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Message from the Executive Officer Regarding the Independent Comparable Study performed by AonHewitt

AonHewitt presented their results of the independent comparable study they conducted on Nevada PERS as commissioned by the Retirement Board and in conjunction with the Governor's Office at the Retirement Board's November 13th meeting. The independent review included comparing certain plan practices, statistics and policies with other large public pension systems. Approximately 126 other systems were compared to NV PERS in areas such as funded status, retirement eligibility, actuarial funding method, and discount rate (return assumption). In all these areas, the study found that NV PERS is akin to most other large systems in many ways.

AonHewitt identified one unique aspect of NV PERS which is our equal sharing of contributions between members and employers. Not all large systems share equally in contribution costs. In reviewing NV PERS funding policy, Aonhewitt determined that its requirements regarding audits, benefit improvements, funding methodology, and other details, represents a comprehensive, thoughtful and appropriate model that constitutes a *best-in-class* policy that many other systems do not have. Continuing on with our current actuarial assumptions and current funding policy over the next 30 years, AonHewitt projected that both PERS and the Police/Fire plan would improve their funding status from approximately 70% to 100% if all assumptions are met. In conclusion, AonHewitt found that NV PERS *"funding levels and the discount rates were not uncommon, where NV PERS differs from others is in its Funding Policy and contribution rules which provide much better than average protection, when compared to similar systems. Continued review and comparisons of costs and benefits with other large plans, actuarial audits, and consistent updating of the Funding Policy facilitates NV PERS ability to remain among the best run large public systems."*

The complete report is available for your review immediately following this notice. Should you have any questions please feel free to contact our office.



Report to the Retirement Board of the Public Employees' Retirement System of Nevada

***Independent Limited Review of Practices, Statistics, and
Policies***

November 2013

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Executive Summary

The Retirement Board of the Public Employees' Retirement System of Nevada (NVPERS) hired Aon Hewitt to conduct an independent review of certain plan practices, statistics and policies of the Public Employees' Retirement System (PERS), the Legislators' Retirement System (LRS), and the Judicial Retirement System (JRS).

Consultants and actuaries from Aon Hewitt and Hewitt EnnisKnupp, a wholly owned subsidiary of the firm, performed this review between July and October 2013. No one associated with NVPERS attempted to influence the outcome of this report. The calculations, conclusions and recommendations are those of Aon Hewitt and Hewitt EnnisKnupp and represent our best professional judgment.

The scope of the review included:

1. A comparative analysis of many features of NVPERS to a large group of other public retirement systems¹ who report information to the National Association of State Retirement Administrators (NASRA) and the National Council on Teacher Retirement (NCTR).
2. Calculations of liabilities using discount rates² of 5%, 6%, 7%, 7.5%, 7.9%, 8%, 8.5%, 9%, 9.3%, (which is the annualized investment return for NVPERS since its inception), and 10%.
3. Projections of contribution rates and funding levels over the next 30 years using the current assumptions, policy and actuarially required contributions, and
4. A review and opinion on the NVPERS funding policy and recommendations for modifications, if any are warranted.

Our primary findings and conclusions are as follows:

Comparative Analysis

The report details how NVPERS compares with other large public retirement systems in the United States. NVPERS' funded status, retirement eligibility, actuarial funding method, and discount rate are similar to the averages and medians of other large systems, showing that NVPERS is akin to most other large systems in many ways. NVPERS, however, is quite different and more conservative in other material ways.

One unique aspect of NVPERS is the equal sharing of contributions between members and employers. Another unique aspect is that actuarial gains and losses are automatically reflected biennially in future contribution amounts, rather than after statutory enactments or negotiations occur that often delay contribution rate changes. A third point that makes NVPERS unique is the Board's recent decision to shorten amortization periods from 30 years to 20, which represents a level of conservatism that is not widely seen. Finally, the actuarial funding policy, including its requirements regarding audits, benefit improvements, funding methodology, and other details, represents a

¹ 126 plans (including both PERS of Nevada Regular and Police/Fire employees) representing the 99 Systems (including NVPERS) are included in the NASRA Public Fund Survey.

² A discount rate is the interest rate used to determine the present value of future payments or obligations. In this case, the rate is used to generate the value of future retirement payments to members. Actuarial methodology allows the expected asset return to be used as the discount rate.

comprehensive, thoughtful and appropriate model that constitutes a best-in-class policy that many other systems do not have.

To properly compare NVPERS to other systems, it is important to recognize that systems that do not participate in Social Security are very different than those that do. The data shows that both NVPERS' benefits and contribution levels are consistent with or comparable to other plans which do not participate in Social Security. Furthermore, it is notable that when comparing NVPERS to all large systems (including those with Social Security) its total costs are actually lower than the costs of the average large system and its benefits are comparable.

Similarly, NVPERS retirement eligibility (various age and service combinations and 30 years of service credit at any age) follows is in line with the eligibility requirements found in other large systems.

Calculations of Liabilities

The liabilities of public retirement systems are calculated for different purposes, such as for long-term funding estimates or for accounting and financial statements. Results vary greatly depending upon which discount rate is used. For funding purposes, PERS' discount rate is 8.0% and is set equal to the expected investment return of the plan's assets over the long run. Results using this rate show that PERS funded status (ratio of assets to liabilities) is about 71%, around the average for large plans.

The Governmental Accounting Standards Board (GASB) has changed rules for discount rates used for accounting purposes and rating agencies are using different rates for analyzing the ability of governmental entities to pay promised benefits. We have calculated plan liabilities using various rates ranging from 5% to 10% to show the impact on the plans.

Projections of Contribution Rates and Funding Levels

Using the current actuarial assumptions of NVPERS, while taking into account the current policy and assuming that all assumptions (economic and non-economic) are met, the contribution rates 30 years from now are estimated to be about 17.5% for Regular members of PERS (down from the current 24.50%) and about 30% for Police/Fire members of PERS (down from the current 40.50%). Both plans would see their funded status percentage improve from their current low 70% to 100%.

JRS and LRS would also see their contribution rates fall and their funded status reach 100% in under 30 years if all assumptions are met.

Funding Policy

The Funding Policy adopted by the Board in September 2005 and last modified in May 2012, is sound and represents best practices. The actuarial cost method, asset smoothing method, amortization schedule, actuarial assumptions and other provisions of the Policy are prudent and somewhat conservative measures that are intended to protect both the members of Nevada's plans and the taxpayers of the State from inappropriate volatility or cost increases. This intention is exemplified by

the recently enacted provisions lowering amortization periods and the stated opposition to and rules against benefit improvements that are not adequately funded.

Conclusion

NVPERS is typical of large public retirement systems in many ways and very different in other ways. The plan provisions regarding eligibility and benefit levels are not overly generous. The funding levels and the discount rates are not uncommon, Where NVPERS differs from others is in its Funding Policy and contribution rules which provide much better than average protection, when compared to similar systems. Continued review and comparisons of costs and benefits with other large plans, actuarial audits, and consistent updating of the Funding Policy facilitates NVPERS ability to remain among the best run large public systems.

CAVEATS: Note that data used in the public plan comparisons is provided by a third party and is constantly updated. The data was taken as of August 9th, 2013, and will be different in the future as systems update their results.

The financial results associated with NVPERS, JRS, and LRS are provided by or based on results calculated by the actuary for NVPERS, the Segal Company. Aon Hewitt was not provided with employee data for valuation purposes but relied upon cashflows provided by Segal as well as the actuarial reports and CAFR statements available on the NVPERS website. While we believe our results are reasonable, we did not confirm the accurateness of the data used by Segal nor their valuation results. If either the data or the published results included errors, those errors will be included in our results.

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Overview of NVPERS

The Nevada Public Employees' Retirement System (NVPERS or the System) was established by the Nevada Legislature in 1947. NVPERS's purpose is to administer benefits set by the Legislature in order to provide a reasonable base income to qualified employees who have been employed by a public employer and whose earning capacities have been removed or substantially impaired by age or disability.

The System administers three cost-sharing and one multiemployer defined benefit plans which include two plans under the Public Employees Retirement System (one for regular employees and the other for police and firefighters), one for the Legislative Retirement System, and one (not cost sharing) for the Judicial Retirement System. The benefits include retirement, disability, and survivor benefits that are set in statute by the Legislature.

Approximately 188 public employers participate in NVPERS. An employee of a participating employer is required to be a member of the System but is not covered by Social Security while working in the public sector for a participating employer. As of the end of fiscal year 2012, the System covered 98,512 active members and 49,546 benefit recipients.

The System is funded through contributions from employers and employees as well as from earnings on investments. The Legislature sets the contribution rates and the System handles the investments. Employer and employee contributions are the same rate - 12.25% of pay³. Smoothed investment earnings for fiscal year 2012 were \$1,651,468,456 resulting from a rate of return on investments of 6.40%, while market returns were closer to half this.

For every dollar paid out in benefits approximately 20% comes from contributions and 80% from investment earnings⁴.

Assets of the System, at the end of fiscal year 2012 were \$27.4 billion and liabilities were \$38.6 billion. As of that time, the System was 71.0% funded.

The governing body of the System is an autonomous 7-member board of trustees appointed by the Governor. By law, the trustees are fiduciaries and must act in the best interest of the System and its members and beneficiaries.

³ While employers and Regular members of PERS contribute 12.25% of pay, employers and Police/Fire members of PERS contribute 20.25% of pay.

⁴ Page 10, November 2012 Report on the State of the Public Employees' Retirement System of Nevada

Comparative Analysis

Background

This comparative analysis focuses on 99 state retirement systems for public employees that provide retirement benefits for a combined 13.1 million active members and approximately 7.8 million annuitants and that hold a combined market value of assets of \$2.61 trillion (**refer to Table 1 in the Appendices**). These 99 state retirement systems themselves contain 126 different state plans. For example, PERS of Nevada represents one system (among the 99 state systems), but includes two plans, Regular members of PERS (“Regular”) and Police Officers and Firefighters of PERS (“Police/Fire”).

Data used in the comparative analysis is gathered from an industry-recognized reliable and comprehensive database for such information-- the National Association of State Retirement Administrators (NASRA) Public Fund Survey Summary of Findings for 2011. While a majority of the data used in the comparative analysis is generally based on the fiscal years ending June 30, 2011 and June 30, 2012, a number of the systems have fiscal years that end between these two dates. Information for the fiscal year ending June 30, 2012 has been included for NVPERS relating to its actuarial funded status and current demographics. The primary focus of this report is on PERS of Nevada; however, where appropriate, we also provided information on the Legislators’ and Judicial Retirement Systems for comparative purposes. Data for these Systems was gathered from their respective actuarial valuation and financial reports as of June 30, 2012.

About 90% of public employees covered by the Systems included in the NASRA database have a defined benefit plan as their primary retirement benefit. A defined benefit plan is one that provides a payment assured for life, guaranteed by the plan sponsor (e.g., state) based on a formula that includes the particular participant’s length of service, a retirement multiplier, and is typically based on salary. The multiplier varies by plan, is often graduated to reward higher years of service, and is usually higher in systems whose members do not participate in Social Security.

Of the 126⁵ plans included in this report, 28 are plans whose members do not participate in Social Security. Furthermore, there are an additional 8 plans which hold a bifurcated system, where the participation in Social Security is mixed. Like the members of the Public Employees’ Retirement System of Nevada (Regular and Police/Fire), JRS, and LRS, a significant percentage of all public employees, including about half of all teachers, do not participate in Social Security. The following formula used to calculate the amount of annual base benefits available to the qualifying PERS of Nevada members:

⁵ All 126 plans are found within the 99 state retirement systems participating in the study. In Nevada, Regular and Police/Fire represent two plans within the one NVPERS system.

Membership effective date before January 1, 2010⁶:

$HAS^7 \times \text{Years of Service} < 7/1/2001 \times 2.50\%$ *Plus*

$HAS \times \text{Years of Service} \geq 7/1/2001 \times 2.67\%$

Membership effective date on or after January 1, 2010⁸:

$HAS^7 \times \text{Years of Service} \times 2.50\%$

This comparative analysis focuses on key features and statistics of PERS of Nevada relative to other large governmental defined benefit plans as discussed in the following sections:

- Funded Ratio and Ranking
- Amortization of the Unfunded Liability
- Investment Return Assumption
- Asset Allocation
- Participation in Social Security
- Employee and Employer Contribution Rates
- Eligibility
- Vesting
- Multiplier
- Cost of Living Adjustments (COLA)

⁶ Maximum benefits are 90% of average compensation for individuals who became members before July 1, 1985 and 75% of average compensation for individuals who became members after June 30, 1985.

⁷ Highest Average Salary is based on the average of 36 highest consecutive months.

⁸ Maximum benefits are 75% of average compensation.

Funded Ratio and Ranking

Industry wide, one of the most recognized measures of a public retirement plan's health is its actuarial funded level, although this measure reflects a snapshot of funding and does not demonstrate the pattern of funding or funding effort by the plan sponsor and participating employees. The funded level is most often expressed as a funded ratio. The funded ratio is the ratio of assets (generally the AVA or Actuarial Value of Assets) to liabilities (generally the AAL or Actuarial Accrued Liability) for benefits accrued to date. A pension plan whose assets equal its liabilities is funded at 100% and is considered fully funded; any shortfall of assets is an unfunded liability (or UAAL – Unfunded Actuarial Accrued Liability).

All plans, whether fully funded or not, that are open to workers rely on future contributions and a positive level of investment returns to meet future benefit needs. A key difference between systems that are not fully funded and those that are, is that plans not fully funded require contributions both to fund current and future benefit accruals (the normal cost) as well as contributions to eliminate the shortfall between the assets and the accrued liabilities (the UAAL). Fully funded plans require contributions only to finance current and future benefit accruals. Even if the actuarial value of assets on hand equaled the actuarial accrued liabilities, some contributions (the normal cost) and investment earnings would still be required to cover liabilities as they accrue going forward.

The calculation of the fund's liability involves many assumptions, both financial / economic and demographic. The assumptions for a single system will vary to some degree in the short term. They will vary significantly from system to system, making comparisons between systems somewhat challenging. The calculation of liabilities is based upon the assumption that the plans' liabilities are due today.

Note: In governmental plans, all liabilities do not come due at once; rather these obligations extend continuously many years into the future. This period provides the plan with time to continue accruing assets needed for future obligations.

Attaining full funding of a pension plan has been likened to a mortgage, in which the homeowner has 30 years, for example, to pay the obligation. At the end of the 30-year payment period, the mortgage should be fully funded, if all payments were made on time. At any point during the 30-year period, the outstanding mortgage may be considered an unfunded liability. As with a mortgage, pertinent to funding a public pension plan is the ability to continue to pay promised benefits and whether the plan's unfunded liability is shrinking over time.

A plan's ratio of actuarial assets to the liabilities accrued to date is referred to as the funded ratio.

Table 2 in the Appendices illustrates that the 126 plans in this study have combined actuarial assets of \$2.67 trillion and actuarial liabilities of almost \$3.60 trillion. The unfunded liability generated from these numbers is more than \$931 billion, yielding an overall average funded ratio of 74.3%. Making a similar calculation for each plan separately yields the results in **Table 3**. Washington State's "LEOFF Plan 1" has the highest funded ratio at 134.3%, while Illinois' SERS has the lowest funded ratio at 35.5%.

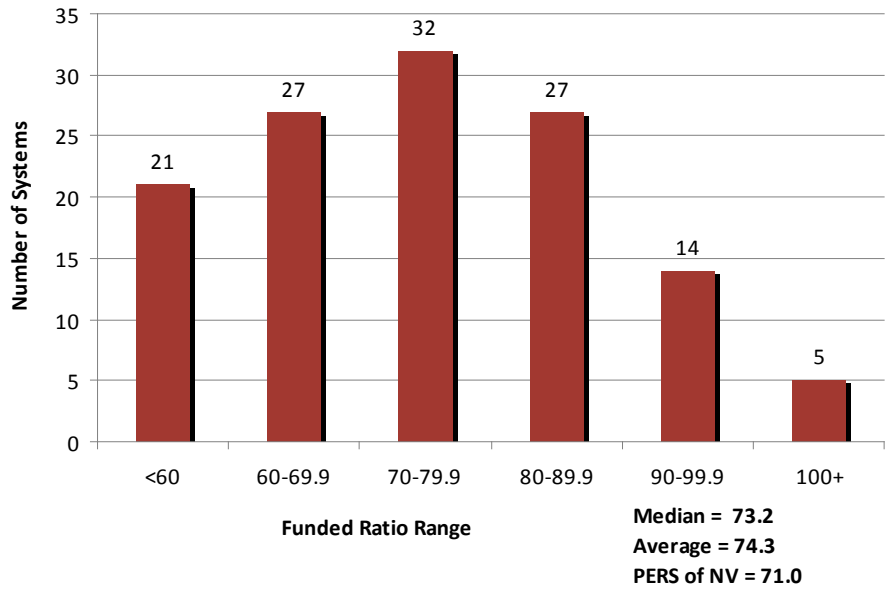
PERS of Nevada Regular Employees' funded ratio is 71.2%, while PERS of Nevada Police Officer and Firefighter's funded ratio trails closely at 70.1%. In total, PERS of Nevada generates a funded ratio of 71.0%, which is slightly below the average rate. Similar to Table 1, the 126 plans were ranked by their funded ratios in Table 3, which have been rounded to the nearest decimal place. PERS of Nevada Regular generated a ranking of 70th out of 126, while PERS Police/Fire were ranked 77th out of 126.

Exhibit A reflects the range in the funded ratios of the 126 plans listed in the more detailed **Table 3 in the Appendices**. Both PERS of Nevada Regular and Police/Fire plans funded statuses are in the range of 70 – 79.9%.

Note: No one level indicates an actuarially sound or unsound system. Additionally, different assumptions utilized by different systems means that two systems disclosing exactly the same asset levels and measured benefit obligations, and therefore funded ratios, could generate very different results if they used identical assumptions. As a result, an analysis in isolation can be misleading; a funded ratio that is increasing or decreasing over time while using similar assumptions indicates whether a system is becoming financially stronger or weaker.

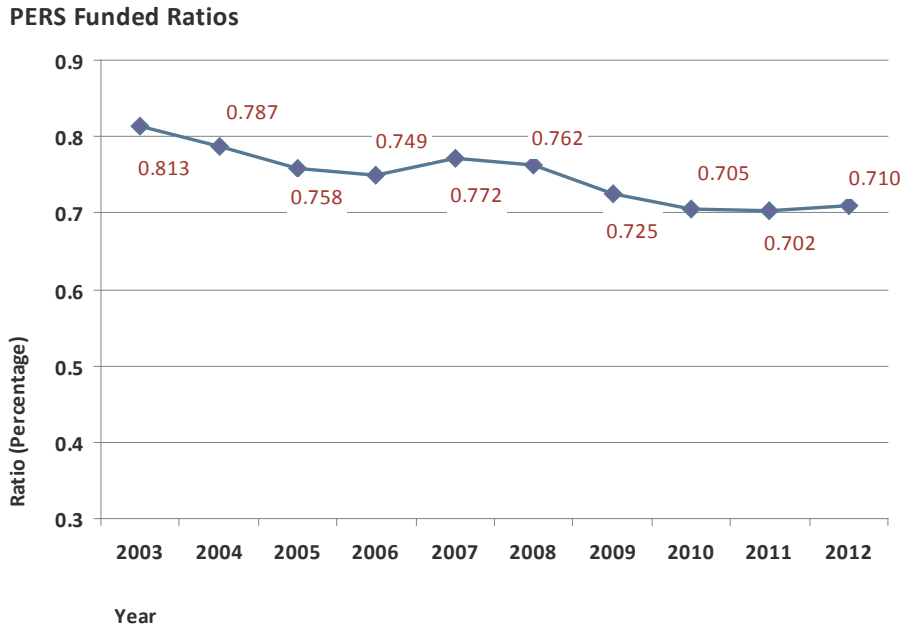
Exhibit A

State Retirement Systems by Funded Ratio



PERS of Nevada's total system funded ratio history from 2003 to 2012 is shown in **Exhibit B**.

Exhibit B



Amortization of the UAAL

The period over which any unfunded actuarial accrued liability (or current accumulated funding shortfall) is amortized is an important part of any system's funding policy. Nevada PERS, JRS, and LRS all used a 30-year long closed period amortization methodology historically. This has been shortened under a Board-approved methodology that now uses the truncated average of existing balances, moving to 20 years, for newly generated gains, losses, and assumption changes. Plan amendments will be amortized over 15 years, except in the case of temporary retirement incentives, which will be pre-funded.

Our experience and work with other systems allows us to conclude that this represents a much more conservative methodology than that employed by most systems. While Illinois SERS uses a period well in excess of the 30 years which is acceptable under Government Accounting Standards and Actuarial Standards of Practice, most systems use 30 years. A number of systems use open periods, in which the UAAL is re-amortized annually, in those systems they generally use a 20 or 30 year period.

Note: The combination of a period less than 30 years with a closed period methodology represents a best-in-class methodology and is consistent with, or more conservative than what we would normally recommend.

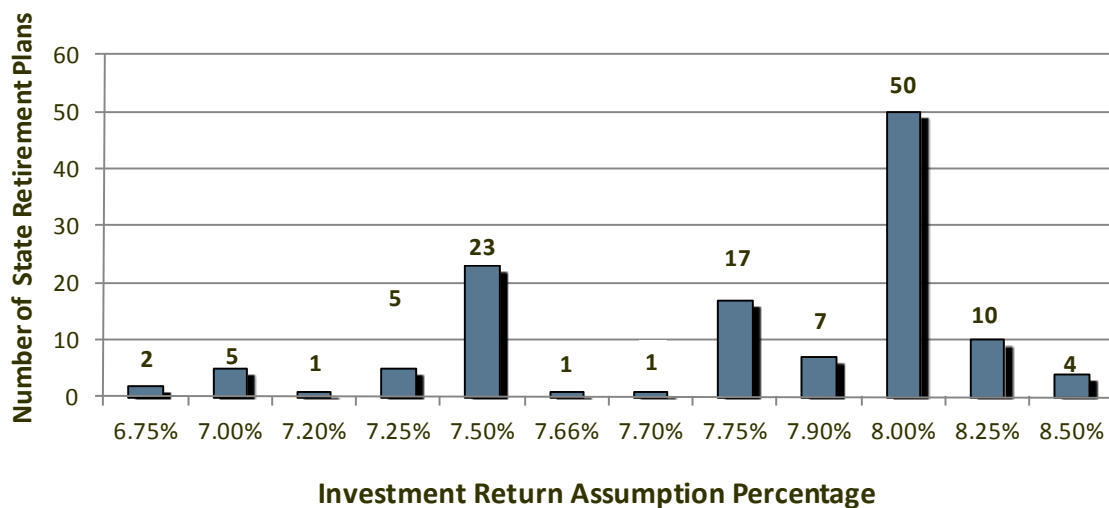
Investment Return Assumption

In order to account for a plan's future investment income as a portion of the plan's funding, actuaries must use an investment return rate that estimates future investment earnings based on the plan's investment mix. This estimate is known as an Investment Return Assumption. If the return assumption is too high, being the rate at which liabilities are discounted, the plan's liabilities may be valued lower than they should be, thus overstating the plan's funding status. This could lead to potential intergenerational inequity, contribution shortfalls, and additional contribution rate volatility for future members, employers, and taxpayers as they cover future funding shortfalls. Alternatively, if the return assumption is too low, the plan's liability may be overstated and the resulting funding status will be understated, resulting in an unnecessary cost burden on current active members and employers/taxpayers, and potential intergenerational inequity.

A total of 50 plans, including PERS of Nevada Regular and Police/Fire, use an investment return assumption of 8.0%, which is the most commonly used investment return assumption among the 126 plans surveyed, as reflected in **Exhibit C** below. The assumed investment return median and mode for all plans listed in **Table 4 in the Appendices** is 8.0%. The mean, or average of the investment return assumptions, is 7.8%. The highest assumed investment return listed is 8.5%, a figure used by four different plans at the time of the study. The lowest assumption is 6.75%, used by two plans at the time of the study.

Exhibit C

Investment Return Assumption



Asset Allocation

Investment returns and investment risks are significantly affected by the percentage of assets in different asset classes. Public equities, real estate, and other alternative asset classes tend to have higher expected returns than cash or fixed income (bonds), but also generally have the higher volatility and other investment risks. Fixed Income and cash tend to generate lower expected returns than public equities, real estate and other alternatives, but are typically less volatile than equities and may allow for protection from loss in unfavorable market periods

As seen in **Table 5 in the Appendices**, NVPERS asset allocation utilized a higher percentage of equities than the mean or median fund in the analysis (55% to 50.9% and 50.4% respectively), and when allocations to real estate (4.9% at NVPERS as compared to the more than 6% average) and alternative investments (3.2% as compared to 14.9% and 13.2%) are also considered, the overall percentage of the pension fund that is invested in higher return assets is between 7.5 and 9% lower than the average and median funds in the sample.

While this strategy may be expected to generate a less volatile investment portfolio than those of peers, it will likely generate larger contribution needs or a lower funded ratio over time than would a portfolio with a greater allocation to equity and alternative investments, and a corresponding higher expected return. The optimal asset allocation policy for any particular pension fund is contingent on its individual circumstances, and so a greater or lesser allocation to equities and alternatives than peers may be appropriate for NVPERS dependent on the plan's characteristics and other relevant factors.

Participation in Social Security

NVPERS members do not participate in Social Security. A consequence of this is that they are much more dependent upon their pension for retirement security and income than members of systems that do participate in Social Security.

As a result of this difference, later analyses including those covering contributions and multipliers will segregate results between those systems that do and those that do not participate in Social Security.

Of the 126 plans included in the analysis, 28, or about one quarter, do not have any members that participate in Social Security. This includes the Regular members of PERS and the Police/Fire members of PERS. An additional 8 plans have some members that do participate, and some that do not, with the split either based on date of hire or the specific employers covered by the plan. Finally, the members of 90 of the plans all participate in Social Security.

Employee / Employer Contribution Rates

Generally, retirement system benefits are funded from three sources: employee contributions, employer contributions, and earnings from investments, with the first two directly responsible for only a fraction of the overall assets used to pay benefits. Within the study, 117 plans require member contributions and only 9 of the 126 plans are non-contributory (results are found in **Table 6 in the Appendices**). The non-contributory plans are:

Plan

Michigan SERS

Michigan Municipal

Missouri DOT and Highway

Missouri State Employees

Missouri Local Employees

New York Teachers

Oregon PERS

Utah Noncontributory

Washington LEOFF Plan 1

As noted earlier, because members covered by Social Security are required to pay 6.2% of their wages to Social Security, and their employers are similarly charged, contribution rates differ between participating and non-participating employers. While the average contribution rate paid by the employee (including the non-contributory systems) is 5.957% of salary and the average employer contribution rate is 13.107%, this amalgamated result ignores the effect of Social Security. As with the multipliers that will be covered later, this is misleading, as the required contributions are quite different depending upon whether or not the system participates in Social Security.

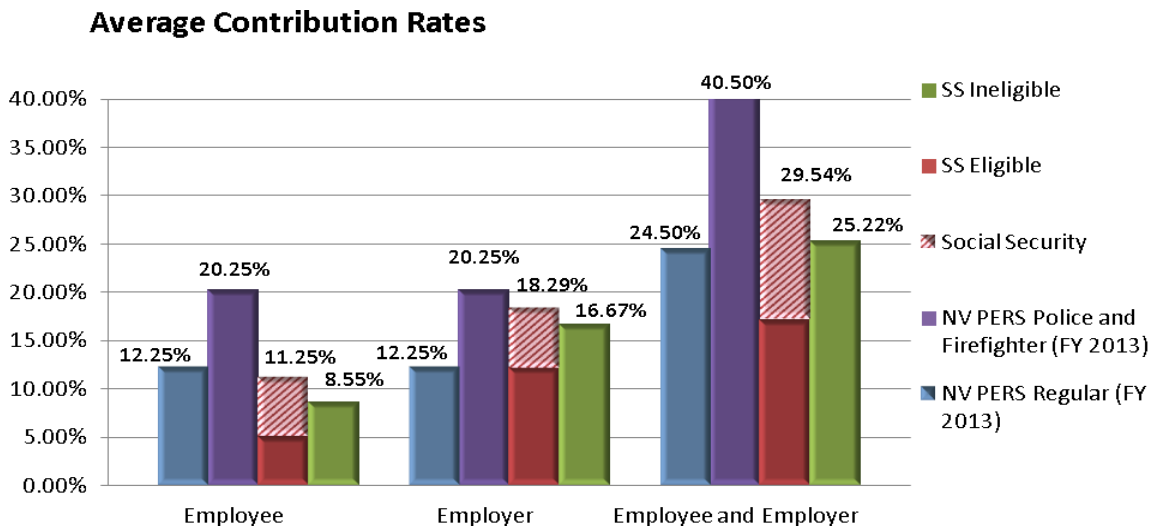
Table 6 in the Appendices shows the contribution rates for employees and employers in systems where the members are eligible for Social Security coverage as well as showing the contribution rates for systems without Social Security coverage. As previously mentioned, members of PERS of Nevada are not eligible for Social Security. Regular members pay 12.25% of salary into the retirement system, while Police/Fire members pay 20.25% of salary. Employers fully match contributions to each plan, contributing 12.25% and 20.25% of payroll, respectively.

The Nevada PERS Police/Fire contribution rate of 20.25% is the highest contribution rate charged to members in the survey. The Regular members of PERS contribute 12.25% of salary to their plan, a

rate which is the third highest charged to members in the survey, with only Nevada Police/Fire and Missouri Teachers (14.50%) contributing at a higher percentage.

The combined 24.50% and 40.50% of covered payroll as of June 30, 2012, paid to PERS of Nevada Regular and Police/Fire members, respectively, compares to the average combined rate of 25.22% for plans not eligible for Social Security and 17.14% for plans eligible for Social Security. When adding the 6.2% of wages that employers pay into Social Security and the 6.2% that covered members pay into Social Security to these however, we note that the equivalent total retirement contribution rate is almost 30% after including Social Security, more than the Regular members of PERS contribute. Exhibit D shows the average employee, employer and combined total contribution rates for the 126 plans, excluding Alabama ERS due the unavailability of information from the Public Survey Summary of Findings, and separately shows the 6.2% paid into Social Security by members and their employers that do participate in Social Security.

Exhibit D



Eligibility

The term eligibility refers to a member's right to earn service and benefits under the plan. Often, this requires a new hire to work a minimum number of hours in a period and/or to meet a minimum age requirement, although our experience is that these requirements are being utilized less and less by systems as time goes on. Because the NASRA Public Fund Survey Summary of Findings for 2011 did not provide eligibility information for the 126 plans, we are unable to compare Nevada PERS eligibility criteria to that utilized by the other plans in the study, but our experience allows us to state that the eligibility requirements appear to be in line with those of other large statewide public retirement systems.

Vesting

The term vesting refers to a member's right to receive a pension benefit after the member satisfies a minimum service requirement stated by the Plan. PERS of Nevada Regular and Police/Fire plans both use a 5-year vesting period. Although the NASRA Public Fund Survey Summary of Findings for 2011 did not provide vesting information for the 126 plans, a 5-year vesting period is by far the most commonly used by public systems based on our collective experience of work in the public pension sector.

Multiplier

Retirement benefit formulae generally include a number usually referred to as the "multiplier." In the PERS formula, the multiplier is 2.50% for each year of creditable service before July 1, 2001 and 2.67% for each year on or after July 1, 2001 (for new entrants as of January 1, 2010, 2.50% for each year of creditable service). Split formulas such as this are not uncommon, with many formulas tied to a specified date as opposed to a specified number of years of service.

