 1, 2009, monthly benefit payments were being made to 727 beneficiaries, including 6 beneficiaries of Judges and one beneficiary of National Guard/Law Enforcement. In addition, 8 beneficiaries were in suspended status as of June 30, 2009. The monthly payments to beneficiaries in payment status total \$398,286.

## Prior Service Pensioners

As of July 1, 2009, there were 22 pensioners receiving monthly benefits of $\$ 917$ under the Special Prior Service Pension provisions of the System. The current average age of Prior Service pensioners was 96.9 years, and the average monthly benefit was $\$ 42$. Because of the relatively high average age and low benefits, the liability for the Special Prior Service Pensioners represented less than $0.01 \%$ of the total actuarial accrued liability for the System. Tables 14-A, 14-B, 14-C, 15-A, 15-B, and 15-C in Appendix B provide a breakdown of these pensioners by sex, type of pension, monthly benefit amount, and current age.

## V. ASSETS

## Market Value of Assets

As shown in the draft financial statements as of June 30, 2009, the combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen's Retirement System (HPRS) was $\$ 1,360,977,213$ compared to $\$ 1,816,810,807$ a year earlier. This year's combined market value represents a decrease of $25.09 \%$ over the market value one year earlier.

Based on schedules provided by the Retirement Office, the breakdown of the market value of net assets allocated to North Dakota PERS follows:

|  | $\underline{\text { July 1, 2009 }}$ | $\underline{\text { July 1, 2008 }}$ |  |
| :--- | ---: | ---: | ---: |
| Main System | $\$ 1,287,683,367$ |  | $\$ 1,718,937,287$ |
| Judges | $23,849,876$ | $31,545,700$ |  |
| National Guard | $1,692,656$ | $2,246,793$ |  |
| Law Enforcement with prior Main service | $6,556,328$ | $8,301,444$ |  |
| Law Enforcement without prior Main service | $\underline{221,366}$ | $\underline{191,807}$ |  |
| Total | $\$ 1,320,003,593$ | $\$ 1,761,223,031$ |  |

The rate of return on the market value basis for the PERS Fund was $-24.04 \%$ for the year ended June 30, 2009.

## Actuarial Value of Assets

The actuarial value of assets is determined as follows:
Market appreciation and depreciation are spread over five years beginning with the year of occurrence. Interest and dividends are recognized immediately. This procedure results in recognition of all changes in market value over five years. A characteristic of this asset valuation method is that, over time, it is more likely to produce an actuarial value of assets that is less than the market value of assets.

The above procedure is applied to the combined assets of PERS and HPRS Retirement Income Funds to determine the combined actuarial value of the Systems. The combined actuarial value was $\$ 1,667,344,937$ as of June 30, 2009. The determination of the combined actuarial asset value is shown in Table 1. This table shows that there is approximately $\$ 306$ million of depreciation that will be recognized in future years.

Table 2 summarizes the combined investment results over the previous ten-year period. Over this period, the earnings of $\$ 860,531,900$ on an actuarial value basis represented an average annual return of $6.96 \%$. For the 2008-2009 year, the actuarial rate of return on the combined assets was $1.72 \%$.

The total actuarial value of assets is allocated to PERS (Main System, Judges, National Guard and Law Enforcement) and HPRS in proportion to the reported market value of assets. This allocation is illustrated in Table 3 and summarized below for the PERS Fund alone.

|  | $\underline{\text { July 1, 2009 }}$ | $\underline{\text { July 1, 2008 }}$ |  |
| :--- | ---: | ---: | ---: |
| Main System | $\$ 1,577,552,012$ |  | $\$ 1,571,159,912$ |
| Judges | $29,218,689$ | $28,833,710$ |  |
| National Guard | $2,073,688$ | $2,053,636$ |  |
| Law Enforcement with prior Main service | $8,032,215$ | $7,587,767$ |  |
| Law Enforcement without prior Main service | 271,197 |  | 175,317 |
| Total | $\$ 1,617,147,801$ | $\$ 1,609,810,342$ |  |

Chart 1 on page 14 is a graph showing the historical asset values for the PERS Fund on both an actuarial and market value basis. This graph illustrates that the market value of assets is currently less than the actuarial value.

Income and disbursements for 2009 and 2008 on an actuarial value basis are summarized in Table 4 for the PERS Fund. The progress of the PERS Fund for the last ten years is provided in Table 5. It shows that assets have increased consistently from year to year, although the amount of the increase has varied with fluctuations in investment income. Benefit payments have also increased consistently over the period.

A picture of the financial development of the PERS Fund over the last ten years is provided in Chart 2 on page 17. It shows that benefit payments and expenses continue to exceed contributions. However, over the past ten years, the investment income has offset this deficit and served to increase the assets of the System.

Investment results on an actuarial value basis are used to determine whether investment experience is meeting the System's actuarially assumed return. They do not, however, necessarily indicate the relative success of the System's investment program. Comparisons of performance with other funds, investment institutions, and market indices are generally based on rates of return that recognize market changes in full.

## Investment Return

The investment returns for the last ten years for the combined fund are as follows:

| Year Ending <br> June 30 | Market <br> Value | Actuarial <br> Value |
| :---: | :---: | :---: | :---: |
| 2000 | $9.43 \%$ | $13.71 \%$ |
| 2001 | $(4.47)$ | 9.36 |
| 2002 | $(6.94)$ | 3.91 |
| 2003 | 5.19 | 2.18 |
| 2004 | 16.65 | 3.16 |
| 2005 | 14.17 | 4.36 |
| 2006 | 12.04 | 7.79 |
| 2007 | 19.63 | 15.84 |
| 2008 | $(5.21)$ | 8.51 |
| 2009 | $(24.05)$ | 1.72 |

The above values demonstrate the fact that the volatility of market value returns is reduced by using an actuarial value of assets. Chart 3 on page 18 illustrates the smoothing effect that results from using an actuarial value of assets. By using an actuarial value that reduces the year-to-year fluctuations in investment return, year-to-year fluctuations in contribution requirements are reduced.

Investment return rates on the market value basis include all capital appreciation and depreciation. The returns on the actuarial value reflect only a portion of the capital appreciation and depreciation based on the adopted valuation method.

TABLE 1
Determination of Actuarial Value of Assets (for PERS and HPRS) as of June 30, 2009 and 2008

| Year Ending | Total Appreciation (Depreciation) | June 30, 2009 |  | June 30, 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Percent <br> Deferred | Amount <br> Deferred | Percent <br> Deferred | Amount <br> Deferred |
| June 30, 2005 | \$154,870,262 | 0\% | \$0 | 20\% | \$30,974,052 |
| June 30, 2006 | 152,103,565 | 20\% | 30,420,713 | 40\% | 60,841,426 |
| June 30, 2007 | 285,031,438 | 40\% | 114,012,575 | 60\% | 171,018,863 |
| June 30, 2008 | $(133,303,450)$ | 60\% | $(79,982,070)$ | 80\% | (106,642,760) |
| June 30, 2009 | $(463,523,678)$ | 80\% | $(370,818,942)$ | N/A | 0 |
| Total Deferred as of Valuation Date |  |  | (\$306,367,724) |  | \$156,191,581 |
| (a) Total Appreciation (Depreciation) for last five Plan Years |  |  | $(4,821,863)$ |  | 614,991,344 |
| (b) Write-Up/(Down) Amount for the year - equals $20 \%$ of (a) |  |  | $(964,373)$ |  | 122,998,269 |
|  |  |  | June 30, 2009 |  | June 30, 2008 |
| Market Value of Assets |  |  | \$1,360,977,213 |  | \$1,816,810,807 |
| Less: Deferred Appreciation (Depreciation) |  |  | $(306,367,724)$ |  | 156,191,581 |
| Actuarial Value of Assets |  |  | \$1,667,344,937 |  | \$1,660,619,226 |
| Actuarial Value as a Percent of Market Value |  |  | 122.5\% |  | 91.4\% |

TABLE 2
Summary of Combined Investment Results for PERS and HPRS on Actuarial Value of Assets

| Year Ended | Net Intere Dividend I | and ome* | Other Inco | ne** | Tota Investme | come |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30 | Amount | Yield | Amount | Yield | Amount | Yield |
| 2000 | \$36,367,600 | 3.88\% | \$92,244,700 | 9.83\% | \$128,612,300 | 13.71\% |
| 2001 | 41,086,800 | 3.89 | 57,734,900 | 5.47 | 98,821,700 | 9.36 |
| 2002 | 35,077,400 | 3.06 | 9,694,500 | 0.85 | 44,771,900 | 3.91 |
| 2003 | 33,595,900 | 2.84 | $(7,793,200)$ | (0.66) | 25,802,700 | 2.18 |
| 2004 | 30,464,800 | 2.54 | 7,398,200 | 0.62 | 37,863,000 | 3.16 |
| 2005 | 29,115,600 | 2.38 | 24,276,800 | 1.98 | 53,392,400 | 4.36 |
| 2006 | 24,410,600 | 1.93 | 73,910,900 | 5.86 | 98,321,500 | 7.79 |
| 2007 | 34,727,000 | 2.58 | 178,771,700 | 13.26 | 213,498,700 | 15.84 |
| 2008 | 32,819,700 | 2.13 | 98,332,000 | 6.38 | 131,151,700 | 8.51 |
| 2009 | 29,260,400 | 1.77 | $(964,400)$ | (0.05) | 28,296,000 | 1.72 |
| Total for Last Ten Years | \$326,925,800 |  | \$533,606,100 |  | \$860,531,900 |  |
| Average Yield for last Ten Years |  |  |  | 6.96\% |  |  |

* Net of investment expenses.
** Includes write-up (down).

TABLE 3

## Allocation of Combined (PERS and HPRS) Actuarial Value of Assets

|  | July 1, 2009 |  | July 1, 2008 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Market Value | Actuarial Value | Market Value | Actuarial Value |
| PERS Main System | \$1,287,683,367 | \$1,577,552,012 | \$1,718,937,287 | \$1,571,159,912 |
| PERS Judges | 23,849,876 | 29,218,689 | 31,545,700 | 28,833,710 |
| PERS National Guard | 1,692,656 | 2,073,688 | 2,246,793 | 2,053,636 |
| PERS Law Enforcement with prior Main service | 6,556,328 | 8,032,215 | 8,301,444 | 7,587,767 |
| PERS Law Enforcement without prior Main service | 221,366 | 271,197 | 191,807 | 175,317 |
| PERS Combined | \$1,320,003,593 | \$1,617,147,801 | \$1,761,223,031 | \$1,609,810,342 |
| Highway Patrol | 40,973,620 | 50,197,136 | 55,587,776 | 50,808,884 |
| Total | \$1,360,977,213 | \$1,667,344,937 | \$1,816,810,807 | \$1,660,619,226 |

Note: Allocation of the actuarial value of assets is in proportion to the market value of assets.