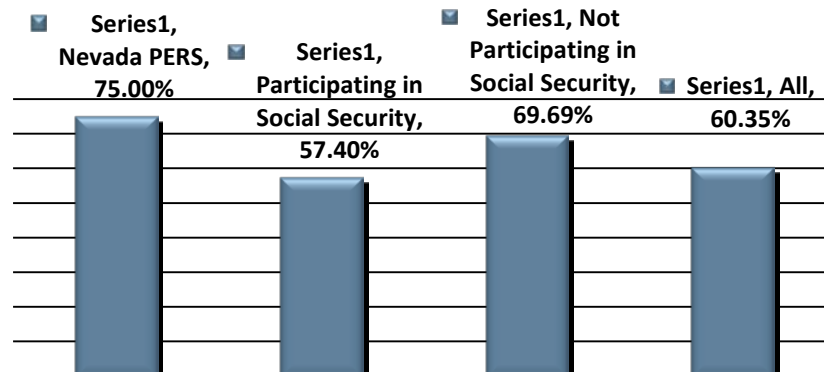
The PERS multiplier is also subject to a 75% maximum, regardless of service, for members hired after June 30, 1985. This limitation helps to ensure that coverage provides adequate retirement benefits without excessive payments to exceptionally long-serviced members. In **Table 7 (found in the Appendices)**, the multiplier for each plan in the survey is calculated at 30 years of service for purposes of comparison. Regular PERS members and Police/Fire members share the same multiplier, with a formula at 30 years of service that produces 75.0%; a percentage which ranks them 4th, along with 11 other plans.

As noted earlier in the report, because only 28 plans in the survey have all their members not participating in Social Security, appropriate comparisons of NVPERs' multiplier should reflect this fact.

Exhibit E shows an average multiplier of about 2.0% per year, generating an average accumulated multiplier of 60.35% at 30 years of service across all plans ranked in this report. This information is somewhat misleading however, as the 28 systems in the report that do not participate in Social Security at all, plus the other 8 that don't participate for at least some of their covered members generate an accumulated multiplier of almost 70% at 30 years of service, or about 5% less than Nevada provides. Conversely, the average accumulated multiplier at 30 years of service for the plans where Social Security is available is 57.4%, or an average of about 1.9% per year – a multiplier that is almost 20% lower on average than the 2.25% per year that systems that don't participate in Social Security provide.

Exhibit E

Cumulative Retirement Multipliers at 30 Years of Service



Cost of Living Adjustments (COLA)

Cost of living adjustments are designed to maintain the purchasing power of pension benefits over time. They are periodic adjustments of the base pension benefit that take into account some degree of inflation. While they are uncommon in the private sector, they are quite common in the public sector, especially where members are not covered by Social Security, which does provide for COLAs.

Table 8 in the Appendices summarizes the COLA provisions for each system surveyed. PERS of Nevada has the lesser of a) 2% compounding COLA following the third anniversary of benefit

commencement, 3% following the sixth anniversary, 3 ½% following the ninth anniversary, 4% following the twelfth anniversary and 5% following the fourteenth anniversary, or b) the annual benefit increase is equal to the average percentage increase in the Consumer Price Index (or other Board approved index) for the three preceding years. For new hires on or after January 1, 2010, the same COLA applies, except the increase does not exceed 4% per year. Underlying these provisions is an assumption that CPI will grow over time, in the case of the Nevada PERS, at a rate of 3.50% per year.

All systems in this report have included commentary regarding COLAs. Still common with many systems is the Ad Hoc COLA, which is triggered by a governing body, usually the state legislature. Exhibit F shows that 27 of the 126 state plans employ Ad Hoc COLAs.

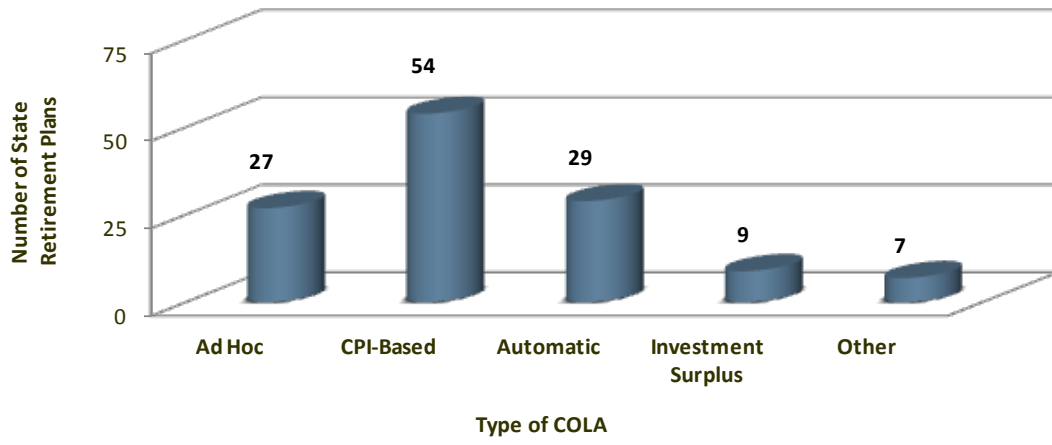
Automatic COLAs based upon a change in the Consumer Price Index are the most common form of COLA, with 54 of 126 plans having adopted such provisions, including PERS of Nevada. In these systems, the COLAs are tied to a change in the CPI but often capped at some percent (e.g., 60% of CPI change, but no more than 2.5%). Especially for systems in which members do not participate in Social Security, the use of an Ad Hoc COLA that automatically increases benefits with inflation, as Social Security does, is necessary to provide benefits that properly shield the members from inflation and mirror the protection provided to those covered by Social Security.

Additionally, twenty-nine systems have automatic COLAs at some fixed rate that are not dependent on the CPI, and nine base their ad-hoc on excess earnings.

COLAs can be based on the initial retirement benefit (simple) or on the retirement benefit after including prior COLA benefits (compounded). Simple increases will provide lower benefits over the long run than compounded increases of the same magnitude. Sixty-six of the 76 plans reporting on their compounding methodology, including PERS of Nevada Regular and Police/Fire, have COLAs that are compounded, as opposed to using simple interest.

Exhibit F

Cost-of-Living Adjustment (COLA)



Section 2 Calculation of Liabilities

This review also includes an independent calculation of estimated liabilities of PERS, JRS and LRS using various discount rates. The underlying actuarial information was supplied by the Segal Company (Segal), the consulting actuary that NVPERS has retained. We did not duplicate or verify the actuarial valuations but rather we relied upon the reports and professional representations from Segal.

The data used for the analysis was based upon the projected cash flows as of June 30, 2012. We have compared each system's liability at the current 8.0% discount rate with the liability generated at rates of 5.0%, 6.0%, 7.0%, 7.5%, 7.9% and 8.5%, 9.0%, 9.3%, and 10.0%. Note once again that the discount rate is used to value the liabilities at a moment in time, akin to a snapshot. Different rates may be appropriate for different purposes. For example, while GASB rates are the basis for accounting for the plan (which will require a blended rate for many plans), a funding policy requires a rate appropriate to discount the future cash flows over the timeframe inherent in that funding policy to generate the accumulation of assets, and rating agencies may require a third and more consistent (from plan to plan, notwithstanding plan differences) rate for its use in determining the impact that pensions will have on bond-paying abilities of an entity. Exhibit G details results for PERS, covering both Regular and Police/Fire plans. Exhibit H details results for the Judicial Retirement system, Exhibit I details results for the Legislative Retirement System. It is important to note that an identical change in discount rate has a different impact on each system, due to the differences in demographics, actuarial maturity, and other measures between the systems.

In column 1 we show the multiple discount rates at which we compare the liabilities. The 8.0% discount rate line is bolded and shaded – this represents the current results using the discount rate actually employed and disclosed by the plan at June 30, 2012.

In column 2 we show the system liability. Columns 2a and 2b of Exhibit G split the combined PERS liability between those generated under the Regular and the Police/Fire plans.

In column 3 we present the percent increase (or decrease) in liability as compared to the baseline liability discounted at 8.0%. In column 4 we show the actuarial value of assets as of June 30, 2012. The asset value remains constant for each system as it is unaffected by the change in discount rate. In column 5 we set forth the resulting amount of over or underfunding. In column 6 we have provided the funded ratio under each discount rate.

Exhibit H that covers the Judicial Retirement System and Exhibit I that covers the Legislators' Retirement System follow the same format.

Exhibit G

Measurement of PERS Actuarial Accrued Liability

As of June 30, 2012 (in millions)

Public Employees Retirement System of Nevada

(1)	(2a)	(2b)	(2)	(3)	(4)	(5)	(6)
Discount Rate	PERS Regular Liability	PERS Police/Fire Liability	Total PERS Liability	% Change in Liability From Baseline of 8.0%	Total Actuarial Value of Assets	Unfunded/(Overfunded) Accrued Liability	Funded Ratio
5.00%	\$ 48,862	\$ 14,420	\$ 63,282	63.92%	\$ 27,399	\$ 35,883	43.3%
6.00%	41,027	11,768	52,795	36.76%	27,399	25,396	51.9%
7.00%	34,980	9,780	44,760	15.94%	27,399	17,361	61.2%
7.50%	32,469	8,972	41,441	7.35%	27,399	14,042	66.1%
7.90%	30,662	8,397	39,060	1.18%	27,399	11,661	70.1%
8.00%	30,322	8,282	38,605	0.00%	27,399	11,206	71.0%
8.50%	28,243	7,638	35,881	-7.06%	27,399	8,482	76.4%
9.00%	26,458	7,086	33,543	-13.11%	27,399	6,144	81.7%
9.30%	25,475	6,785	32,259	-16.44%	27,399	4,860	84.9%
10.00%	23,406	6,158	29,564	-23.42%	27,399	2,165	92.7%

Exhibit H

Measurement of JRS Actuarial Accrued Liability

As of June 30, 2012 (in millions)

Judicial Retirement System of Nevada

(1)	(2)	(3)	(4)	(5)	(6)
Discount Rate	JRS Liability	% Change in Liability From Baseline of 8.0%	Actuarial Value of Assets	Unfunded/(Overfunded) Accrued Liability	Funded Ratio
5.00%	\$ 142.08	52.56%	\$ 63.93	\$ 78.14	45.0%
6.00%	121.92	30.91%	63.93	57.99	52.4%
7.00%	105.87	13.67%	63.93	41.93	60.4%
7.50%	99.06	6.36%	63.93	35.12	64.5%
7.90%	94.10	1.04%	63.93	30.16	67.9%
8.00%	93.13	0.00%	63.93	29.20	68.6%
8.50%	87.38	-6.18%	63.93	23.44	73.2%
9.00%	82.35	-11.57%	63.93	18.42	77.6%
9.30%	79.56	-14.57%	63.93	15.63	80.4%
10.00%	73.64	-20.94%	63.93	9.70	86.8%

Exhibit I

Measurement of LRS Actuarial Accrued Liability

As of June 30, 2012 (in millions)

Legislators' Retirement System of Nevada

(1)	(2)	(3)	(4)	(5)	(6)
Discount Rate	LRS Liability	% Change in Liability From Baseline of 8.0%	Actuarial Value of Assets	Unfunded/(Overfunded) Accrued Liability	Funded Ratio
5.00%	\$ 7.35	31.82%	\$ 3.81	\$ 3.55	51.8%
6.00%	6.66	19.32%	3.81	2.85	57.2%
7.00%	6.07	8.86%	3.81	2.27	62.7%
7.50%	5.82	4.25%	3.81	2.01	65.5%
7.90%	5.62	0.82%	3.81	1.82	67.7%
8.00%	5.58	0.00%	3.81	1.77	68.2%
8.50%	5.36	-3.94%	3.81	1.55	71.0%
9.00%	5.15	-7.58%	3.81	1.35	73.8%
9.30%	5.04	-9.65%	3.81	1.23	75.5%
10.00%	4.79	-14.14%	3.81	0.98	79.5%

Section 3

Projections of Contribution Rates and Funding Levels

This review also includes a 30-year projection of the estimated assets, liabilities, actuarially required contributions and funded percentage of PERS, JRS and LRS using current policy and plan assumptions, including the current discount rate of 8.0% and the current mortality tables. The underlying actuarial information, including the current normal costs, benefit payments, assets and liabilities under each system was supplied by Segal, the consulting actuary that NVPERS has retained. As is noted elsewhere in the presentation, we did not duplicate or verify the actuarial valuations that form the basis of the projections, but rather we relied upon the reports and professional representations from Segal.

Results of PERS Projection

Regular members of PERS are currently covered by a plan that is just over 71.0% funded and that generates an Actuarially Required Contribution (ARC) of 24.5% of pay, split evenly between the members and their employers. If all actuarial assumptions are met (i.e. new members enter the plan to replace members leaving through retirement, vested terminations, non-vested terminations, and disability at the expected rates, annual contributions are paid on time and in the amounts of the ARCs, assets earn their expected rates of return, and deaths of members follow the current mortality table precisely) the ARC will increase to almost 28.7% of pay in the near term and fall abruptly to just over 17.5% of pay in 2034 as amortizations are fully paid off and the plan reaches 100% funded status.

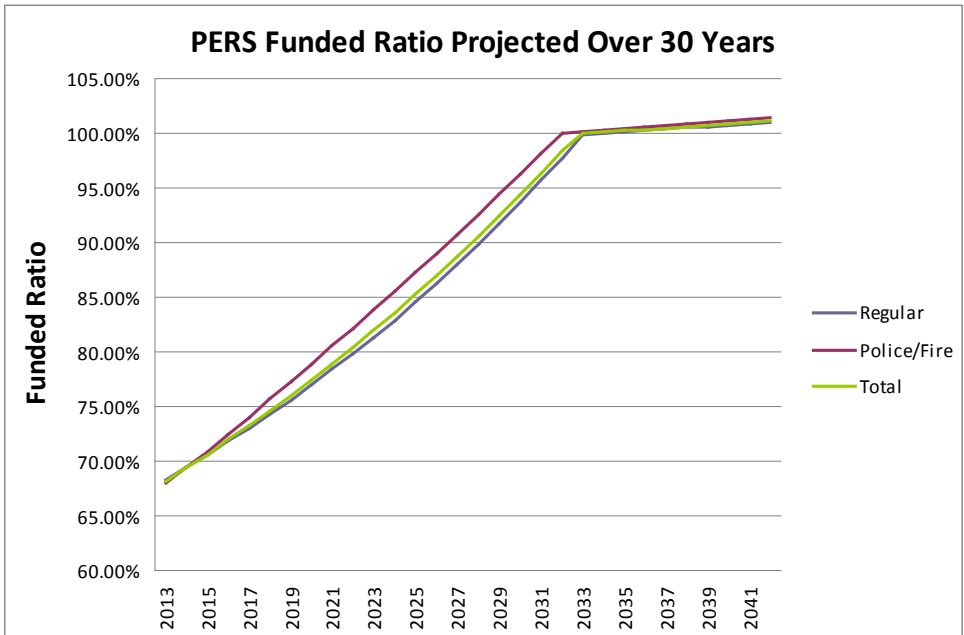
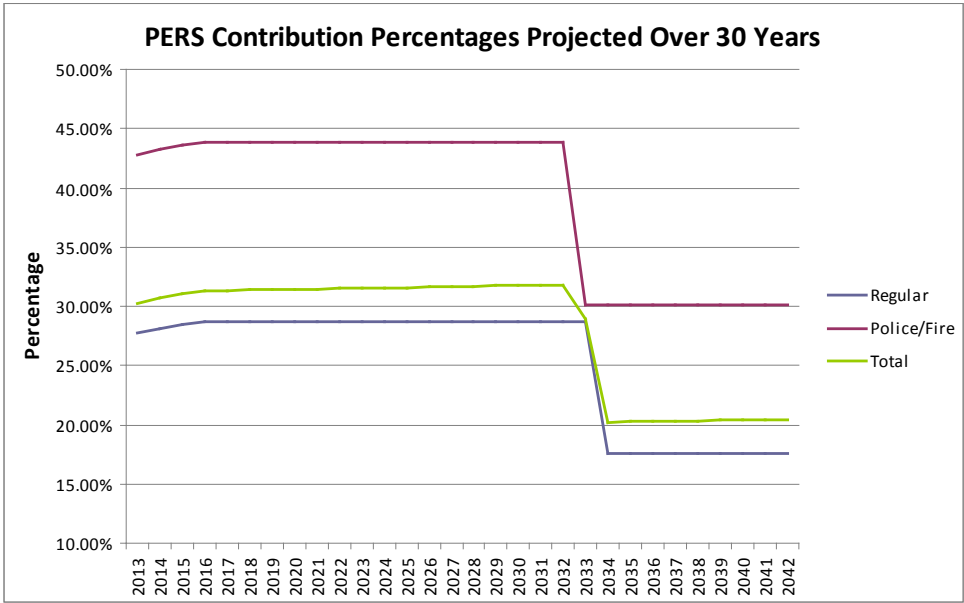
Over that same time period, if all assumptions are met, the plan's funded status will rise from its current 71.2% to just over 100.0%; in effect, the plan will become fully funded.

Graphs of the funded percentage and the contributions required to the plan follow the commentary regarding the Police / Fire members of PERS projections.

Police / Fire members of PERS are currently covered by a plan that is just over 70.0% funded and that generates an ARC of 40.5% of pay, split evenly between the members and their employers. If all actuarial assumptions are met, the ARC will increase to almost 44.0% of pay in the near term and then fall to a rate of just over 30.0% of pay beginning in 2033 as amortizations are fully paid off.

Over that same time period, if all assumptions are met, the plan's funded status will rise from its current 70.1% to just over 100%; in effect, the plan will become fully funded.

Note that it is very unlikely that all assumptions will be met exactly. As a result, gains or losses will be generated and will need to be amortized. While the discount rate is a very significant assumption that will have a material impact on the funded status and actuarially required contributions, retirement and termination rates, salary increases, mortality and other assumptions will also have a material impact on both these measures in the future as well.



30-Year Projection of Regular Members of PERS

(in millions)

	2013	2018	2023	2028	2033	2038	2042
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Expected Payroll	\$ 4,934	\$ 6,759	\$ 9,261	\$ 12,688	\$ 17,384	\$ 23,818	\$ 30,641
Actuarial Accrued liability, July 1	\$ 32,117	\$ 42,340	\$ 55,132	\$ 71,929	\$ 95,755	\$ 132,331	\$ 177,443
Normal cost	\$ 864	\$ 1,184	\$ 1,623	\$ 2,223	\$ 3,046	\$ 4,173	\$ 5,368
Market Value of Assets, July 1	\$ 21,929	\$ 31,466	\$ 44,844	\$ 64,605	\$ 95,671	\$ 133,013	\$ 179,195
Actuarial Value of Assets, July 1	\$ 22,894	\$ 31,466	\$ 44,844	\$ 64,605	\$ 95,671	\$ 133,013	\$ 179,195
Contributions	\$ 1,385	\$ 1,936	\$ 2,653	\$ 3,635	\$ 3,046	\$ 4,173	\$ 5,368
Benefit Payments	\$ 1,534	\$ 2,208	\$ 3,007	\$ 3,845	\$ 4,597	\$ 5,085	\$ 5,124
Earnings	\$ 1,804	\$ 2,584	\$ 3,679	\$ 5,305	\$ 7,713	\$ 10,771	\$ 14,560
Funded Ratio	71.3%	74.3%	81.3%	89.8%	99.9%	100.5%	101.0%
Contribution Rate	28.1%	28.6%	28.6%	28.6%	17.5%	17.5%	17.5%

30-Year Projection of Police / Fire Members of PERS

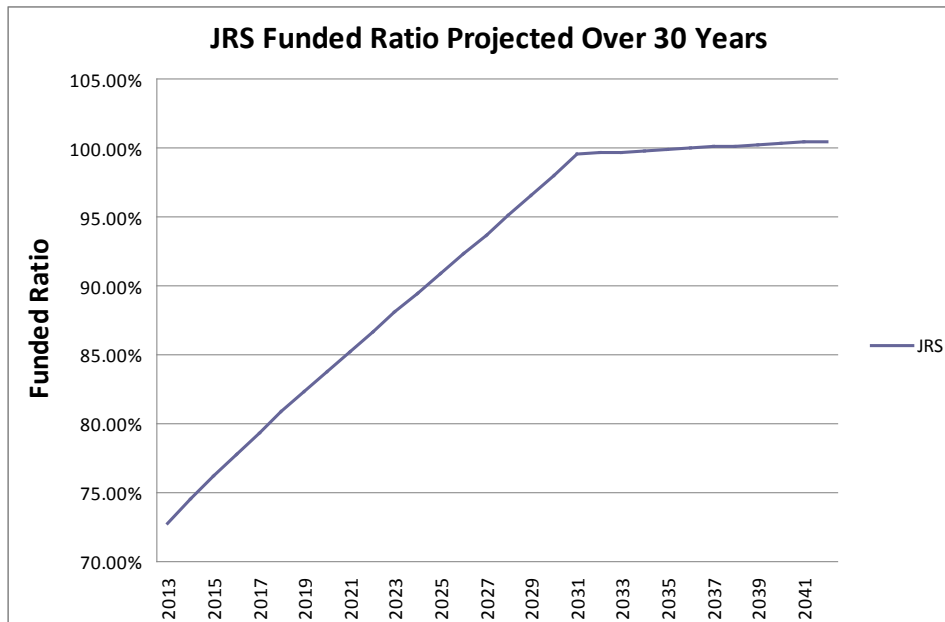
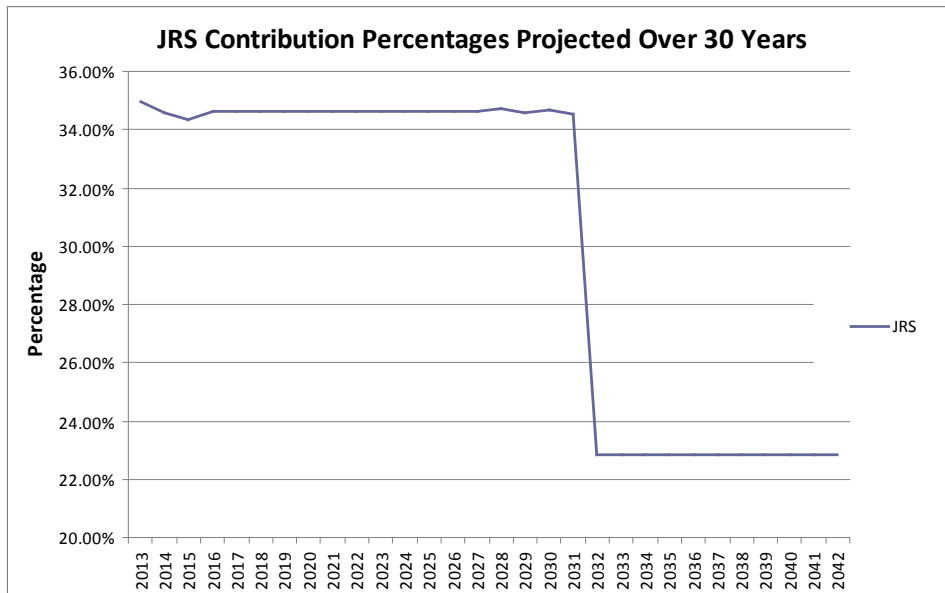
(in millions)

	2013	2018	2023	2028	2033	2038	2042
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Expected Payroll	\$ 1,018	\$ 1,495	\$ 2,197	\$ 3,228	\$ 4,743	\$ 6,969	\$ 9,481
Actuarial Accrued liability, July 1	\$ 8,892	\$ 12,721	\$ 18,133	\$ 25,726	\$ 36,779	\$ 53,849	\$ 75,009
Normal cost	\$ 307	\$ 451	\$ 662	\$ 973	\$ 1,429	\$ 2,100	\$ 2,858
Market Value of Assets, July 1	\$ 6,041	\$ 9,624	\$ 15,207	\$ 23,811	\$ 36,822	\$ 54,301	\$ 76,048
Actuarial Value of Assets, July 1	\$ 6,279	\$ 9,624	\$ 15,207	\$ 23,811	\$ 36,822	\$ 54,301	\$ 76,048
Contributions	\$ 440	\$ 655	\$ 962	\$ 1,414	\$ 1,429	\$ 2,100	\$ 2,858
Benefit Payments	\$ 357	\$ 524	\$ 791	\$ 1,149	\$ 1,549	\$ 1,905	\$ 2,081
Earnings	\$ 504	\$ 801	\$ 1,262	\$ 1,972	\$ 2,998	\$ 4,436	\$ 6,229
Funded Ratio	70.6%	75.7%	83.9%	92.6%	100.1%	100.8%	101.4%
Contribution Rate	43.2%	43.8%	43.8%	43.8%	30.1%	30.1%	30.1%

Results of JRS Projection

JRS is currently just over 68.5% funded and generates an ARC of 35.4% of pay. If all actuarial assumptions are met, the ARC will decrease to just over 34.6% of pay in the near term and fall starting in 2032 to a rate of just under 23.0% of pay as amortizations are fully paid off.

Over that same time period, if all assumptions are met, the plan's funded status will rise from its current 68.6% to slightly over 100%; in effect, the plan will become fully funded.



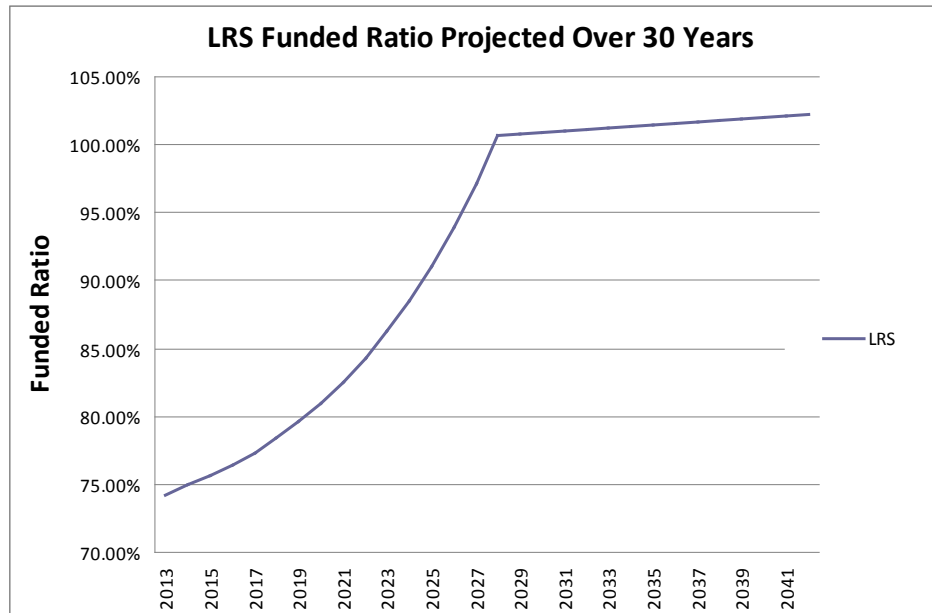
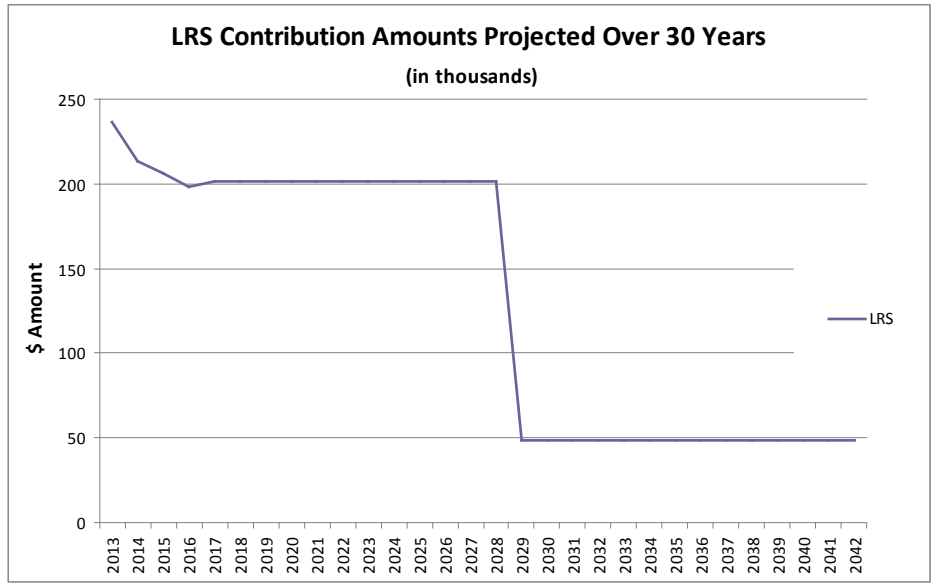
30-Year Projection of JRS

(in thousands)

	2013	2018	2023	2028	2033	2038	2042
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Expected Payroll	\$ 17,134	\$ 19,863	\$ 23,027	\$ 26,695	\$ 30,947	\$ 35,876	\$ 40,378
Actuarial Accrued liability, July 1	\$ 99,532	\$ 132,728	\$ 171,962	\$ 218,435	\$ 273,801	\$ 359,273	\$ 465,495
Normal cost	\$ 3,910	\$ 4,533	\$ 5,255	\$ 6,092	\$ 7,062	\$ 8,187	\$ 9,214
Market Value of Assets, July 1	\$ 72,399	\$ 107,306	\$ 151,450	\$ 207,850	\$ 272,997	\$ 359,843	\$ 467,809
Actuarial Value of Assets, July 1	\$ 70,866	\$ 107,306	\$ 151,450	\$ 207,850	\$ 272,997	\$ 359,843	\$ 467,809
Contributions	\$ 5,924	\$ 6,880	\$ 7,975	\$ 9,234	\$ 7,062	\$ 8,187	\$ 9,214
Benefit Payments	\$ 5,486	\$ 7,756	\$ 9,921	\$ 13,500	\$ 14,689	\$ 13,947	\$ 12,591
Earnings	\$ 6,046	\$ 8,825	\$ 12,357	\$ 16,827	\$ 21,817	\$ 28,884	\$ 37,658
Funded Ratio	71.2%	80.8%	88.1%	95.2%	99.7%	100.2%	100.5%
Contribution Rate	34.6%	34.6%	34.6%	34.6%	22.8%	22.8%	22.8%

Results of LRS Projection

LRS is currently just over 68.0% funded and generates an ARC just over \$213,000. Note that the ARC is not based on pay, as the benefit is a fixed dollar benefit rather than a percentage of pay per year of service. If all actuarial assumptions are met, the ARC will decrease to about \$200,000 in the near term and then fall starting in 2028 to an amount close to \$50,000 as amortizations are fully paid off and the plan reaches a 100% funded status.



30-Year Projection of LRS

(in thousands)

	2013	2018	2023	2028	2033	2038	2042
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Expected Payroll	\$ 304	\$ 304	\$ 304	\$ 304	\$ 304	\$ 304	\$ 304
Actuarial Accrued liability, July 1	\$ 5,521	\$ 5,132	\$ 4,719	\$ 4,414	\$ 4,449	\$ 5,006	\$ 5,990
Normal cost	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49
Market Value of Assets, July 1	\$ 4,100	\$ 4,023	\$ 4,071	\$ 4,443	\$ 4,503	\$ 5,098	\$ 6,123
Actuarial Value of Assets, July 1	\$ 3,880	\$ 4,023	\$ 4,071	\$ 4,443	\$ 4,503	\$ 5,098	\$ 6,123
Contributions	\$ 213	\$ 202	\$ 202	\$ 49	\$ 49	\$ 49	\$ 49
Benefit Payments	\$ 539	\$ 518	\$ 490	\$ 411	\$ 333	\$ 245	\$ 187
Earnings	\$ 315	\$ 317	\$ 322	\$ 343	\$ 351	\$ 402	\$ 486
Funded Ratio	70.3%	78.4%	86.3%	100.7%	101.2%	101.8%	102.2%
Contribution Rate	70.1%	66.3%	66.3%	16.0%	16.0%	16.0%	16.0%

Section 4

Review of the Actuarial Funding Policy

A best practice for public retirement systems is to have a written, long-term funding policy that has been carefully considered and adopted by the governing boards of trustees. While this is a best practice, it is certainly not a common one. Of the 99 public retirement systems in the database that administer the 126 plans we have used for comparisons in this report, the vast majority of them do not have a written funding policy. Consistent with best practice, NVPERS does.

The Actuarial Funding Policy of NVPERS (the Policy) has evolved since 2005 and was last updated in May 2012. It is contained in the “Retirement Board Charters and Policies”, a well-organized compilation of the governing documents for the System. We found the Policy to be one of the most comprehensive and meaningful policies of its type in the public retirement arena.

The Policy clearly states that its purpose is to record the funding objectives set by the Board, to help ensure the systematic funding of future benefit payments for members of NVPERS and to document certain guidelines to assist in administering NVPERS in a consistent and efficient manner. In many public retirement systems the boards do not view funding as “their” issue. They see their responsibility as starting once the contributions have been received by their systems. They limit their focus to administering benefits and making investments and do not get involved with the actuarial stability of their systems. This, we believe, is not the optimal approach for a board to take.

The four goals set forth in the Policy are based upon sound public policy for NVPERS and the State of Nevada. They are:

1. To achieve long-term full funding of the cost of benefits provided by NVPERS;
2. To seek reasonable and equitable allocation of the cost of benefits over time;
3. To minimize volatility of employee and employer contributions to the extent reasonably possible, consistent with other policy goals; and
4. To maintain a policy that is both transparent and accountable to the stakeholders of NVPERS, including plan participants, employers, and residents of the State of Nevada.

The goals reflect the fact that states, unlike corporations, do not have a finite life, but rather are assumed to be operable forever. The goals also recognize that costs cannot be ignored. They

should be fair and stable over time. Intergenerational equity is not explicitly stated, but it is implicitly woven into the Policy. Finally, the goals show the importance the Board has placed on transparency and accountability. Taken together, the goals are in line with the Policy's purpose and they further exhibit sound public policy.

The Policy explains the three fundamental components that determine the actuarial costs of the pension plan. They are the actuarial cost method, the asset smoothing method and the amortization policy to be used by the System's actuaries.

The actuarial cost method is the Entry Age Normal method, which is a conservative method because it allocates the costs over a level percentage of pay over the working lifetime of each member, rather than other methodologies which tend to allocate much more of the costs to the end of a working lifetime¹. This is the method recommended by the System's actuaries and the one used by over 75% of the systems in the database. It is preferred by governmental entities because it results in level funding over time and therefore, is more manageable from a budgeting perspective. It is also consistent with the concept of intergenerational equity, meaning that future generations of public employees will not bear an unfair financial burden. This is the actuarial funding method we would recommend.

The asset smoothing method uses a 5-year period over which to level out volatile investment gains and losses to determine the Actuarial Value of Assets. The use of 5 years is reasonable, consistent with actuarial standards of the Governmental Accounting Standards Board (GASB) and Actuarial Standards set forth by the American Academy of Actuaries. Additionally, it represents the most typical period for amortizations of investment gains and losses. This is consistent with what we would recommend.

Under the Policy, deferred investment gains or losses cannot exceed 30% of the Market Value of Assets. This ensures that the Actuarial Value of Assets remains linked to, and within a "corridor" around, the Market Value of Assets. This 30% corridor is somewhat wider than that used by many other systems (a 20% corridor is more typical); however, the Actuarial Value of Assets definition found in the funding policy ensures that the calculations utilize asset values that are reasonable. While a 30% corridor does have some advantages over a 20% corridor, we would recommend that the Board review this in the future, to confirm that the use of the 30% corridor remains appropriate and consistent with the overall objectives.

The amortization policy addresses the way the current and future unfunded liabilities of the System will be paid off. It is somewhat complex with multiple layers; however, this is necessary

¹ GASB allows other actuarial cost methods to be used as well. The Projected Unit Credit (PUC) methodology is the second most used method in the report with 15 of the 126 systems utilizing it. PUC tends to allocate less of the costs to the early working years and most of the costs to the last five to ten years of employment, and in doing so may develop significant funding pressures should a population's demographics change due to aging or other issues.

to be in alignment with the goals of the Policy. In general, unfunded liability which was a result of less than adequate funding in years gone by, was to be amortized over 30 years. This is entirely acceptable under both GASB and Actuarial Standards of Practice. After June 30th, 2011, newly generated gains and losses are to be amortized over a period grading to, and then remaining at, 20 years. This amortization approach, while being more conservative than the systems we used for comparisons, is also an acceptable practice and one that we believe represents a best practice because it is more conservative. The 30-year period initially utilized, and the 20-year period being implemented after the change, are both based on closed amortization periods, rather than open periods. The use of a closed period represents a best practice and is consistent with what we would recommend. To be even more conservative and prevent problems that existed in the past, the Policy requires that new plan amendments that would increase costs must be amortized over 15 years and temporary retirement incentives are to be pre-funded by the employers. We view this as a prudent policy decision.

Contributions toward the unfunded liability will be a level percentage of payroll as payrolls change over time. This approach to managing the unfunded liability and preventing unexpected increases in the liabilities is sound and reasonable.

The Policy also addresses the possibility of the plans being over-funded. A fair and methodical approach is set forth that for the distribution of surpluses once the existing unfunded liability is paid off. Surpluses will be spread over 30 years rather than resulting in pension contribution holidays that can generate significant volatility in funding. The policy also states that “any subsequent UAAL will be amortized over 20 years as the first of a new series of amortization layers” ensuring that a change from over-funded to under-funded status will be addressed reasonably and simply with the immediate move to a 20-year period for amortizations. The Policy’s safeguards are intended to keep the plan well-funded while ensuring stability. They represent best practices that are not commonly found among other public retirement systems.

The Policy takes into account the budgeting issues that employers face and the timing of budget cycles. Contribution rates will be set every two years, rather than every year and advance notice will be given as to what the rates will be. This is a reasonable and practical feature in the Policy.

Political realities are considered in the Policy. If shortfall or excess contributions result because the statutory contribution rates set by the Legislature are not equal to the actuarially determined contribution rates, they will be amortized as an actuarial gain or loss in subsequent valuations. Reflecting both the budgeting and political realities in a manner that allows for the reasonable operation of the system, while addressing potential concerns, represents a best practice.

A critical part of any prudent funding policy is to state how actuarial assumptions, both economic (financial) and demographic assumptions, will be set and. The Policy explains what these various assumptions are and what factors the Board will consider when setting them.

The Policy further reflects best practices in that it calls for an actuarial experience study every 4 to 6 years to determine if the assumptions need to change. This timing is consistent with Aon Hewitt recommendations, Actuarial Standards of Practice, and appropriate practices under GASB. Best practice also suggests that an audit should also be performed by an actuarial firm other than the one the system has retained on a regular basis. The actuarial auditor verifies the methodology, assumptions and calculations of the retained actuary. The public retirement system should set forth in a written policy the timing and circumstances under which the system will have an actuarial audit and what the scope of that audit will be. The Board's Monitoring and Reporting Policy, which is a part of the Board's Governance Policies, contains a written policy regarding actuarial audits that addresses each of these points, and therefore meets these best practice standards.

Perhaps the most valuable part of the Policy is the way it handles future benefit improvements. It imposes a prudent discipline to plan design changes by stating that benefit improvements will not be considered by the Board unless the funding level of the System is 85%. It is not clear if the 85% level is for a point in time or one that has been sustained for several years. Additionally, while it appears that the calculation is based on the Actuarial Value of Assets, rather than the Market Value of Assets, it may be wise to clarify these in the Policy.

The Policy additionally provides that "benefit improvements may be considered when the actuarially determined employer pay contribution rate would drop by at least 1% and the employee/employer pay rate would drop by at least 0/5% (sic – assumed to be 0.5%) from the statutory rate and remain sufficient to meet the requirements of this funding policy" and that "Benefit improvement costs may equal up to one-quarter of the margin between the statutory rate and the actuarially determined contribution rate." The use of additional supplementary guidelines limiting the impact that benefit improvements can have on the contribution rates is reasonable and represents a further best practice to ensure the proper funding of any promised benefits.

The Policy concludes by saying that the Board shall oppose any increase in pension benefits except where there has been a careful analysis of the financial impact of the proposed benefit increases on the funded status of the System and where sufficient funding of the benefits will come through adjustments to the contribution rates. While only the Legislature can change the benefits, this provision in the Policy should help prevent irresponsible increases in benefits that are not adequately funded. From experience during the recent recession, many legislatures across the country and many retirement boards have come to realize that it is unwise to assume that the full cost of benefit increases can be covered by future investment earnings.

In summary, we believe the NVPERS Actuarial Funding Policy is comprehensive, thoughtful and a model for other public retirement systems to follow. Where relevant, the Policy's standards meet or exceed the requirements of the Actuarial Standards of Practice and Government Accounting Standards currently in effect. Aside from the minor points we made above, we do not have any other recommendations for improving the Policy.

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Comparative Tables

Table 1(a)

Active vs. Annuitants

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
1	Alabama	RSA	\$25,092,788	223,595	109,585	2.04	15
2	Alaska	PERS	\$6,118,294	24,393	27,359	0.89	96
3	Alaska	TRS	\$3,006,647	7,303	11,016	0.66	98
4	Arizona	SRS	\$26,659,417	214,346	116,952	1.83	29
5	Arizona	PSPRS	\$5,216,643	18,638	9,522	1.96	17
6	Arizona	PERS	\$1,824,207	8,569	5,294	1.62	48
7	Arkansas	ATRS	\$11,894,877	72,293	32,099	2.25	6
8	Arkansas	APERS	\$5,801,921	45,145	28,137	1.60	50
9	California	CalPERS	\$237,833,050	788,272	545,886	1.44	62
10	California	CalSTRS	\$151,318,057	429,600	253,041	1.70	42
11	California	LACERA	\$38,306,756	91,952	56,752	1.62	47
12	California	SFERS	\$15,598,839	28,100	24,125	1.16	84
13	California	SDCERA	\$8,176,835	16,523	14,496	1.14	85
14	California	CCCERA	\$5,052,290	8,629	8,085	1.07	90
15	Colorado	PERA	\$39,879,134	196,435	100,714	1.95	18
16	Colorado	DERP	\$1,649,157	8,149	7,776	1.05	91
17	Colorado	FFPA	\$3,111,269	10,551	6,779	1.56	54
18	Connecticut	SERC	\$8,984,875	47,778	45,640	1.05	93
19	Connecticut	TRS	\$14,152,237	53,969	32,064	1.68	44
20	Delaware	DPERS	\$7,536,367	42,832	25,356	1.69	43
21	District of	DCRB	\$4,468,179	10,308	4,986	2.07	13

Table 1(a)

Active vs. Annuitants

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
	Columbia						
22	Florida	FRS	\$119,981,465	623,011	333,364	1.87	22
23	Georgia	ERS	\$14,752,701	103,347	57,669	1.79	35
24	Georgia	TRSGA	\$53,487,149	213,675	97,323	2.20	8
25	Hawaii	ERS	\$8,815,285	67,912	36,999	1.84	27
26	Idaho	PERSI	\$11,617,416	65,270	37,150	1.76	36
27	Illinois	IMRF	\$27,996,327	174,771	103,929	1.68	45
28	Illinois	SRS	\$10,970,753	66,363	59,786	1.11	88
29	Illinois	TRS	\$36,516,825	162,217	105,447	1.54	56
30	Illinois	CTPF	\$10,312,762	30,133	25,199	1.20	83
31	Illinois	SURS	\$13,705,143	71,056	54,532	1.30	77
32	Indiana	InPERS	\$25,538,547	230,536	126,813	1.82	31
33	Iowa	IPERS	\$23,243,540	164,200	101,948	1.61	49
34	Kansas	KPERS	\$13,105,812	155,054	81,025	1.91	19
35	Kentucky	KRS	\$11,680,563	146,565	92,603	1.58	52
36	Kentucky	KTRS	\$15,130,606	76,349	44,419	1.72	40
37	Louisiana	LASERS	\$9,703,497	54,930	43,267	1.27	79
38	Louisiana	TRSL	\$14,577,211	86,742	65,512	1.32	76
39	Maine	MainePERS	\$10,840,669	49,620	36,717	1.35	74
40	Maryland	MSRPS	\$37,178,726	192,994	132,493	1.46	59
41	Massachusetts	PERAC	\$18,491,937	85,935	54,544	1.58	53
42	Massachusetts	MTRS	\$20,209,998	86,860	57,406	1.51	58
43	Michigan	MERS	\$5,937,904	35,136	31,409	1.12	86

Table 1(a)

Active vs. Annuitants

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
44	Michigan	PSERS	\$34,674,653	236,660	192,435	1.23	80
45	Michigan	SERS	\$8,654,574	19,650	55,648	0.35	99
46	Minnesota	SRS	\$10,467,185	53,648	37,580	1.43	66
47	Minnesota	TRA	\$16,689,940	76,649	55,425	1.38	71
48	Minnesota	PERA	\$20,504,740	153,735	89,603	1.72	41
49	Minnesota	DTRFA	\$213,368	1,006	1,344	0.75	97
50	Minnesota	SPTRFA	\$950,121	3,578	3,212	1.11	87
51	Mississippi	PERS	\$20,220,476	163,058	89,731	1.82	32
52	Missouri	MOSERS	\$7,681,720	51,730	37,798	1.37	72
53	Missouri	PSERS	\$30,781,330	126,134	72,906	1.73	39
54	Missouri	LAGERS	\$4,679,128	32,925	16,070	2.05	14
55	Missouri	MPERS	\$1,555,680	8,160	7,792	1.05	92
56	Missouri	PSRSSTL	\$868,086	4,336	4,587	0.95	94
57	Montana	MPERA	\$4,894,113	34,531	18,294	1.89	21
58	Montana	TRS	\$2,972,421	18,484	12,899	1.43	65
59	Nebraska	NPERS	\$8,576,592	57,554	19,400	2.97	1
60	Nevada	PERS	\$25,899,842	98,512	49,546	1.99	16
61	New Hampshire	NHRS	\$5,857,425	49,738	27,130	1.83	28
62	New Jersey	DPB	\$75,065,578	531,679	277,899	1.91	20
63	New Mexico	PERA	\$12,154,119	54,189	29,496	1.84	26
64	New Mexico	ERB	\$9,588,563	61,673	35,457	1.74	38
65	New York	NYSLRS	\$153,394,434	536,599	403,174	1.33	75
66	New York	NYCTRS	\$33,601,537	111,647	72,356	1.54	55

Table 1(a)

Active vs. Annuitants

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
67	New York	NYCERS	\$42,655,336	184,982	132,487	1.40	70
68	New York	NYSTRS	\$88,056,264	270,470	149,812	1.81	33
69	North Carolina	NCRS	\$79,562,674	495,527	235,580	2.10	11
70	North Dakota	NDPERS	\$1,519,023	20,828	7,950	2.62	4
71	North Dakota	TFFR	\$1,726,179	10,004	6,933	1.44	63
72	Ohio	OPERS	\$67,668,091	348,235	190,488	1.83	30
73	Ohio	SERS	\$10,483,076	125,337	67,221	1.86	23
74	Ohio	STRS	\$60,693,621	173,044	143,256	1.21	82
75	Ohio	OP&F	\$9,688,358	28,222	26,074	1.08	89
76	Oklahoma	OPERS	\$6,821,304	42,569	30,263	1.41	69
77	Oklahoma	TRS	\$10,194,735	87,778	52,716	1.67	46
78	Oregon	PERS	\$53,659,424	169,781	119,346	1.42	67
79	Pennsylvania	SERS	\$25,389,335	106,048	117,061	0.91	95
80	Pennsylvania	PSERS	\$48,533,796	279,152	194,622	1.43	64
81	Rhode Island	ERSRI	\$7,488,903	32,671	26,719	1.22	81
82	South Carolina	SCRS	\$24,979,105	224,412	141,681	1.58	51
83	South Dakota	SDRS	\$7,936,269	38,490	21,457	1.79	34
84	Tennessee	CRS	\$34,912,773	215,076	116,585	1.84	24
85	Texas	TMRS	\$18,599,039	101,151	44,067	2.30	5
86	Texas	ERS	\$22,869,230	114,227	88,447	1.29	78
87	Texas	TRS	\$111,449,887	949,916	331,747	2.86	2
88	Texas	TCDRS	\$17,626,066	121,919	43,635	2.79	3
89	Texas	HFRRF	\$3,203,080	3,861	2,720	1.42	68

Table 1(a)

Active vs. Annuitants

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
90	Texas	AERS	\$1,665,789	8,348	4,542	1.84	25
91	Utah	URS	\$19,952,853	104,691	48,401	2.16	9
92	Vermont	VSERS	\$1,380,607	7,768	5,375	1.45	60
93	Vermont	VSTRS	\$1,520,767	10,123	7,005	1.45	61
94	Virginia	VRS	\$52,091,355	339,740	162,751	2.09	12
95	Virginia	ERFC	\$1,886,968	20,141	9,081	2.22	7
96	Washington	DRS	\$56,766,607	293,279	138,474	2.12	10
97	West Virginia	CPRB	\$10,442,628	74,333	54,890	1.35	73
98	Wisconsin	WRS	\$73,919,291	257,254	167,453	1.54	57
99	Wyoming	WRS	\$6,105,360	41,991	23,971	1.75	37
MEAN or AVERAGE			\$26,322,021	132,094	78,463	1.61	
MEDIAN			\$12,154,119	74,333	48,401	1.60	
TOTAL			\$2,606,870,093	13,077,299	7,767,810		
PERS OF NEVADA			\$25,889,842	98,512	49,546	1.99	
JRS OF NEVADA*			\$65,850	99	56	1.77	
LRS OF NEVADA*			\$4,081	39	82	0.48	

* Not included in Average, Median, or Total.

Table 1(b)

Active vs. Annuitants (Sorted by Ratio)

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
1	Nebraska	NPERS	\$8,576,592	57,554	19,400	2.97	1
2	Texas	TRS	\$111,449,887	949,916	331,747	2.86	2
3	Texas	TCDRS	\$17,626,066	121,919	43,635	2.79	3
4	North Dakota	NDPERS	\$1,519,023	20,828	7,950	2.62	4
5	Texas	TMRS	\$18,599,039	101,151	44,067	2.30	5
6	Arkansas	ATRS	\$11,894,877	72,293	32,099	2.25	6
7	Virginia	ERFC	\$1,886,968	20,141	9,081	2.22	7
8	Georgia	TRSGA	\$53,487,149	213,675	97,323	2.20	8
9	Utah	URS	\$19,952,853	104,691	48,401	2.16	9
10	Washington	DRS	\$56,766,607	293,279	138,474	2.12	10
11	North Carolina	NCRS	\$79,562,674	495,527	235,580	2.10	11
12	Virginia	VRS	\$52,091,355	339,740	162,751	2.09	12
13	District of Columbia	DCRB	\$4,468,179	10,308	4,986	2.07	13
14	Missouri	LAGERS	\$4,679,128	32,925	16,070	2.05	14
15	Alabama	RSA	\$25,092,788	223,595	109,585	2.04	15
16	Nevada	PERS	\$25,899,842	98,512	49,546	1.99	16
17	Arizona	PSPRS	\$5,216,643	18,638	9,522	1.96	17
18	Colorado	PERA	\$39,879,134	196,435	100,714	1.95	18
19	Kansas	KPERS	\$13,105,812	155,054	81,025	1.91	19
20	New Jersey	DPB	\$75,065,578	531,679	277,899	1.91	20
21	Montana	MPERA	\$4,894,113	34,531	18,294	1.89	21
22	Florida	FRS	\$119,981,465	623,011	333,364	1.87	22

Table 1(b)

Active vs. Annuitants (Sorted by Ratio)

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
23	Ohio	SERS	\$10,483,076	125,337	67,221	1.86	23
24	Tennessee	CRS	\$34,912,773	215,076	116,585	1.84	24
25	Texas	AERS	\$1,665,789	8,348	4,542	1.84	25
26	New Mexico	PERA	\$12,154,119	54,189	29,496	1.84	26
27	Hawaii	ERS	\$8,815,285	67,912	36,999	1.84	27
28	New Hampshire	NHRS	\$5,857,425	49,738	27,130	1.83	28
29	Arizona	SRS	\$26,659,417	214,346	116,952	1.83	29
30	Ohio	OPERS	\$67,668,091	348,235	190,488	1.83	30
31	Indiana	InPERS	\$25,538,547	230,536	126,813	1.82	31
32	Mississippi	PERS	\$20,220,476	163,058	89,731	1.82	32
33	New York	NYSTRS	\$88,056,264	270,470	149,812	1.81	33
34	South Dakota	SDRS	\$7,936,269	38,490	21,457	1.79	34
35	Georgia	ERS	\$14,752,701	103,347	57,669	1.79	35
36	Idaho	PERSI	\$11,617,416	65,270	37,150	1.76	36
37	Wyoming	WRS	\$6,105,360	41,991	23,971	1.75	37
38	New Mexico	ERB	\$9,588,563	61,673	35,457	1.74	38
39	Missouri	PSERS	\$30,781,330	126,134	72,906	1.73	39
40	Kentucky	KTRS	\$15,130,606	76,349	44,419	1.72	40
41	Minnesota	PERA	\$20,504,740	153,735	89,603	1.72	41
42	California	CalSTRS	\$151,318,057	429,600	253,041	1.70	42
43	Delaware	DPERS	\$7,536,367	42,832	25,356	1.69	43
44	Connecticut	TRS	\$14,152,237	53,969	32,064	1.68	44
45	Illinois	IMRF	\$27,996,327	174,771	103,929	1.68	45

Table 1(b)

Active vs. Annuitants (Sorted by Ratio)

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
46	Oklahoma	TRS	\$10,194,735	87,778	52,716	1.67	46
47	California	LACERA	\$38,306,756	91,952	56,752	1.62	47
48	Arizona	PERS	\$1,824,207	8,569	5,294	1.62	48
49	Iowa	IPERS	\$23,243,540	164,200	101,948	1.61	49
50	Arkansas	APERS	\$5,801,921	45,145	28,137	1.60	50
51	South Carolina	SCRS	\$24,979,105	224,412	141,681	1.58	51
52	Kentucky	KRS	\$11,680,563	146,565	92,603	1.58	52
53	Massachusetts	PERAC	\$18,491,937	85,935	54,544	1.58	53
54	Colorado	FFPA	\$3,111,269	10,551	6,779	1.56	54
55	New York	NYCTRS	\$33,601,537	111,647	72,356	1.54	55
56	Illinois	TRS	\$36,516,825	162,217	105,447	1.54	56
57	Wisconsin	WRS	\$73,919,291	257,254	167,453	1.54	57
58	Massachusetts	MTRS	\$20,209,998	86,860	57,406	1.51	58
59	Maryland	MSRPS	\$37,178,726	192,994	132,493	1.46	59
60	Vermont	VSERS	\$1,380,607	7,768	5,375	1.45	60
61	Vermont	VSTRS	\$1,520,767	10,123	7,005	1.45	61
62	California	CalPERS	\$237,833,050	788,272	545,886	1.44	62
63	North Dakota	TFFR	\$1,726,179	10,004	6,933	1.44	63
64	Pennsylvania	PSERS	\$48,533,796	279,152	194,622	1.43	64
65	Montana	TRS	\$2,972,421	18,484	12,899	1.43	65
66	Minnesota	SRS	\$10,467,185	53,648	37,580	1.43	66
67	Oregon	PERS	\$53,659,424	169,781	119,346	1.42	67
68	Texas	HFRRF	\$3,203,080	3,861	2,720	1.42	68

Table 1(b)

Active vs. Annuitants (Sorted by Ratio)

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
69	Oklahoma	OPERS	\$6,821,304	42,569	30,263	1.41	69
70	New York	NYCERS	\$42,655,336	184,982	132,487	1.40	70
71	Minnesota	TRA	\$16,689,940	76,649	55,425	1.38	71
72	Missouri	MOSERS	\$7,681,720	51,730	37,798	1.37	72
73	West Virginia	CPRB	\$10,442,628	74,333	54,890	1.35	73
74	Maine	MainePERS	\$10,840,669	49,620	36,717	1.35	74
75	New York	NYSLRS	\$153,394,434	536,599	403,174	1.33	75
76	Louisiana	TRSL	\$14,577,211	86,742	65,512	1.32	76
77	Illinois	SURS	\$13,705,143	71,056	54,532	1.30	77
78	Texas	ERS	\$22,869,230	114,227	88,447	1.29	78
79	Louisiana	LASERS	\$9,703,497	54,930	43,267	1.27	79
80	Michigan	PSERS	\$34,674,653	236,660	192,435	1.23	80
81	Rhode Island	ERSRI	\$7,488,903	32,671	26,719	1.22	81
82	Ohio	STRS	\$60,693,621	173,044	143,256	1.21	82
83	Illinois	CTPF	\$10,312,762	30,133	25,199	1.20	83
84	California	SFERS	\$15,598,839	28,100	24,125	1.16	84
85	California	SDCERA	\$8,176,835	16,523	14,496	1.14	85
86	Michigan	MERS	\$5,937,904	35,136	31,409	1.12	86
87	Minnesota	SPTRFA	\$950,121	3,578	3,212	1.11	87
88	Illinois	SRS	\$10,970,753	66,363	59,786	1.11	88
89	Ohio	OP&F	\$9,688,358	28,222	26,074	1.08	89
90	California	CCCERA	\$5,052,290	8,629	8,085	1.07	90
91	Colorado	DERP	\$1,649,157	8,149	7,776	1.05	91

Table 1(b)

Active vs. Annuitants (Sorted by Ratio)

	State	System	Asset Market Value	Active	Annuitants	Ratio	Rank
92	Missouri	MPERS	\$1,555,680	8,160	7,792	1.05	92
93	Connecticut	SERC	\$8,984,875	47,778	45,640	1.05	93
94	Missouri	PSRSSTL	\$868,086	4,336	4,587	0.95	94
95	Pennsylvania	SERS	\$25,389,335	106,048	117,061	0.91	95
96	Alaska	PERS	\$6,118,294	24,393	27,359	0.89	96
97	Minnesota	DTRFA	\$213,368	1,006	1,344	0.75	97
98	Alaska	TRS	\$3,006,647	7,303	11,016	0.66	98
99	Michigan	SERS	\$8,654,574	19,650	55,648	0.35	99
	MEAN or AVERAGE		\$26,322,021	132,094	78,463	1.61	
	MEDIAN		\$12,154,119	74,333	48,401	1.60	
	TOTAL		\$2,606,870,093	13,077,299	7,767,810		
	PERS OF NEVADA		\$25,889,842	98,512	49,546	1.99	
	JRS OF NEVADA*		\$65,850	99	56	1.77	
	LRS OF NEVADA*		\$4,081	39	82	0.48	

* Not included in Ranking, Average, Median, or Total.

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

	State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
1	Alabama	ERS	\$9,456,158	\$14,366,796	\$4,910,638	Yes
2	Alabama	Teachers	\$19,430,135	\$28,776,316	\$9,346,181	Yes
3	Alaska	Teachers	\$3,345,949	\$6,196,104	\$2,850,155	No
4	Alaska	PERS	\$6,762,149	\$10,919,047	\$4,156,898	Both
5	Arizona	Public Safety Personnel	\$5,795,945	\$9,094,447	\$3,298,502	Yes
6	Arizona	SRS	\$27,984,000	\$37,051,000	\$9,067,000	Yes
7	Arizona	ERS	\$1,834,620	\$2,752,909	\$918,289	Yes
8	Arkansas	PERS	\$5,467,000	\$7,734,000	\$2,267,000	Yes
9	Arkansas	Teachers	\$11,146,000	\$15,521,000	\$4,375,000	Yes
10	California	LA County ERS	\$39,193,627	\$48,598,166	\$9,404,539	No
11	California	San Francisco City & County	\$16,313,100	\$18,598,700	\$2,285,600	Both
12	California	PERS	\$271,389,000	\$328,567,000	\$57,178,000	Both
13	California	STRS	\$143,930,000	\$208,405,000	\$64,475,000	No
14	California	San Diego County	\$8,542,291	\$10,482,657	\$1,940,366	Both
15	California	Contra Costa County	\$5,341,822	\$6,654,037	\$1,312,215	Both
16	Colorado	School	\$20,266,574	\$32,619,033	\$12,352,459	No
17	Colorado	State	\$12,538,675	\$21,191,495	\$8,652,820	No
18	Colorado	Denver Employees	\$1,942,871	\$2,284,756	\$341,885	Yes
19	Colorado	Affiliated Local	\$1,626,454	\$2,038,237	\$411,783	(sic)
20	Colorado	Fire & Police Statewide	\$1,080,284	\$1,049,622	(\$30,662)	Both
21	Colorado	Denver Public	\$2,936,695	\$3,495,549	\$558,854	No

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
	Schools				
22 Colorado	Municipal	\$3,098,721	\$4,157,621	\$1,058,900	No
23 Connecticut	Teachers	\$14,430,187	\$23,495,916	\$9,065,729	No
24 Connecticut	SERS	\$10,122,765	\$21,126,725	\$11,003,960	Yes
25 Delaware	State Employees	\$7,270,430	\$7,949,855	\$679,425	Yes
26 District of Columbia	Police & Fire	\$3,593,716	\$3,309,825	(\$283,891)	No
27 District of Columbia	Teachers	\$1,573,654	\$1,544,864	(\$28,790)	No
28 Florida	RS	\$127,891,781	\$148,049,596	\$20,157,815	Yes
29 Georgia	ERS	\$12,260,595	\$16,777,922	\$4,517,327	Yes
30 Georgia	Teachers	\$55,427,716	\$65,978,640	\$10,550,924	Yes
31 Hawaii	ERS	\$11,400,117	\$17,636,432	\$6,236,315	Yes
32 Idaho	PERS	\$11,306,200	\$13,396,700	\$2,090,500	Yes
33 Illinois	Chicago Teachers	\$10,109,314	\$16,940,626	\$6,831,312	No
34 Illinois	Municipal	\$26,576,041	\$34,609,171	\$8,033,130	Yes
35 Illinois	Teachers	\$37,945,397	\$90,024,045	\$52,078,648	No
36 Illinois	SERS	\$11,159,837	\$31,395,008	\$20,235,171	Both
37 Illinois	Universities	\$13,949,900	\$33,170,200	\$19,220,300	No
38 Indiana	Teachers	\$8,914,562	\$20,860,324	\$11,091,661	Yes
39 Indiana	PERF	\$12,088,225	\$15,784,240	\$3,696,015	Yes
40 Iowa	PERS	\$23,530,094	\$29,446,197	\$5,916,103	Yes
41 Kansas	PERS	\$13,379,020	\$22,607,170	\$9,228,150	Yes
42 Kentucky	ERS	\$4,237,734	\$11,903,435	\$7,665,701	Yes

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

	State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
43	Kentucky	County	\$7,409,157	\$11,777,126	\$4,367,969	Yes
44	Kentucky	Teachers	\$14,908,138	\$25,968,692	\$11,060,554	No
45	Louisiana	SERS	\$8,763,101	\$15,221,055	\$6,457,954	No
46	Louisiana	Teachers	\$13,286,295	\$24,096,754	\$10,810,459	No
47	Maine	State and Teacher	\$8,736,885	\$11,281,665	\$2,544,780	No
48	Maine	Local	\$2,119,465	\$2,267,574	\$148,109	Both
49	Maryland	Teachers	\$22,523,978	\$34,252,715	\$11,728,737	Yes
50	Maryland	PERS	\$12,667,592	\$20,283,028	\$7,615,436	Yes
51	Massachusetts	SERS	\$20,507,644	\$27,784,731	\$7,277,087	No
52	Massachusetts	Teachers	\$22,141,475	\$36,483,027	\$14,341,552	No
53	Michigan	SERS	\$10,782,000	\$14,860,000	\$4,078,000	Yes
54	Michigan	Public Schools	\$43,294,000	\$60,927,000	\$17,633,000	Yes
55	Michigan	Municipal	\$6,945,400	\$9,317,200	\$2,371,800	Yes
56	Minnesota	PERF	\$13,661,682	\$18,598,897	\$4,937,215	Yes
57	Minnesota	State Employees	\$9,162,301	\$11,083,227	\$1,920,926	Yes
58	Minnesota	Teachers	\$16,805,077	\$23,024,505	\$6,219,428	Yes
59	Minnesota	Duluth Teachers	\$235,072	\$321,065	\$85,993	Yes
60	Minnesota	St. Paul Teachers	\$972,718	\$1,389,875	\$417,157	Yes
61	Mississippi	PERS	\$19,992,797	\$34,492,873	\$14,500,076	Yes
62	Missouri	DOT and Highway Patrol	\$1,427,291	\$3,297,590	\$1,870,299	Yes
63	Missouri	St. Louis School Employees	\$944,400	\$1,066,300	\$121,900	Yes
64	Missouri	State Employees	\$7,897,167	\$10,793,652	\$2,896,485	Yes