Chart 1
Value of Assets for PERS
Millions


TABLE 4

## Summary Statement of Income and Disbursements for PERS for the Years Ended June 30, 2009 and 2008 (Actuarial Value Basis)

|  | June 30, 2009 | June 30, 2008 |
| :---: | :---: | :---: |
| Contribution Income: |  |  |
| Employer Contributions | \$27,705,267 | \$25,253,902 |
| Member Contributions | 26,237,554 | 23,896,615 |
| Service Credit Repurchases | 3,732,801 | 3,454,411 |
| Total Contribution Income | \$57,675,622 | \$52,604,928 |
| Less: Administrative Expenses | $(1,260,812)$ | $(1,118,233)$ |
| Net Contribution Income | \$56,414,810 | \$51,486,695 |
| Teacher's Retirement Plan Transfer | \$0 | \$3,208,999 |
| Investment Income: |  |  |
| Interest and Dividends | \$34,952,090 | \$45,923,349 |
| Miscellaneous Income | 1,983 | 5,187 |
| Less: Investment Expenses | $(6,583,452)$ | $(14,120,304)$ |
| Net Interest and Dividends | \$28,370,621 | \$31,808,232 |
| Write-up of Assets | $(861,162)$ | 95,181,207 |
| Net Investment Income | \$27,509,459 | \$126,989,439 |
| Total Income Available for Benefit Payments and Reserves | \$83,924,269 | \$181,685,133 |
| Benefit Payments: |  |  |
| Pension Benefits | \$(71,169,574) | \$(70,153,871) |
| Transfers to Other Plans | $(496,073)$ | $(76,487)$ |
| Refunds | $(4,921,163)$ | $(4,784,327)$ |
| Total Benefit Payments | \$(76,586,810) | \$(75,014,685) |
| Addition to Reserve for |  |  |
| Actuarial Value of Assets, Start of Year | 1,609,810,342 | 1,503,139,894 |
| Actuarial Value of Assets, End of Year | \$1,617,147,801 | \$1,609,810,342 |

## TABLE 5

Progress of the PERS Fund through June 30, 2009 (Actuarial Value Basis)

| Year Ended <br> June 30 | Employer <br> Contributions | Member <br> Contributions* | Administrative <br> Expenses | Net Investment <br> Income | Transfers <br> From/(To) <br> Other Plans | Benefit <br> Payments | Fund at End <br> Of Year |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1999 |  |  |  |  |  |  | $\$ 916,953,277$ <br> 2000 |
| 2001 | $17,101,628$ | $17,353,268$ | $(894,868)$ | $95,499,825$ | $(314,930)$ | $(40,412,352)$ | $1,115,334,396$ |
| 2002 | $18,244,655$ | $18,439,125$ | $(983,258)$ | $43,304,595$ | $(337,553)$ | $(44,001,131)$ | $1,150,000,829$ |
| 2003 | $19,212,733$ | $19,758,764$ | $(1,068,803)$ | $25,009,784$ | $(129,235)$ | $(46,331,954)$ | $1,166,452,118$ |
| 2004 | $19,732,842$ | $22,152,045$ | $(995,879)$ | $36,594,962$ | $3,771,763$ | $(51,174,769)$ | $1,196,533,082$ |
| 2005 | $20,704,241$ | $24,097,496$ | $(1,072,277)$ | $51,592,706$ | $(21,131)$ | $(55,719,982)$ | $1,236,114,135$ |
| 2006 | $21,969,517$ | $24,508,623$ | $(1,037,535)$ | $95,085,991$ | $(41,271)$ | $(62,056,555)$ | $1,314,542,905$ |
| 2007 | $23,140,767$ | $25,562,617$ | $(1,109,260)$ | $206,643,922$ | $(39,829)$ | $(65,601,228)$ | $1,503,139,894$ |
| 2008 | $25,253,902$ | $27,351,026$ | $(1,118,233)$ | $126,989,439$ | $3,132,512$ | $(74,938,198)$ | $1,609,810,342$ |
| 2009 | $27,705,267$ | $29,970,355$ | $(1,260,812)$ | $27,509,459$ | $(496,073)$ | $(76,090,737)$ | $1,617,147,801$ |
| Total for Last |  |  |  |  |  |  |  |
| Ten Years | $\$ 209,586,800$ | $\$ 225,812,090$ | $(\$ 10,341,454)$ | $\$ 832,511,762$ | $(\$ 3,168,838)$ | $(\$ 554,205,836)$ |  |

[^0]Chart 2
Income and Disbursements for PERS


| $\square$ Employer Contributions | $\square$ Member Contributions |
| :--- | :--- |
| $\square$ Net Investment Income | $\square$ Benefit Payments \& Administrative Expenses |

## Chart 3

## Investment Returns

(PERS and HPRS Combined)


## VI. RESULTS OF ACTUARIAL VALUATION

The contribution requirement consists of the normal cost, administrative expense allowance, plus the cost of amortizing the unfunded actuarial accrued liability over a scheduled period of years. The Board has adopted an open amortization schedule of 20 years with increasing payments. The calculated employer contribution requirements on this basis for fiscal year 2009-2010 are shown below as a dollar amount and as a percentage of the covered payroll of contributing employees.

## Main System

The components of the actuarial contribution requirements are shown below:

|  | Amount for <br> $\underline{2009-2010}$ | Percentage <br> of Payroll |
| :--- | ---: | :---: |
| Total normal cost | $\$ 59,835,649$ | $8.75 \%$ |
| Less: Member contributions | $\underline{(27,373,330)}$ | $\underline{(4.00)}$ |
| Net employer normal cost | $\$ 32,462,319$ | $4.75 \%$ |
| Administrative expense allowance | 710,000 | 0.10 |
| Amortization payment (credit) | $\underline{19,784,166}$ | $\underline{2.89}$ |
| Total employer contribution requirement | $\$ 52,956,485$ | $7.74 \%$ |

Covered payroll is $\$ 684,333,238$.
The statutory contribution rate is $4.12 \%$ of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by $3.62 \%$ of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

The total employer actuarial contribution requirement was $6.26 \%$ of payroll last year. Since then, actual experience of the System during 2008-2009 has changed the actuarial contribution requirement. Table 6 presents a detailed explanation of the factors that changed the contribution requirement from July 1, 2008 to July 1, 2009.

## Judges

The components of the actuarial contribution requirement are shown below:

|  | Amount for <br> $2009-2010$ | Percentage <br> of Payroll |
| :--- | ---: | :---: |
| Total normal cost | $\$ 1,045,560$ | $19.22 \%$ |
| Less: Member contributions | $\underline{(271,992)}$ | $\underline{(5.00)}$ |
| Net employer normal cost | $\$ 773,568$ | $14.22 \%$ |
| Administrative expense allowance | 5,000 | 0.09 |
| Amortization payment (credit) | $\underline{(208,710)}$ | $\underline{(3.83)}$ |
| Total employer contribution requirement | $\$ 569,858$ | $10.48 \%$ |

Covered payroll is $\$ 5,439,847$.
The statutory contribution rate is $14.52 \%$ of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by $4.04 \%$ of payroll.

The net employer normal cost plus the administrative expense allowance is $14.31 \%$ of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of $10.48 \%$ of payroll reflects an amortization credit. By this measure, statutory contributions are greater than the ultimate plan cost rate of $14.31 \%$ of payroll by $0.21 \%$ of payroll.

A reconciliation of the change in the cost rate since the previous valuation follows:

Investment loss
Contribution gain
Plan experience during the year
Effect of maintaining 20-year amortization schedule $\underline{0.14}$
Employer cost rate as of July 1, 2009 10.48\%

## National Guard

The components of the actuarial contribution requirement are shown below:

|  | Amount for <br> $2009-2010$ | Percentage <br> of Payroll |  |
| :--- | :---: | :---: | :---: |
| Total normal cost | $\$ 117,669$ | $8.81 \%$ |  |
| Less: Member contributions | $\underline{(53,443)}$ | $\underline{(4.00)}$ |  |
| Net employer normal cost | $\$ 64,226$ | $4.81 \%$ |  |
| Administrative expense allowance | 1,115 | 0.08 |  |
| Amortization payment (credit) | $\underline{(15,776)}$ | $\underline{(1.18)}$ |  |
| Total employer contribution requirement | $\$ 49,565$ |  | $3.71 \%$ |

Covered payroll is $\$ 1,336,097$.
The approved contribution rate is $6.50 \%$ of payroll. Hence, approved contributions exceed the actuarial contribution requirement shown above by $2.79 \%$ of payroll.

The net employer normal cost plus the administrative expense allowance is $4.89 \%$ of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of $3.71 \%$ of payroll reflects an amortization credit. By this measure, approved contributions are greater than the ultimate plan cost rate of $4.89 \%$ of payroll by $1.61 \%$ of payroll.

A reconciliation of the change in the cost rate since the previous valuation follows:

Percentage of Payroll

| Employer cost rate as of July 1, 2008 | $3.44 \%$ |
| :--- | :---: |
| Investment loss | 0.72 |
| Contribution loss | 0.17 |
| Plan experience during the year | $(0.66)$ |
| Effect of maintaining 20-year amortization schedule | $\underline{0.04}$ |
| Employer cost rate as of July 1, 2009 | $3.71 \%$ |

## Law Enforcement with prior Main service

The components of the actuarial contribution requirement are shown below:

|  | Amount for $2009-2010$ | Percentage of Payroll |
| :---: | :---: | :---: |
| Total normal cost | \$496,308 | 8.74\% |
| Less: Member contributions | $(227,105)$ | (4.00) |
| Net employer normal cost | \$269,203 | 4.74\% |
| Administrative expense allowance | 3,253 | 0.06 |
| Amortization payment (credit) | 244,606 | 4.31 |
| Total employer contribution requirement | \$517,062 | 9.11\% |

Covered payroll is $\$ 5,677,624$.
The approved contribution rate is $8.31 \%$ of payroll. Hence, approved contributions are less than the actuarial contribution requirement shown above by $0.80 \%$ of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

A reconciliation of the change in the cost rate since the previous valuation follows:

|  | Percentage <br> of Payroll |
| :--- | :---: |
| Employer cost rate as of July 1, 2008 | $9.04 \%$ |
| Investment loss | 0.60 |
| Contribution loss | 0.01 |
| Plan experience during the year | $(0.38)$ |
| Effect of maintaining 20-year amortization schedule | $\underline{(0.16)}$ |
| Employer cost rate as of July 1, 2009 | $9.11 \%$ |

## Law Enforcement without prior Main service

The components of the actuarial contribution requirement are shown below:

|  | Amount for $\underline{2009-2010}$ | Percentage of Payroll |
| :---: | :---: | :---: |
| Total normal cost | \$90,588 | 9.53\% |
| Less: Member contributions | $(37,992)$ | (4.00) |
| Net employer normal cost | \$52,596 | 5.53\% |
| Administrative expense allowance | 632 | 0.07 |
| Amortization payment (credit) | 11,668 | $\underline{1.23}$ |
| Total employer contribution requirement | \$64,896 | 6.83\% |

Covered payroll is $\$ 949,790$.
The approved contribution rate is $6.43 \%$ of payroll. Hence, approved contributions are less than the actuarial contribution requirement shown above by $0.40 \%$ of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

A reconciliation of the change in the cost rate since the previous valuation follows:

> Percentage of Payroll

Employer cost rate as of July 1, 2008
Investment loss 0.04
Contribution loss
0.05

Plan experience during the year
Effect of maintaining 20-year amortization schedule
Employer cost rate as of July 1, 2009
(0.05)
6.83\%

## Main System, Judges, National Guard and Law Enforcement Combined

The components of the actuarial contribution requirement are shown below.

|  | Amount for <br> $\underline{2009-2010}$ | Percentage <br> of Payroll |
| :--- | ---: | :---: |
| Total normal cost | $\$ 61,585,774$ | $8.83 \%$ |
| Less: Member contributions | $\underline{(27,963,862)}$ | $\underline{(4.01)}$ |
| Net employer normal cost | $\$ 33,621,912$ | $4.82 \%$ |
| Administrative expense allowance | 720,000 | 0.10 |
| Amortization payment (credit) | $\underline{19,815,954}$ | $\underline{\underline{2.84}}$ |
| Total employer contribution requirement | $\$ 54,157,866$ | $7.76 \%$ |

Covered payroll is $\$ 697,736,596$.

TABLE 6
Main System
Explanation of Change in Employer Cost Rate
$\left.\begin{array}{lr} & \begin{array}{c}\text { Percent } \\ \text { of Payroll } \\ \text { Employer Cost Rate as of July 1, } 2008\end{array} \\ \text { Retired Life Mortality } \\ \text { The release of liability due to deaths among retirees and beneficiaries was } \\ \text { less than expected, increasing the employer cost rate. } \\ \text { Active Life Mortality }\end{array}\right) 0.20 \%$

On an actuarial value basis, the rate of return on assets was less than the assumed rate of return, increasing the employer cost rate.

## Salary Scale

Salaries increased more than expected, increasing the employer cost rate.