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

	State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
65	Missouri	Teachers	\$29,013,002	\$35,588,030	\$6,575,028	No
66	Missouri	PEERS	\$3,090,880	\$3,746,347	\$655,467	Yes
67	Missouri	Local	\$4,274,440	\$5,120,274	\$845,834	Yes
68	Montana	PERS	\$3,800,479	\$5,410,144	\$1,609,665	Yes
69	Montana	Teachers	\$2,866,500	\$4,658,600	\$1,792,100	Yes
70	Nebraska	Schools	\$7,267,497	\$9,039,744	\$1,772,247	Yes
71	Nevada	Regular Employees	\$21,593,053	\$30,322,446	\$8,729,393	No
72	Nevada	Police Officer and Firefighter	\$5,805,931	\$8,282,427	\$2,476,496	No
73	New Hampshire	Retirement System	\$5,740,516	\$9,998,251	\$4,257,735	Yes
74	New Jersey	Teachers	\$32,289,888	\$51,406,540	\$19,116,652	Yes
75	New Jersey	Police & Fire	\$23,171,331	\$30,905,157	\$7,733,826	Yes
76	New Jersey	PERS	\$28,934,368	\$42,969,925	\$14,035,557	Yes
77	New Mexico	PERF	\$11,855,217	\$16,826,392	\$4,971,175	Yes
78	New Mexico	Teachers	\$9,642,200	\$15,293,100	\$5,650,900	Yes
79	New York	State & Local Police & Fire	\$22,205,000	\$24,169,000	\$1,964,000	Yes
80	New York	New York City Teachers	\$31,135,400	\$49,516,400	\$18,381,000	Yes
81	New York	Teachers	\$86,892,200	\$89,824,900	\$2,932,700	Yes
82	New York	ERS	\$126,395,000	\$140,087,000	\$13,692,000	Yes
83	New York	New York City ERS	\$40,433,300	\$62,935,300	\$22,502,000	Yes
84	North Carolina	Local Government	\$19,326,359	\$19,373,799	\$47,440	Yes
85	North Carolina	Teachers and State	\$58,125,011	\$61,846,697	\$3,721,686	Yes

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
	Employees				
86 North Dakota	PERS	\$1,650,400	\$2,339,800	\$689,400	Yes
87 North Dakota	Teachers	\$1,822,600	\$2,749,800	\$927,200	Yes
88 Ohio	Police & Fire	\$10,681,000	\$15,384,000	\$4,703,000	No
89 Ohio	School Employees	\$10,397,000	\$15,943,000	\$5,546,000	No
90 Ohio	PERS	\$65,436,128	\$84,529,746	\$19,093,618	No
91 Ohio	Teachers	\$59,489,508	\$106,301,841	\$46,812,333	No
92 Oklahoma	PERS	\$6,682,200	\$8,334,638	\$1,652,438	Yes
93 Oklahoma	Teachers	\$10,190,500	\$18,588,000	\$8,397,500	Yes
94 Oregon	PERS	\$50,168,200	\$61,198,400	\$11,030,200	Yes
95 Pennsylvania	School Employees	\$59,141,100	\$85,640,400	\$26,499,300	Yes
96 Pennsylvania	ERS	\$25,303,000	\$43,056,000	\$17,753,000	Yes
97 Rhode Island	ERS	\$6,220,099	\$10,581,304	\$4,361,205	Yes
98 Rhode Island	Municipal	\$1,204,815	\$1,428,879	\$224,064	Yes
99 South Carolina	Police	\$3,728,241	\$5,122,501	\$1,394,260	Yes
100 South Carolina	RS	\$25,604,823	\$38,011,610	\$12,406,787	Yes
101 South Dakota	PERS	\$7,433,800	\$7,712,600	\$278,800	Yes
102 Tennessee	State and Teachers	\$30,118,178	\$32,707,625	\$2,589,447	Yes
103 Tennessee	Political Subdivisions	\$6,562,604	\$7,361,707	\$799,103	Yes
104 Texas	Teachers	\$118,326,000	\$144,427,000	\$26,101,000	No
105 Texas	County & District	\$19,016,400	\$21,409,500	\$2,393,100	Yes
106 Texas	Houston Firefighters	\$3,116,800	\$3,337,500	\$220,700	No

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

	State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
107	Texas	ERS	\$24,272,510	\$29,377,070	\$5,104,560	Yes
108	Texas	Municipal	\$18,347,000	\$21,563,300	\$3,216,300	Yes
109	Texas	City of Austin ERS	\$1,790,900	\$2,723,800	\$932,900	Yes
110	Texas	LECOS	\$832,450	\$1,015,670	\$130,430	Yes
111	Utah	Noncontributory	\$16,861,064	\$21,516,510	\$4,655,446	Yes
112	Vermont	Teachers	\$1,486,698	\$2,331,806	\$845,108	Yes
113	Vermont	State Employees	\$1,348,763	\$1,695,301	\$346,538	Yes
114	Virginia	Retirement System	\$52,559,000	\$75,185,000	\$22,626,000	Yes
115	Virginia	Fairfax County Schools	\$1,822,603	\$2,384,061	\$561,458	Yes
116	Washington	PERS 1	\$8,883,000	\$12,571,000	\$3,688,000	Yes
117	Washington	LEOFF Plan 1	\$5,565,000	\$4,145,000	(\$1,420,000)	Yes
118	Washington	PERS 2/3	\$20,997,000	\$21,627,000	\$630,000	Yes
119	Washington	Teachers Plan 1	\$7,485,000	\$9,232,000	\$1,747,000	Yes
120	Washington	Teachers Plan 2/3	\$7,141,000	\$7,194,000	\$53,000	Yes
121	Washington	School Employees Plan 2/3	\$2,872,000	\$2,956,000	\$84,000	Yes
122	Washington	LEOFF Plan 2	\$6,621,000	\$5,941,000	(\$680,000)	Yes
123	West Virginia	Teachers	\$5,069,002	\$9,439,482	\$4,370,480	Yes
124	West Virginia	PERS	\$4,322,670	\$5,515,250	\$1,192,580	Yes
125	Wisconsin	Retirement System	\$79,039,300	\$80,971,100	\$1,931,800	Yes
126	Wyoming	Public Employees	\$5,761,222	\$7,037,187	\$1,275,965	Yes

Table 2

Actuarial Assets/Liabilities (\$ Thousands)

State	System	Actuarial Assets	Actuarial Liabilities	Unfunded Liability	SS
	MEAN or AVERAGE	\$21,198,422	\$28,595,689	\$7,390,070	
	MEDIAN	\$10,293,750	\$15,652,620	\$4,117,449	
	TOTAL	\$2,671,001,140	\$3,603,056,795	\$931,148,764	
	PERS OF NEVADA	\$27,398,984	\$38,604,873	\$11,205,889	
	JRS OF NEVADA*	\$63,934	\$93,133	\$29,199	
	LRS OF NEVADA*	\$3,806	\$5,578	\$1,771	

* Not included in Average, Median, or Total.

Table 3(a)

Funded Ratio and Ranking

	State	System	Funded Ratio Percentage	SS	Ranking
1	Alabama	ERS	65.8	Yes	88
2	Alabama	Teachers	67.5	Yes	83
3	Alaska	Teachers	54.0	No	118
4	Alaska	PERS	61.9	Both	102
5	Arizona	Public Safety Personnel	63.7	Yes	95
6	Arizona	SRS	75.5	Yes	57
7	Arizona	ERS	66.6	Yes	86
8	Arkansas	PERS	70.7	Yes	72
9	Arkansas	Teachers	71.8	Yes	69
10	California	LA County ERS	80.6	No	43
11	California	San Francisco City & County	87.7	Both	23
12	California	PERS	82.6	Both	34
13	California	STRS	69.1	No	81
14	California	San Diego County	81.5	Both	41
15	California	Contra Costa County	80.3	Both	45
16	Colorado	School	62.1	No	101
17	Colorado	State	59.2	No	108
18	Colorado	Denver Employees	85.0	Yes	26
19	Colorado	Affiliated Local	79.8	(sic)	48
20	Colorado	Fire & Police Statewide	102.9	Both	4
21	Colorado	Denver Public Schools	84.0	No	29
22	Colorado	Municipal	74.5	No	60

Table 3(a)

Funded Ratio and Ranking

	State	System	Funded Ratio Percentage	SS	Ranking
23	Connecticut	Teachers	61.4	No	104
24	Connecticut	SERS	47.9	Yes	120
25	Delaware	State Employees	91.5	Yes	18
26	District of Columbia	Police & Fire	108.6	No	3
27	District of Columbia	Teachers	101.9	No	5
28	Florida	RS	86.4	Yes	24
29	Georgia	ERS	73.1	Yes	65
30	Georgia	Teachers	84.0	Yes	30
31	Hawaii	ERS	64.6	Yes	92
32	Idaho	PERS	84.4	Yes	27
33	Illinois	Chicago Teachers	59.7	No	106
34	Illinois	Municipal	76.8	Yes	54
35	Illinois	Teachers	42.1	No	123
36	Illinois	SERS	35.5	Both	126
37	Illinois	Universities	42.1	No	124
38	Indiana	Teachers	42.7	Yes	122
39	Indiana	PERF	76.6	Yes	55
40	Iowa	PERS	79.9	Yes	47
41	Kansas	PERS	59.2	Yes	107
42	Kentucky	ERS	35.6	Yes	125
43	Kentucky	County	62.9	Yes	97
44	Kentucky	Teachers	57.4	No	114
45	Louisiana	SERS	57.6	No	112

Table 3(a)

Funded Ratio and Ranking

	State	System	Funded Ratio Percentage	SS	Ranking
46	Louisiana	Teachers	55.1	No	116
47	Maine	State and Teacher	77.4	No	52
48	Maine	Local	93.5	Both	14
49	Maryland	Teachers	65.8	Yes	89
50	Maryland	PERS	62.5	Yes	100
51	Massachusetts	SERS	73.8	No	61
52	Massachusetts	Teachers	60.7	No	105
53	Michigan	SERS	72.6	Yes	68
54	Michigan	Public Schools	71.1	Yes	71
55	Michigan	Municipal	74.5	Yes	59
56	Minnesota	PERF	73.5	Yes	62
57	Minnesota	State Employees	82.7	Yes	32
58	Minnesota	Teachers	73.0	Yes	66
59	Minnesota	Duluth Teachers	73.2	Yes	63
60	Minnesota	St. Paul Teachers	70.0	Yes	78
61	Mississippi	PERS	58.0	Yes	111
62	Missouri	DOT and Highway Patrol	43.3	Yes	121
63	Missouri	St. Louis School Employees	88.6	Yes	22
64	Missouri	State Employees	73.2	Yes	64
65	Missouri	Teachers	81.5	No	40
66	Missouri	PEERS	82.5	Yes	35
67	Missouri	Local	83.5	Yes	31
68	Montana	PERS	70.2	Yes	76

Table 3(a)

Funded Ratio and Ranking

	State	System	Funded Ratio Percentage	SS	Ranking
69	Montana	Teachers	61.5	Yes	103
70	Nebraska	Schools	80.4	Yes	44
71	Nevada	Regular Employees	71.2	No	70
72	Nevada	Police Officer and Firefighter	70.1	No	77
73	New Hampshire	Retirement System	57.4	Yes	113
74	New Jersey	Teachers	62.8	Yes	99
75	New Jersey	Police & Fire	75.0	Yes	58
76	New Jersey	PERS	67.3	Yes	85
77	New Mexico	PERF	70.5	Yes	75
78	New Mexico	Teachers	63.0	Yes	96
79	New York	State & Local Police & Fire	91.9	Yes	17
80	New York	New York City Teachers	62.9	Yes	98
81	New York	Teachers	96.7	Yes	11
82	New York	ERS	90.2	Yes	19
83	New York	New York City ERS	64.2	Yes	93
84	North Carolina	Local Government	99.8	Yes	6
85	North Carolina	Teachers and State Employees	94.0	Yes	13
86	North Dakota	PERS	70.5	Yes	74
87	North Dakota	Teachers	66.3	Yes	87
88	Ohio	Police & Fire	69.4	No	80
89	Ohio	School Employees	65.2	No	91
90	Ohio	PERS	77.4	No	53

Table 3(a)

Funded Ratio and Ranking

	State	System	Funded Ratio Percentage	SS	Ranking
91	Ohio	Teachers	56.0	No	115
92	Oklahoma	PERS	80.2	Yes	46
93	Oklahoma	Teachers	54.8	Yes	117
94	Oregon	PERS	82.0	Yes	36
95	Pennsylvania	School Employees	69.1	Yes	82
96	Pennsylvania	ERS	58.8	Yes	110
97	Rhode Island	ERS	58.8	Yes	109
98	Rhode Island	Municipal	84.3	Yes	28
99	South Carolina	Police	72.8	Yes	67
100	South Carolina	RS	67.4	Yes	84
101	South Dakota	PERS	96.4	Yes	12
102	Tennessee	State and Teachers	92.1	Yes	16
103	Tennessee	Political Subdivisions	89.1	Yes	20
104	Texas	Teachers	81.9	No	38
105	Texas	County & District	88.8	Yes	21
106	Texas	Houston Firefighters	93.4	No	15
107	Texas	ERS	82.6	Yes	33
108	Texas	Municipal	85.1	Yes	25
109	Texas	City of Austin ERS	65.8	Yes	90
110	Texas	LECOS	82.0	Yes	37
111	Utah	Noncontributory	78.4	Yes	51
112	Vermont	Teachers	63.8	Yes	94
113	Vermont	State Employees	79.6	Yes	49

Table 3(a)

Funded Ratio and Ranking

	State	System	Funded Ratio Percentage	SS	Ranking
114	Virginia	Retirement System	69.9	Yes	79
115	Virginia	Fairfax County Schools	76.5	Yes	56
116	Washington	PERS 1	70.7	Yes	73
117	Washington	LEOFF Plan 1	134.3	Yes	1
118	Washington	PERS 2/3	97.1	Yes	10
119	Washington	Teachers Plan 1	81.1	Yes	42
120	Washington	Teachers Plan 2/3	99.3	Yes	7
121	Washington	School Employees Plan 2/3	97.2	Yes	9
122	Washington	LEOFF Plan 2	111.4	Yes	2
123	West Virginia	Teachers	53.7	Yes	119
124	West Virginia	PERS	78.4	Yes	50
125	Wisconsin	Retirement System	97.6	Yes	8
126	Wyoming	Public Employees	81.9	Yes	39
		MEAN or AVERAGE	74.3		
		MEDIAN	73.2		
		PERS OF NEVADA	71.0		
		JRS OF NEVADA*	68.6		
		LRS OF NEVADA*	68.2		

* Not included in Average or Median.

Table 3(b)

Funded Ratio and Ranking (Sorted by Funded Ratio)

	State	System	Funded Ratio Percentage	SS	Ranking
1	Washington	LEOFF Plan 1	134.3	Yes	1
2	Washington	LEOFF Plan 2	111.4	Yes	2
3	District of Columbia	Police & Fire	108.6	No	3
4	Colorado	Fire & Police Statewide	102.9	Both	4
5	District of Columbia	Teachers	101.9	No	5
6	North Carolina	Local Government	99.8	Yes	6
7	Washington	Teachers Plan 2/3	99.3	Yes	7
8	Wisconsin	Retirement System	97.6	Yes	8
9	Washington	School Employees Plan 2/3	97.2	Yes	9
10	Washington	PERS 2/3	97.1	Yes	10
11	New York	Teachers	96.7	Yes	11
12	South Dakota	PERS	96.4	Yes	12
13	North Carolina	Teachers and State Employees	94.0	Yes	13
14	Maine	Local	93.5	Both	14
15	Texas	Houston Firefighters	93.4	No	15
16	Tennessee	State and Teachers	92.1	Yes	16
17	New York	State & Local Police & Fire	91.9	Yes	17
18	Delaware	State Employees	91.5	Yes	18
19	New York	ERS	90.2	Yes	19
20	Tennessee	Political Subdivisions	89.1	Yes	20
21	Texas	County & District	88.8	Yes	21
22	Missouri	St. Louis School Employees	88.6	Yes	22

Table 3(b)

Funded Ratio and Ranking (Sorted by Funded Ratio)

	State	System	Funded Ratio Percentage	SS	Ranking
23	California	San Francisco City & County	87.7	Both	23
24	Florida	RS	86.4	Yes	24
25	Texas	Municipal	85.1	Yes	25
26	Colorado	Denver Employees	85.0	Yes	26
27	Idaho	PERS	84.4	Yes	27
28	Rhode Island	Municipal	84.3	Yes	28
29	Colorado	Denver Public Schools	84.0	No	29
30	Georgia	Teachers	84.0	Yes	30
31	Missouri	Local	83.5	Yes	31
32	Minnesota	State Employees	82.7	Yes	32
33	Texas	ERS	82.6	Yes	33
34	California	PERS	82.6	Both	34
35	Missouri	PEERS	82.5	Yes	35
36	Oregon	PERS	82.0	Yes	36
37	Texas	LECOS	82.0	Yes	37
38	Texas	Teachers	81.9	No	38
39	Wyoming	Public Employees	81.9	Yes	39
40	Missouri	Teachers	81.5	No	40
41	California	San Diego County	81.5	Both	41
42	Washington	Teachers Plan 1	81.1	Yes	42
43	California	LA County ERS	80.6	No	43
44	Nebraska	Schools	80.4	Yes	44

Table 3(b)

Funded Ratio and Ranking (Sorted by Funded Ratio)

	State	System	Funded Ratio Percentage	SS	Ranking
45	California	Contra Costa County	80.3	Both	45
46	Oklahoma	PERS	80.2	Yes	46
47	Iowa	PERS	79.9	Yes	47
48	Colorado	Affiliated Local	79.8	(sic)	48
49	Vermont	State Employees	79.6	Yes	49
50	West Virginia	PERS	78.4	Yes	50
51	Utah	Noncontributory	78.4	Yes	51
52	Maine	State and Teacher	77.4	No	52
53	Ohio	PERS	77.4	No	53
54	Illinois	Municipal	76.8	Yes	54
55	Indiana	PERF	76.6	Yes	55
56	Virginia	Fairfax County Schools	76.5	Yes	56
57	Arizona	SRS	75.5	Yes	57
58	New Jersey	Police & Fire	75.0	Yes	58
59	Michigan	Municipal	74.5	Yes	59
60	Colorado	Municipal	74.5	No	60
61	Massachusetts	SERS	73.8	No	61
62	Minnesota	PERF	73.5	Yes	62
63	Minnesota	Duluth Teachers	73.2	Yes	63
64	Missouri	State Employees	73.2	Yes	64
65	Georgia	ERS	73.1	Yes	65
66	Minnesota	Teachers	73.0	Yes	66
67	South Carolina	Police	72.8	Yes	67

Table 3(b)

Funded Ratio and Ranking (Sorted by Funded Ratio)

	State	System	Funded Ratio Percentage	SS	Ranking
68	Michigan	SERS	72.6	Yes	68
69	Arkansas	Teachers	71.8	Yes	69
70	Nevada	Regular Employees	71.2	No	70
71	Michigan	Public Schools	71.1	Yes	71
72	Arkansas	PERS	70.7	Yes	72
73	Washington	PERS 1	70.7	Yes	73
74	North Dakota	PERS	70.5	Yes	74
75	New Mexico	PERF	70.5	Yes	75
76	Montana	PERS	70.2	Yes	76
77	Nevada	Police Officer and Firefighter	70.1	No	77
78	Minnesota	St. Paul Teachers	70.0	Yes	78
79	Virginia	Retirement System	69.9	Yes	79
80	Ohio	Police & Fire	69.4	No	80
81	California	STRS	69.1	No	81
82	Pennsylvania	School Employees	69.1	Yes	82
83	Alabama	Teachers	67.5	Yes	83
84	South Carolina	RS	67.4	Yes	84
85	New Jersey	PERS	67.3	Yes	85
86	Arizona	ERS	66.6	Yes	86
87	North Dakota	Teachers	66.3	Yes	87
88	Alabama	ERS	65.8	Yes	88
89	Maryland	Teachers	65.8	Yes	89

Table 3(b)

Funded Ratio and Ranking (Sorted by Funded Ratio)

	State	System	Funded Ratio Percentage	SS	Ranking
90	Texas	City of Austin ERS	65.8	Yes	90
91	Ohio	School Employees	65.2	No	91
92	Hawaii	ERS	64.6	Yes	92
93	New York	New York City ERS	64.2	Yes	93
94	Vermont	Teachers	63.8	Yes	94
95	Arizona	Public Safety Personnel	63.7	Yes	95
96	New Mexico	Teachers	63.0	Yes	96
97	Kentucky	County	62.9	Yes	97
98	New York	New York City Teachers	62.9	Yes	98
99	New Jersey	Teachers	62.8	Yes	99
100	Maryland	PERS	62.5	Yes	100
101	Colorado	School	62.1	No	101
102	Alaska	PERS	61.9	Both	102
103	Montana	Teachers	61.5	Yes	103
104	Connecticut	Teachers	61.4	No	104
105	Massachusetts	Teachers	60.7	No	105
106	Illinois	Chicago Teachers	59.7	No	106
107	Colorado	State	59.2	No	107
108	Kansas	PERS	59.2	Yes	108
109	Rhode Island	ERS	58.8	Yes	109
110	Pennsylvania	ERS	58.8	Yes	110
111	Mississippi	PERS	58.0	Yes	111
112	Louisiana	SERS	57.6	No	112

Table 3(b)

Funded Ratio and Ranking (Sorted by Funded Ratio)

	State	System	Funded Ratio Percentage	SS	Ranking
113	New Hampshire	Retirement System	57.4	Yes	113
114	Kentucky	Teachers	57.4	No	114
115	Ohio	Teachers	56.0	No	115
116	Louisiana	Teachers	55.1	No	116
117	Oklahoma	Teachers	54.8	Yes	117
118	Alaska	Teachers	54.0	No	118
119	West Virginia	Teachers	53.7	Yes	119
120	Connecticut	SERS	47.9	Yes	120
121	Missouri	DOT and Highway Patrol	43.3	Yes	121
122	Indiana	Teachers	42.7	Yes	122
123	Illinois	Teachers	42.1	No	123
124	Illinois	Universities	42.1	No	124
125	Kentucky	ERS	35.6	Yes	125
126	Illinois	SERS	35.5	Both	126
		MEAN or AVERAGE	74.3		
		MEDIAN	73.2		
		PERS OF NEVADA	71.0		
		JRS OF NEVADA*	68.6		
		LRS OF NEVADA*	68.2		

* Not included in Ranking, Average, or Median.

Table 3(b1)

Funded Ratio and Ranking (Sorted by Funded Ratio For SS Eligible Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
1	Washington	LEOFF Plan 1	134.3	Yes	1
2	Washington	LEOFF Plan 2	111.4	Yes	2
3	Colorado	Fire & Police Statewide	102.9	Both	3
4	North Carolina	Local Government	99.8	Yes	4
5	Washington	Teachers Plan 2/3	99.3	Yes	5
6	Wisconsin	Retirement System	97.6	Yes	6
7	Washington	School Employees Plan 2/3	97.2	Yes	7
8	Washington	PERS 2/3	97.1	Yes	8
9	New York	Teachers	96.7	Yes	9
10	South Dakota	PERS	96.4	Yes	10
11	North Carolina	Teachers and State Employees	94.0	Yes	11
12	Maine	Local	93.5	Both	12
13	Tennessee	State and Teachers	92.1	Yes	13
14	New York	State & Local Police & Fire	91.9	Yes	14
15	Delaware	State Employees	91.5	Yes	15
16	New York	ERS	90.2	Yes	16
17	Tennessee	Political Subdivisions	89.1	Yes	17
18	Texas	County & District	88.8	Yes	18
19	Missouri	St. Louis School Employees	88.6	Yes	19
20	California	San Francisco City & County	87.7	Both	20
21	Florida	RS	86.4	Yes	21

Table 3(b1)

Funded Ratio and Ranking (Sorted by Funded Ratio For SS Eligible Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
22	Texas	Municipal	85.1	Yes	22
23	Colorado	Denver Employees	85.0	Yes	23
24	Idaho	PERS	84.4	Yes	24
25	Rhode Island	Municipal	84.3	Yes	25
26	Georgia	Teachers	84.0	Yes	26
27	Missouri	Local	83.5	Yes	27
28	Minnesota	State Employees	82.7	Yes	28
29	Texas	ERS	82.6	Yes	29
30	California	PERS	82.6	Both	30
31	Missouri	PEERS	82.5	Yes	31
32	Oregon	PERS	82.0	Yes	32
33	Texas	LECOS	82.0	Yes	33
34	Wyoming	Public Employees	81.9	Yes	34
35	California	San Diego County	81.5	Both	35
36	Washington	Teachers Plan 1	81.1	Yes	36
37	Nebraska	Schools	80.4	Yes	37
38	California	Contra Costa County	80.3	Both	38
39	Oklahoma	PERS	80.2	Yes	39
40	Iowa	PERS	79.9	Yes	40
41	Vermont	State Employees	79.6	Yes	41
42	West Virginia	PERS	78.4	Yes	42
43	Utah	Noncontributory	78.4	Yes	43
44	Illinois	Municipal	76.8	Yes	44

Table 3(b1)

Funded Ratio and Ranking (Sorted by Funded Ratio For SS Eligible Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
45	Indiana	PERF	76.6	Yes	45
46	Virginia	Fairfax County Schools	76.5	Yes	46
47	Arizona	SRS	75.5	Yes	47
48	New Jersey	Police & Fire	75.0	Yes	48
49	Michigan	Municipal	74.5	Yes	49
50	Minnesota	PERF	73.5	Yes	50
51	Minnesota	Duluth Teachers	73.2	Yes	51
52	Missouri	State Employees	73.2	Yes	52
53	Georgia	ERS	73.1	Yes	53
54	Minnesota	Teachers	73.0	Yes	54
55	South Carolina	Police	72.8	Yes	55
56	Michigan	SERS	72.6	Yes	56
57	Arkansas	Teachers	71.8	Yes	57
58	Michigan	Public Schools	71.1	Yes	58
59	Arkansas	PERS	70.7	Yes	59
60	Washington	PERS 1	70.7	Yes	60
61	North Dakota	PERS	70.5	Yes	61
62	New Mexico	PERF	70.5	Yes	62
63	Montana	PERS	70.2	Yes	63
64	Minnesota	St. Paul Teachers	70.0	Yes	64
65	Virginia	Retirement System	69.9	Yes	65
66	Pennsylvania	School Employees	69.1	Yes	66
67	Alabama	Teachers	67.5	Yes	67

Table 3(b1)

Funded Ratio and Ranking (Sorted by Funded Ratio For SS Eligible Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
68	South Carolina	RS	67.4	Yes	68
69	New Jersey	PERS	67.3	Yes	69
70	Arizona	ERS	66.6	Yes	70
71	North Dakota	Teachers	66.3	Yes	71
72	Alabama	ERS	65.8	Yes	72
73	Maryland	Teachers	65.8	Yes	73
74	Texas	City of Austin ERS	65.8	Yes	74
75	Hawaii	ERS	64.6	Yes	75
76	New York	New York City ERS	64.2	Yes	76
77	Vermont	Teachers	63.8	Yes	77
78	Arizona	Public Safety Personnel	63.7	Yes	78
79	New Mexico	Teachers	63.0	Yes	79
80	Kentucky	County	62.9	Yes	80
81	New York	New York City Teachers	62.9	Yes	81
82	New Jersey	Teachers	62.8	Yes	82
83	Maryland	PERS	62.5	Yes	83
84	Alaska	PERS	61.9	Both	84
85	Montana	Teachers	61.5	Yes	85
86	Kansas	PERS	59.2	Yes	86
87	Rhode Island	ERS	58.8	Yes	87
88	Pennsylvania	ERS	58.8	Yes	88
89	Mississippi	PERS	58.0	Yes	89
90	New Hampshire	Retirement System	57.4	Yes	90

Table 3(b1)

Funded Ratio and Ranking (Sorted by Funded Ratio For SS Eligible Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
91	Oklahoma	Teachers	54.8	Yes	91
92	West Virginia	Teachers	53.7	Yes	92
93	Connecticut	SERS	47.9	Yes	93
94	Missouri	DOT and Highway Patrol	43.3	Yes	94
95	Indiana	Teachers	42.7	Yes	95
96	Kentucky	ERS	35.6	Yes	96
97	Illinois	SERS	35.5	Both	97
MEAN or AVERAGE			75.6		
MEDIAN			74.5		

Table 3(b2)

Funded Ratio and Ranking (Sorted by Funded Ratio For Non SS Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
1	District of Columbia	Police & Fire	108.6	No	1
2	Colorado	Fire & Police Statewide	102.9	Both	2
3	District of Columbia	Teachers	101.9	No	3
4	Maine	Local	93.5	Both	4
5	Texas	Houston Firefighters	93.4	No	5
6	California	San Francisco City & County	87.7	Both	6
7	Colorado	Denver Public Schools	84.0	No	7
8	California	PERS	82.6	Both	8
9	Texas	Teachers	81.9	No	9
10	Missouri	Teachers	81.5	No	10
11	California	San Diego County	81.5	Both	11
12	California	LA County ERS	80.6	No	12
13	California	Contra Costa County	80.3	Both	13
14	Maine	State and Teacher	77.4	No	14
15	Ohio	PERS	77.4	No	15
16	Colorado	Municipal	74.5	No	16
17	Massachusetts	SERS	73.8	No	17
18	Nevada	Regular Employees	71.2	No	18
19	Nevada	Police Officer and Firefighter	70.1	No	19
20	Ohio	Police & Fire	69.4	No	20
21	California	STRS	69.1	No	21
22	Ohio	School Employees	65.2	No	22

Table 3(b2)

Funded Ratio and Ranking (Sorted by Funded Ratio For Non SS Systems Only)

	State	System	Funded Ratio Percentage	SS	Ranking
23	Colorado	School	62.1	No	23
24	Alaska	PERS	61.9	Both	24
25	Connecticut	Teachers	61.4	No	25
26	Massachusetts	Teachers	60.7	No	26
27	Illinois	Chicago Teachers	59.7	No	27
28	Colorado	State	59.2	No	28
29	Louisiana	SERS	57.6	No	29
30	Kentucky	Teachers	57.4	No	30
31	Ohio	Teachers	56.0	No	31
32	Louisiana	Teachers	55.1	No	32
33	Alaska	Teachers	54.0	No	33
34	Illinois	Teachers	42.1	No	34
35	Illinois	Universities	42.1	No	35
36	Illinois	SERS	35.5	Both	36
MEAN or AVERAGE			72.5		
MEDIAN			71.2		
PERS OF NEVADA			71.0		
JRS OF NEVADA*			68.6		
LRS OF NEVADA*			68.2		

* Not included in Ranking, Average, or Median.

Table 4

Investment Return Assumption

	State	System	Actuarial Valuation Method	Investment Return Assumption		
1	Alabama	ERS	Entry age	8.00%		
2	Alabama	Teachers	Entry age	8.00%		
3	Alaska	Teachers	PUC	8.00%		
4	Alaska	PERS	Entry age normal	8.00%		
5	Arizona	Public Safety Personnel	Entry age	8.25%		
6	Arizona	SRS	PUC	8.00%		
7	Arizona	ERS	Entry age normal	8.00%		
8	Arkansas	PERS	Entry age	8.00%		
9	Arkansas	Teachers	Entry Age	8.00%		
10	California	LA County ERS	Entry age	7.70%		
11	California	San Francisco City & County	Entry age	7.66%		
12	California	PERS	Entry age	7.50%		
13	California	STRS	Entry age	7.50%		
14	California	San Diego County	Entry age	8.00%		
15	California	Contra Costa County	Entry Age	7.75%		
16	Colorado	School	Entry age	8.00%		
17	Colorado	State	Entry Age	8.00%		
18	Colorado	Denver Employees	PUC	8.00%		
19	Colorado	Affiliated Local	Entry Age Normal	8.00%		
20	Colorado	Fire & Police Statewide	Entry Age Normal	8.00%		
21	Colorado	Denver Public Schools	Entry age	8.00%		
22	Colorado	Municipal	Entry Age	8.00%		

Table 4

Investment Return Assumption

	State	System	Actuarial Valuation Method	Investment Return Assumption		
23	Connecticut	Teachers	Entry age	8.50%		
24	Connecticut	SERS	PUC	8.25%		
25	Delaware	State Employees	Entry age	7.50%		
26	District of Columbia	Police & Fire	Entry age normal	7.00%		
27	District of Columbia	Teachers	Entry age normal	7.00%		
28	Florida	RS	Entry age	7.75%		
29	Georgia	ERS	Entry age	7.50%		
30	Georgia	Teachers	Entry age	7.50%		
31	Hawaii	ERS	Entry age	8.00%		
32	Idaho	PERS	Entry age	7.50%		
33	Illinois	Chicago Teachers	PUC	8.00%		
34	Illinois	Municipal	Entry age	7.50%		
35	Illinois	Teachers	PUC	8.00%		
36	Illinois	SERS	PUC	7.75%		
37	Illinois	Universities	PUC	7.75%		
38	Indiana	Teachers	Entry age	6.75%		
39	Indiana	PERF	Entry age	6.75%		
40	Iowa	PERS	Entry age	7.50%		
41	Kansas	PERS	Entry Age Normal	8.00%		
42	Kentucky	ERS	Entry age	7.75%		
43	Kentucky	County	Entry age	7.75%		
44	Kentucky	Teachers	Entry age normal	7.50%		

Table 4

Investment Return Assumption

	State	System	Actuarial Valuation Method	Investment Return Assumption		
45	Louisiana	SERS	PUC	8.25%		
46	Louisiana	Teachers	PUC	8.25%		
47	Maine	State and Teacher	Entry age	7.25%		
48	Maine	Local	Entry age	7.25%		
49	Maryland	Teachers	Entry Age	7.75%		
50	Maryland	PERS	Entry age	7.75%		
51	Massachusetts	SERS	Entry age	8.25%		
52	Massachusetts	Teachers	Entry age	8.25%		
53	Michigan	SERS	Entry age	8.00%		
54	Michigan	Public Schools	Entry age	8.00%		
55	Michigan	Municipal	Entry age	8.00%		
56	Minnesota	PERF	Entry age	8.00%		
57	Minnesota	State Employees	Entry age	8.00%		
58	Minnesota	Teachers	Entry age	8.00%		
59	Minnesota	Duluth Teachers	Entry age	8.50%		
60	Minnesota	St. Paul Teachers	Entry age	8.50%		
61	Mississippi	PERS	Entry age	8.00%		
62	Missouri	DOT and Highway Patrol	Entry age	8.25%		
63	Missouri	St. Louis School Employees	Frozen entry age	8.00%		
64	Missouri	State Employees	Entry age	8.00%		
65	Missouri	Teachers	Entry age	8.00%		
66	Missouri	PEERS	Entry age	8.00%		

Table 4

Investment Return Assumption

	State	System	Actuarial Valuation Method	Investment Return Assumption		
67	Missouri	Local	Entry Age	7.25%		
68	Montana	PERS	Entry age	7.75%		
69	Montana	Teachers	Entry age	7.75%		
70	Nebraska	Schools	Entry age normal	8.00%		
71	Nevada	Regular Employees	Entry age	8.00%		
72	Nevada	Police Officer and Firefighter	Entry age	8.00%		
73	New Hampshire	Retirement System	Entry age	7.75%		
74	New Jersey	Teachers	PUC	7.90%		
75	New Jersey	Police & Fire	PUC	7.90%		
76	New Jersey	PERS	PUC	7.90%		
77	New Mexico	PERF	Entry Age	7.75%		
78	New Mexico	Teachers	Entry age	7.75%		
79	New York	State & Local Police & Fire	Entry age normal	7.50%		
80	New York	New York City Teachers	Entry age normal	8.00%		
81	New York	Teachers	Entry age	8.00%		
82	New York	ERS	Entry age normal	7.50%		
83	New York	New York City ERS	Entry Age Normal	7.00%		
84	North Carolina	Local Government	Frozen entry age	7.25%		
85	North Carolina	Teachers and State Employees	Entry age	7.25%		
86	North Dakota	PERS	Entry age	8.00%		
87	North Dakota	Teachers	Entry age	8.00%		

Table 4

Investment Return Assumption

	State	System	Actuarial Valuation Method	Investment Return Assumption
88	Ohio	Police & Fire	Entry age	8.25%
89	Ohio	School Employees	Entry age	7.75%
90	Ohio	PERS	Entry age	8.00%
91	Ohio	Teachers	Entry age	7.75%
92	Oklahoma	PERS	Entry age	7.50%
93	Oklahoma	Teachers	Entry age	8.00%
94	Oregon	PERS	Project Unit Credit	8.00%
95	Pennsylvania	School Employees	Entry age	8.00%
96	Pennsylvania	ERS	Entry age	7.50%
97	Rhode Island	ERS	Entry age	7.50%
98	Rhode Island	Municipal	Entry age	7.50%
99	South Carolina	Police	Entry age	7.50%
100	South Carolina	RS	Entry age	7.50%
101	South Dakota	PERS	Entry age	7.75%
102	Tennessee	State and Teachers	Frozen Entry Age	7.50%
103	Tennessee	Political Subdivisions	Aggregate Cost	7.50%
104	Texas	Teachers	Entry age	8.00%
105	Texas	County & District	Entry age	8.00%
106	Texas	Houston Firefighters	Entry age	8.50%
107	Texas	ERS	Entry age	8.00%
108	Texas	Municipal	Projected Unit Credit	7.00%
109	Texas	City of Austin ERS	entry age	7.75%
110	Texas	LECOS	Entry age	8.00%

Table 4

Investment Return Assumption

	State	System	Actuarial Valuation Method	Investment Return Assumption
111	Utah	Noncontributory	Entry Age	7.50%
112	Vermont	Teachers	Individual entry age	8.25%
113	Vermont	State Employees	Individual entry age norm	8.25%
114	Virginia	Retirement System	Entry age	7.00%
115	Virginia	Fairfax County Schools	Entry age	7.50%
116	Washington	PERS 1	Frozen initial liability	7.90%
117	Washington	LEOFF Plan 1	Frozen initial liability	7.90%
118	Washington	PERS 2/3	Aggregate cost	7.90%
119	Washington	Teachers Plan 1	Frozen initial liability	8.00%
120	Washington	Teachers Plan 2/3	Aggregate cost	8.00%
121	Washington	School Employees Plan 2/3	Aggregate cost	8.00%
122	Washington	LEOFF Plan 2	Aggregate cost	7.90%
123	West Virginia	Teachers	Entry age	7.50%
124	West Virginia	PERS	Entry age	7.50%
125	Wisconsin	Retirement System	Frozen Entry Age	7.20%
126	Wyoming	Public Employees	Entry age	8.00%
MEAN or AVERAGE				7.80%
MEDIAN				8.00%
PERS OF NEVADA				8.00%
JRS OF NEVADA*				8.00%
LRS OF NEVADA*				8.00%

* Not included in Average or Median.

Table 5

Asset Allocation

	State	System	Equities	Fixed Income	Real Estate	Alternative Assets	Cash	Other	ABS/Real
1	Alabama	RSA	57.4%	28.8%	11.8%	0.0%	2.0%	0.0%	0.0%
2	Alaska	PERS	51.5%	16.3%	9.1%	21.4%	1.5%	0.0%	0.0%
3	Alaska	TRS	51.3%	16.1%	9.2%	21.4%	2.0%	0.0%	0.0%
4	Arizona	SRS	62.8%	19.5%	5.2%	7.1%	5.4%	0.0%	0.0%
5	Arizona	PERS	46.6%	25.2%	9.4%	18.9%	0.0%	0.0%	0.0%
6	Arizona	PSPRS	35.4%	18.6%	10.6%	24.7%	1.6%	9.0%	0.0%
7	Arkansas	ATRS	57.1%	20.9%	7.4%	11.8%	2.8%	0.0%	0.0%
8	Arkansas	APERS	67.0%	19.7%	5.6%	7.2%	0.4%	0.0%	0.0%
9	California	CCCERA	48.0%	32.9%	11.9%	5.8%	0.6%	0.8%	0.0%
10	California	SDCERA	27.0%	25.6%	9.0%	25.4%	0.0%	13.0%	0.0%
11	California	LACERA	49.0%	28.0%	10.0%	13.0%	0.0%	0.0%	0.0%
12	California	SFERS	50.3%	27.7%	8.5%	12.5%	1.0%	0.0%	0.0%
13	California	CalPERS	48.3%	21.2%	10.6%	16.7%	3.2%	0.0%	0.0%
14	California	CalSTRS	49.8%	18.3%	14.5%	15.0%	1.8%	0.6%	0.0%
15	Colorado	PERA	56.5%	23.3%	8.1%	8.7%	0.9%	2.5%	0.0%
16	Colorado	DERP	53.5%	17.8%	8.3%	17.7%	2.7%	0.0%	0.0%
17	Colorado	FFPA	48.2%	19.5%	0.0%	31.3%	1.0%	0.0%	0.0%
18	Connecticut	TRS	59.0%	21.5%	4.3%	11.0%	4.2%	0.0%	0.0%
19	Connecticut	SERC	59.9%	21.7%	4.3%	11.0%	3.1%	0.0%	0.0%
20	Delaware	DPERS	44.9%	23.0%	0.2%	25.0%	6.9%	0.0%	0.0%
21	District of Columbia	DCRB	48.0%	28.0%	5.0%	18.0%	1.0%	0.0%	0.0%
22	Florida	FRS	56.5%	25.5%	7.6%	9.6%	0.8%	0.0%	0.0%
23	Georgia	TRSGA	71.0%	29.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 5

Asset Allocation

State	System	Equities	Fixed Income	Real Estate	Alternative Assets	Cash	Other	ABS/Real
24 Georgia	ERS	65.9%	27.3%	0.0%	0.0%	6.8%	0.0%	0.0%
25 Hawaii	ERS	53.0%	35.0%	8.0%	5.0%	0.0%	0.0%	0.0%
26 Idaho	PERSI	55.3%	28.0%	4.5%	8.6%	3.6%	0.0%	0.0%
27 Illinois	SURS	60.0%	28.0%	5.0%	7.0%	0.0%	0.0%	0.0%
28 Illinois	TRS	43.9%	16.4%	12.5%	26.4%	0.8%	0.0%	0.0%
29 Illinois	SRS	47.0%	18.0%	10.0%	18.0%	3.0%	4.0%	0.0%
30 Illinois	CTPF	63.8%	17.4%	6.6%	7.4%	4.8%	0.0%	0.0%
31 Illinois	IMRF	60.3%	30.1%	2.8%	4.5%	2.3%	0.0%	0.0%
32 Indiana	InPERS	29.4%	38.4%	4.7%	27.5%	0.0%	0.0%	0.0%
33 Iowa	IPERS	40.0%	37.5%	8.9%	12.4%	1.3%	0.0%	0.0%
34 Kansas	KPERS	60.4%	19.3%	8.5%	10.5%	1.3%	0.0%	0.0%
35 Kentucky	KRS	47.6%	22.2%	0.8%	21.7%	7.6%	0.0%	0.0%
36 Kentucky	KTRS	63.5%	25.6%	3.1%	2.4%	2.4%	3.0%	0.0%
37 Louisiana	LASERS	50.0%	22.0%	0.0%	20.0%	3.0%	5.0%	0.0%
38 Louisiana	TRSL	56.7%	14.3%	6.1%	17.6%	5.2%	0.0%	0.0%
39 Maine	PERS	62.3%	27.1%	4.1%	5.8%	0.8%	0.0%	0.0%
40 Maryland	MSRPS	42.4%	27.0%	6.2%	22.7%	1.7%	0.0%	0.0%
41 Massachusetts	MTRS	45.2%	22.0%	9.4%	23.2%	0.0%	0.0%	0.0%
42 Massachusetts	PERAC	45.2%	22.0%	9.4%	23.2%	0.0%	0.0%	0.0%
43 Michigan	MERS	43.3%	33.1%	6.2%	14.8%	2.6%	0.0%	0.0%
44 Michigan	SERS	40.8%	15.2%	10.8%	28.4%	4.8%	0.0%	0.0%
45 Michigan	PSERS	40.9%	15.1%	10.4%	29.0%	4.6%	0.0%	0.0%
46 Minnesota	TRA	60.1%	22.3%	2.5%	13.2%	1.9%	0.0%	0.0%

Table 5

Asset Allocation

State	System	Equities	Fixed Income	Real Estate	Alternative Assets	Cash	Other	ABS/Real
47 Minnesota	DTRFA	58.2%	24.1%	0.0%	13.9%	3.9%	0.0%	0.0%
48 Minnesota	SRS	60.1%	22.3%	2.5%	13.2%	1.9%	0.0%	0.0%
49 Minnesota	PERA	60.1%	22.3%	2.5%	13.2%	1.9%	0.0%	0.0%
50 Minnesota	SPTRFA	71.7%	16.0%	8.8%	1.6%	1.9%	0.0%	0.0%
51 Mississippi	PERS	64.0%	25.0%	8.0%	2.0%	1.0%	0.0%	0.0%
52 Missouri	MOSERS	46.4%	28.2%	7.5%	17.9%	0.0%	0.0%	0.0%
53 Missouri	LAGERS	50.9%	25.5%	5.5%	18.1%	0.0%	0.0%	0.0%
54 Missouri	PSRSSTL	43.1%	21.2%	5.5%	26.9%	3.3%	0.0%	0.0%
55 Missouri	MPERS	31.5%	23.0%	17.0%	26.9%	1.6%	0.0%	0.0%
56 Missouri	PSERS	45.3%	24.3%	7.4%	22.9%	0.0%	0.0%	0.0%
57 Montana	MPERA	67.3%	24.7%	6.5%	0.0%	1.5%	0.0%	0.0%
58 Montana	TRS	55.0%	24.7%	7.0%	12.0%	1.3%	0.0%	0.0%
59 Nebraska	NPERS	65.2%	27.4%	4.6%	2.7%	0.1%	0.0%	0.0%
60 Nevada	PERS	55.0%	34.7%	4.9%	3.2%	2.2%	0.0%	0.0%
61 New Hampshire	NHRS	64.5%	27.8%	5.6%	2.1%	0.0%	0.0%	0.0%
62 New Jersey	DPB	45.2%	28.0%	4.7%	20.4%	1.7%	0.0%	0.0%
63 New Mexico	PERA	60.2%	12.0%	3.4%	18.2%	6.2%	0.0%	0.0%
64 New Mexico	ERB	40.0%	30.0%	5.0%	18.0%	6.0%	0.0%	0.0%
65 New York	NYSTRS	57.2%	19.8%	11.0%	8.6%	3.4%	0.0%	0.0%
66 New York	NYSLRS	52.5%	22.7%	6.2%	13.6%	5.0%	0.0%	0.0%
67 New York	NYCERS	50.5%	33.7%	7.9%	7.9%	0.0%	0.0%	0.0%
68 New York	NYCTRS	58.3%	24.7%	0.0%	9.9%	7.0%	0.0%	0.0%
69 North Carolina	NCRS	43.0%	37.7%	7.2%	5.1%	0.0%	7.1%	0.0%

Table 5

Asset Allocation

State	System	Equities	Fixed Income	Real Estate	Alternative Assets	Cash	Other	ABS/Real
70 North Dakota	NDPERS	55.2%	34.2%	5.7%	3.5%	1.4%	0.0%	0.0%
71 North Dakota	TFFR	61.0%	24.0%	10.0%	4.0%	1.0%	0.0%	0.0%
72 Ohio	OPERS	45.7%	28.7%	8.7%	13.5%	3.5%	0.0%	0.0%
73 Ohio	SERS	50.9%	17.4%	9.4%	20.7%	1.6%	0.0%	0.0%
74 Ohio	STRS	53.2%	18.0%	12.1%	10.8%	5.9%	0.0%	0.0%
75 Ohio	OP&F	43.4%	31.6%	12.0%	13.0%	0.0%	0.0%	0.0%
76 Oklahoma	OPERS	63.8%	35.9%	0.0%	0.0%	0.3%	0.0%	0.0%
77 Oklahoma	TRS	61.7%	28.2%	4.6%	2.8%	2.7%	0.0%	0.0%
78 Oregon	PERS	34.7%	24.3%	11.2%	26.5%	3.3%	0.0%	0.0%
79 Pennsylvania	SERS	33.7%	15.3%	7.9%	40.7%	2.4%	0.0%	0.0%
80 Pennsylvania	PSERS	23.0%	20.8%	12.8%	41.0%	2.4%	0.0%	0.0%
81 Rhode Island	ERSRI	53.8%	23.5%	5.0%	6.4%	11.3%	0.0%	0.0%
82 South Carolina	SCRS	14.1%	21.2%	0.9%	55.7%	8.1%	0.0%	0.0%
83 South Dakota	SDRS	51.1%	20.5%	12.8%	15.2%	0.4%	0.0%	0.0%
84 Tennessee	CRS	56.0%	38.0%	3.9%	0.5%	1.7%	0.0%	0.0%
85 Texas	HFRRF	38.8%	35.7%	5.5%	19.8%	0.2%	0.0%	0.0%
86 Texas	AERS	62.9%	29.9%	7.0%	0.0%	0.3%	0.0%	0.0%
87 Texas	TMRS	40.5%	57.6%	0.5%	0.0%	1.4%	0.0%	0.0%
88 Texas	TCDRS	33.7%	20.9%	3.0%	41.8%	0.6%	0.0%	0.0%
89 Texas	TRS	51.1%	18.0%	2.0%	28.0%	0.9%	0.0%	0.0%
90 Utah	URS	35.2%	19.4%	13.9%	26.7%	4.9%	0.0%	0.0%
91 Vermont	VSTRS	36.0%	37.0%	5.0%	22.0%	0.0%	0.0%	0.0%
92 Vermont	VSERS	36.0%	37.0%	5.0%	22.0%	0.0%	0.0%	0.0%

Table 5

Asset Allocation

State	System	Equities	Fixed Income	Real Estate	Alternative Assets	Cash	Other	ABS/Real
93 Virginia	ERFC	46.2%	24.7%	7.4%	6.5%	0.0%	15.2%	0.0%
94 Virginia	VRS	49.2%	35.6%	5.6%	9.3%	0.3%	0.0%	0.0%
95 Washington	DRS	36.0%	22.2%	13.7%	28.0%	0.1%	0.0%	0.0%
96 West Virginia	CPRB	47.7%	25.2%	5.9%	21.2%	0.0%	0.0%	0.0%
97 Wisconsin	WRS	55.6%	29.4%	3.0%	12.0%	0.0%	0.0%	0.0%
98 Wyoming	WRS	48.7%	25.5%	4.8%	5.3%	5.6%	10.1%	0.0%
MEAN or AVERAGE		50.4%	25.2%	6.6%	14.9%	2.2%	0.7%	0.0%
MEDIAN		50.9%	24.5%	6.2%	13.2%	1.7%	0.0%	0.0%
PERS OF NEVADA		55.0%	34.7%	4.9%	3.2%	2.2%	0.0%	0.0%
JRS OF NEVADA*		66.3%	32.1%	0.0%	1.1%	0.5%	0.0%	0.0%
LRS OF NEVADA*		67.3%	32.0%	0.0%	0.1%	0.6%	0.0%	0.0%

* Not included in Average or Median.

Table 6

Employee / Employer Contribution Rates

	State	System	Employee Cont. Rate	Employer Cont. Rate	Total	SS
1	Alabama	ERS	5.000%	11.940%	16.940%	Yes
2	Alabama	Teachers	5.000%	12.510%	17.510%	Yes
3	Alaska	Teachers	8.650%	33.490%	42.140%	No
4	Alaska	PERS	6.750%	20.000%	26.750%	Both
5	Arizona	Public Safety Personnel	7.650%	20.320%	27.970%	Yes
6	Arizona	SRS	10.740%	10.110%	20.850%	Yes
7	Arizona	ERS	5.000%	17.700%	22.700%	Yes
8	Arkansas	PERS	5.000%	12.460%	17.460%	Yes
9	Arkansas	Teachers	6.000%	14.000%	20.000%	Yes
10	California	LA County ERS	5.000%	17.540%	22.540%	No
11	California	San Francisco City & County	7.500%	9.490%	16.990%	Both
12	California	PERS	5.000%	9.000%	14.000%	Both
13	California	STRS	8.000%	10.790%	18.790%	No
14	California	San Diego County	9.060%	18.600%	27.660%	Both
15	California	Contra Costa County	9.000%	28.900%	37.900%	Both
16	Colorado	School	8.000%	15.650%	23.650%	No
17	Colorado	State	10.000%	15.550%	25.550%	No
18	Colorado	Denver Employees	5.500%	9.500%	15.000%	Yes
19	Colorado	Affiliated Local	5.000%	0.000%	5.000%	
20	Colorado	Fire & Police Statewide	8.000%	8.000%	16.000%	Both
21	Colorado	Denver Public Schools	8.000%	3.880%	11.880%	No
22	Colorado	Municipal	8.000%	13.700%	21.700%	No

Table 6

Employee / Employer Contribution Rates

	State	System	Employee Cont. Rate	Employer Cont. Rate	Total	SS
23	Connecticut	Teachers	7.000%	24.130%	31.130%	No
24	Connecticut	SERS	2.000%	25.700%	27.700%	Yes
25	Delaware	State Employees	3.000%	7.840%	10.840%	Yes
26	District of Columbia	Police & Fire	8.000%	24.010%	32.010%	No
27	District of Columbia	Teachers	8.000%	1.600%	9.600%	No
28	Florida	RS	3.000%	3.350%	6.350%	Yes
29	Georgia	ERS	1.250%	11.630%	12.880%	Yes
30	Georgia	Teachers	5.530%	10.280%	15.810%	Yes
31	Hawaii	ERS	6.000%	15.000%	21.000%	Yes
32	Idaho	PERS	6.230%	10.390%	16.620%	Yes
33	Illinois	Chicago Teachers	9.000%	9.980%	18.980%	No
34	Illinois	Municipal	4.500%	12.090%	16.590%	Yes
35	Illinois	Teachers	9.400%	25.490%	34.890%	No
36	Illinois	SERS	4.000%	26.800%	30.800%	Both
37	Illinois	Universities	8.000%	28.350%	36.350%	No
38	Indiana	Teachers	3.000%	7.500%	10.500%	Yes
39	Indiana	PERF	3.000%	8.600%	11.600%	Yes
40	Iowa	PERS	5.380%	8.070%	13.450%	Yes
41	Kansas	PERS	4.000%	8.770%	12.770%	Yes
42	Kentucky	ERS	5.000%	16.980%	21.980%	Yes
43	Kentucky	County	5.000%	16.930%	21.930%	Yes
44	Kentucky	Teachers	10.855%	23.845%	34.700%	No
45	Louisiana	SERS	7.500%	22.000%	29.500%	No

Table 6

Employee / Employer Contribution Rates

	State	System	Employee Cont. Rate	Employer Cont. Rate	Total	SS
46	Louisiana	Teachers	8.000%	20.200%	28.200%	No
47	Maine	State and Teacher	7.650%	16.920%	24.570%	No
48	Maine	Local	3.000%	1.500%	4.500%	Both
49	Maryland	Teachers	6.000%	15.450%	21.450%	Yes
50	Maryland	PERS	6.000%	13.400%	19.400%	Yes
51	Massachusetts	SERS	9.000%	10.040%	19.040%	No
52	Massachusetts	Teachers	5.000%	16.700%	21.700%	No
53	Michigan	SERS	0.000%	29.700%	29.700%	Yes
54	Michigan	Public Schools	3.000%	13.100%	16.100%	Yes
55	Michigan	Municipal	0.000%	19.900%	19.900%	Yes
56	Minnesota	PERF	6.250%	7.250%	13.500%	Yes
57	Minnesota	State Employees	5.000%	5.000%	10.000%	Yes
58	Minnesota	Teachers	6.000%	6.000%	12.000%	Yes
59	Minnesota	Duluth Teachers	5.500%	7.770%	13.270%	Yes
60	Minnesota	St. Paul Teachers	5.500%	10.470%	15.970%	Yes
61	Mississippi	PERS	9.000%	12.930%	21.930%	Yes
62	Missouri	DOT and Highway Patrol	0.000%	39.460%	39.460%	Yes
63	Missouri	St. Louis School Employees	5.000%	11.100%	16.100%	Yes
64	Missouri	State Employees	0.000%	14.130%	14.130%	Yes
65	Missouri	Teachers	14.500%	14.500%	29.000%	No
66	Missouri	PEERS	6.860%	6.860%	13.720%	Yes
67	Missouri	Local	0.000%	12.280%	12.280%	Yes
68	Montana	PERS	6.900%	7.170%	14.070%	Yes

Table 6

Employee / Employer Contribution Rates

	State	System	Employee Cont. Rate	Employer Cont. Rate	Total	SS
69	Montana	Teachers	7.150%	9.850%	17.000%	Yes
70	Nebraska	Schools	8.880%	9.970%	18.850%	Yes
71	Nevada	Regular Employees	12.250%	12.250%	24.500%	No
72	Nevada	Police Officer and Firefighter	20.250%	20.250%	40.500%	No
73	New Hampshire	Retirement System	5.000%	9.090%	14.090%	Yes
74	New Jersey	Teachers	6.500%	3.300%	9.800%	Yes
75	New Jersey	Police & Fire	10.000%	22.600%	32.600%	Yes
76	New Jersey	PERS	6.500%	8.500%	15.000%	Yes
77	New Mexico	PERF	7.420%	16.590%	24.010%	Yes
78	New Mexico	Teachers	7.900%	12.400%	20.300%	Yes
79	New York	State & Local Police & Fire	3.000%	21.600%	24.600%	Yes
80	New York	New York City Teachers	3.000%	31.600%	34.600%	Yes
81	New York	Teachers	0.000%	11.050%	11.050%	Yes
82	New York	ERS	3.000%	16.300%	19.300%	Yes
83	New York	New York City ERS	3.000%	25.540%	28.540%	Yes
84	North Carolina	Local Government	6.000%	6.740%	12.740%	Yes
85	North Carolina	Teachers and State Employees	6.000%	8.330%	14.330%	Yes
86	North Dakota	PERS	4.000%	4.120%	8.120%	Yes
87	North Dakota	Teachers	7.750%	8.750%	16.500%	Yes
88	Ohio	Police & Fire	10.000%	19.500%	29.500%	No
89	Ohio	School Employees	10.000%	14.000%	24.000%	No
90	Ohio	PERS	10.000%	14.000%	24.000%	No
91	Ohio	Teachers	10.000%	14.000%	24.000%	No

Table 6

Employee / Employer Contribution Rates

	State	System	Employee Cont. Rate	Employer Cont. Rate	Total	SS
92	Oklahoma	PERS	3.500%	16.500%	20.000%	Yes
93	Oklahoma	Teachers	7.000%	9.500%	16.500%	Yes
94	Oregon	PERS	0.000%	9.900%	9.900%	Yes
95	Pennsylvania	School Employees	7.500%	7.800%	15.300%	Yes
96	Pennsylvania	ERS	6.250%	9.800%	16.050%	Yes
97	Rhode Island	ERS	8.750%	20.780%	29.530%	Yes
98	Rhode Island	Municipal	6.000%	Varies	Varies	Yes
99	South Carolina	Police	6.500%	12.350%	18.850%	Yes
100	South Carolina	RS	6.500%	10.730%	17.230%	Yes
101	South Dakota	PERS	6.000%	6.000%	12.000%	Yes
102	Tennessee	State and Teachers	5.000%	14.910%	19.910%	Yes
103	Tennessee	Political Subdivisions	5.000%	11.520%	16.520%	Yes
104	Texas	Teachers	6.400%	6.000%	12.400%	No
105	Texas	County & District	4.000%	10.970%	14.970%	Yes
106	Texas	Houston Firefighters	9.000%	29.400%	38.400%	No
107	Texas	ERS	6.500%	6.000%	12.500%	Yes
108	Texas	Municipal	5.000%	5.000%	10.000%	Yes
109	Texas	City of Austin ERS	1.000%	16.000%	17.000%	Yes
110	Texas	LECOS	0.500%	0.000%	0.500%	Yes
111	Utah	Noncontributory	0.000%	13.770%	13.770%	Yes
112	Vermont	Teachers	6.400%	7.200%	13.600%	Yes
113	Vermont	State Employees	6.400%	9.430%	15.830%	Yes
114	Virginia	Retirement System	5.000%	7.000%	12.000%	Yes

Table 6

Employee / Employer Contribution Rates

	State	System	Employee Cont. Rate	Employer Cont. Rate	Total	SS
115	Virginia	Fairfax County Schools	4.000%	4.040%	8.040%	Yes
116	Washington	PERS 1	6.000%	7.080%	13.080%	Yes
117	Washington	LEOFF Plan 1	0.000%	0.160%	0.160%	Yes
118	Washington	PERS 2/3	4.640%	7.080%	11.720%	Yes
119	Washington	Teachers Plan 1	6.000%	8.040%	14.040%	Yes
120	Washington	Teachers Plan 2/3	4.690%	8.040%	12.730%	Yes
121	Washington	School Employees Plan 2/3	4.090%	7.580%	11.670%	Yes
122	Washington	LEOFF Plan 2	8.460%	5.240%	13.700%	Yes
123	West Virginia	Teachers	6.000%	27.660%	33.660%	Yes
124	West Virginia	PERS	4.500%	14.500%	19.000%	Yes
125	Wisconsin	Retirement System	6.700%	6.700%	13.400%	Yes
126	Wyoming	Public Employees	7.000%	7.120%	14.120%	Yes
MEAN or AVERAGE			5.957%	13.107%	19.064%	
Social Security Eligible**			11.25%	18.29%	29.54%	
Social Security Ineligible			8.55%	16.67%	25.22%	
MEDIAN			6.000%	11.520%	16.990%	
Regular members of PERS			12.250%	12.250%	24.500%	
Police/Fire members of PERS			20.250%	20.250%	40.500%	
Nevada JRS*			0.000%	35.420%	35.420%	

* Not included in Average or Median.

**Includes 6.2% employee and employer contributions

Table 7(a)

Final Average Salary & Multiplier

State	System	Multiplier	% For 30 Yrs	Rank	SS
1 Alabama	ERS	2.0125%	60.375%	18	Yes
2 Alabama	Teachers	2.0125%	60.375%	18	Yes
3 Alaska	Teachers	2% for first 20 years, 2.5% thereafter	65.000%	12	No
4 Alaska	PERS	2% (1st 10 yrs); 2.25% (next 10 yrs); 2.5% for years thereafter. Public safety: 2% (1st 10 yrs); 2.5% thereafter	67.500%	9	Both
5 Arizona	Public Safety Personnel	50% of FAS plus 2% for each year above 20 (20-25 yrs); 2.5% for each year above 20 (more than 25 yrs)	72.500%	6	Yes
6 Arizona	SRS	2.1% (1st 20 yrs); 2.15% (next 5 yrs); 2.2% (next 5 yrs) 2.3% (more than 30 yrs)	63.750%	15	Yes
7 Arizona	ERS	2.0% (1st 32.5 yrs); 1.0% (yrs 32.5 to 35.5); 0.5% (more than 35.5 yrs)	60.000%	19	Yes
8 Arkansas	PERS	1.72% (non-contributory members, hired before 7/1/05); 2.0% (contributory members, hired after 6/30/05)	51.600%	29	Yes
9 Arkansas	Teachers	2.1500%	64.500%	13	Yes
10 California	LA County ERS	1.66%; 2.0% for public safety personnel	49.800%	34	No
11 California	San Francisco City & County	for general employees hired since 11/00: graduated factor beginning at 1.0% at age 50, rising to 2.3% at age 62; for public safety personnel: 50% of FAS plus 3% for each additional yr of svc	69.000%	8	Both
12 California	PERS	2.0% at 60/5, rising to 3.0% at 63/5; employers may select from a range of benefit structures, including 3.0% at 50 and 55 for law enforcement personnel	90.000%	1	Both
13 California	STRS	2.0%, rising to 2.4% at age 63	61.200%	17	No
14 California	San Diego County	3.0%; 2.62% for those hired after 8/27/09	90.000% ¹⁰	1	Both

¹⁰ Calculation based on those hired on or before 8/27/09.