## Contributions

Actual contributions received by the System were less than the actuarially determined amount, increasing the required contributions in future years.

TABLE 6
Main System Explanation of Change in Employer Cost Rate (continued)

Percent of Payroll<br>\section*{Administrative Expenses}<br>Actual expenses were more than expected.

New and Reinstated Members
The addition of new and reinstated members increased the employer cost rate.

## Part-Time Experience

Some continuing active members earned less than one year of service during the current year, decreasing the employer cost rate.

## Change in Size and Composition of Active Membership and 0.33\% Miscellaneous Experience

The demographic characteristics of the active membership changed during the year, increasing the employer cost rate.

Plan Provision Changes
0.00\%

There were no changes in plan provisions.

## Assumption Changes

There were no changes in actuarial assumptions.

## Funding Schedule

The effect of maintaining a 20-year funding schedule results in a small decrease in cost.

Employer Cost Rate as of July 1, $2009 \quad 7.74 \%$

## VII. FUNDING STATUS

The calculation of funded ratios provides one measure of the progress of funding a retirement plan. The funded ratio is the percentage of plan liabilities covered by plan assets. The greater the ratio, the better funded the retirement plan is. This ratio can be calculated using different measures of the retirement plan's liabilities.

## Funding Basis - Actuarial Accrued Liability

This measure of liabilities is used in calculating pension costs. It uses the Entry Age Normal Actuarial Cost Method that spreads costs as a level percentage of payroll over a member's working career.

For determining plan costs, a smoothed value of assets (called the actuarial value) is used. Hence, the actuarial value of assets was used to calculate the funded ratios.

## Disclosure Basis

The accounting standard for disclosure of liabilities and funding status of the System is based on GASB Statement No. 25 (Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans). GASB Statement No. 25 allows the System to disclose its liabilities and funding status on the same bases used for funding the System. The actuarial value of assets is used for comparing assets and liabilities.

## Historical Results

The funded ratios (under the GASB Statement No. 25 standard) for the last ten years are developed in Table 7. These ratios are graphed in Chart 4 on page 29. They show that the funded ratio has deteriorated since July 1, 2000. The ratio improved last year due to an investment gain, but decreased this year due to an investment loss. This is in part also due to the amortization policy which calculates an amortization payment that is less than the interest on the Unfunded Actuarial Accrued Liability.

Funded ratios change over time due to several factors. These factors include the level of contributions, actual experience (including investment returns), plan amendments and changes in assumptions. In particular, we observe that in years when benefit improvements were effective, for example in 2001, the funded ratio was lower than what it would have been otherwise. Also, the actuarial assumptions were changed in 2000 and 2006, changing the funded ratio from what it would have been otherwise.

TABLE 7

## Funded Ratio for PERS

| As of <br> July 1 | Actuarial <br> Accrued Liability | Actuarial Value <br> of Assets | Funded <br> Ratio |
| :---: | ---: | :---: | :--- |
| 2000 | $\$ 891,889,000$ | $\$ 1,027,001,800$ | $115.1 \%$ |
| 2001 | $1,008,722,500$ | $1,115,334,400$ | 110.6 |
| 2002 | $1,103,460,900$ | $1,150,000,800$ | 104.2 |
| 2003 | $1,188,830,500$ | $1,166,452,100$ | 98.1 |
| 2004 | $1,272,857,600$ | $1,196,533,100$ | 94.0 |
| 2005 | $1,361,182,100$ | $1,236,114,100$ | 90.8 |
| 2006 | $1,480,456,700$ | $1,314,542,900$ | 88.8 |
| 2007 | $1,609,168,600$ | $1,503,137,900$ | 93.4 |
| 2008 | $1,737,627,000$ | $1,609,810,300$ | 92.6 |
| 2009 | $1,901,200,800$ | $1,617,147,800$ | 85.1 |

## Chart 4 <br> Funded Ratio (PERS)


$\bullet-$ Funded Ratio

## VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

The actuarial assumptions and cost methods used in the actuarial valuation as of July 1, 2009 are the same as those used in the previous valuation. A summary of the actuarial assumptions and cost methods follows. Details can be found in Exhibit II of Appendix A.

## Investment Return

The actuarial calculations are based on the assumption that the investment return on the actuarial value of assets of the System will be $8.00 \%$ per year, net of investment expenses.

## Salary Increases

Because the retirement benefits provided by the plan are based on a member's final average salary, increases in salaries affect the employer's contribution requirements. A salary scale is used in an actuarial valuation to project each member's future salary increases.

For the Main System, National Guard and Law Enforcement, the assumed salary increase is 7.00\% during each of the first five years of service. After five years of service, salary increases are agerelated. Sample age-related annual salary rate increases are as follows:

| Age | Increase |
| :---: | :---: |
| 25 | $5.90 \%$ |
| 30 | $5.60 \%$ |
| 35 | $5.30 \%$ |
| 40 | $5.10 \%$ |
| 45 | $4.90 \%$ |
| 50 | $4.80 \%$ |
| 55 | $4.70 \%$ |
| 60 | $4.70 \%$ |

For Judges, the assumed salary increase is $5.50 \%$ per year for all years of service.
Actuarial assumptions should be reasonable over the long term and should not be unduly influenced by transitory deviations. Actual salary increases that are greater than assumed produce actuarial losses that, if not offset by actuarial gains from other sources (such as investment gains), result in increasing future employer costs. On the other hand, salary increases that are less than projected produce actuarial gains, which can result in lowering future employer costs.

## Payroll Growth

For the Main System, National Guard and Law Enforcement, the assumed payroll growth rate is 4.50\% per annum. For Judges, the assumed payroll growth rate is $4.00 \%$ per annum.

## Mortality Rates

The reserve required to pay a member's retirement benefits depends on the period over which payments will be received. The valuation uses the 1983 Group Annuity Mortality Table with males set back one year for healthy members and the Pension Benefit Guaranty Corporation Disabled Life Mortality Table for Individuals Receiving Social Security Disability Benefits for disabled members. The table below shows sample mortality rates and life expectancies underlying the healthy mortality tables.

Retired Members

| Age | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Deaths per 1,000 Lives | Expected Number of Years of Life Remaining | Deaths per 1,000 Lives | Expected Number of Years of Life Remaining |
| 55 | 5.7 | 25.2 | 2.5 | 30.3 |
| 60 | 8.4 | 21.0 | 4.2 | 25.7 |
| 65 | 13.9 | 17.0 | 7.1 | 21.3 |
| 70 | 24.8 | 13.3 | 12.4 | 17.2 |
| 75 | 40.4 | 10.2 | 24.0 | 13.4 |
| 80 | 67.1 | 7.6 | 42.9 | 10.2 |
| 85 | 106.0 | 5.6 | 69.9 | 7.6 |

## Disability Incidence Rates Before Retirement

A percentage of members are assumed to become disabled while in active service. The incidence rates used are based on a study of disability incidence under the Social Security program. To reflect actual experience under the retirement system, $42 \%$ of the Social Security disability incidence rates are used for males and $30 \%$ are used for females.

## Withdrawal Rates Before Retirement

The withdrawal rates used in this actuarial valuation reflect the expected percentage of members who will leave service at each age before retirement for reasons other than death or disability.
For the Main System, National Guard and Law Enforcement, special withdrawal rates are applied during the first five years of service to recognize higher turnover for short service members.

During the first five years of service, Main withdrawal rates vary with age and service as follows:

|  | Years of Service |  |  |  |  |
| :--- | :---: | :--- | :---: | :---: | :---: |
| Age | $\underline{1}$ | $\underline{2}$ | $\underline{3}$ | $\underline{4}$ | $\underline{5}$ |
| $29 \&$ Under | $18 \%$ | $15 \%$ | $12 \%$ | $10 \%$ | $15 \%$ |
| $30-39$ | 12 | 12 | 11 | 10 | 11 |
| 40 \& Over | 10 | 10 | 8 | 7 | 6 |

After five years of service, Main withdrawal rates vary with age and gender as follows:

| Age | Male | Female |
| :---: | :---: | :---: |
| $20-24$ | $12.0 \%$ | $12.0 \%$ |
| $25-29$ | 8.0 | 10.0 |
| $30-34$ | 5.0 | 8.0 |
| $35-39$ | 3.5 | 5.0 |
| $40-44$ | 3.0 | 4.0 |
| $45-49$ | 2.5 | 3.5 |
| 50 \& Over | 2.0 | 3.0 |

During the first five years of service, National Guard and Law Enforcement withdrawal rates vary with age and service as follows:

|  | Years of Service |  |  |  |  |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Age | $\underline{1}$ | $\underline{2}$ | $\underline{3}$ | $\underline{4}$ | $\underline{5}$ |
| $29 \&$ Under | $23 \%$ | $20 \%$ | $17 \%$ | $16 \%$ | $15 \%$ |
| $30-39$ | 17 | 15 | 13 | 12 | 11 |
| $40 \&$ Over | 15 | 12 | 10 | 8 | 6 |

After five years of service, National Guard and Law Enforcement withdrawal rates vary with age and gender as follows:

| Age | Male | Female |
| :---: | :---: | :---: |
| $20-24$ | $12 \%$ | $12 \%$ |
| $25-29$ | 8 | 10 |
| $30-34$ | 5 | 8 |
| $35-39$ | 4 | 6 |
| $40-44$ | 3 | 5 |
| $45-49$ | 3 | 4 |
| $50 \&$ Over | 2 | 3 |

For Judges, withdrawal rates at each age are:

| Age | Male | Female |
| :---: | :---: | :---: |
| $20-24$ | $6.0 \%$ | $6.0 \%$ |
| $25-29$ | 4.0 | 5.0 |
| $30-34$ | 2.5 | 4.0 |
| $35-39$ | 2.0 | 3.0 |
| $40-44$ | 1.5 | 2.5 |
| $45-49$ | 1.5 | 2.0 |
| 50 \& Over | 1.0 | 1.5 |

Withdrawal rates end upon the earlier of early retirement and Rule of 85 (Main System and Judges) eligibility.

## Retirement

The retirement rates reflect the expected percentage of members who will retire at each age. For Main System members, the rates vary with age, as follows:

| Age | Rule of 85 <br> Eligible Rate |  |
| :---: | :---: | :---: | | All Other <br> Retirements |
| :---: |
| 55 |

The retirement rates for Judges begin at age 62. Thirty-five percent of Judges are assumed to retire at each age from 62 to $64,50 \%$ are assumed to retire at each age from 65 to 69 , and $100 \%$ of the remaining Judges are assumed to retire at age 70. Retirement for members of the National Guard and Law Enforcement is assumed to occur at age 60.

Retirement for inactive vested members of the Main System and Judges is assumed to occur at the earlier of age 65 and Rule of 85 . Retirement for inactive vested members of the National Guard is assumed to occur at age 55. Retirement for inactive vested members of the Law Enforcement is assumed to occur at the earlier of age 55 and Rule of 85 .

Fifty percent of inactive vested Main System and Judges and $100 \%$ of inactive vested National Guard and Law Enforcement are assumed to elect a refund of employee contributions in lieu of a pension benefit.

## Annual Administrative Expenses

Annual administrative expenses for all Systems combined are assumed to be $\$ 720,000$.

## Marital Status for Non-Retired Members

At death, $75 \%$ of male members and $60 \%$ of female members are assumed to have spouses. The same assumption applies at retirement, except for Judges, for whom $100 \%$ are assumed to have spouses. For the Main system, males are assumed to be four years older than their female spouses. For all other systems, males are assumed to be five years older than their female spouses.

## Valuation of Assets

Investments are valued at an adjusted market value. Interest and dividends are recognized immediately. The net market appreciation (depreciation) is spread over five years in equal dollar amounts, beginning with the year of occurrence. The actuarial value of assets is the market value less deferred appreciation (depreciation). A characteristic of this asset valuation method is that, over time, it is more likely to produce an actuarial value of assets that is less than the market value of assets.

## Actuarial Cost Method

The System is funded using the Entry Age Normal Actuarial Cost Method. This method produces costs that remain relatively level as a percentage of covered payroll.

Under the Entry Age Normal Method, the total contribution requirement has three components - an annual normal cost, an allowance for administrative expenses and a payment with respect to the unfunded/(surplus) actuarial accrued liability. The annual normal cost is calculated for each member as the level percentage of pay required over the member's period of covered employment to pay the total expected benefits. The normal cost is determined as if the current benefit accrual rate had always been in effect. If the actuarial assumptions are met, the total normal cost rate will remain level as a percentage of payroll.

The normal cost payments are sufficient to finance the benefit program only if there are no changes in plan design and all actuarial assumptions are realized. To the extent that actual experience is less favorable than assumed, additional liabilities not funded through normal cost payments arise. Also, benefit liberalizations that improve earned benefits or benefit eligibility produce additional liabilities. The Board has adopted a schedule of amortizing this unfunded/(surplus) actuarial accrued liability over an open period of 20 years. The annual payments are determined as a level percent of payroll, with payroll expected to increase 4.5\% per year for the Main System, National Guard and Law Enforcement, and for Judges payroll is expected to increase 4.0\% per year. This method provides payment in constant, or real, dollars.

## APPENDIX A

November 11, 2009

## NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM ACTUARIAL VALUATION CERTIFICATE

This is to certify that we have prepared an Actuarial Valuation of the System as of July 1, 2009 in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:
I. Actuarial Valuation Results
II. Actuarial Assumptions and Cost Methods
III. Changes in Actuarial Assumptions and Cost Methods
IV. Changes in Plan Provisions
V. Summary of Plan Provisions

The valuation was based on information supplied by the Retirement Office with respect to member and financial data. We have not verified, and customarily would not verify, such information but we have no reason to doubt its substantial accuracy.

To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate and in our opinion each individual assumption used (a) is reasonably related to the experience of the System and to reasonable expectations and (b) represents our best estimate of anticipated experience under the System.

The undersigned are available to provide further information or to answer any questions regarding the report.


Brad Ramirez, FSA, FCA, MAAA, EA Consulting Actuary

Kano Schneider
Kurt Schneider, ASA, MAAA, EA
Associate Actuary


John Monroe, ASA, MAAA, EA
Vice President \& Associate Actuary

## EXHIBIT I-A

## ACTUARIAL VALUATION RESULTS

MAIN SYSTEM

1. Actuarial accrued liability on July 1, 2009:
a. Active members \$1,147,511,985
b. Special prior service pensions 27,078
c. Retired members and beneficiaries ......................... 632,540,488
d. Inactive non-retired members ................................. - 80,952,754
e. Total ................................................................................................. \$1,861,032,305
2. Assets at actuarial value ( $\$ 1,287,683,367$ at market value) ............................ 1,577,552,012
3. Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)............ 283,480,293
4. Member and employer normal cost for ensuing year*................................... 59,835,649
5. Estimated annual salaries of covered members .............................................. 684,333,238
6. Member normal cost - equals 4\% of (5) ........................................................ 27,373,330
7. Employer normal cost for ensuing year - equals (4) minus (6)....................... 32,462,319
8. Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary* 19,784,166
9. Administrative expenses $\qquad$ 710,000
10. Total employer cost for ensuing year - equals (7) plus (8) plus (9) 52,956,485
11. Total employer cost as percentage of payroll - equals (10) divided by (5)

* Adjusted for interest to recognize payments through the year.


## EXHIBIT I-B

## ACTUARIAL VALUATION RESULTS JUDGES

1. Actuarial accrued liability on July 1, 2009:
a. Active members .............................................................. \$16,096,656
b. Retired members and beneficiaries .................................. 10,047,174
c. Inactive non-retired members .......................................... 201,513
d. Total .................................................................................................... \$26,345,343
2. Assets at actuarial value (\$23,849,876 at market value)................................... 29,218,689
3. Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)............... $(2,873,346)$
4. Member and employer normal cost for ensuing year* ...................................... 1,045,560
5. Estimated annual salaries of covered members................................................. 5,439,847
6. Member normal cost - equals 5\% of (5)........................................................... 271,992
7. Employer normal cost for ensuing year - equals (4) minus (6)......................... 773,568
8. Amortization payment - equals 20-year amortization of item (3)
as a level percent of aggregate salary*............................................................
$(208,710)$
9. Administrative expenses.................................................................................. 5,000
10. Total employer cost for ensuing year - equals (7) plus (8) plus (9) ................... 569,858
11. Total employer cost as percentage of payroll - equals (10)
divided by (5) ................................................................................................. $10.48 \%$

* Adjusted for interest to recognize payments through the year.


## EXHIBIT I-C

## ACTUARIAL VALUATION RESULTS <br> NATIONAL GUARD

1. Actuarial accrued liability on July 1, 2009:
a. Active members ................................................................... \$703,950
b. Retired members and beneficiaries ....................................... 986,724
c. Inactive non-retired members ..............................................._156,969
d. Total ................................................................................................
\$1,847,643
2. Assets at actuarial value (\$1,692,656 at market value)..................................... 2,073,688
3. Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2).
4. Member and employer normal cost for ensuing year* 117,669
5. Estimated annual salaries of covered members.
6. Member normal cost - equals 4\% of (5)........................................................... 53,443
7. Employer normal cost for ensuing year - equals (4) minus (6)......................... 64,226
8. Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*
9. Administrative expenses.................................................................................. 1,115
10. Total employer cost for ensuing year - equals (7) plus (8) plus (9) ................... 49,565
11. Total employer cost as percentage of payroll - equals (10) divided by (5)
[^1]
## EXHIBIT I-D

## ACTUARIAL VALUATION RESULTS

## LAW ENFORCEMENT WITH PRIOR MAIN SERVICE

1. Actuarial accrued liability on July 1, 2009:
a. Active members \$8,436,823
b. Retired members and beneficiaries ......................................... 2,798,558
c. Inactive non-retired members 301,704
d. Tota
\$11,537,085
2. Assets at actuarial value ( $\$ 6,556,328$ at market value) 8,032,215
3. Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)............... 3,504,870
4. Member and employer normal cost for ensuing year*...................................... 496,308
5. Estimated annual salaries of covered members ................................................. 5,677,624
6. Member normal cost - equals 4\% of (5)............................................................ 227,105
7. Employer normal cost for ensuing year - equals (4) minus (6)......................... 269,203
8. Amortization payment - equals 20-year amortization of item (3)
as a level percent of aggregate salary* ............................................................. 244,606
9. Administrative expenses.................................................................................. 3,253
10. Total employer cost for ensuing year - equals (7) plus (8) plus (9) ................... 517,062
11. Total employer cost as percentage of payroll - equals (10)
divided by (5) .............................................................................................. $9.11 \%$

* Adjusted for interest to recognize payments through the year.


## EXHIBIT I-E

## ACTUARIAL VALUATION RESULTS

## LAW ENFORCEMENT WITHOUT PRIOR MAIN SERVICE

1. Actuarial accrued liability on July 1, 2009:
a. Active members ......................................................................... \$324,965
b. Retired members and beneficiaries............................................ 0
c. Inactive non-retired members .................................................... 113,415
d. Total....................................................................................................
\$438,380
2. Assets at actuarial value (\$221,366 at market value) ........................................ 271,197
3. Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)............... 167,183
4. Member and employer normal cost for ensuing year*...................................... 90,588
5. Estimated annual salaries of covered members................................................ 949,790
6. Member normal cost - equals 4\% of (5)........................................................... 37,992
7. Employer normal cost for ensuing year - equals (4) minus (6)......................... 52,596
8. Amortization payment - equals 20-year amortization of item (3)
as a level percent of aggregate salary* ........................................................... 11,668
9. Administrative expenses.................................................................................. 632
10. Total employer cost for ensuing year - equals (7) plus (8) plus (9) ................... 64,896
11. Total employer cost as percentage of payroll - equals (10)
divided by (5) ............................................................................................. $6.83 \%$

* Adjusted for interest to recognize payments through the year.


## EXHIBIT I-F

## ACTUARIAL VALUATION RESULTS <br> MAIN SYSTEM, JUDGES, NATIONAL GUARD AND LAW ENFORCEMENT PLAN COMBINED

## 1. Actuarial accrued liability on July 1, 2009:

a. Active members ............................................................. \$1,173,074,379
b. Special prior service pensions........................................ 27,078
c. Retired members and beneficiaries ................................ 646,372,944
d. Inactive non-retired members ........................................ 81,726,355
e. Total....................................................................................................... \$1,901,200,756
2. Assets at actuarial value ( $\$ 1,320,003,593$ at market value) ............................... 1,617,147,801
3. Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)............... 284,052,955
4. Member and employer normal cost for ensuing year* ...................................... 61,585,774
5. Estimated annual salaries of covered members................................................ 697,736,596
6. Member normal cost

27,963,862
7. Employer normal cost for ensuing year - equals (4) minus (6) 33,621,912
8. Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*

19,815,954
9. Administrative expenses. 720,000
10. Total employer cost for ensuing year - equals (7) plus (8) plus (9) 54,157,866
11. Total employer cost as percentage of payroll - equals (10) divided by (5)

* Adjusted for interest to recognize payments through the year.


## EXHIBIT II

## ACTUARIAL ASSUMPTIONS AND COST METHODS

## 1. Mortality Tables:

Healthy: 1983 Group Annuity Mortality Table, set back one year for males (not set back for females).

Disabled: Pension Benefit Guaranty Corporation Disabled Life Mortality Table for Individuals Receiving Social Security Disability Benefits.

## 2. Disability Incidence Rates:

Before age 65: Males 42\% of OASDI disability incidence rates. Females $30 \%$ of OASDI disability incidence rates.

Age 65 and later: Males $0.25 \%$ per year. Females $0.35 \%$ per year.

Sample rates are as follows:

| Age | $\underline{\text { Male }}$ | Female |
| :---: | :--- | :--- |
| 20 | $0.03 \%$ | $0.02 \%$ |
| 30 | 0.05 | 0.03 |
| 40 | 0.09 | 0.07 |
| 50 | 0.25 | 0.18 |
| 60 | 0.68 | 0.49 |

## 3. Annual Withdrawal Rates:

Main System:
First five years of service:
Years of Service

| Age | $\underline{1}$ | $\underline{2}$ | $\underline{3}$ | $\underline{4}$ | $\underline{5}$ |
| :---: | :--- | :--- | :---: | :---: | :---: |
| 29 \& Under | $18 \%$ | $15 \%$ | $12 \%$ | $10 \%$ | $15 \%$ |
| $30-39$ | 12 | 12 | 11 | 10 | 11 |
| 40 \& Over | 10 | 10 | 8 | 7 | 6 |

## EXHIBIT II (continued)

Ultimate withdrawal rates after five years service:

| Age | $\underline{\text { Male }}$ | $\underline{\text { Female }}$ |
| :---: | :---: | :---: |
| $20-24$ | $12.0 \%$ | $12.0 \%$ |
| $25-29$ | 8.0 | 10.0 |
| $30-34$ | 5.0 | 8.0 |
| $35-39$ | 3.5 | 5.0 |
| $40-44$ | 3.0 | 4.0 |
| $45-49$ | 2.5 | 3.5 |
| 50 \& Over | 2.0 | 3.0 |

National Guard and Law Enforcement:
First five years of service:
Years of Service

| Age | $\underline{1}$ | $\underline{2}$ | $\underline{3}$ | $\underline{4}$ | $\underline{5}$ |
| :---: | :--- | :--- | :--- | :--- | :--- |
| 29 \& Under | $23 \%$ | $20 \%$ | $17 \%$ | $16 \%$ | $15 \%$ |
| $30-39$ | 17 | 15 | 13 | 12 | 11 |
| 40 \& Over | 15 | 12 | 10 | 8 | 6 |

Ultimate withdrawal rates after five years service:

| Age | $\underline{\text { Male }}$ | Female |
| :---: | :---: | :---: |
| $20-24$ | $12 \%$ | $12 \%$ |
| $25-29$ | 8 | 10 |
| $30-34$ | 5 | 8 |
| $35-39$ | 4 | 6 |
| $40-44$ | 3 | 5 |
| $45-49$ | 3 | 4 |
| 50 \& Over | 2 | 3 |

## EXHIBIT II (continued)

Judges:

| Age | $\underline{\text { Male }}$ | Female |
| :---: | :--- | :---: |
| $20-24$ | $6.0 \%$ | $6.0 \%$ |
| $25-29$ | 4.0 | 5.0 |
| $30-34$ | 2.5 | 4.0 |
| $35-39$ | 2.0 | 3.0 |
| $40-44$ | 1.5 | 2.5 |
| $45-49$ | 1.5 | 2.0 |
| 50 \& Over | 1.0 | 1.5 |

Withdrawal rates end upon eligibility for early retirement. Early retirement eligibility is as follows:

Main System:
Earlier of (i) age 55 and 3 years of service, and (ii) eligibility for Rule of 85.