Table 7(a)

Final Average Salary & Multiplier

State	System	Multiplier	% For 30 Yrs	Rank	SS
15 California	Contra Costa County	based on age at retirement, from 0.83% at age 50, rising to 1.73% at age 65	51.900%	28	Both
16 Colorado	School	2.5000%	75.000%	5	No
17 Colorado	State	2.5000%	75.000%	5	No
18 Colorado	Denver Employees	2.0%; 1.5% for those hired after 8/31/04	60.000% ¹¹	19	Yes
19 Colorado	Affiliated Local	varies by plan, but is 2.0% to 2.5% for most plans	60.000%	19	(sic)
20 Colorado	Fire & Police Statewide	2.0% @55/25; otherwise, 1.5% at 55 with 5 years of service	60.000%	19	Both
21 Colorado	Denver Public Schools	2.5000%	75.000%	5	No
22 Colorado	Municipal	2.5000%	75.000%	5	No
23 Connecticut	Teachers	2.0% up to 75% of FAS	60.000%	19	No
24 Connecticut	SERS	1.333% (+0.5% for salary above Social Security breakpoint); 2.5% for public safety personnel	40.000% ¹²	39	Yes
25 Delaware	State Employees	1.8500%	55.500%	21	Yes
26 District of Columbia	Police & Fire	2.5000%	75.000%	5	No
27 District of Columbia	Teachers	2.0000%	60.000%	19	No
28 Florida	RS	1.60% for most general employees and teachers; 3.0% for most public safety personnel	48.000%	36	Yes
29 Georgia	ERS	2.0%; 1.25% (hybrid plan for those hired after 2008)	60.000%	19	Yes
30 Georgia	Teachers	2.0000%	60.000%	19	Yes

¹¹ Calculation based on those hired on or before 8/31/04.

¹² Public safety personnel were not included in this calculation.

Table 7(a)

Final Average Salary & Multiplier

State	System	Multiplier	% For 30 Yrs	Rank	SS
31 Hawaii	ERS	2.0%; 2.5% for public safety personnel	60.000%	19	Yes
32 Idaho	PERS	2.0%; 2.3% for public safety personnel	60.000%	19	Yes
33 Illinois	Chicago Teachers	2.2%; before 7/1/98 1.67% (first 10 yrs), 1.9% (yrs 11-20), 2.1% (yrs 21-30), 2.3% (each yr above 30).	66.000%	10	No
34 Illinois	Municipal	1.67% (first 15 yrs), 2.0% (above 15 yrs); 2.5% (first 20 yrs) for law enforcement personnel, plus 2.0% (yrs 20-30), and 1.0% (each yr above 30).	55.050%	23	Yes
35 Illinois	Teachers	2.2%; before 7/1/98 1.67% (first 10 yrs), 1.9% (yrs 11-20), 2.1% (yrs 21-30), 2.3% (each yr above 30).	66.000%	10	No
36 Illinois	SERS	1.67%; 2.2% for those not covered by Social Security	50.100% ¹³	31	Both
37 Illinois	Universities	2.2000%	66.000%	10	No
38 Indiana	Teachers	1.1% plus a DC component	33.000% ¹⁴	41	Yes
39 Indiana	PERF	1.1% plus a DC component	33.000% ¹⁴	41	Yes
40 Iowa	PERS	2.0000%	60.000%	19	Yes
41 Kansas	PERS	1.7500%	52.500%	27	Yes
42 Kentucky	ERS	Non-hazardous:1.97% to 2.2%; Hazardous: 2.49%; for those hired after 8/31/08, graduated factor 1.1% (1st 10 yrs), 2.0% (30 or more years of service)	59.100%	20	Yes
43 Kentucky	County	Non-hazardous: 2.20%; hazardous: 2.5%	66.000%	10	Yes
44 Kentucky	Teachers	1.7% to 3%, depending on yrs of service	90.000%	1	No
45 Louisiana	SERS	2.5000%	75.000%	5	No

¹³ Only those covered by Social Security were included.

¹⁴ Does not reflect DC component.

Table 7(a)

Final Average Salary & Multiplier

State	System	Multiplier	% For 30 Yrs	Rank	SS
46 Louisiana	Teachers	2.5000%	75.000%	5	No
47 Maine	State and Teacher	2.0000%	60.000%	19	No
48 Maine	Local	2.0000%	60.000%	19	Both
49 Maryland	Teachers	Larger of: 1) 1.2% of FAS for service prior to 6/30/98; 2) 0.8% FAS up to SSIL* plus 1.5% FAS above that level for service prior to 6/30/98; 3) 1.4% FAS after 6/30/98.	36.000%	40	Yes
50 Maryland	PERS	Larger of: 1) 1.2% of FAS for service prior to 6/30/98; 2) 0.8% FAS up to SSIL* plus 1.5% FAS above that level for service prior to 6/30/98; 3) 1.8% FAS after 6/30/98.	36.000%	40	Yes
51 Massachusetts	SERS	2.5%; benefit may not exceed 80% of FAS	75.000%	5	No
52 Massachusetts	Teachers	0.5% to 2.5% (age related) plus 2% for each year over 24	87.000%	2	No
53 Michigan	SERS	1.5000%	45.000%	38	Yes
54 Michigan	Public Schools	1.5000%	45.000%	38	Yes
55 Michigan	Municipal	1.3% to 2.5%, depending on employer election	75.000%	5	Yes
56 Minnesota	PERF	1.7000%	51.000%	30	Yes
57 Minnesota	State Employees	1.7000%	51.000%	30	Yes
58 Minnesota	Teachers	1.7000%	51.000%	30	Yes
59 Minnesota	Duluth Teachers	1.7000%	51.000%	30	Yes
60 Minnesota	St. Paul Teachers	1.7000%	51.000%	30	Yes
61 Mississippi	PERS	2.0% for the first 25 years and 2.5% for each year thereafter	62.500%	16	Yes
62 Missouri	DOT and Highway Patrol	1.7000%	51.000%	30	Yes
63 Missouri	St. Louis School Employees	2.0%; benefit may not exceed 60% of salary	60.000%	19	Yes

Table 7(a)

Final Average Salary & Multiplier

State	System	Multiplier	% For 30 Yrs	Rank	SS
64 Missouri	State Employees	1.7% for MSEP 2000; 1.6% for MSEP	51.000%	30	Yes
65 Missouri	Teachers	2.5%; 2.55% for 31 or more years of service	75.000%	5	No
66 Missouri	PEERS	1.6100%	48.300%	35	Yes
67 Missouri	Local	varies based on employer election; most are 1.5%; many are 1.25% and 1.0%	45.000%	38	Yes
68 Montana	PERS	1.785%; 2.0% for members with 25 years of service	60.000%	19	Yes
69 Montana	Teachers	1.6670%	50.010%	32	Yes
70 Nebraska	Schools	2.0000%	60.000%	19	Yes
71 Nevada	Regular Employees	2.5%, and 2.67% for svc earned after 7/1/01; for those hired on or after 1/1/10, 2.5%	75.000%	5	No
72 Nevada	Police Officer and Firefighter	2.5%, and 2.67% for svc earned after 7/1/01; for those hired on or after 1/1/10, 2.5%	75.000%	5	No
73 New Hampshire	Retirement System	1.67% for general employees and teachers prior to age 65, 1.5% after attaining age 65; 2.5% for police and fire	50.000%	33	Yes
74 New Jersey	Teachers	1/55 for each year of service (1.818%)	54.540%	25	Yes
75 New Jersey	Police & Fire	2.0000%	60.000%	19	Yes
76 New Jersey	PERS	1/55 for each year of service (1.818%)	54.540%	25	Yes
77 New Mexico	PERF	3.0% for service after 12/96	90.000%	1	Yes
78 New Mexico	Teachers	2.3500%	70.500%	7	Yes
79 New York	State & Local Police & Fire	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.400%	26	Yes
80 New York	New York City Teachers	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.400%	26	Yes
81 New York	Teachers	1.67% (under 20 years); 2% (over 20 years); 3.5% (over 30 years)	53.400%	26	Yes

Table 7(a)

Final Average Salary & Multiplier

	State	System	Multiplier	% For 30 Yrs	Rank	SS
82	New York	ERS	1.67% (under 20 years); 2% (over 20 years); 3.5% (over 30 years)	53.400%	26	Yes
83	New York	New York City ERS	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.400%	26	Yes
84	North Carolina	Local Government	1.8500%	55.500%	21	Yes
85	North Carolina	Teachers and State Employees	1.8200%	54.600%	24	Yes
86	North Dakota	PERS	2.0000%	60.000%	19	Yes
87	North Dakota	Teachers	2.0000%	60.000%	19	Yes
88	Ohio	Police & Fire	2.5% for first 20 years, 2.0% for next 5, 1.5% for each year thereafter	67.500%	9	No
89	Ohio	School Employees	2.2%, 2.5% for each year above 30	66.000%	10	No
90	Ohio	PERS	2.2% (1st 30 yrs); 2.5% (added yrs)	66.000%	10	No
91	Ohio	Teachers	2.2% (1st 35 yrs); 2.5% (35 or more yrs)	66.000%	10	No
92	Oklahoma	PERS	2.0000%	60.000%	19	Yes
93	Oklahoma	Teachers	2.0000%	60.000%	19	Yes
94	Oregon	PERS	1.67%; 2.0% for public safety personnel; those hired after 08/2004 participate in the hybrid plan, w/a factor of 1.5%; 1.8% for public safety	50.100%	31	Yes
95	Pennsylvania	School Employees	2.5%; 2.0% for those hired after 6/30/11	75.000%	5	Yes
96	Pennsylvania	ERS	2.5000%	75.000%	5	Yes
97	Rhode Island	ERS	1.6% (1st 10 yrs); 1.8% (2nd 10 yrs); 2% (21-25 yrs); 2.25% (26-30 yrs); 2.5% (31-37 yrs); 2.25% (38 yrs)	55.250%	22	Yes
98	Rhode Island	Municipal	2.0%; 2.5% for police and fire; 1.0% for new hybrid plan effective 7/1/12	60.000%	19	Yes
99	South Carolina	Police	2.1400%	64.200%	14	Yes

Table 7(a)

Final Average Salary & Multiplier

	State	System	Multiplier	% For 30 Yrs	Rank	SS
100	South Carolina	RS	1.8200%	54.600%	24	Yes
101	South Dakota	PERS	1.55%; 1.7% for svc before 7/1/08	46.500%	37	Yes
102	Tennessee	State and Teachers	1.5% plus .25% of FAS over SSIL	45.000% ¹⁵	38	Yes
103	Tennessee	Political Subdivisions	1.5% plus .25% of FAS over SSIL	45.000% ¹⁵	38	Yes
104	Texas	Teachers	2.3000%	69.000%	8	No
105	Texas	County & District	N/A	N/A		Yes
106	Texas	Houston Firefighters	2.5% (first 20 yrs), +3% (additional years up to 30); 1.7% for those less than 20 years of service	80.000%	4	No
107	Texas	ERS	2.3000%	69.000%	8	Yes
108	Texas	Municipal	Cash balance plan. Depends upon the employee's contributions, with interest, and city-funded credits, with interest. 100%, 150%, or 200% of the employee's accumulated contributions.	Cash Balance Plan		Yes
109	Texas	City of Austin ERS	3.0000%	90.000%	1	Yes
110	Texas	LECOS	2.8000%	84.000%	3	Yes
111	Utah	Noncontributory	2.0000%	60.000%	19	Yes
112	Vermont	Teachers	1.6700%	50.100%	31	Yes
113	Vermont	State Employees	1.6700%	50.100%	31	Yes
114	Virginia	Retirement System	1.7000%	51.000%	30	Yes
115	Virginia	Fairfax Cty Schools	0.8000%	24.000%	42	Yes
116	Washington	PERS 1	2.0000%	60.000%	19	Yes
117	Washington	LEOFF Plan 1	2.0% (>20 yrs); 1.5% (10-19 yrs); 1% (5-9 yrs)	60.000%	19	Yes

¹⁵ Assumes employees make less than the SS integration level.

Table 7(a)

Final Average Salary & Multiplier

	State	System	Multiplier	% For 30 Yrs	Rank	SS
118	Washington	PERS 2/3	2.0000%	60.000%	19	Yes
119	Washington	Teachers Plan 1	2.0000%	60.000%	19	Yes
120	Washington	Teachers Plan 2/3	2.0% for Plan 2 members; 1.0% for Plan 3	60.000%	19	Yes
121	Washington	School Employees Plan 2/3	2.0% for Plan 2 members; 1.0% for Plan 1	60.000%	19	Yes
122	Washington	LEOFF Plan 2	2.0000%	60.000%	19	Yes
123	West Virginia	Teachers	2.0000%	60.000%	19	Yes
124	West Virginia	PERS	2.0000%	60.000%	19	Yes
125	Wisconsin	Retirement System	1.6%; 1.765% for service before 2000. Public safety personnel 2.0, 2.165% for service before 2000.	48.000%	36	Yes
126	Wyoming	Public Employees	2.125% for first 15 years, 2.25% for each year of service thereafter	65.625%	11	Yes
	Nevada	JRS	3.4091%, subject to a max of 75%	75.000%		No
	Nevada	LRS	Flat dollar benefit of \$25/month per year of service	Flat Dollar		No
TOTAL MEAN or AVERAGE				60.350%		
SS Eligible AVERAGE				58.12%		
SS Ineligible AVERAGE				69.67%		
MEDIAN				60.000%		
PERS OF NEVADA				75.000%		
JRS OF NEVADA*				75.000%		

* Not included in Average or Median.

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
1	California	PERS	2.0% at 60/5, rising to 3.0% at 63/5; employers may select from a range of benefit structures, including 3.0% at 50 and 55 for law enforcement personnel	90.00%	1	Both
2	California	San Diego County	3.0%; 2.62% for those hired after 8/27/09	90.00% ¹⁶	1	Both
3	Kentucky	Teachers	1.7% to 3%, depending on yrs of service	90.00%	1	No
4	New Mexico	PERF	3.0% for service after 12/96	90.00%	1	Yes
5	Texas	City of Austin ERS	3.00%	90.00%	1	Yes
6	Massachusetts	Teachers	0.5% to 2.5% (age related) plus 2% for each year over 24	87.00%	2	No
7	Texas	LECOS	2.80%	84.00%	3	Yes
8	Texas	Houston Firefighters	2.5% (first 20 yrs), +3% (additional years up to 30); 1.7% for those less than 20 years of service	80.00%	4	No
9	Colorado	School	2.50%	75.00%	5	No
10	Colorado	State	2.50%	75.00%	5	No
11	Colorado	Denver Public Schools	2.50%	75.00%	5	No
12	Colorado	Municipal	2.50%	75.00%	5	No
13	District of Columbia	Police & Fire	2.50%	75.00%	5	No
14	Louisiana	SERS	2.50%	75.00%	5	No
15	Louisiana	Teachers	2.50%	75.00%	5	No

¹⁶ Calculation based on those hired on or before 8/27/09.

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
16	Massachusetts	SERS	2.5%; benefit may not exceed 80% of FAS	75.00%	5	No
17	Michigan	Municipal	1.3% to 2.5%, depending on employer election	75.00%	5	Yes
18	Missouri	Teachers	2.5%; 2.55% for 31 or more years of service	75.00%	5	No
19	Nevada	Regular Employees	2.5%, and 2.67% for svc earned after 7/1/01; for those hired on or after 1/1/10, 2.5%	75.00%	5	No
20	Nevada	Police Officer and Firefighter	2.5%, and 2.67% for svc earned after 7/1/01; for those hired on or after 1/1/10, 2.5%	75.00%	5	No
21	Pennsylvania	School Employees	2.5%; 2.0% for those hired after 6/30/11	75.00%	5	Yes
22	Pennsylvania	ERS	2.50%	75.00%	5	Yes
23	Arizona	Public Safety Personnel	50% of FAS plus 2% for each year above 20 (20-25 yrs); 2.5% for each year above 20 (more than 25 yrs)	72.50%	6	Yes
24	New Mexico	Teachers	2.35%	70.50%	7	Yes
25	California	San Francisco City & County	for general employees hired since 11/00: graduated factor beginning at 1.0% at age 50, rising to 2.3% at age 62; for public safety personnel: 50% of FAS plus 3% for each additional yr of svc	69.00%	8	Both
26	Texas	Teachers	2.30%	69.00%	8	No
27	Texas	ERS	2.30%	69.00%	8	Yes
28	Alaska	PERS	2% (1st 10 yrs); 2.25% (next 10 yrs); 2.5% for years thereafter. Public safety: 2% (1st 10 yrs); 2.5% thereafter	67.50%	9	Both
29	Ohio	Police & Fire	2.5% for first 20 years, 2.0% for next 5, 1.5% for each year thereafter	67.50%	9	No
30	Illinois	Chicago Teachers	2.2%; before 7/1/98 1.67% (first 10 yrs), 1.9% (yrs 11-20), 2.1% (yrs 21-30), 2.3% (each yr above 30).	66.00%	10	No

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
31	Illinois	Teachers	2.2%; before 7/1/98 1.67% (first 10 yrs), 1.9% (yrs 11-20), 2.1% (yrs 21-30), 2.3% (each yr above 30).	66.00%	10	No
32	Illinois	Universities	2.20%	66.00%	10	No
33	Kentucky	County	Non-hazardous: 2.20%; hazardous: 2.5%	66.00%	10	Yes
34	Ohio	School Employees	2.2%, 2.5% for each year above 30	66.00%	10	No
35	Ohio	PERS	2.2% (1st 30 yrs); 2.5% (added yrs)	66.00%	10	No
36	Ohio	Teachers	2.2% (1st 35 yrs); 2.5% (35 or more yrs)	66.00%	10	No
37	Wyoming	Public Employees	2.125% for first 15 years, 2.25% for each year of service thereafter	65.63%	11	Yes
38	Alaska	Teachers	2% for first 20 years, 2.5% thereafter	65.00%	12	No
39	Arkansas	Teachers	2.15%	64.50%	13	Yes
40	South Carolina	Police	2.14%	64.20%	14	Yes
41	Arizona	SRS	2.1% (1st 20 yrs); 2.15% (next 5 yrs); 2.2% (next 5 yrs) 2.3% (more than 30 yrs)	63.75%	15	Yes
42	Mississippi	PERS	2.0% for the first 25 years and 2.5% for each year thereafter	62.50%	16	Yes
43	California	STRS	2.0%, rising to 2.4% at age 63	61.20%	17	No
44	Alabama	ERS	2.01%	60.38%	18	Yes
45	Alabama	Teachers	2.01%	60.38%	18	Yes
46	Arizona	ERS	2.0% (1st 32.5 yrs); 1.0% (yrs 32.5 to 35.5); 0.5% (more than 35.5 yrs)	60.00%	19	Yes
47	Colorado	Denver Employees	2.0%; 1.5% for those hired after 8/31/04 ¹⁷	60.00%	19	Yes

¹⁷ Calculation based on those hired on or before 8/31/04.

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
48	Colorado	Affiliated Local	varies by plan, but is 2.0% to 2.5% for most plans	60.00%	19	(sic)
49	Colorado	Fire & Police Statewide	2.0% @55/25; otherwise, 1.5% at 55 with 5 years of service	60.00%	19	Both
50	Connecticut	Teachers	2.0% up to 75% of FAS	60.00%	19	No
51	District of Columbia	Teachers	2.00%	60.00%	19	No
52	Georgia	ERS	2.0%; 1.25% (hybrid plan for those hired after 2008)	60.00%	19	Yes
53	Georgia	Teachers	2.00%	60.00%	19	Yes
54	Hawaii	ERS	2.0%; 2.5% for public safety personnel	60.00%	19	Yes
55	Idaho	PERS	2.0%; 2.3% for public safety personnel	60.00%	19	Yes
56	Iowa	PERS	2.00%	60.00%	19	Yes
57	Maine	State and Teacher	2.00%	60.00%	19	No
58	Maine	Local	2.00%	60.00%	19	Both
59	Missouri	St. Louis School Employees	2.0%; benefit may not exceed 60% of salary	60.00%	19	Yes
60	Montana	PERS	1.785%; 2.0% for members with 25 years of service	60.00%	19	Yes
61	Nebraska	Schools	2.00%	60.00%	19	Yes
62	New Jersey	Police & Fire	2.00%	60.00%	19	Yes
63	North Dakota	PERS	2.00%	60.00%	19	Yes
64	North Dakota	Teachers	2.00%	60.00%	19	Yes
65	Oklahoma	PERS	2.00%	60.00%	19	Yes
66	Oklahoma	Teachers	2.00%	60.00%	19	Yes

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
67	Rhode Island	Municipal	2.0%; 2.5% for police and fire; 1.0% for new hybrid plan effective 7/1/12	60.00%	19	Yes
68	Utah	Noncontributory	2.00%	60.00%	19	Yes
69	Washington	PERS 1	2.00%	60.00%	19	Yes
70	Washington	LEOFF Plan 1	2.0% (>20 yrs); 1.5% (10-19 yrs); 1% (5-9 yrs)	60.00%	19	Yes
71	Washington	PERS 2/3	2.00%	60.00%	19	Yes
72	Washington	Teachers Plan 1	2.00%	60.00%	19	Yes
73	Washington	Teachers Plan 2/3	2.0% for Plan 2 members; 1.0% for Plan 3	60.00%	19	Yes
74	Washington	School Employees Plan 2/3	2.0% for Plan 2 members; 1.0% for Plan 1	60.00%	19	Yes
75	Washington	LEOFF Plan 2	2.00%	60.00%	19	Yes
76	West Virginia	Teachers	2.00%	60.00%	19	Yes
77	West Virginia	PERS	2.00%	60.00%	19	Yes
78	Kentucky	ERS	Non-hazardous:1.97% to 2.2%; Hazardous: 2.49%; for those hired after 8/31/08, graduated factor 1.1% (1st 10 yrs), 2.0% (30 or more years of service)	59.10%	20	Yes
79	Delaware	State Employees	1.85%	55.50%	21	Yes
80	North Carolina	Local Government	1.85%	55.50%	21	Yes
81	Rhode Island	ERS	1.6% (1st 10 yrs); 1.8% (2nd 10 yrs); 2% (21-25 yrs); 2.25% (26-30 yrs); 2.5% (31-37 yrs); 2.25% (38 yrs)	55.25%	22	Yes
82	Illinois	Municipal	1.67% (first 15 yrs), 2.0% (above 15 yrs); 2.5% (first 20 yrs) for law enforcement personnel, plus 2.0% (yrs 20-30), and 1.0% (each yr above 30).	55.05%	23	Yes
83	North Carolina	Teachers and State	1.82%	54.60%	24	Yes

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
		Employees				
84	South Carolina	RS	1.82%	54.60%	24	Yes
85	New Jersey	Teachers	1/55 for each year of service (1.818%)	54.54%	25	Yes
86	New Jersey	PERS	1/55 for each year of service (1.818%)	54.54%	25	Yes
87	New York	State & Local Police & Fire	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.40%	26	Yes
88	New York	New York City Teachers	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.40%	26	Yes
89	New York	Teachers	1.67% (under 20 years); 2% (over 20 years); 3.5% (over 30 years)	53.40%	26	Yes
90	New York	ERS	1.67% (under 20 years); 2% (over 20 years); 3.5% (over 30 years)	53.40%	26	Yes
91	New York	New York City ERS	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.40%	26	Yes
92	Kansas	PERS	1.75%	52.50%	27	Yes
93	California	Contra Costa County	based on age at retirement, from 0.83% at age 50, rising to 1.73% at age 65	51.90%	28	Both
94	Arkansas	PERS	1.72% (non-contributory members, hired before 7/1/05); 2.0% (contributory members, hired after 6/30/05)	51.60%	29	Yes
95	Minnesota	PERF	1.70%	51.00%	30	Yes
96	Minnesota	State Employees	1.70%	51.00%	30	Yes
97	Minnesota	Teachers	1.70%	51.00%	30	Yes
98	Minnesota	Duluth Teachers	1.70%	51.00%	30	Yes
99	Minnesota	St. Paul Teachers	1.70%	51.00%	30	Yes
100	Missouri	DOT and Highway	1.70%	51.00%	30	Yes

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
		Patrol				
101	Missouri	State Employees	1.7% for MSEP 2000; 1.6% for MSEP	51.00%	30	Yes
102	Virginia	Retirement System	1.70%	51.00%	30	Yes
103	Illinois	SERS	1.67%; 2.2% for those not covered by Social Security	50.10% ¹⁸	31	Both
104	Oregon	PERS	1.67%; 2.0% for public safety personnel; those hired after 08/2004 participate in the hybrid plan, w/a factor of 1.5%; 1.8% for public safety	50.10%	31	Yes
105	Vermont	Teachers	1.67%	50.10%	31	Yes
106	Vermont	State Employees	1.67%	50.10%	31	Yes
107	Montana	Teachers	1.67%	50.01%	32	Yes
108	New Hampshire	Retirement System	1.67% for general employees and teachers prior to age 65, 1.5% after attaining age 65; 2.5% for police and fire	50.00%	33	Yes
109	California	LA County ERS	1.66%; 2.0% for public safety personnel	49.80%	34	No
110	Missouri	PEERS	1.61%	48.30%	35	Yes
111	Florida	RS	1.60% for most general employees and teachers; 3.0% for most public safety personnel	48.00%	36	Yes
112	Wisconsin	Retirement System	1.6%; 1.765% for service before 2000. Public safety personnel 2.0, 2.165% for service before 2000.	48.00%	36	Yes
113	South Dakota	PERS	1.55%; 1.7% for svc before 7/1/08	46.50%	37	Yes
114	Michigan	SERS	1.50%	45.00%	38	Yes
115	Michigan	Public Schools	1.50%	45.00%	38	Yes

¹⁸ Only those covered by Social Security were included.

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
116	Missouri	Local	varies based on employer election; most are 1.5%; many are 1.25% and 1.0%	45.00%	38	Yes
117	Tennessee	State and Teachers	1.5% plus .25% of FAS over SSIL	45.00% ¹⁹	38	Yes
118	Tennessee	Political Subdivisions	1.5% plus .25% of FAS over SSIL	45.00% ¹⁹	38	Yes
119	Connecticut	SERS	1.333% (+0.5% for salary above Social Security breakpoint); 2.5% for public safety personnel	40.00% ²⁰	39	Yes
120	Maryland	Teachers	Larger of: 1) 1.2% of FAS for service prior to 6/30/98; 2) 0.8% FAS up to SSIL* plus 1.5% FAS above that level for service prior to 6/30/98; 3) 1.4% FAS after 6/30/98.	36.00%	40	Yes
121	Maryland	PERS	Larger of: 1) 1.2% of FAS for service prior to 6/30/98; 2) 0.8% FAS up to SSIL* plus 1.5% FAS above that level for service prior to 6/30/98; 3) 1.8% FAS after 6/30/98.	36.00%	40	Yes
122	Indiana	Teachers	1.1% plus a DC component	33.00% ²¹	41	Yes
123	Indiana	PERF	1.1% plus a DC component	33.00% ²¹	41	Yes
124	Virginia	Fairfax County Schools	0.80%	24.00%	42	Yes
125	Texas	County & District	N/A	N/A	N/A	Yes
126	Texas	Municipal	Cash balance plan. Depends upon the employee's contributions, with interest, and city-funded credits, with interest. 100%, 150%, or 200% of the employee's accumulated contributions.	Cash Balance Plan		Yes

¹⁹ Assumes employees make less than the SS integration level.

²⁰ Public safety personnel were not included in this calculation.

²¹ Does not reflect DC component.

Table 7(b)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs)

State	System	Multiplier	% For 30 Yrs	Rank	SS
Nevada	JRS	3.4091%, subject to a max of 75%	75.00%		No
Nevada	LRS	Flat dollar benefit of \$25/month per year of service	Flat Dollar		No
TOTAL MEAN or AVERAGE			60.350%		
SS Eligible AVERAGE			58.12%		
SS Ineligible AVERAGE			69.67%		
MEDIAN			60.000%		
PERS OF NEVADA			75.000%		
JRS OF NEVADA*			75.000%		

* Not included in Average or Median.

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

State	System	Multiplier	% For 30 Yrs	Rank	SS
1 California	PERS	2.0% at 60/5, rising to 3.0% at 63/5; employers may select from a range of benefit structures, including 3.0% at 50 and 55 for law enforcement personnel	90.00%	1	Both
2 California	San Diego County	3.0%; 2.62% for those hired after 8/27/09	90.00% ²²	1	Both
3 New Mexico	PERF	3.0% for service after 12/96	90.00%	1	Yes
4 Texas	City of Austin ERS	3.00%	90.00%	1	Yes
5 Texas	LECOS	2.80%	84.00%	2	Yes
6 Michigan	Municipal	1.3% to 2.5%, depending on employer election	75.00%	3	Yes
7 Pennsylvania	School Employees	2.5%; 2.0% for those hired after 6/30/11	75.00%	3	Yes
8 Pennsylvania	ERS	2.50%	75.00%	3	Yes
9 Arizona	Public Safety Personnel	50% of FAS plus 2% for each year above 20 (20-25 yrs); 2.5% for each year above 20 (more than 25 yrs)	72.50%	4	Yes
10 New Mexico	Teachers	2.35%	70.50%	5	Yes
11 California	San Francisco City & County	for general employees hired since 11/00: graduated factor beginning at 1.0% at age 50, rising to 2.3% at age 62; for public safety personnel: 50% of FAS plus 3% for each additional yr of svc	69.00%	6	Both
12 Texas	ERS	2.30%	69.00%	6	Yes
13 Alaska	PERS	2% (1st 10 yrs); 2.25% (next 10 yrs); 2.5% for years thereafter. Public safety: 2% (1st 10 yrs); 2.5% thereafter	67.50%	7	Both
14 Kentucky	County	Non-hazardous: 2.20%; hazardous: 2.5%	66.00%	8	Yes
15 Wyoming	Public Employees	2.125% for first 15 years, 2.25% for each year of service thereafter	65.63%	9	Yes

²² Calculation based on those hired on or before 8/27/09.

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
16	Arkansas	Teachers	2.15%	64.50%	10	Yes
17	South Carolina	Police	2.14%	64.20%	11	Yes
18	Arizona	SRS	2.1% (1st 20 yrs); 2.15% (next 5 yrs); 2.2% (next 5 yrs) 2.3% (more than 30 yrs)	63.75%	12	Yes
19	Mississippi	PERS	2.0% for the first 25 years and 2.5% for each year thereafter	62.50%	13	Yes
20	Alabama	ERS	2.01%	60.38%	14	Yes
21	Alabama	Teachers	2.01%	60.38%	14	Yes
22	Arizona	ERS	2.0% (1st 32.5 yrs); 1.0% (yrs 32.5 to 35.5); 0.5% (more than 35.5 yrs)	60.00%	15	Yes
23	Colorado	Denver Employees	2.0%; 1.5% for those hired after 8/31/04	60.00% ²³	15	Yes
24	Colorado	Fire & Police Statewide	2.0% @55/25; otherwise, 1.5% at 55 with 5 years of service	60.00%	15	Both
25	Georgia	ERS	2.0%; 1.25% (hybrid plan for those hired after 2008)	60.00%	15	Yes
26	Georgia	Teachers	2.00%	60.00%	15	Yes
27	Hawaii	ERS	2.0%; 2.5% for public safety personnel	60.00%	15	Yes
28	Idaho	PERS	2.0%; 2.3% for public safety personnel	60.00%	15	Yes
29	Iowa	PERS	2.00%	60.00%	15	Yes
30	Maine	Local	2.00%	60.00%	15	Both
31	Missouri	St. Louis School Employees	2.0%; benefit may not exceed 60% of salary	60.00%	15	Yes
32	Montana	PERS	1.785%; 2.0% for members with 25 years of service	60.00%	15	Yes
33	Nebraska	Schools	2.00%	60.00%	15	Yes

²³ Calculation based on those hired on or before 8/31/04.