## Judges:

Earlier of (i) age 55 and 5 years of service, and (ii) eligibility for Rule of 85.
National Guard and Law Enforcement:
Age 50 and 3 years of service.

## 4. Refund of Employee Contributions:

Fifty percent of inactive vested Main System and Judges and 100\% of inactive vested National Guard and Law Enforcement are assumed to elect a refund of employee contributions in lieu of a pension benefit.

## EXHIBIT II (continued)

## 5. Retirement Rates for Active Members:

Main System:

|  | Age | Rule of 85 Eligible Rate | All Other Retirements |
| :---: | :---: | :---: | :---: |
|  | 55 | 4\% | 4\% |
|  | 56 | 6 | 4 |
|  | 57 | 6 | 4 |
|  | 58 | 6 | 4 |
|  | 59 | 6 | 4 |
|  | 60 | 8 | 6 |
|  | 61 | 15 | 12 |
|  | 62 | 35 | 25 |
|  | 63 | 25 | 20 |
|  | 64 | 25 | 20 |
|  | 65 | 40 | 30 |
|  | 66 | 20 | 20 |
|  | 67 | 20 | 20 |
|  | 68 | 20 | 20 |
|  | 69 | 20 | 20 |
|  | 70 | 100 | 100 |
| Judges: |  |  |  |
|  | Age | Rate |  |
|  | 62 | 35\% |  |
|  | 63 | 35 |  |
|  | 64 | 35 |  |
|  | 65 | 50 |  |
|  | 66 | 50 |  |
|  | 67 | 50 |  |
|  | 68 | 50 |  |
|  | 69 | 50 |  |
|  | 70 | 100 |  |
| National Guard and Law Enforcement: |  |  |  |
|  | Age | Rate |  |
|  | 60 | 100\% |  |

## EXHIBIT II (continued)

## 6. Retirement Age for Inactive Vested Members:

Main System and Judges:
The earlier of:

- Age 65.
- Unreduced retirement date for each individual.

National Guard:
Age 55.
Law Enforcement:
The earlier of:

- Age 55.
- Unreduced retirement date for each individual.


## 7. Interest Rate:

8.00\% per annum, net of investment expenses.

## 8. Annual Administrative Expenses:

| Main System: | $\$ 710,000$ |
| :--- | ---: |
| Judges: | $\$ 5,000$ |

National Guard and Law Enforcement combined: \$ 5,000

## 9. Salary Scale:

Main System, National Guard and Law Enforcement:
Less than five years of service: $7.00 \%$ per annum.
Five or more years of service (sample rates are as follows):

| Age | Percentage <br> Increase | Age | Percentage <br> Increase |
| :---: | :---: | :---: | :---: |
| 25 | $5.90 \%$ |  | 45 |

Judges:
$5.50 \%$ per annum for all years of service.

## EXHIBIT II (continued)

## 10. Payroll Growth:

Main System, National Guard and Law Enforcement: 4.50\% per annum.
Judges: $\quad 4.00 \%$ per annum.

## 11. Marital Status for Non-Retired Members:

At death, $75 \%$ of male members and $60 \%$ of female members are assumed to have spouses. The same assumption applies at retirement, except for Judges, for whom 100\% are assumed to have spouses. For the Main system, males are assumed to be four years older than their female spouses. For all other systems, males are assumed to be five years older than their female spouses.

## 12. Part-Time Employees:

One full year of service is credited for each future year of service.

## 13. Split Service:

Liabilities are held in both plans based on service in each plan and are based on the actuarial assumptions of the plan in which they are currently active.

## 14. Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. The unfunded actuarial accrued liability is amortized in installments increasing by the payroll growth assumption each year over an open 20-year period.

## 15. Actuarial Value of Assets:

Adjusted market value that immediately recognizes interest and dividends. The procedure recognizes $20 \%$ of each year's total appreciation (depreciation) beginning with the year of occurrence. After five years, the appreciation (depreciation) is fully recognized. A characteristic of this asset valuation method is that, over time, it is more likely to produce an actuarial value of assets that is less than the market value of assets.

## 16. Social Security Disability (for Judges' disability benefit offset):

Eligibility: 50\%
Consumer Price Index Increases: 3.5\% per annum
Wage Base Increases: 5.0\% per annum

## EXHIBIT II (continued)

## 17. Workers' Compensation (for Judges' disability benefit offset):

None assumed.

## 18. Account Balance Due to Vested Employer Contribution (PEP):

Participation
Under Chapter 54-52.2: If not elected: 50\% of active members of the Main System, National Guard and Law Enforcement.
If elected: $100 \%$ of active members of the Main System, National Guard and Law Enforcement.

Contribution: Maximum allowed based on service at the beginning of the Plan year.

## EXHIBIT III

## CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS

There were no changes in actuarial assumptions or cost methods since the preceding valuation.

## EXHIBIT IV

## CHANGES IN PLAN PROVISIONS

The following changes were made in the plan provisions since the prior valuation:
> For active members in the Main System and the National Guard and Law Enforcement, the pre-retirement death benefit option of the member's accrued benefit payable for 60 months to the surviving spouse is no longer available.
> An actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year has been added, effective March 1, 2011.

## EXHIBIT V

## SUMMARY OF PLAN PROVISIONS

This exhibit summarizes the major benefit provisions of the North Dakota Public Employees Retirement System as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions.

## 1. Normal Service Retirement:

Eligibility:
Main System and Judges:
Attainment of age 65, or age plus service equal to at least 85 (Rule of 85).
National Guard:
Attainment of age 55 and three consecutive years of service.
Law Enforcement:
Attainment of age 55 and three consecutive years of service, or age plus service equal to at least 85 (Rule of 85).

Benefit:
Main System, National Guard and Law Enforcement:
$2.00 \%$ of final average salary multiplied by service.
Judges:
$3.50 \%$ of final average salary for each of the first ten years of service, $2.80 \%$ for each of the next ten years of service, and $1.25 \%$ for service in excess of twenty years.

## 2. Early Service Retirement:

Eligibility:
Main System:
Attainment of age 55 with three years of service.

## Judges:

Attainment of age 55 with five years of service.

## EXHIBIT V (continued)

National Guard and Law Enforcement:
Attainment of age 50 with three years of service.
Benefit:
Main System:
The Normal Service Retirement Benefit as determined above. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before the earlier of age 65 or the age at which the Rule of 85 is met.

Judges:
The Normal Service Retirement Benefit as determined above. A benefit that begins before age 65 (or Rule of 85 , if earlier) is reduced by one-half of one percent for each month before age 65 .

## National Guard:

The Normal Service Retirement Benefit as determined above. A benefit that begins before age 55 is reduced by one-half of one percent for each month before age 55.

Law Enforcement:
The Normal Service Retirement Benefit as determined above. A benefit that begins before age 55 (or Rule of 85 , if earlier) is reduced by one-half of one percent for each month before age 55.

## 3. Disability Benefit:

Eligibility:
Six months of service and inability to engage in any substantial gainful activity.
Benefit:
Main System, National Guard and Law Enforcement:
$25 \%$ of the member's final average salary at disability, with a minimum of $\$ 100$ per month.

Judges:
$70 \%$ of the member's final average salary at disability minus Social Security and Workers' Compensation benefits paid.

## EXHIBIT V (continued)

## 4. Deferred Vested Retirement:

Eligibility:
Main System, National Guard and Law Enforcement:
Three years of service.
Judges:
Five years of service.
Benefit:
Main System and Judges:
The Normal Service Retirement Benefit payable at age 65 or the Rule of 85, if earlier. Reduced early retirement benefits can be elected upon attainment of age 55.

National Guard:
The Normal Service Retirement Benefit payable at age 55. Reduced early retirement benefits can be elected upon attainment of age 50 .

Law Enforcement:
The Normal Service Retirement Benefit payable at age 55 or the Rule of 85, if earlier. Reduced early retirement benefit can be selected upon attainment of age 50.

## 5. Pre-Retirement Death Benefits:

Eligibility:
Main System, National Guard and Law Enforcement:
Three years of service.
Judges:
Five years of service.

## EXHIBIT V (continued)

Benefit:
Main System, National Guard and Law Enforcement:
One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- $50 \%$ of the member's accrued benefit (not reduced on account of age) payable for the surviving spouse's lifetime.
- Continuation portion of $100 \%$ joint and survivor annuity (only if participant was eligible for normal retirement).
- A partial lump sum payment in addition to the one of the annuity options above.

Judges:
One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- $100 \%$ of the member's accrued benefit (not reduced on account of age) payable for the spouse's lifetime.

Eligibility:
Main System, Judges, National Guard and Law Enforcement:
Not vested nor a surviving spouse.
Benefit:
Main System, Judges, National Guard and Law Enforcement:
Lump sum payment of member's accumulated contributions with interest.

## 6. Refund of Member Contributions:

Paid to terminated non-vested members and terminated vested members who chose refund in lieu of a monthly retirement benefit.

## EXHIBIT V (continued)

## 7. Accumulated Member Contributions:

Member contributions accumulate with interest at the following rates:

| Time Period | Per Annum Interest Rate |
| :---: | :---: |
| Through June 30, 1981 | $5.0 \%$ |
| July 1, 1981 to June 30, 1986 | $6.0 \%$ |
| After June 30, 1986 | 0.5\% less than the actuarial <br> interest rate assumption |

## 8. Standard and Optional Forms of Payment:

Standard form of payment:
Main System, National Guard and Law Enforcement:
Monthly benefit for life with a refund to beneficiary at death of the remaining balance (if any) of accumulated member contributions.

## Judges:

Monthly benefit for life, with 50\% payable to an eligible survivor.
Optional forms of payment:
> Life annuity (for Judges)
> 50\% joint and survivor annuity with pop-up (for Main System, National Guard and Law Enforcement)
> $100 \%$ joint and survivor annuity with pop-up
> Twenty-year certain and life annuity
> Ten-year certain and life annuity
> Social Security level income annuity
> A partial lump sum payment in addition to one of the annuity options above.
> Effective March 1, 2011, an actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option, a deferred normal retirement option, or a Social Security level income annuity.

## EXHIBIT V (continued)

## 9. Final Average Salary:

Average of the highest salary received by the member for any 36 months employed during the last 120 months of employment.

## 10. Contributions:

Contribution rates specified in the Century Code (except employer rate for National Guard and Law Enforcement); differ between permanent full-time employees and part-time temporary employees. Rates are as follows:

|  | Full-Time <br> Employees | Employer |
| :---: | :---: | :---: |
| Main System | 4.00\% | 4.12\% |
| Judges | 5.00\% | 14.52\% |
| National Guard | 4.00\% | 6.50\% |
| Law Enforcement with prior Main service | 4.00\% | 8.31\% |
| Law Enforcement without prior Main service | 4.00\% | 6.43\% |

Part-time employees in the Main System contribute 8.12\%, with no employer contributions.
Effective January 1, 2000:
A member's account balance includes vested employer contributions equal to the member's contributions to the deferred compensation Plan under chapter 54-52.2. The vested employer contribution may not exceed:

1. For months one through 12 of service credit, $\$ 25$ or $1 \%$ of the member's monthly salary, whichever is greater.
2. For months 13 through 24 of service credit, $\$ 25$ or $2 \%$ of the member's monthly salary, whichever is greater.
3. For months 25 through 36 of service credit, $\$ 25$ or $3 \%$ of the member’s monthly salary, whichever is greater.
4. For service exceeding 36 months, $\$ 25$ or $4 \%$ of the member's monthly salary, whichever is greater.
5. The vested employer contribution may not exceed $4 \%$ of the member's monthly salary.

Vested employer contributions are credited monthly to the member's account balance.

## 11. Rollovers:

The fund may accept rollovers from other qualified plans under rules adopted by the Board for the purchase of additional service credit.

## APPENDIX B: CENSUS TABLES

I. Active Members
(A) Number of active members grouped by nearest age and years of employment:

Males 8-A
Females 8-B
All 8-C
(B) Number of active members grouped by nearest age and salary:
Males 9-A

Females 9-B
All 9-C
II. Current Plan Pensions
(A) Distribution of pensions awarded during the year by amount of benefit and type of pension:

Males 10-A
Females $10-\mathrm{B}$
All 10-C
(B) Distribution of pensions awarded during the year by nearest age and type of pension:

Males
11-A
Females 11-B
All 11-C
(C) Distribution of pensions in force by amount of benefit and type of pension:

Males 12-A
Females 12-B
All 12-C
(D) Distribution of pensions in force by nearest age and type of pension:

Males
13-A
Females 13-B
All 13-C
III. Special Prior Service Pensions
(A) Distribution of pensions in force by amount of benefit:

Males 14-A
Females 14-B
All 14-C
(B) Distribution of pensions in force by nearest age:

Males 15-A
Females 15-B
All 15-C

TABLE 8-A

Census of Members in Active Service on July 1, 2009
by Nearest Age and Years of Employment in PERS
(Males - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Years of Employment |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Under 5 | $5-9$ | $10-14$ | $15-19$ | $20-24$ | $25-29$ | $30-34$ | 35 \& Over |
| Total | 7,844 | 3,074 | 1,427 | 1,033 | 746 | 603 | 546 | 303 | 112 |
| Under 20 | 2 | 2 | - | - | - | - | - | - | - |
| $20-24$ | 245 | 245 | - | - | - | - | - | - | - |
| $25-29$ | 614 | 544 | 70 | - | - | - | - | - | - |
| $30-34$ | 682 | 438 | 192 | 52 | - | - | - | - | - |
| $35-39$ | 739 | 358 | 189 | 170 | 22 | - | - | - | - |
| $40-44$ | 811 | 294 | 172 | 151 | 160 | 34 | - | - | - |
| $45-49$ | 1,070 | 346 | 219 | 150 | 141 | 146 | 64 | 4 | - |
| $50-54$ | 1,269 | 325 | 202 | 173 | 134 | 161 | 196 | 77 | 1 |
| $55-59$ | 1,256 | 272 | 168 | 176 | 142 | 140 | 181 | 138 | 39 |
| $60-64$ | 812 | 155 | 140 | 100 | 106 | 99 | 78 | 75 | 59 |
| $65-69$ | 240 | 69 | 48 | 42 | 30 | 17 | 18 | 4 | 12 |
| $70-74$ | 74 | 18 | 19 | 13 | 8 | 5 | 8 | 3 | - |
| $75 \&$ Over | 30 | 8 | 8 | 6 | 3 | 1 | 1 | 2 | 1 |

TABLE 8-B

Census of Members in Active Service on July 1, 2009
by Nearest Age and Years of Employment in PERS
(Females - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Years of Employment |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Under 5 | $5-9$ | $10-14$ | $15-19$ | $20-24$ | $25-29$ | $30-34$ | $35 \&$ Over |
| Total | 12,099 | 4,810 | 2,423 | 1,722 | 1,137 | 928 | 619 | 330 | 130 |
| Under 20 | 4 | 4 | - | - | - | - | - | - | - |
| $20-24$ | 237 | 236 | 1 | - | - | - | - | - | - |
| $25-29$ | 787 | 715 | 72 | - | - | - | - | - | - |
| $30-34$ | 947 | 651 | 248 | 48 | - | - | - | - | - |
| $35-39$ | 1,150 | 613 | 300 | 196 | 41 | - | - | - | - |
| $40-44$ | 1,372 | 643 | 308 | 195 | 158 | 62 | 6 | - | - |
| $45-49$ | 1,981 | 670 | 453 | 316 | 189 | 201 | 146 | 6 | - |
| $50-54$ | 2,206 | 582 | 431 | 393 | 263 | 202 | 185 | 138 | 12 |
| $55-59$ | 1,948 | 409 | 357 | 323 | 277 | 254 | 154 | 117 | 57 |
| $60-64$ | 1,079 | 211 | 182 | 173 | 152 | 172 | 93 | 56 | 40 |
| $65-69$ | 277 | 49 | 50 | 53 | 43 | 28 | 27 | 11 | 16 |
| $70-74$ | 79 | 21 | 11 | 19 | 12 | 7 | 4 | 1 | 4 |
| $75 \&$ Over | 32 | 6 | 10 | 6 | 2 | 2 | 4 | 1 | 1 |

TABLE 8-C

Census of Members in Active Service on July 1, 2009 by Nearest Age and Years of Employment in PERS
(All Members - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Years of Employment |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Under 5 | $5-9$ | $10-14$ | $15-19$ | $20-24$ | $25-29$ | $30-34$ | 35 \& Over |
| Total | 19,943 | 7,884 | 3,850 | 2,755 | 1,883 | 1,531 | 1,165 | 633 | 242 |
| Under 20 | 6 | 6 | - | - | - | - | - | - | - |
| $20-24$ | 482 | 481 | 1 | - | - | - | - | - | - |
| $25-29$ | 1,401 | 1,259 | 142 | - | - | - | - | - | - |
| $30-34$ | 1,629 | 1,089 | 440 | 100 | - | - | - | - | - |
| $35-39$ | 1,889 | 971 | 489 | 366 | 63 | - | - | - | - |
| $40-44$ | 2,183 | 937 | 480 | 346 | 318 | 96 | 6 | - | - |
| $45-49$ | 3,051 | 1,016 | 672 | 466 | 330 | 347 | 210 | 10 | - |
| $50-54$ | 3,475 | 907 | 633 | 566 | 397 | 363 | 381 | 215 | 13 |
| $55-59$ | 3,204 | 681 | 525 | 499 | 419 | 394 | 335 | 255 | 96 |
| $60-64$ | 1,891 | 366 | 322 | 273 | 258 | 271 | 171 | 131 | 99 |
| $65-69$ | 517 | 118 | 98 | 95 | 73 | 45 | 45 | 15 | 28 |
| $70-74$ | 153 | 39 | 30 | 32 | 20 | 12 | 12 | 4 | 4 |
| $75 \&$ Over | 62 | 14 | 18 | 12 | 5 | 3 | 5 | 3 | 2 |

## TABLE 9-A

Census of Members in Active Service on July 1, 2009
by Nearest Age and Salary
(Males - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Salary |  |  |  |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Less than | $\$ 10,000-$ | $\$ 15,000-$ | $\$ 20,000-$ | $\$ 25,000-$ | $\$ 30,000-$ | $\$ 35,000-$ | $\$ 40,000-$ | $\$ 45,000-$ | $\$ 50,000$ |  |  |
| Nearest Age | Total | $\$ 10,000$ | $\$ 14,999$ | $\$ 19,999$ | $\$ 24,999$ | $\$ 29,999$ | $\$ 34,999$ | $\$ 39,999$ | $\$ 44,999$ | $\$ 49,999$ | \& Over |  |
| Total | 7,844 | 143 | 229 | 299 | 656 | 1,072 | 1,319 | 1,202 | 887 | 581 | 1,456 |  |
|  | Under 20 | 2 | - | 1 | - | 1 | - | - | - | - | - | - |
| $20-24$ | 245 | 8 | 14 | 27 | 43 | 62 | 53 | 17 | 16 | 4 | 1 |  |
| $25-29$ | 614 | 15 | 12 | 39 | 63 | 113 | 135 | 126 | 52 | 30 | 29 |  |
| $30-34$ | 682 | 6 | 7 | 19 | 55 | 92 | 115 | 146 | 97 | 55 | 90 |  |
| $35-39$ | 739 | 12 | 11 | 20 | 59 | 85 | 127 | 136 | 91 | 69 | 129 |  |
| $40-44$ | 811 | 10 | 9 | 24 | 55 | 101 | 152 | 119 | 92 | 74 | 175 |  |
| $45-49$ | 1,070 | 11 | 25 | 25 | 84 | 152 | 195 | 144 | 121 | 77 | 236 |  |
| $50-54$ | 1,269 | 19 | 32 | 29 | 95 | 165 | 204 | 185 | 153 | 97 | 290 |  |
| $55-59$ | 1,256 | 16 | 32 | 40 | 87 | 159 | 189 | 194 | 140 | 102 | 297 |  |
| $60-64$ | 812 | 16 | 38 | 36 | 81 | 96 | 114 | 106 | 94 | 61 | 170 |  |
| $65-69$ | 240 | 16 | 27 | 26 | 22 | 33 | 27 | 25 | 24 | 10 | 30 |  |
| $70-74$ | 74 | 8 | 13 | 8 | 8 | 12 | 6 | 4 | 6 | 2 | 7 |  |
| $75 \&$ Over | 30 | 6 | 8 | 6 | 3 | 2 | 2 | - | 1 | - | 2 |  |

TABLE 9-B

Census of Members in Active Service on July 1, 2009
by Nearest Age and Salary
(Females - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Salary |  |  |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Less than | $\$ 10,000-$ | $\$ 15,000-$ | $\$ 20,000-$ | $\$ 25,000-$ | $\$ 30,000-$ | $\$ 35,000-$ | $\$ 40,000-$ | $\$ 45,000-$ | $\$ 50,000$ |  |
| Nearest Age | Total | $\$ 10,000$ | $\$ 14,999$ | $\$ 19,999$ | $\$ 24,999$ | $\$ 29,999$ | $\$ 34,999$ | $\$ 39,999$ | $\$ 44,999$ | $\$ 49,999$ | \& Over |
| Total | 12,099 | 318 | 1,091 | 1,573 | 1,972 | 1,857 | 1,801 | 1,261 | 856 | 509 | 861 |
|  | Under 20 | 4 | 2 | - | 2 | - | - | - | - | - | - |
| $20-24$ | 237 | 28 | 39 | 42 | 63 | 29 | 20 | 9 | 5 | - | 2 |
| $25-29$ | 787 | 33 | 83 | 104 | 131 | 145 | 129 | 85 | 54 | 17 | 6 |
| $30-34$ | 947 | 26 | 89 | 93 | 145 | 134 | 173 | 122 | 78 | 42 | 45 |
| $35-39$ | 1,150 | 48 | 121 | 128 | 162 | 160 | 185 | 119 | 80 | 56 | 91 |
| $40-44$ | 1,372 | 30 | 149 | 188 | 207 | 193 | 204 | 142 | 85 | 65 | 109 |
| $45-49$ | 1,981 | 52 | 176 | 273 | 296 | 295 | 301 | 200 | 138 | 94 | 156 |
| $50-54$ | 2,206 | 33 | 165 | 314 | 384 | 345 | 299 | 224 | 159 | 101 | 182 |
| $55-59$ | 1,948 | 24 | 122 | 234 | 331 | 313 | 281 | 230 | 160 | 81 | 172 |
| $60-64$ | 1,079 | 16 | 90 | 137 | 177 | 191 | 162 | 97 | 87 | 39 | 83 |
| $65-69$ | 277 | 12 | 35 | 38 | 53 | 41 | 37 | 25 | 9 | 14 | 13 |
| $70-74$ | 79 | 8 | 15 | 17 | 16 | 7 | 8 | 6 | 1 | - | 1 |
| 75 \& Over | 32 | 6 | 7 | 3 | 7 | 4 | 2 | 2 | - | - | 1 |