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
34	New Jersey	Police & Fire	2.00%	60.00%	15	Yes
35	North Dakota	PERS	2.00%	60.00%	15	Yes
36	North Dakota	Teachers	2.00%	60.00%	15	Yes
37	Oklahoma	PERS	2.00%	60.00%	15	Yes
38	Oklahoma	Teachers	2.00%	60.00%	15	Yes
39	Rhode Island	Municipal	2.0%; 2.5% for police and fire; 1.0% for new hybrid plan effective 7/1/12	60.00%	15	Yes
40	Utah	Noncontributory	2.00%	60.00%	15	Yes
41	Washington	PERS 1	2.00%	60.00%	15	Yes
42	Washington	LEOFF Plan 1	2.0% (>20 yrs); 1.5% (10-19 yrs); 1% (5-9 yrs)	60.00%	15	Yes
43	Washington	PERS 2/3	2.00%	60.00%	15	Yes
44	Washington	Teachers Plan 1	2.00%	60.00%	15	Yes
45	Washington	Teachers Plan 2/3	2.0% for Plan 2 members; 1.0% for Plan 3	60.00%	15	Yes
46	Washington	School Employees Plan 2/3	2.0% for Plan 2 members; 1.0% for Plan 1	60.00%	15	Yes
47	Washington	LEOFF Plan 2	2.00%	60.00%	15	Yes
48	West Virginia	Teachers	2.00%	60.00%	15	Yes
49	West Virginia	PERS	2.00%	60.00%	15	Yes
50	Kentucky	ERS	Non-hazardous:1.97% to 2.2%; Hazardous: 2.49%; for those hired after 8/31/08, graduated factor 1.1% (1st 10 yrs), 2.0% (30 or more years of service)	59.10%	16	Yes
51	Delaware	State Employees	1.85%	55.50%	17	Yes
52	North Carolina	Local Government	1.85%	55.50%	17	Yes
53	Rhode Island	ERS	1.6% (1st 10 yrs); 1.8% (2nd 10 yrs); 2% (21-25 yrs); 2.25% (26-30 yrs); 2.5% (31-37 yrs);	55.25%	18	Yes

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

State	System	Multiplier	% For 30 Yrs	Rank	SS
		2.25% (38 yrs)			
54	Illinois Municipal	1.67% (first 15 yrs), 2.0% (above 15 yrs); 2.5% (first 20 yrs) for law enforcement personnel, plus 2.0% (yrs 20-30), and 1.0% (each yr above 30).	55.05%	19	Yes
55	North Carolina Teachers and State Employees	1.82%	54.60%	20	Yes
56	South Carolina RS	1.82%	54.60%	20	Yes
57	New Jersey Teachers	1/55 for each year of service (1.818%)	54.54%	21	Yes
58	New Jersey PERS	1/55 for each year of service (1.818%)	54.54%	21	Yes
59	New York State & Local Police & Fire	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.40%	22	Yes
60	New York New York City Teachers	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.40%	22	Yes
61	New York Teachers	1.67% (under 20 years); 2% (over 20 years); 3.5% (over 30 years)	53.40%	22	Yes
62	New York ERS	1.67% (under 20 years); 2% (over 20 years); 3.5% (over 30 years)	53.40%	22	Yes
63	New York New York City ERS	1.67% (under 20 years); 2% (over 20 years); 1.5% (over 30 years)	53.40%	22	Yes
64	Kansas PERS	1.75%	52.50%	23	Yes
65	California Contra Costa County	based on age at retirement, from 0.83% at age 50, rising to 1.73% at age 65	51.90%	24	Both
66	Arkansas PERS	1.72% (non-contributory members, hired before 7/1/05); 2.0% (contributory members, hired after 6/30/05)	51.60%	25	Yes
67	Minnesota PERF	1.70%	51.00%	26	Yes
68	Minnesota State Employees	1.70%	51.00%	26	Yes
69	Minnesota Teachers	1.70%	51.00%	26	Yes

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
70	Minnesota	Duluth Teachers	1.70%	51.00%	26	Yes
71	Minnesota	St. Paul Teachers	1.70%	51.00%	26	Yes
72	Missouri	DOT and Highway Patrol	1.70%	51.00%	26	Yes
73	Missouri	State Employees	1.7% for MSEP 2000; 1.6% for MSEP	51.00%	26	Yes
74	Virginia	Retirement System	1.70%	51.00%	26	Yes
75	Illinois	SERS	1.67%; 2.2% for those not covered by Social Security	50.10% ²⁴	27	Both
76	Oregon	PERS	1.67%; 2.0% for public safety personnel; those hired after 08/2004 participate in the hybrid plan, w/a factor of 1.5%; 1.8% for public safety	50.10%	27	Yes
77	Vermont	Teachers	1.67%	50.10%	27	Yes
78	Vermont	State Employees	1.67%	50.10%	27	Yes
79	Montana	Teachers	1.67%	50.01%	28	Yes
80	New Hampshire	Retirement System	1.67% for general employees and teachers prior to age 65, 1.5% after attaining age 65; 2.5% for police and fire	50.00%	29	Yes
81	Missouri	PEERS	1.61%	48.30%	30	Yes
82	Florida	RS	1.60% for most general employees and teachers; 3.0% for most public safety personnel	48.00%	31	Yes
83	Wisconsin	Retirement System	1.6%; 1.765% for service before 2000. Public safety personnel 2.0, 2.165% for service before 2000.	48.00%	31	Yes
84	South Dakota	PERS	1.55%; 1.7% for svc before 7/1/08	46.50%	32	Yes
85	Michigan	SERS	1.50%	45.00%	33	Yes
86	Michigan	Public Schools	1.50%	45.00%	33	Yes

²⁴ Only those covered by Social Security were included.

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
87	Missouri	Local	varies based on employer election; most are 1.5%; many are 1.25% and 1.0%	45.00%	33	Yes
88	Tennessee	State and Teachers	1.5% plus .25% of FAS over SSIL	45.00% ²⁵	33	Yes
89	Tennessee	Political Subdivisions	1.5% plus .25% of FAS over SSIL	45.00% ²⁵	33	Yes
90	Connecticut	SERS	1.333% (+0.5% for salary above Social Security breakpoint); 2.5% for public safety personnel	40.00% ²⁶	34	Yes
91	Maryland	Teachers	Larger of: 1) 1.2% of FAS for service prior to 6/30/98; 2) 0.8% FAS up to SSIL* plus 1.5% FAS above that level for service prior to 6/30/98; 3) 1.4% FAS after 6/30/98.	36.00%	35	Yes
92	Maryland	PERS	Larger of: 1) 1.2% of FAS for service prior to 6/30/98; 2) 0.8% FAS up to SSIL* plus 1.5% FAS above that level for service prior to 6/30/98; 3) 1.8% FAS after 6/30/98.	36.00%	35	Yes
93	Indiana	Teachers	1.1% plus a DC component	33.00% ²⁷	36	Yes
94	Indiana	PERF	1.1% plus a DC component	33.00% ²⁷	36	Yes
95	Virginia	Fairfax County Schools	0.80%	24.00%	37	Yes
96	Texas	County & District	N/A			Yes
97	Texas	Municipal	Cash balance plan. Depends upon the employee's contributions, with interest, and city-funded credits, with interest. 100%, 150%, or 200% of the employee's accumulated contributions.	Cash Balance Plan		Yes
MEAN or AVERAGE				57.41%		

²⁵ Assumes employees make less than the SS integration level.

²⁶ Public safety personnel were not included in this calculation.

²⁷ Does not reflect DC component

Table 7(b1)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Eligible)

State	System	Multiplier	% For 30 Yrs	Rank	SS
MEDIAN			60.00%		

Table 7(b2)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Not Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
1	California	PERS	2.0% at 60/5, rising to 3.0% at 63/5; employers may select from a range of benefit structures, including 3.0% at 50 and 55 for law enforcement personnel	90.00%	1	Both
2	California	San Diego County	3.0%; 2.62% for those hired after 8/27/09	90.00% ²⁸	1	Both
3	Kentucky	Teachers	1.7% to 3%, depending on yrs of service	90.00%	1	No
4	Massachusetts	Teachers	0.5% to 2.5% (age related) plus 2% for each year over 24	87.00%	2	No
5	Texas	Houston Firefighters	2.5% (first 20 ys), +3% (additional years up to 30); 1.7% for those less than 20 years of service	80.00%	3	No
6	Colorado	School	2.50%	75.00%	4	No
7	Colorado	State	2.50%	75.00%	4	No
8	Colorado	Denver Public Schools	2.50%	75.00%	4	No
9	Colorado	Municipal	2.50%	75.00%	4	No
10	District of Columbia	Police & Fire	2.50%	75.00%	4	No
11	Louisiana	SERS	2.50%	75.00%	4	No
12	Louisiana	Teachers	2.50%	75.00%	4	No
13	Massachusetts	SERS	2.5%; benefit may not exceed 80% of FAS	75.00%	4	No
14	Missouri	Teachers	2.5%; 2.55% for 31 or more years of service	75.00%	4	No
15	Nevada	Regular Employees	2.5%, and 2.67% for svc earned after 7/1/01; for those hired on or after 1/1/10, 2.5%	75.00%	4	No
16	Nevada	Police Officer and Firefighter	2.5%, and 2.67% for svc earned after 7/1/01; for those hired on or after 1/1/10, 2.5%	75.00%	4	No

²⁸ Calculations are based on those hired on or before 8/27/09.

Table 7(b2)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Not Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
17	California	San Francisco City & County	for general employees hired since 11/00: graduated factor beginning at 1.0% at age 50, rising to 2.3% at age 62; for public safety personnel: 50% of FAS plus 3% for each additional yr of svc	69.00%	5	Both
18	Texas	Teachers	2.30%	69.00%	5	No
19	Alaska	PERS	2% (1st 10 yrs); 2.25% (next 10 yrs); 2.5% for years thereafter. Public safety: 2% (1st 10 yrs); 2.5% thereafter	67.50%	6	Both
20	Ohio	Police & Fire	2.5% for first 20 years, 2.0% for next 5, 1.5% for each year thereafter	67.50%	6	No
21	Illinois	Chicago Teachers	2.2%; before 7/1/98 1.67% (first 10 yrs), 1.9% (yrs 11-20), 2.1% (yrs 21-30), 2.3% (each yr above 30).	66.00%	7	No
22	Illinois	Teachers	2.2%; before 7/1/98 1.67% (first 10 yrs), 1.9% (yrs 11-20), 2.1% (yrs 21-30), 2.3% (each yr above 30).	66.00%	7	No
23	Illinois	Universities	2.20%	66.00%	7	No
24	Ohio	School Employees	2.2%, 2.5% for each year above 30	66.00%	7	No
25	Ohio	PERS	2.2% (1st 30 yrs); 2.5% (added yrs)	66.00%	7	No
26	Ohio	Teachers	2.2% (1st 35 yrs); 2.5% (35 or more yrs)	66.00%	7	No
27	Alaska	Teachers	2% for first 20 years, 2.5% thereafter	65.00%	8	No
28	California	STRS	2.0%, rising to 2.4% at age 63	61.20%	9	No
29	Colorado	Fire & Police Statewide	2.0% @55/25; otherwise, 1.5% at 55 with 5 years of service	60.00%	10	Both
30	Connecticut	Teachers	2.0% up to 75% of FAS	60.00%	10	No
31	District of Columbia	Teachers	2.00%	60.00%	10	No
32	Maine	State and Teacher	2.00%	60.00%	10	No

Table 7(b2)

Final Average Salary & Multiplier (Sorted by % for 30 Yrs for SS Not Eligible)

	State	System	Multiplier	% For 30 Yrs	Rank	SS
33	Maine	Local	2.00%	60.00%	11	Both
34	California	Contra Costa County	based on age at retirement, from 0.83% at age 50, rising to 1.73% at age 65	51.90%	12	Both
35	Illinois	SERS	1.67%; 2.2% for those not covered by Social Security	50.10%	13	Both
36	California	LA County ERS	1.66%; 2.0% for public safety personnel	49.80%	14	No
	Nevada	JRS	3.4091%, subject to a max of 75%	75.00%		No
	Nevada	LRS	Flat dollar benefit of \$25/month per year of service	Flat Dollar		No
			MEAN or AVERAGE	69.84%		
			MEDIAN	69.00%		
			PERS OF NEVADA	75.00%		
			JRS OF NEVADA*	75.00%		

* Not included in Average or Median.

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
1	Alabama	ERS	Ad Hoc(Legislative)		Yes
2	Alabama	Teachers	Ad Hoc(Legislative)		Yes
3	Alaska	Teachers	automatic, based on a % of the CPI depending on retiree's age	Compounded	No
4	Alaska	PERS	automatic based on CPI; annuitant must reside in-state to receive the COLA	Compounded	Both
5	Arizona	Public Safety Personnel	Based on excess earnings, up to 4%		Yes
6	Arizona	SRS	based on excess earnings above 8%, up to 4% annually		Yes
7	Arizona	ERS	Permanent, excess earnings COLA and a 13th check, based on investment performance		Yes
8	Arkansas	PERS	automatic 3%	Compounded	Yes
9	Arkansas	Teachers	automatic 3%	Simple	Yes
10	California	LA County ERS	automatic based on CPI, up to 2%, plus a component based on investment performance	Compounded	No
11	California	San Francisco City & County	ad hoc as approved by the board		Both
12	California	PERS	automatic based on CPI, up to 2%	Compounded	Both
13	California	STRS	Automatic 2%	Simple	No
14	California	San Diego County	automatic based on CPI up to 3%; for those hired after 8/27/09, auto based on CPI up to 2%	Compounded	Both
15	California	Contra Costa County	automatic, based on CPI, up to 4%	Compounded	Both

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
16	Colorado	School	varies by date of retirement; automatic, generally, CPI up to 2%	Compounded	No
17	Colorado	State	varies by date of retirement; automatic, generally, CPI up to 2%	Compounded	No
18	Colorado	Denver Employees	ad hoc, as approved by the board		Yes
19	Colorado	Affiliated Local	based on election of individual participating employers		(sic)
20	Colorado	Fire & Police Statewide	ad hoc as approved by board		Both
21	Colorado	Denver Public Schools	CPI up to 2%	Compounded	No
22	Colorado	Municipal	varies by date of retirement; automatic, generally, CPI up to 2%	Compounded	No
23	Connecticut	Teachers	For members who retired before 9/92, Automatic, based on CPI, with 3% minimum and 5% max (sic)	Compounded	No
24	Connecticut	SERS	automatic based on 60% of CPI, with a minimum of 2.5% and a max of 6.0%	Compounded	Yes
25	Delaware	State Employees	ad hoc as approved by the general assembly		Yes
26	District of Columbia	Police & Fire	automatic based on CPI, up to 3%	Compounded	No
27	District of Columbia	Teachers	automatic based on CPI, up to 3%, for those hired after November 15, 1996	Compounded	No
28	Florida	RS	Automatic 3%; as of 7/1/77, no additional COLA credit will be earned	Compounded	Yes
29	Georgia	ERS	ad hoc as approved by the ERS board		Yes
30	Georgia	Teachers	automatic 1.5% every 6 months as long as CPI increases	Compounded	Yes

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
31	Hawaii	ERS	automatic 2.5%	Simple	Yes
32	Idaho	PERS	automatic 1% (as long as CPI rises at least 1%), plus investment-based increase	Compounded	Yes
33	Illinois	Chicago Teachers	automatic 3%	Compounded	No
34	Illinois	Municipal	automatic 3%; for those first hired after 12/31/10, lesser of 3% or half of CPI	Depends on employer's election	Yes
35	Illinois	Teachers	automatic 3%; for those first hired after 12/31/10, lesser of 3% or half of CPI	Depends on employer's election	No
36	Illinois	SERS	automatic 3%; for those first hired after 12/31/10, lesser of 3% or half of CPI	Depends on employer's election	Both
37	Illinois	Universities	automatic 3%	Compounded	No
38	Indiana	Teachers	ad hoc		Yes
39	Indiana	PERF	ad hoc as approved by the legislature		Yes
40	Iowa	PERS	Non-guaranteed post-retirement payment from a reserve account established from excess investment earnings.		Yes
41	Kansas	PERS	ad hoc as approved by the legislature		Yes
42	Kentucky	ERS	automatic, tied to CPI, not to exceed 1.5% after 12 months of retirement	Compounded	Yes
43	Kentucky	County	automatic, tied to CPI, not to exceed 1.5% after 12 months of retirement	Compounded	Yes
44	Kentucky	Teachers	automatic 1.5%	Compounded	No
45	Louisiana	SERS	lesser of 2% or CPI, plus up to 1% additional based on investment returns		No
46	Louisiana	Teachers	Based on investment returns		No

Table 8

Cost of Living Adjustment Provisions

State	System	Cost-Of-Living	Compounded/ Simple	SS
47 Maine	State and Teacher	effective 7/1/11, COLA is suspended for three years; when it returns, it will be based on the CPI up to 3% applicable to the first \$20k of benefit		No
48 Maine	Local	Based on individual employer election. If provided, based on CPI up to 4%.		Both
49 Maryland	Teachers	Automatic based on CPI, up to 3%	Compounded	Yes
50 Maryland	PERS	Automatic based on CPI, up to 3%	Compounded	Yes
51 Massachusetts	SERS	Automatic, based on CPI up to 3% on first \$13,000 of benefit, compounded; increased to first \$13,000 effective in 2011. COLA is subject to legislative	Compounded	No
52 Massachusetts	Teachers	automatic, based on CPI up to 3% on first \$12,000 of benefit, compounded; increased to first \$13,000 effective in 2011	Compounded	No
53 Michigan	SERS	automatic 3% up to \$300 annually	Simple	Yes
54 Michigan	Public Schools	automatic 3%	Simple	Yes
55 Michigan	Municipal	employers may elect to provide a COLA, on a one-time basis or as an automatic adjustment		Yes
56 Minnesota	PERF	1.0%, compounded, until the plan funding level reaches 90% on a market basis; 2.5 percent thereafter	Compounded	Yes
57 Minnesota	State Employees	automatic 2.0%, compounded, until the plan's funding level reaches 90%, when it will increase to 2.5%	Compounded	Yes
58 Minnesota	Teachers	after 2012, automatic 2.0%, compounded, until the plan's funding level reaches 90%, when it returns to 2.5%	Compounded	Yes
59 Minnesota	Duluth Teachers	2% when market-based funding level is 90% or higher; 1% when market funding level is above 80%; and		Yes

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
60	Minnesota	St. Paul Teachers	Tied to funding level: less than 80% = 1%; 80% to 90% = 2%; >90% = lesser of CPI or 5%.	Compounded	Yes
61	Mississippi	PERS	Automatic 3%, simple, until age 55, then compounded thereafter. For new hires after June 2011, compounding starts at age 60.	Depends on Employee Age	Yes
62	Missouri	DOT and Highway Patrol	80% of increase in CPI, up to 5%	Compounded	Yes
63	Missouri	St. Louis School Employees	ad hoc as approved by the board		Yes
64	Missouri	State Employees	80% of CPI up to 5%; members hired before 8/28/97 receive a minimum of 4% and a maximum of 5%, up to 65% of original benefit, an	Compounded	Yes
65	Missouri	Teachers	automatic based on CPI, not to exceed 5%, with a lifetime cap of 80%	Compounded	No
66	Missouri	PEERS	automatic based on CPI, not to exceed 5%	Compounded	Yes
67	Missouri	Local	Contingent upon investment return, with a max of the lower of 4% or cumulative CPI since retirement		Yes
68	Montana	PERS	automatic 3%	Compounded	Yes
69	Montana	Teachers	automatic 1.5% beginning 3 years after onset of annuity	Compounded	Yes
70	Nebraska	Schools	based on CPI, up to 2.5%	Compounded	Yes
71	Nevada	Regular Employees	After 3 years of receiving benefits, auto 2% annually, rising gradually to 5% annually, after 14 years of receiving benefits; subject to CPI maximum	Compounded	No
72	Nevada	Police Officer and Firefighter	After 3 years of receiving benefits, auto 2% annually, rising gradually to 5% annually, after 14 years of receiving benefits; subject to CPI maximum	Compounded	No

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
73	New Hampshire	Retirement System	ad hoc as approved by the legislature's fiscal committee		Yes
74	New Jersey	Teachers	Legislation approved in 2011 suspended COLAs until the plan funding level reaches 80%, when a panel will assess the prudence of paying a COLA.		Yes
75	New Jersey	Police & Fire	Legislation approved in 2011 suspended COLAs until the plan funding level reaches 80%, when a panel will assess the prudence of paying a COLA.		Yes
76	New Jersey	PERS	Legislation approved in 2011 suspended COLAs until the plan funding level reaches 80%, when a panel will assess the prudence of paying a COLA.		Yes
77	New Mexico	PERF	automatic 3%	Compounded	Yes
78	New Mexico	Teachers	Automatic based on CPI, compounded. When the change in CPI is more than 2%, the COLA is one-half the CPI, but not less than 2%, nor more than 4%.	Compounded	Yes
79	New York	State & Local Police & Fire	Automatic, equal to one-half the CPI. Must be 62 and retired for 5 years, or 55 and retired 10 years, to receive COLA.	Compounded	Yes
80	New York	New York City Teachers	automatic based on CPI, up to 3%	Compounded	Yes
81	New York	Teachers	Automatic, equal to half the CPI, with a minimum of 1% and a maximum of 3%, applied to the first \$18,000 in annual benefits.	Compounded	Yes
82	New York	ERS	Automatic based on half the CPI applied to first \$18,000, compounded. Must be 62 and retired for 5 years, or 55 and retired 10 years, to receive COLA.	Compounded	Yes
83	New York	New York City ERS	N/A		Yes

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
84	North Carolina	Local Government	ad hoc		Yes
85	North Carolina	Teachers and State Employees	ad hoc		Yes
86	North Dakota	PERS	ad hoc as approved by the legislature		Yes
87	North Dakota	Teachers	ad hoc as approved by the legislature		Yes
88	Ohio	Police & Fire	automatic 3%	Simple	No
89	Ohio	School Employees	automatic 3%	Simple	No
90	Ohio	PERS	automatic 3%	Simple	No
91	Ohio	Teachers	automatic 3%	Simple	No
92	Oklahoma	PERS	Ad Hoc (Legislative)		Yes
93	Oklahoma	Teachers	Ad Hoc (Legislature); plan assumption is 2.0%		Yes
94	Oregon	PERS	based on CPI, up to 2%	Compounded	Yes
95	Pennsylvania	School Employees	ad hoc as approved by the general assembly		Yes
96	Pennsylvania	ERS	ad hoc as approved by the general assembly		Yes
97	Rhode Island	ERS	Effective 7/1/12, risk-adjusted COLA targeting 2% annually, compounded. 5-year smoothed investment return less 5.5% with a 0% floor and 4% cap, (sic)	Compounded	Yes
98	Rhode Island	Municipal	Effective 7/1/12, risk-adjusted COLA targeting 2% annually, compounded. 5-year smoothed investment return less 5.5% with a 0% floor and 4% cap, (sic)	Compounded	Yes
99	South Carolina	Police	lesser of one percent or \$500		Yes
100	South Carolina	RS	lesser of one percent or \$500		Yes

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
101	South Dakota	PERS	Indexed to CPI and funded status, with a minimum of 2.1% and a maximum of 3.1%		Yes
102	Tennessee	State and Teachers	automatic based on CPI, up to 3%	Compounded	Yes
103	Tennessee	Political Subdivisions	participating employers may choose from 1 of 3 options: a) no COLA; b) automatic based on CPI, up to 3%, compounded, or c) same as b), except simple	Depends on employer's election	Yes
104	Texas	Teachers	ad hoc, as approved by the legislature, contingent on funding period of less than 31 years		No
105	Texas	County & District	ad hoc, approved by individual employers		Yes
106	Texas	Houston Firefighters	automatic 3%	Compounded	No
107	Texas	ERS	ad hoc as approved by the legislature; per state constitution, plan's amortization period must be less than 31 years for legislature to approve a COLA		Yes
108	Texas	Municipal	based on individual employer election; employers may choose no COLA or based on 30%, 50%, or 70% of CPI	Compounded	Yes
109	Texas	City of Austin ERS	ad hoc as approved by the board		Yes
110	Texas	LECOS	ad hoc as approved by the legislature; per state constitution, plan's amortization period must be less than 31 years for legislature to approve a COLA		Yes
111	Utah	Noncontributory	For those hired before 7/1/11, automatic based on CPI up to 4%. For those hired after 6/30/11, based on CPI to 2.5%	Simple	Yes
112	Vermont	Teachers	automatic based on one-half of CPI, up to 5%	Compounded	Yes

Table 8

Cost of Living Adjustment Provisions

	State	System	Cost-Of-Living	Compounded/ Simple	SS
113	Vermont	State Employees	automatic based on CPI, up to 5%	Compounded	Yes
114	Virginia	Retirement System	automatic based on CPI up to 5%; 3% for non-vested members as of 1/1/3		Yes
115	Virginia	Fairfax County Schools	automatic 3%	Compounded	Yes
116	Washington	PERS 1	automatic, service-based, dollar amount of COLA increases by 3% annually	Compounded	Yes
117	Washington	LEOFF Plan 1	automatic, full CPI	Compounded	Yes
118	Washington	PERS 2/3	automatic, based on CPI, up to 3%	Compounded	Yes
119	Washington	Teachers Plan 1	automatic, service-based, dollar amount of COLA increases by 3% annually	Compounded	Yes
120	Washington	Teachers Plan 2/3	automatic based on CPI up to 3%	Compounded	Yes
121	Washington	School Employees Plan 2/3	Automatic, based on CPI, up to 3%		Yes
122	Washington	LEOFF Plan 2	automatic based on CPI, up to 3%	Compounded	Yes
123	West Virginia	Teachers	ad hoc as approved by the legislature		Yes
124	West Virginia	PERS	ad hoc as approved by the legislature		Yes
125	Wisconsin	Retirement System	based on investment returns, and can increase and decrease, but not below base benefit		Yes
126	Wyoming	Public Employees	Removed effective 7/1/12 until the actuarial funded ratio reaches 100% plus the additional percentage the retirement board determines is reasonable		Yes
	Nevada	JRS	After 3 years of receiving benefits, auto 2% annually, rising gradually to 5% annually, after 14 years of receiving benefits; subject to CPI maximum	Compounded	No

Table 8

Cost of Living Adjustment Provisions

State	System	Cost-Of-Living	Compounded/ Simple	SS
Nevada	LRS	After 3 years of receiving benefits, auto 2% annually, rising gradually to 5% annually, after 14 years of receiving benefits; subject to CPI maximum	Compounded	No

Table 9

Normal Retirement Eligibility

	State	System	Normal Retirement Eligibility	SS
1	Alabama	ERS	any/25, 60/10	Yes
2	Alabama	Teachers	any/25, 60/10	Yes
3	Alaska	Teachers	60/8, any/20	No
4	Alaska	PERS	60/5, any/30; also applies to public safety workers	Both
5	Arizona	Public Safety Personnel	62/15, any/20	Yes
6	Arizona	SRS	65/any, 62/10, Rule of 80; Rule of 85 for new hires after 6/30/11	Yes
7	Arizona	ERS	60/10, 62/5, Rule of 80	Yes
8	Arkansas	PERS	65/5, any/28, 55/35	Yes
9	Arkansas	Teachers	any/28, 60/5	Yes
10	California	LA County ERS	50/10, any/30; 50/10, any/20 for public safety personnel	No
11	California	San Francisco City & County	50/20, 60/10; for public safety personnel, 50/25	Both
12	California	PERS	60/5; 50/5 or 55/5 for public safety personnel, depending on employer election	Both
13	California	STRS	60/5	No
14	California	San Diego County	60/10, any/30, 70/any; 50/10; 62/10, 55/30 for those hired after 8/27/09, 62/10	Both
15	California	Contra Costa County	50/10, any/30, 70/any; 50/10, any/20 for public safety	Both
16	Colorado	School	65/5; hired before 7/1/05: 50/30, Rule of 80 w/min age 55; hired 7/1/05-12/31/06: any/35, Rule of 80	No
17	Colorado	State	65/5; hired before 7/1/05: 50/30, Rule of 80 w/min age 55; hired 7/1/05-12/31/06: any/35, Rule of 80	No

Table 9

Normal Retirement Eligibility

State	System	Normal Retirement Eligibility	SS
18 Colorado	Denver Employees	65/any, rule of 75 at age 55	Yes
19 Colorado	Affiliated Local	Varies by plan, but is age 50 or 55 with 20 or 25 years of service for most plans	(sic)
20 Colorado	Fire & Police Statewide	55/25 w/2.0% factor; otherwise, 55/5 with 1.5% factor	Both
21 Colorado	Denver Public Schools	For those vested (5 yrs) as of 1/1/11, 50/30, 55/25, 65/5; for those not vested as of 1/1/11, any/35	No
22 Colorado	Municipal	65/5; hired before 7/1/05: 50/30, Rule of 80 w/min age 55; hired 7/1/05-12/31/06: any/35, Rule of 80	No
23 Connecticut	Teachers	60/20, any/35	No
24 Connecticut	SERS	62/5, 60/25; any/20 for public safety personnel	Yes
25 Delaware	State Employees	62/5, 60/15, any/30	Yes
26 District of Columbia	Police & Fire	55/5, any/25	No
27 District of Columbia	Teachers	62/5, 60/20, 55/30	No
28 Florida	RS	62/6, any/30; 55/6, any/25 for public safety personnel; for new hires as of 7/1/11, 65/8, any/33	Yes
29 Georgia	ERS	65/10, any/30	Yes
30 Georgia	Teachers	60/10, any/30	Yes
31 Hawaii	ERS	62/5, 55/30 for hybrid plan; 55/5, any/25 for public safety personnel	Yes
32 Idaho	PERS	65/5; 60/5 for public safety personnel	Yes
33 Illinois	Chicago Teachers	55/20, 62/5; 67/10 for those hired after 12/31/10	No
34 Illinois	Municipal	55/35, 60/8; 50/20 for law enforcement personnel	Yes

Table 9

Normal Retirement Eligibility

State	System	Normal Retirement Eligibility	SS
35 Illinois	Teachers	62/5, 60/10, 55/35; for those first hired after 12/31/10, 67/10	No
36 Illinois	SERS	60/8, Rule of 85; 67/10 for those hired after 12/31/10	Both
37 Illinois	Universities	62/5, 55/8, any/35	No
38 Indiana	Teachers	65/10, 60/15, Rule of 85 at age 55	Yes
39 Indiana	PERF	65/10, 60/15, Rule of 85	Yes
40 Iowa	PERS	65/any, 62/20, Rule of 88; 55/any for public safety	Yes
41 Kansas	PERS	65/any, 62/10, Rule of 85; 65/5, 60/30 for those hired after 6/30/09	Yes
42 Kentucky	ERS	Non-hazardous: 65/any, any/27; Hazardous: 55/any, any/20; those hired after 8/31/08, non-hazardous	Yes
43 Kentucky	County	Non-hazardous: 65/any, any/27; Hazardous: 55/any, any/20	Yes
44 Kentucky	Teachers	60/27, 55/5; for those joining after 6/30/08, 60/27, 55/10	No
45 Louisiana	SERS	any/30, 60/10, 55/25; for regular members hired after 12/31/10, 60/5	No
46 Louisiana	Teachers	60/5, 55/25, any/30	No
47 Maine	State and Teacher	60/5, 62/5, 62/10; any/25 for state police; unvested workers as of 7/1/11 (not incl. state police)	No
48 Maine	Local	60/5	Both
49 Maryland	Teachers	any/30, 62/5, 63/4, 64/3, 65/2	Yes
50 Maryland	PERS	any/30, 62/5, 63/4, 64/3, 65/2; for those hired after 6/30/10, Rule of 90, 65/10	Yes
51 Massachusetts	SERS	65/10, any/20; 60/10 for public safety	No