## TABLE 9-C

Census of Members in Active Service on July 1, 2009 by Nearest Age and Salary
(All Members - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Salary |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
|  | Less than | $\$ 10,000-$ | $\$ 15,000-$ | $\$ 20,000-$ | $\$ 25,000-$ | $\$ 30,000-$ | $\$ 35,000-$ | $\$ 40,000-$ | $\$ 45,000-$ | $\$ 50,000$ |  |  |  |  |
| Nearest Age | Total | $\$ 10,000$ | $\$ 14,999$ | $\$ 19,999$ | $\$ 24,999$ | $\$ 29,999$ | $\$ 34,999$ | $\$ 39,999$ | $\$ 44,999$ | $\$ 49,999$ | \& Over |  |  |  |
| Total | 19,943 | 461 | 1,320 | 1,872 | 2,628 | 2,929 | 3,120 | 2,463 | 1,743 | 1,090 | 2,317 |  |  |  |
| Under 20 | 6 | 2 | 1 | 2 | 1 | - | - | - | - | - | - |  |  |  |
| $20-24$ | 482 | 36 | 53 | 69 | 106 | 91 | 73 | 26 | 21 | 4 | 3 |  |  |  |
| $25-29$ | 1,401 | 48 | 95 | 143 | 194 | 258 | 264 | 211 | 106 | 47 | 35 |  |  |  |
| $30-34$ | 1,629 | 32 | 96 | 112 | 200 | 226 | 288 | 268 | 175 | 97 | 135 |  |  |  |
| $35-39$ | 1,889 | 60 | 132 | 148 | 221 | 245 | 312 | 255 | 171 | 125 | 220 |  |  |  |
| $40-44$ | 2,183 | 40 | 158 | 212 | 262 | 294 | 356 | 261 | 177 | 139 | 284 |  |  |  |
| $45-49$ | 3,051 | 63 | 201 | 298 | 380 | 447 | 496 | 344 | 259 | 171 | 392 |  |  |  |
| $50-54$ | 3,475 | 52 | 197 | 343 | 479 | 510 | 503 | 409 | 312 | 198 | 472 |  |  |  |
| $55-59$ | 3,204 | 40 | 154 | 274 | 418 | 472 | 470 | 424 | 300 | 183 | 469 |  |  |  |
| $60-64$ | 1,891 | 32 | 128 | 173 | 258 | 287 | 276 | 203 | 181 | 100 | 253 |  |  |  |
| $65-69$ | 517 | 28 | 62 | 64 | 75 | 74 | 64 | 50 | 33 | 24 | 43 |  |  |  |
| $70-74$ | 153 | 16 | 28 | 25 | 24 | 19 | 14 | 10 | 7 | 2 | 8 |  |  |  |
| $75 \&$ Over | 62 | 12 | 15 | 9 | 10 | 6 | 4 | 2 | 1 | - | 3 |  |  |  |

TABLE 10-A

Pensions Awarded During the Year Ended June 30, 2009
by Type of Pension and Monthly Amount
(Males - Main System, Judges, National Guard, and Law Enforcement)

| Monthly Amount | Total | Type of Pension |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Normal | Early | Disability | Rule of 85 |
| Total | 220 | 77 | 49 | 4 | 90 |
| Under \$200 | 28 | 20 | 6 | - | 2 |
| 200-399 | 18 | 8 | 10 | - | - |
| 400-599 | 25 | 11 | 11 | 3 | - |
| 600-799 | 21 | 8 | 9 | 1 | 3 |
| 800-999 | 18 | 7 | 8 | - | 3 |
| 1,000-1,199 | 6 | 3 | - | - | 3 |
| 1,200-1,399 | 18 | 4 | 2 | - | 12 |
| 1,400-1,599 | 11 | 3 | 1 | - | 7 |
| 1,600-1,799 | 12 | - | 2 | - | 10 |
| 1,800-1,999 | 12 | 2 | - | - | 10 |
| 2,000-2,199 | 8 | 3 | - | - | 5 |
| 2,200-2,399 | 8 | 1 | - | - | 7 |
| 2,400-2,599 | 7 | 2 | - | - | 5 |
| 2,600-2,799 | 2 | - | - | - | 2 |
| 2,800-2,999 | 6 | 1 | - | - | 5 |
| 3,000-3,199 | 4 | 1 | - | - | 3 |
| 3,200-3,399 | 6 | 2 | - | - | 4 |
| 3,400-3,599 | 2 | - | - | - | 2 |
| 3,600-3,799 | 2 | - | - | - | 2 |
| 3,800-3,999 | 1 | - | - | - | 1 |
| 4,000-4,199 | 1 | 1 | - | - | - |
| 4,200-4,399 | 1 | - | - | - | 1 |
| 4,400-4,599 | 1 | - | - | - | 1 |
| 4,600-4,799 | - | - | - | - | - |
| 4,800-4,999 | - | - | - | - | - |
| 5,000 \& Over | 2 | - | - | - | 2 |

TABLE 10-B

Pensions Awarded During the Year Ended June 30, 2009
by Type of Pension and Monthly Amount
(Females - Main System, Judges, National Guard, and Law Enforcement)

| Monthly |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Amount | Total | Normal | Early | Disability | Rule of 85 |
| Total | 281 | 89 | 78 | 10 | 104 |
| Under \$200 | 36 | 14 | 21 | 1 | - |
| $200-399$ | 35 | 13 | 20 | 1 | 1 |
| $400-599$ | 37 | 11 | 19 | 5 | 2 |
| $600-799$ | 21 | 10 | 6 | 3 | 2 |
| $800-999$ | 30 | 17 | 4 | - | 9 |
| $1,000-1,199$ | 34 | 5 | 8 | - | 21 |
| $1,200-1,399$ | 23 | 9 | - | - | 14 |
| $1,400-1,599$ | 16 | 2 | - | - | 14 |
| $1,600-1,799$ | 12 | 1 | - | - | 11 |
| $1,800-1,999$ | 16 | 3 | - | - | 13 |
| $2,000-2,199$ | 5 | 2 | - | - | 3 |
| $2,200-2,399$ | 4 | 1 | - | - | 3 |
| $2,400-2,599$ | 3 | - | - | - | 3 |
| $2,600-2,799$ | 1 | - | - | - | 1 |
| $2,800-2,999$ | 3 | - | - | - | 3 |
| $3,000-3,199$ | 1 | - | - | - | 3 |
| $3,200-3,399$ | - | - | - | - | 1 |
| $3,400-3,599$ | 1 | - | - | - | - |
| $3,600-3,799$ | - | - | - | - | 1 |
| $3,800-3,999$ | 1 | - | - | - | - |
| $4,000-4,199$ | - | - | - | - | - |
| $4,200-4,399$ | 1 | - | - | - | - |
| $4,400-4,599$ | - | - | - | - | 1 |
| $4,600-4,799$ | - | - | - | - | - |
| $4,800-4,999$ |  | $-000 \& 0 v e r$ |  | - | - |

TABLE 10-C

Pensions Awarded During the Year Ended June 30, 2009
by Type of Pension and Monthly Amount
(All Members - Main System, Judges, National Guard, and Law Enforcement)

| Monthly <br> Amount | Total | Type of Pension |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Normal | Early | Disability | Rule of 85 |
| Total | 501 | 166 | 127 | 14 | 194 |
| Under \$200 | 64 | 34 | 27 | 1 | 2 |
| 200-399 | 53 | 21 | 30 | 1 | 1 |
| 400-599 | 62 | 22 | 30 | 8 | 2 |
| 600-799 | 42 | 18 | 15 | 4 | 5 |
| 800-999 | 48 | 24 | 12 | - | 12 |
| 1,000-1,199 | 40 | 8 | 8 | - | 24 |
| 1,200-1,399 | 41 | 13 | 2 | - | 26 |
| 1,400-1,599 | 27 | 5 | 1 | - | 21 |
| 1,600-1,799 | 24 | 1 | 2 | - | 21 |
| 1,800-1,999 | 28 | 5 | - | - | 23 |
| 2,000-2,199 | 13 | 5 | - | - | 8 |
| 2,200-2,399 | 12 | 2 | - | - | 10 |
| 2,400-2,599 | 10 | 2 | - | - | 8 |
| 2,600-2,799 | 3 | - | - | - | 3 |
| 2,800-2,999 | 9 | 1 | - | - | 8 |
| 3,000-3,199 | 5 | 1 | - | - | 4 |
| 3,200-3,399 | 6 | 2 | - | - | 4 |
| 3,400-3,599 | 3 | - | - | - | 3 |
| 3,600-3,799 | 2 | - | - | - | 2 |
| 3,800-3,999 | 2 | 1 | - | - | 1 |
| 4,000-4,199 | 2 | 1 | - | - | 1 |
| 4,200-4,399 | 1 | - | - | - | 1 |
| 4,400-4,599 | 1 | - | - | - | 1 |
| 4,600-4,799 | - | - | - | - | - |
| 4,800-4,999 | - | - | - | - | - |
| 5,000 \& Over | 3 | - | - | - | 3 |

TABLE 11-A

Pensions Awarded During the Year Ended June 30, 2009
by Type of Pension and Nearest Age
(Males - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Normal | Early | Disability | Rule of 85 |
| Total | 220 | 77 | 49 | 4 | 90 |
| Under 50 | 1 | - | - | 1 | - |
| $50-54$ | 5 | - | - | - | 5 |
| $55-59$ | 29 | 3 | 7 | 1 | 18 |
| $60-64$ | 99 | - | 37 | 2 | 60 |
| $65-69$ | 62 | 50 | 5 | - | 7 |
| $70-74$ | 18 | 18 | - | - | - |
| $75 \&$ Over | 6 | 6 | - | - | - |

TABLE 11-B

Pensions Awarded During the Year Ended June 30, 2009 by Type of Pension and Nearest Age

## (Females - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Normal | Early | Disability | Rule of 85 |
| Total | 281 | 89 | 78 | 10 | 104 |
| Under 50 | 2 | - | - | 2 | - |
| $50-54$ | 9 | - | - | 4 | 5 |
| $55-59$ | 52 | - | 19 | 2 | 31 |
| $60-64$ | 122 | - | 55 | 2 | 65 |
| $65-69$ | 72 | 65 | 4 | - | 3 |
| $70-74$ | 16 | 16 | - | - | - |
| $75 \&$ Over | 8 | 8 | - | - | - |

TABLE 11-C

Pensions Awarded During the Year Ended June 30, 2009
by Type of Pension and Nearest Age
(All Members - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Normal | Early | Disability | Rule of 85 |
| Total | 501 | 166 | 127 | 14 | 194 |
| Under 50 | 3 | - | - | 3 | - |
| $50-54$ | 14 | - | - | 4 | 10 |
| $55-59$ | 81 | 3 | 26 | 3 | 49 |
| $60-64$ | 221 | - | 92 | 4 | 125 |
| $65-69$ | 134 | 115 | 9 | - | 10 |
| $70-74$ | 34 | 34 | - | - | - |
| $75 \&$ Over | 14 | 14 | - | - | - |

TABLE 12-A

Current Plan Pensions in Force on July 1, 2009
by Type of Pension and Monthly Amount
(Males - Main System, Judges, National Guard, and Law Enforcement)

| Monthly <br> Amount | Total | Type of Pension |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Normal | Early | Disability | Service* |
| Total | 2,798 | 910 | 645 | 154 | 1,089 |
| Under \$200 | 285 | 167 | 98 | 10 | 10 |
| 200-399 | 424 | 172 | 186 | 58 | 8 |
| 400-599 | 344 | 123 | 150 | 56 | 15 |
| 600-799 | 230 | 95 | 96 | 18 | 21 |
| 800-999 | 198 | 79 | 46 | 6 | 67 |
| 1,000-1,199 | 228 | 72 | 24 | 3 | 129 |
| 1,200-1,399 | 200 | 44 | 14 | 1 | 141 |
| 1,400-1,599 | 142 | 30 | 10 | 1 | 101 |
| 1,600-1,799 | 134 | 27 | 5 | - | 102 |
| 1,800-1,999 | 110 | 17 | 5 | - | 88 |
| 2,000-2,199 | 96 | 12 | 1 | 1 | 82 |
| 2,200-2,399 | 91 | 13 | 5 | - | 73 |
| 2,400-2,599 | 77 | 10 | - | - | 67 |
| 2,600-2,799 | 59 | 9 | 1 | - | 49 |
| 2,800-2,999 | 42 | 10 | 1 | - | 31 |
| 3,000-3,199 | 29 | 4 | 1 | - | 24 |
| 3,200-3,399 | 34 | 7 | - | - | 27 |
| 3,400-3,599 | 16 | 1 | 2 | - | 13 |
| 3,600-3,799 | 9 | 2 | - | - | 7 |
| 3,800-3,999 | 12 | 3 | - | - | 9 |
| 4,000-4,199 | 8 | 3 | - | - | 5 |
| 4,200-4,399 | 9 | 2 | - | - | 7 |
| 4,400-4,599 | 5 | 2 | - | - | 3 |
| 4,600-4,799 | 4 | 2 | - | - | 2 |
| 4,800-4,999 | 3 | 2 | - | - | 1 |
| 5,000 \& Over | 9 | 2 | - | - | 7 |

* Includes Rule of 85, Rule of 88, and Rule of 90.

TABLE 12-B

Current Plan Pensions in Force on July 1, 2009 by Type of Pension and Monthly Amount
(Females - Main System, Judges, National Guard, and Law Enforcement)

| Monthly Amount | Total | Type of Pension |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Normal | Early | Disability | Service* |
| Total | 3,663 | 1,170 | 1,321 | 184 | 988 |
| Under \$200 | 619 | 242 | 358 | 10 | 9 |
| 200-399 | 905 | 323 | 501 | 74 | 7 |
| 400-599 | 605 | 229 | 289 | 64 | 23 |
| 600-799 | 352 | 132 | 103 | 29 | 88 |
| 800-999 | 307 | 88 | 36 | 6 | 177 |
| 1,000-1,199 | 256 | 59 | 24 | 1 | 172 |
| 1,200-1,399 | 185 | 38 | 5 | - | 142 |
| 1,400-1,599 | 123 | 17 | 1 | - | 105 |
| 1,600-1,799 | 97 | 13 | 2 | - | 82 |
| 1,800-1,999 | 65 | 8 | 1 | - | 56 |
| 2,000-2,199 | 42 | 9 | - | - | 33 |
| 2,200-2,399 | 35 | 3 | - | - | 32 |
| 2,400-2,599 | 21 | 1 | 1 | - | 19 |
| 2,600-2,799 | 16 | 1 | - | - | 15 |
| 2,800-2,999 | 12 | - | - | - | 12 |
| 3,000-3,199 | 2 | 1 | - | - | 1 |
| 3,200-3,399 | 6 | 1 | - | - | 5 |
| 3,400-3,599 | 3 | - | - | - | 3 |
| 3,600-3,799 | 2 | 1 | - | - | 1 |
| 3,800-3,999 | 4 | 2 | - | - | 2 |
| 4,000-4,199 | 2 | - | - | - | 2 |
| 4,200-4,399 | 2 | 1 | - | - | 1 |
| 4,400-4,599 | - | - | - | - | - |
| 4,600-4,799 | - | - | - | - | - |
| 4,800-4,999 | 1 | 1 | - | - | - |
| 5,000 \& Over | 1 | - | - | - | 1 |

* Includes Rule of 85, Rule of 88, and Rule of 90.

TABLE 12-C

Current Plan Pensions in Force on July 1, 2009 by Type of Pension and Monthly Amount
(All Members - Main System, Judges, National Guard, and Law Enforcement)

| Monthly |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Amount | Total | Normal | Early | Disability | Service* $^{*}$ |
| Total | 6,461 | 2,080 | 1,966 | 338 | 2,077 |
| Under \$200 | 904 | 409 | 456 | 20 | 19 |
| $200-399$ | 1,329 | 495 | 687 | 132 | 15 |
| $400-599$ | 949 | 352 | 439 | 120 | 38 |
| $600-799$ | 582 | 227 | 199 | 47 | 109 |
| $800-999$ | 505 | 167 | 82 | 12 | 244 |
| $1,000-1,199$ | 484 | 131 | 48 | 4 | 301 |
| $1,200-1,399$ | 385 | 82 | 19 | 1 | 283 |
| $1,400-1,599$ | 265 | 47 | 11 | 1 | 206 |
| $1,600-1,799$ | 231 | 40 | 7 | - | 184 |
| $1,800-1,999$ | 175 | 25 | 6 | - | 144 |
| $2,000-2,199$ | 138 | 21 | 1 | 1 | 115 |
| $2,200-2,399$ | 126 | 16 | 5 | - | 105 |
| $2,400-2,599$ | 98 | 11 | 1 | - | 86 |
| $2,600-2,799$ | 75 | 10 | 1 | - | 64 |
| $2,800-2,999$ | 54 | 10 | 1 | - | 43 |
| $3,000-3,199$ | 31 | 5 | 1 | - | 25 |
| $3,200-3,399$ | 40 | 8 | - | - | 32 |
| $3,400-3,599$ | 19 | 1 | 2 | - | 16 |
| $3,600-3,799$ | 11 | 3 | - | - | 8 |
| $3,800-3,999$ | 16 | 5 | - | - | 11 |
| $4,000-4,199$ | 10 | 3 | - | - | 7 |
| $4,200-4,399$ | 11 | 3 | - | - | 8 |
| $4,400-4,599$ | 5 | 2 | - | - | 3 |
| $4,600-4,799$ | 4 | 2 | - | - | 2 |
| $4,800-4,999$ | 4 | 3 | - | - | 1 |
| $5,000 \& 0 v e r$ | 10 | 2 |  |  | 8 |

* Includes Rule of 85, Rule of 88, and Rule of 90.

TABLE 13-A

Current Plan Pensions in Force on July 1, 2009 by Type of Pension and Nearest Age
(Males - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Normal | Early | Disability | Service* $^{\prime}$ |
| Total | 2,798 | 910 | 645 | 154 | 1,089 |
| Under 50 | 9 | - | - | 9 | - |
| $50-54$ | 27 | - | - | 16 | 11 |
| $55-59$ | 143 | 5 | 17 | 27 | 94 |
| $60-64$ | 408 | 6 | 111 | 42 | 249 |
| $65-69$ | 639 | 161 | 159 | 21 | 298 |
| $70-74$ | 562 | 210 | 119 | 14 | 219 |
| $75-79$ | 448 | 192 | 102 | 15 | 139 |
| $80-84$ | 300 | 160 | 80 | 4 | 56 |
| $85-89$ | 185 | 120 | 37 | 5 | 23 |
| $90 \&$ Over | 77 | 56 | 20 | 1 | - |

* Includes Rule of 85, Rule of 88, and Rule of 90.

TABLE 13-B

Current Plan Pensions in Force on July 1, 2009
by Type of Pension and Nearest Age
(Females - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Normal | Early | Disability | Service* |
| Total | 3,663 | 1,170 | 1,321 | 184 | 988 |
| Under 50 | 15 | - | - | 15 | - |
| $50-54$ | 43 | - | - | 28 | 15 |
| $55-59$ | 176 | - | 38 | 27 | 111 |
| $60-64$ | 475 | 1 | 177 | 36 | 261 |
| $65-69$ | 845 | 227 | 291 | 31 | 296 |
| $70-74$ | 773 | 258 | 306 | 27 | 182 |
| $75-79$ | 558 | 240 | 226 | 14 | 78 |
| $80-84$ | 413 | 201 | 176 | 3 | 33 |
| $85-89$ | 224 | 135 | 74 | 3 | 12 |
| $90 \&$ Over | 141 | 108 | 33 | - | - |

* Includes Rule of 85, Rule of 88, and Rule of 90.

TABLE 13-C

Current Plan Pensions in Force on July 1, 2009
by Type of Pension and Nearest Age
(All Members - Main System, Judges, National Guard, and Law Enforcement)

|  |  | Type of Pension |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Nearest Age | Total | Normal | Early | Disability | Service* |
| Total | 6,461 | 2,080 | 1,966 | 338 | 2,077 |
| Under 50 | 24 | - | - | 24 | - |
| $50-54$ | 70 | - | - | 44 | 26 |
| $55-59$ | 319 | 5 | 55 | 54 | 205 |
| $60-64$ | 883 | 7 | 288 | 78 | 510 |
| $65-69$ | 1,484 | 388 | 450 | 52 | 594 |
| $70-74$ | 1,335 | 468 | 425 | 41 | 401 |
| $75-79$ | 1,006 | 432 | 328 | 29 | 217 |
| $80-84$ | 713 | 361 | 256 | 7 | 89 |
| $85-89$ | 409 | 255 | 111 | 8 | 35 |
| $90 \&$ Over | 218 | 164 | 53 | 1 | - |

* Includes Rule of 85, Rule of 88, and Rule of 90.

TABLE 14-A

Special Prior Service Pensions in Force on July 1, 2009 by Monthly Amount
(Males)

| Monthly |  |
| :---: | ---: |
| Amount | Total |
| Total | 5 |
| Under $\$ 20$ | 1 |
| $20-39$ | 2 |
| $40-59$ | - |
| $60-79$ | 1 |
| $80-99$ | 1 |
| $100-119$ | - |
| $120-139$ | - |
| $140-159$ | - |
| $160 \&$ Over | - |

TABLE 14-B

Special Prior Service Pensions in Force on July 1, 2009 by Monthly Amount
(Females)

| Monthly |  |
| :---: | ---: |
| Amount | Total |
| Total | 17 |
| Under $\$ 20$ | 4 |
| $20-39$ | 5 |
| $40-59$ | 4 |
| $60-79$ | 2 |
| $80-99$ | 1 |
| $100-119$ | - |
| $120-139$ | 1 |
| $140-159$ | - |
| $160 \&$ Over | - |

TABLE 14-C

Special Prior Service Pensions in Force on July 1, 2009 by Monthly Amount
(All Members)

| Monthly |  |
| :---: | ---: |
| Amount | Total |
| Total | 22 |
| Under $\$ 20$ | 5 |
| $20-39$ | 7 |
| $40-59$ | 4 |
| $60-79$ | 3 |
| $80-99$ | 2 |
| $100-119$ | - |
| $120-139$ | 1 |
| $140-159$ | - |
| $160 \&$ Over | - |

TABLE 15-A

Special Prior Service Pensions in Force on July 1, 2009 by Nearest Age
(Males)

|  |  |
| :---: | ---: |
| Nearest Age | Total |
| Total | 5 |
| -85 | - |
| $90-94$ | 1 |
| $95-99$ | 4 |
| 100 \& Over | - |

TABLE 15-B

Special Prior Service Pensions in Force on July 1, 2009 by Nearest Age
(Females)

|  |  |
| :---: | ---: |
| Nearest Age | Total |
| Total | 17 |
| -89 | - |
| $90-94$ | 3 |
| $95-99$ | 12 |
| 100 \& Over | 2 |

TABLE 15-C

Special Prior Service Pensions in Force on July 1, 2009 by Nearest Age
(All Members)

|  |  |
| :---: | ---: |
| Nearest Age | Total |
| Total | 22 |
| $85-89$ | - |
| $90-94$ | 4 |
| $95-99$ | 16 |
| 100 \& Over | 2 |


[^0]:    * Includes repurchases of service credit.

[^1]:    * Adjusted for interest to recognize payments through the year.