Table 9

Normal Retirement Eligibility

	State	System	Normal Retirement Eligibility	SS
			personnel	
52	Massachusetts	Teachers	65/10, any/20	No
53	Michigan	SERS	60/10, 55/30	Yes
54	Michigan	Public Schools	any/30, 60/10, 60/5 for those who work thru their 60th birthday and have svc credit in each of the 5 prior yrs; for those hired after 06/30/10, 60/10	Yes
55	Michigan	Municipal	60/10; participating employers may also choose other retirement criteria	Yes
56	Minnesota	PERF	Upon attaining normal Social Security retirement age, not to exceed 66	Yes
57	Minnesota	State Employees	Same age as eligibility for full Social Security benefits, not to exceed age 66	Yes
58	Minnesota	Teachers	Upon attaining normal Social Security retirement age, not to exceed 66	Yes
59	Minnesota	Duluth Teachers	Same as age of eligibility for full Social Security benefits, not to exceed age 66	Yes
60	Minnesota	St. Paul Teachers	65/3	Yes
61	Mississippi	PERS	60/4, any/25; 60/8 for those hired after 6/30/07	Yes
62	Missouri	DOT and Highway Patrol	62/5, Rule of 80 for those hired before 1/1/10; 67/10, Rule of 90 for those hired since	Yes
63	Missouri	St. Louis School Employees	65/any, Rule of 85	Yes
64	Missouri	State Employees	62/5, Rule of 80 for MSEP 2000; MSEP: 65/4 if active, 65/5, 60/15, Rule of 80; for those hired on (sic)	Yes
65	Missouri	Teachers	60/5, any/30, Rule of 80	No
66	Missouri	PEERS	60/5, any/30, Rule of 80	Yes
67	Missouri	Local	60/5; 55/5 for public safety personnel	Yes

Table 9

Normal Retirement Eligibility

State	System	Normal Retirement Eligibility	SS
68 Montana	PERS	any/30, 65/any, 60/5	Yes
69 Montana	Teachers	any/25, 60/5	Yes
70 Nebraska	Schools	65/5, Rule of 85, any/35	Yes
71 Nevada	Regular Employees	65/5, 60/10, any/30; for new hires on or after 1/1/10: 65/5, 62/10, any/30	No
72 Nevada	Police Officer and Firefighter	55/10, 50/20, any/25; 60/10 for those hired on or after 1/1/10: 65/5, 60/10, 50/20, any/30	No
75 New Hampshire	Retirement System	60/any for general employees and teachers; 45/20, 60/any for police and fire	Yes
76 New Jersey	Teachers	60/10	Yes
77 New Jersey	Police & Fire	55/10	Yes
78 New Jersey	PERS	60/10; 62/10 for those hired after 2007	Yes
79 New Mexico	PERF	65/5, 64/8, 63/11, 62/14, 61/17, 60/20, any/25; for those hired after 6/30/10, any/30, Rule of 80	Yes
80 New Mexico	Teachers	For those hired before 7/1/10: 65/5, any/25, Rule of 75 at age 60. For those hired after 6/30/10: Rule of 80, 67/5, any/30	Yes
81 New York	State & Local Police & Fire	62/5 for most; 62/10 for those hired since 1/1/10	Yes
82 New York	New York City Teachers	62/5, 55/30	Yes
83 New York	Teachers	the plan has 6 tiers based on hire date; for Tier 6 members, hired on or after 4/1/12, age 63 with 10 years of service	Yes
84 New York	ERS	For those hired 2010 to 3/31/12, 62/10; those hired after 3/31/12, 63/10	Yes
85 New York	New York City ERS	62/5	Yes
86 North Carolina	Local Government	65/5, 60/25, any/30; 55/5 for public safety personnel	Yes

Table 9

Normal Retirement Eligibility

State	System	Normal Retirement Eligibility	SS
87 North Carolina	Teachers and State Employees	65/5, 60/25, any/30; 55/5 for public safety personnel	Yes
88 North Dakota	PERS	65/3, Rule of 85; 55/3 for public safety personnel	Yes
89 North Dakota	Teachers	65/3, Rule of 85 for those hired before 7/1/08; 65/5 or Rule of 90 for those hired after 6/30/08	Yes
90 Ohio	Police & Fire	48/25, 62/15	No
91 Ohio	School Employees	60/5, 55/25, any/30; for those hired after 5/14/08: 62/10, 60/25, 55/30	No
92 Ohio	PERS	60/5, 55/25, any/30; for law enforcement officers, 48/25	No
93 Ohio	Teachers	65/30	No
94 Oklahoma	PERS	62/8, Rule of 90; members who joined before 7/1/92 qualify for the Rule of 80; (sic)	Yes
95 Oklahoma	Teachers	62/5, Rule of 90; members who joined before 7/1/92 qualify for the Rule of 80	Yes
96 Oregon	PERS	60/5; those hired after August 04 participate in the hybrid plan, w/65/any or 58/30; 60/any or 53/25	Yes
97 Pennsylvania	School Employees	62/1, 60/30, any/35; for new hires after 6/30/11: 65/3 or Rule of 92 with 35 years of service	Yes
98 Pennsylvania	ERS	60/3, any/35; 50/any, any/20 for state police	Yes
99 Rhode Island	ERS	Varies based on date of hire and retirement eligibility as of 9/30/09. for unvested (10 yrs) participants, Social Security NRA with 5 yrs svc	Yes
100 Rhode Island	Municipal	58/10, any/30; 55/10, any/25 for public safety personnel. New hybrid plan effective 7/1/12 for most	Yes
101 South Carolina	Police	55/5, any/25	Yes

Table 9

Normal Retirement Eligibility

	State	System	Normal Retirement Eligibility	SS
102	South Carolina	RS	65/5, any/28	Yes
103	South Dakota	PERS	65/3, Rule of 85; 55/3; Rule of 75 for public safety personnel	Yes
104	Tennessee	State and Teachers	60/5, any/30	Yes
105	Tennessee	Political Subdivisions	60/5, any/30	Yes
106	Texas	Teachers	65/5, Rule of 80; for those hired after 8/31/07, Rule of 80 must also be age 60	No
107	Texas	County & District	60/8, any/30, Rule of 75	Yes
108	Texas	Houston Firefighters	any/20	No
109	Texas	ERS	60/5, Rule of 80; 65/10 for those hired after 2009	Yes
110	Texas	Municipal	depends on ER election; most have chosen 60/5 and 50/25 or any/25	Yes
111	Texas	City of Austin ERS	62/5, any/23, 55/20	Yes
112	Texas	LECOS	50/any, Rule of 80, any/20	Yes
113	Utah	Noncontributory	any/30, 65/4	Yes
114	Vermont	Teachers	62/any, any/30; for those more than five years from normal retirement as of 6/30/10, 65/any or Rule (sic)	Yes
115	Vermont	State Employees	62/any, any/30	Yes
116	Virginia	Retirement System	65/5, 50/30	Yes
117	Virginia	Fairfax County Schools	60/5, any/30	Yes
118	Washington	PERS 1	60/5, 55/25, any/30	Yes
119	Washington	LEOFF Plan 1	50/5	Yes
120	Washington	PERS 2/3	65/5	Yes
121	Washington	Teachers Plan 1	any/30, 60/5, 55/25	Yes

Table 9

Normal Retirement Eligibility

	State	System	Normal Retirement Eligibility	SS
122	Washington	Teachers Plan 2/3	65/any	Yes
123	Washington	School Employees Plan 2/3	65/5	Yes
124	Washington	LEOFF Plan 2	50/20, 53/5	Yes
125	West Virginia	Teachers	60/5, 55/30, any/35	Yes
126	West Virginia	PERS	60/5, Rule of 80 at age 55 or higher	Yes
127	Wisconsin	Retirement System	65/any; 55/any for public safety personnel	Yes
128	Wyoming	Public Employees	60/4, Rule of 85; for law enforcement personnel, any/25 at age 50	Yes
	Nevada	JRS	65/5, 60/10, any/30	No
	Nevada	LRS	60/8 before 1/7/85; 60/10	No

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Table 10

The following pages contain a list, by state, of systems and plans referenced in this report. Where a given system is made up of several plans or funds, that hierarchy is indicated. This listing, which includes acronyms and commonly-used names for entities, may be used by readers as an index to determine to which system, plan, or fund a given data entry refers.

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
Alabama	<u>RSA</u> - Retirement Systems of Alabama	<i>ERS</i>	<i>Alabama Employees' Retirement System</i>
		<i>JRF</i>	<i>Alabama Judicial Retirement Fund</i>
		<i>TRS</i>	<i>Alabama Teachers' Retirement System</i>
Alaska	<u>DRB</u> - Alaska Department of Retirement and Benefits	<i>EPORS</i>	<i>Alaska Elected Public Officials Retirement System</i>
		<i>JRS</i>	<i>Alaska Judicial Retirement System</i>
		<i>NGNMRS</i>	<i>National Guard and Naval Militia Retirement System</i>
		<i>PERS Tiers I, II, and III</i>	<i>Alaska Public Employees' Retirement System</i>
		<i>TRS Tiers I & II</i>	<i>Alaska Teachers' Retirement System</i>
Arizona	<u>ASRS</u> - Arizona State Retirement System	<i>PSPRS</i>	<i>Public Safety Personnel Retirement System</i>
		<i>SRS</i>	<i>State Retirement System</i>
		<u>PERS</u> – Phoenix Employees Retirement System	

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
Arkansas	<u>APERS</u> - Arkansas Public Employees' Retirement System	<i>Contributory</i>	<i>Arkansas Public Employees' Retirement System - Contributory</i>
		<i>Noncontributory</i>	<i>Arkansas Public Employees' Retirement System - Noncontributory</i>
	<u>ATRS</u> - Arkansas Teachers Retirement System		
California	<u>CalPERS</u> - California Public Employees' Retirement System	<i>PERF</i>	<i>California Public Employees' Retirement Fund</i>
		<i>LRF</i>	<i>California Legislators Retirement Fund</i>
		<i>JRF & JRF II</i>	<i>California Judges Retirement Fund and II</i>
	<u>CalSTRS</u> - California State Teachers' Retirement System		
LACERA - Los Angeles County Employees Retirement Association			
<u>SFERS</u> - San Francisco City and County Retirement System			
<u>SDCERA</u> – San Diego County Employees Retirement Association			
<u>CCCERA</u> – Contra Costa County Employees Retirement Association			
Colorado	<u>FPPA</u> - Fire and Police Pension Association of Colorado	<i>Affiliated</i>	<i>Affiliated Local Plans</i>
		<i>Defined Benefit</i>	<i>Defined Benefit System</i>
	<u>PERA</u> - Colorado Public Employees' Retirement Association		

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>Judicial</i>	<i>Colorado Public Employees' Retirement System, Judicial Division</i>
		<i>Local/Municipal</i>	<i>Colorado Public Employees' Retirement System, Local Government Division</i>
		<i>School</i>	<i>Colorado Public Employees' Retirement System, School Division</i>
		<i>State</i>	<i>Colorado Public Employees' Retirement System, State Division</i>

DERP - Denver Employees Retirement Plan

Connecticut	<u>SERC</u> - Connecticut State Employees' Retirement Commission		
		<i>CMERS</i>	<i>Connecticut Municipal Employees' Retirement System</i>
		<i>PJERS</i>	<i>Connecticut Probate Judges and Employees' Retirement System</i>
		<i>SERS Tiers I, II, IIA, III, and Hybrid</i>	<i>Connecticut State Employees' Retirement System, Tiers I, II, IIA, III, and Hybrid</i>

TRS - Connecticut Teachers' Retirement System

Delaware	<u>DPERS</u> - Delaware Public Employees' Retirement System		
		<i>CMPP</i>	<i>Delaware County and Municipal Pension Plan</i>
		<i>CMFPFP</i>	<i>Delaware County and Municipal Police and Firefighters Pension Plan</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>JPP</i>	<i>Delaware Judiciary Pension Plan</i>
		<i>SPPP (New and Closed)</i>	<i>Delaware New/Closed State Police Pension Plan</i>
		<i>SEPP</i>	<i>Delaware State Employees' Pension Plan</i>
Delaware	<u>DCRB</u> - District of Columbia Retirement Board		
Florida	<u>FRS</u> - Florida Retirement System		
		<i>FRS</i>	<i>Florida Retirement System Pension Plan (DB)</i>
		<i>HPPF</i>	<i>Highway Patrol Pension Fund</i>
		<i>JRS</i>	<i>Judicial Retirement System</i>
		<i>SCOERS</i>	<i>State and County Officials and Employees' Retirement System</i>
		<i>TRS</i>	<i>Teachers' Retirement System</i>
Georgia	<u>ERS</u> - Employees' Retirement System of Georgia		
		<i>ERS</i>	<i>Georgia Employees' Retirement System</i>
		<i>LRS</i>	<i>Georgia Legislative Retirement System</i>
		<i>PSERS</i>	<i>Georgia Public School Employees' Retirement System</i>
		<i>GJRS</i>	<i>Georgia Judicial Retirement System</i>
		<i>GMPPF</i>	<i>Georgia Military Pension Fund</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
	<u>TRS</u> - Teachers' Retirement System of Georgia		
Hawaii	<u>ERS</u> - Hawaii Employees' Retirement System	<i>Contributory</i>	<i>Contributory Retirement Plan</i>
		<i>Noncontributory</i>	<i>Noncontributory Retirement Plan</i>
		<i>Hybrid</i>	<i>Hybrid Retirement Plan</i>
Idaho	<u>PERSI</u> - Public Employees' Retirement System of Idaho		
Illinois	<u>IMRF</u> - Illinois Municipal Retirement Fund		
	<u>SRS</u> - State Retirement Systems of Illinois		
	<u>SURS</u> - State University Retirement System of Illinois		
	<u>TRS</u> - Teachers' Retirement System of the State of Illinois		
	<u>CTPF</u> - Chicago Public School Teachers Pension and Retirement Fund		
Indiana	<u>InPERS</u> - Indiana Public Employees' Retirement System	<i>1977 Fund</i>	<i>1977 Police Officers and Fire Fighters' Pension and Disability Fund</i>
		<i>Judges</i>	<i>Judges' Retirement Fund</i>
		<i>Legislators</i>	<i>Legislators' Retirement System</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>PERF</i>	<i>Public Employees' Retirement Fund</i>
		<i>Prosecutors</i>	<i>Prosecuting Attorneys' Retirement Fund</i>
		<i>TRF</i>	<i>Teachers' Retirement Fund</i>
Iowa	<u>IPERS</u> - Iowa Public Employees' Retirement System		
Kansas	<u>KPERS</u> - Kansas Public Employees' Retirement System	<i>Judges</i>	<i>Kansas Retirement System for Judges</i>
		<i>KPERS</i>	<i>Kansas Public Employees' Retirement System</i>
		<i>KP&F</i>	<i>Kansas Police and Firemen's Retirement System</i>
Kentucky	<u>KRS</u> - Kentucky Retirement System	<i>CERS</i>	<i>Kentucky County Employees' Retirement System</i>
		<i>KERS</i>	<i>Kentucky Employees' Retirement System</i>
		<i>SPRS</i>	<i>Kentucky State Police Retirement System</i>
	<u>KTRS</u> - Kentucky Teachers' Retirement System		
Louisiana	<u>LASERS</u> - Louisiana State Employees' Retirement System		

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>Corrections</i>	<i>Corrections Employees' Retirement System</i>
		<i>Judges</i>	<i>Judges' Retirement System</i>
		<i>Legislators</i>	<i>Legislators' Retirement System</i>
		<i>Regular Employees</i>	<i>Regular State Employees' Retirement System</i>
	<u>TRSL</u> - Teachers' Retirement System of Louisiana		
Maine	<u>MainePERS</u> - Maine Public Employees' Retirement System		
		<i>Judicial</i>	<i>Maine Judicial Retirement Program</i>
		<i>Legislative</i>	<i>Maine Legislative Retirement Program</i>
		<i>Local</i>	<i>Participating Local District Retirement Program</i>
		<i>State and Teacher</i>	<i>Maine State Employee and Teacher Program</i>
Maryland	<u>MSRPS</u> - Maryland State Retirement and Pension System		
		<i>ERS</i>	<i>Maryland Employees' Retirement System</i>
		<i>CORS</i>	<i>Correctional Officers Retirement System</i>
		<i>Legislative</i>	<i>Legislative Pension Plan</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>JRS</i>	<i>Judicial Retirement System</i>
		<i>LEOPS</i>	<i>Law Enforcement Officers Pension System</i>
		<i>SPRS</i>	<i>State Police Retirement System</i>
		<i>TRS</i>	<i>Maryland Teachers' Retirement System</i>
Massachusetts	<u>MTRS</u> - Massachusetts Teachers' Retirement System		
	<u>PERAC</u> - Massachusetts Public Employees' Retirement Administration Commission/State Board of Retirement		
Michigan	<u>MERS</u> - Michigan Employees' Retirement System of Michigan		
	<u>ORS</u> - Michigan Office of Retirement Services		
		<i>JRS</i>	<i>Michigan Judicial Retirement System</i>
		<i>PSERS</i>	<i>Michigan Public School Employees' Retirement System</i>
		<i>SERS</i>	<i>State Employees' Retirement System, State of Michigan</i>
		<i>SPRS</i>	<i>Michigan State Police Retirement System</i>
Minnesota	<u>PERA</u> - Public Employees' Retirement Association of Minnesota		
		<i>Coordinated</i>	<i>Coordinated Plan of the Public Employees' Retirement Association</i>
		<i>Correctional</i>	<i>Public Employees' Retirement Association Correctional Plan</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>P&F</i>	<i>Public Employees' Retirement Association Police and Fire Plan</i>
	<u>SRS</u> - State Retirement System of Minnesota		
		<i>Correctional</i>	<i>Correctional Employees' Retirement Plan</i>
		<i>General</i>	<i>General Employees' Retirement Plan</i>
		<i>Judges</i>	<i>Judges' Retirement Plan</i>
		<i>State Patrol</i>	<i>State Patrol Retirement Plan</i>
	<u>TRA</u> - Teachers' Retirement Association of Minnesota		
	<u>DTRFA</u> - Duluth Teachers Retirement Fund Association		
	<u>SPTRFA</u> - St. Paul Teachers Retirement Fund Association		
Mississippi	<u>PERS</u> - Public Employees' Retirement System of Mississippi		
		<i>MHSPRS</i>	<i>Mississippi Highway Safety Patrol Retirement System</i>
		<i>PERS</i>	<i>Public Employees' Retirement System of Mississippi</i>
		<i>SLRP</i>	<i>Supplemental Legislative Retirement Plan of Mississippi</i>
Missouri	<u>CERE</u> - County Employees' Retirement Fund of Missouri		
	<u>LAGERS</u> - Missouri Local Government Retirement System		
	<u>MOSERS</u> - Missouri State Employees' Retirement System		
		<i>Judicial</i>	<i>Missouri Judicial Retirement Plan</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>MSEP</i>	<i>Missouri State Employee Retirement Plan</i>
	<u>MPERS</u> - Missouri Department of Transportation and Patrol Employees' Retirement System		
	<u>PEERS/PSERS</u> - Public Education Employees'/Public School Employees' Retirement System of Missouri		
	<u>PSRSSTL</u> - St. Louis Public School Retirement System		
Montana	<u>MPERA</u> - Montana Public Employees' Retirement Administration		
		<i>FURS</i>	<i>Firefighters Unified Retirement System of Montana</i>
		<i>HPORS</i>	<i>Highway Patrol Officers' Retirement System</i>
		<i>JRS</i>	<i>Judicial Retirement System</i>
		<i>MPORS</i>	<i>Municipal Police Officers' Retirement System</i>
		<i>PERS</i>	<i>Public Employees' Retirement System</i>
		<i>SRS</i>	<i>Sheriffs' Retirement System</i>
	<u>TRS</u> - Montana Teachers' Retirement System		
STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
Nebraska	<u>NPERS</u> - Nebraska Public Employees' Retirement Systems		
		<i>County</i>	<i>Nebraska County Retirement Plan</i>
		<i>Judges</i>	<i>Nebraska Judicial Retirement Plan</i>
		<i>Patrol</i>	<i>Nebraska State Patrol Retirement Plan</i>
		<i>School</i>	<i>Nebraska School Retirement System</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>State</i>	<i>Nebraska State Employees' Retirement Plan</i>
Nevada	<u>PERS</u> - Public Employees' Retirement System of Nevada	<i>Judicial</i>	<i>Nevada Judicial Plan</i>
		<i>Legislative</i>	<i>Nevada Legislative Plan</i>
		<i>Police and Fire</i>	<i>Nevada Police and Fire Plan</i>
		<i>Regular</i>	<i>Nevada Regular Plan</i>
New Hampshire	<u>NHRS</u> - New Hampshire Retirement System	<i>Group 1</i>	<i>Employees' and Teachers' Plan</i>
		<i>Group 2</i>	<i>Police and Fire Plan</i>
New Jersey	<u>DPB</u> - New Jersey Division of Pensions and Benefits	<i>JRS</i>	<i>New Jersey Judicial Retirement System</i>
		<i>PFRS</i>	<i>New Jersey Police and Fire Retirement System</i>
		<i>PERS</i>	<i>New Jersey Public Employees' Retirement System</i>
		<i>SPRS</i>	<i>State Police Retirement System</i>
		<i>TPAF</i>	<i>New Jersey Teacher's Pension and Annuity Fund</i>
New Mexico	<u>ERB</u> - New Mexico Educational Retirement Board		

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
	<u>PERA</u> - Public Employees' Retirement Association of New Mexico		
		<i>JRA</i>	<i>Judicial Retirement Association</i>
		<i>LRP</i>	<i>Legislative Retirement Plans</i>
		<i>MRA</i>	<i>Magistrate Retirement Association</i>
		<i>PERA</i>	<i>Public Employees' Retirement Association</i>
New York	<u>NYSLRS</u> - New York State and Local Retirement System		
		<i>ERS</i>	<i>Employees' Retirement System</i>
		<i>PFRS</i>	<i>Police and Fire Retirement System</i>
	<u>NYSTRS</u> - New York State Teachers' Retirement System		
	<u>NYCERS</u> - New York City Employees Retirement System		
	<u>NYCTRS</u> - New York City Teachers' Retirement System		
North Carolina	<u>NCRS</u> - North Carolina Retirement Systems		
		<i>CJRS</i>	<i>Consolidated Judicial Retirement System</i>
		<i>LGERS</i>	<i>Local Governmental Employees' Retirement System</i>
		<i>LRS</i>	<i>Legislative Retirement System</i>
		<i>TSERS</i>	<i>Teachers and State Employees' Retirement System</i>
North Dakota	<u>NDPERS</u> - North Dakota Public Employees' Retirement System		

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>HPRS</i>	<i>Highway Patrol Retirement System</i>
		<i>PERS</i>	<i>Public Employees' Retirement System</i>
	<u>TFFR</u> - North Dakota Teachers' Fund for Retirement		
Ohio	<u>OPERS</u> - Ohio Public Employees' Retirement System		
		<i>Combined</i>	<i>Combined Plan (DB and DC)</i>
		<i>Traditional</i>	<i>Traditional Plan (DB)</i>
	<u>OP&F</u> - Ohio Police and Fire Pension Fund		
	<u>SERS</u> - School Employees' Retirement System of Ohio		
	<u>STRS</u> - State Teachers' Retirement System of Ohio		
		<i>Combined</i>	<i>STRS Ohio Combined Plan (DB and DC)</i>
		<i>DB</i>	<i>STRS Ohio Defined Benefit Plan</i>
Oklahoma	<u>OPERS</u> - Oklahoma Public Employees' Retirement System		
	<u>TRS</u> - Oklahoma Teachers' Retirement System		
Oregon	<u>PERS</u> - Oregon Public Employees' Retirement System		
Pennsylvania	<u>PSERS</u> - Pennsylvania Public School Employees' Retirement System		
	<u>SERS</u> - Pennsylvania State Employees' Retirement System		
Rhode Island	<u>ERSRI</u> - Employees' Retirement System of Rhode Island		

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>ERS</i>	<i>Rhode Island Employees' Retirement System</i>
		<i>MERS</i>	<i>Rhode Island Municipal Employees' Retirement System</i>
South Carolina	<u>SCRS</u> - South Carolina Retirement System		
		<i>GARS</i>	<i>General Assembly Retirement System</i>
		<i>JSRS</i>	<i>Judges and Solicitors' Retirement System</i>
		<i>NGRS</i>	<i>National Guard Retirement System</i>
		<i>PORS</i>	<i>Police Officers' Retirement System</i>
		<i>SCRS</i>	<i>South Carolina Retirement System</i>
South Dakota	<u>SDRS</u> - South Dakota Retirement System		
Tennessee	<u>CRS</u> - Tennessee Consolidated Retirement Systems		
		<i>Political Subdivisions</i>	<i>Tennessee Political Subdivisions and Local Governments</i>
		<i>SETHEPP</i>	<i>Tennessee State Employees, Teachers, Higher Education Employees' Pension Plan</i>
Texas	<u>ERS</u> - Employees' Retirement System of Texas		
		<i>ERS</i>	<i>Employees' Retirement System</i>
		<i>LECOS</i>	<i>Law Enforcement and Custodial</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
			<i>Officers' System</i>
		<i>JRS I & II</i>	<i>Judges' Retirement System I and II</i>
	<u>TCDRS</u> - Texas County and District Retirement System		
	<u>TMRS</u> - Texas Municipal Retirement System		
	<u>TRS</u> - Teacher Retirement System of Texas		
	<u>HFRRF</u> - Houston Firefighters Relief and Retirement Fund		
	<u>AERS</u> - Austin Employees Retirement System		
Utah	<u>URS</u> - Utah Retirement Systems	<i>Contributory</i>	<i>Utah Public Employees' Contributory Retirement System</i>
		<i>Firefighters</i>	<i>Utah Public Employees' Firefighters' Retirement System</i>
		<i>Governors' and Legislators'</i>	<i>Utah Public Employees' Governors' and Legislators' Retirement System</i>
		<i>Judges'</i>	<i>Utah Public Employees' Judges' Retirement System</i>
		<i>Noncontributory</i>	<i>Utah Public Employees' Noncontributory Retirement System</i>
		<i>Public Safety</i>	<i>Utah Public Employees' Public Safety Retirement System</i>
		Vermont	<u>VMERS</u> - Vermont Municipal Employees' Retirement System
<u>VSERS</u> - Vermont State Employees' Retirement System			
		<i>Group A</i>	<i>Original State Employees' Retirement Plan (predecessor to Group F)</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>Group C</i>	<i>State Law Enforcement Officers' Retirement Plan</i>
		<i>Group D</i>	<i>Judges' Retirement Plan</i>
		<i>Group F</i>	<i>State Employees' Retirement Plan</i>
	<u>VSTRS</u> - Vermont State Teachers' Retirement System		
Virginia	<u>VRS</u> - Virginia State Retirement System		
		<i>VaLORS</i>	<i>Virginia Law Enforcement Officers' Retirement System</i>
		<i>VRS</i>	<i>Virginia Retirement System</i>
		<i>SPORS</i>	<i>State Police Officers' Retirement System</i>
		<i>JRS</i>	<i>Judicial Retirement System</i>
	<u>ERFC</u> - Educational Employees Supplementary Retirement System of Fairfax County		
Washington	<u>DRS</u> - Washington Department of Retirement Systems		
		<i>JRS</i>	<i>Judges' Retirement System</i>
		<i>LEOFF, Plans 1 & 2</i>	<i>Law Enforcement Officers' and Firefighters' Retirement System, Plans 1 and 2</i>
		<i>PERS, Plans 1, 2 & 3</i>	<i>Washington Public Employees' Retirement System, Plans 1, 2 & 3</i>
		<i>PSERS</i>	<i>Public Safety Employees' Retirement System</i>

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
		<i>SERS, Plans 2 & 3</i>	<i>Washington School Employees' Retirement System, Plans 2 and 3</i>
		<i>TRS, Plans 1, 2 & 3</i>	<i>Washington Teachers' Retirement System, Plans 1, 2 and 3</i>
		<i>WSPRS</i>	<i>Washington State Patrol Retirement System</i>
West Virginia	<u>CPRB</u> - West Virginia Consolidated Public Retirement Board		
		<i>DSRS</i>	<i>Deputy Sheriff's Retirement System</i>
		<i>EMSRS</i>	<i>Emergency Medical Services Retirement System</i>
		<i>JRS</i>	<i>Judges' Retirement System</i>
		<i>MPFRS</i>	<i>Municipal Police Officers' and Firefighters' Retirement System</i>
		<i>PERS</i>	<i>Public Employees' Retirement System</i>
		<i>Troopers, Plans A & B</i>	<i>State Police Retirement System, Plans A and B</i>
		<i>TRS</i>	<i>Teachers' Retirement System</i>
Wisconsin	<u>WRS</u> - Wisconsin Retirement System		

Table 10

STATE	SYSTEM	PLANS/FUNDS	COMPLETE NAMES
Wyoming	<u>WRS</u> - Wyoming Retirement System	<i>Law Enforcement</i>	<i>Law Enforcement Pension Plan</i>
		<i>Public Employees</i>	<i>Wyoming Public Employees' Pension Plan</i>
		<i>Warden, Patrol & DCI</i>	<i>Wyoming Game Warden, Highway Patrol and Criminal Investigator Pension Plan</i>

Demographic Details

It is important in this analysis to examine a current snapshot of PERS of Nevada and recognize and understand trends based on demographics. This analysis does not include the Judicial Retirement System (JRS) or the Legislators' Retirement System (LRS).

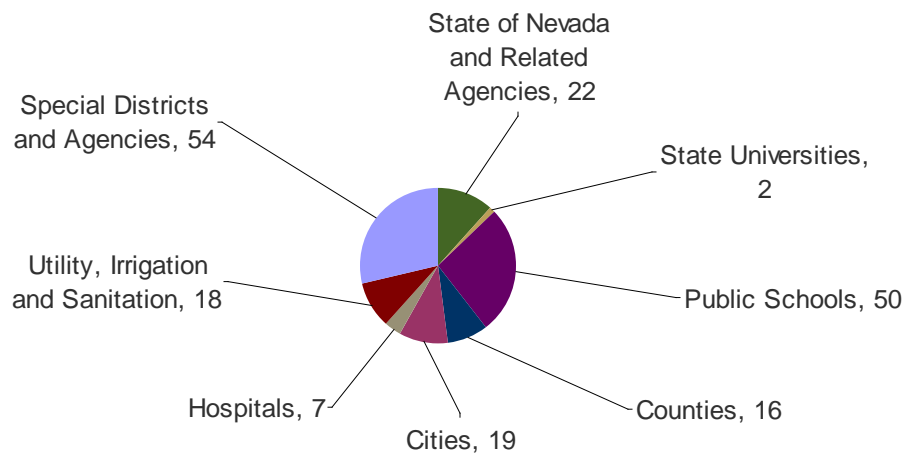
PERS of Nevada Employers

As of June 30, 2012, a total of 188 employers participated in PERS of Nevada. The retirement system covers eligible employees of state agencies, public schools, state universities, counties, cities, hospitals, utility, irrigation and sanitation districts, and special districts and agencies that have entered into Joinder Agreements with PERS of Nevada. **Exhibit J** provides the number of employers by type covered under the retirement system as of June 30, 2012.

Source: PERS of Nevada CAFR as of June 30, 2012

Exhibit J

PERS of Nevada-Affiliated Employers by Type
188 as of June 30, 2012



PERS of Nevada Active Members

As of June 30, 2012, the system had a total of 98,512 active contributing members compared to 49,546 annuitants for a ratio of 1.99:1. This compares to a ratio of 3.23:1 as of June 30, 2003 (**Exhibit K**). The system has experienced a decrease in active membership since a height of 106,123 in 2008 but has also experienced an overall 12.81% increase in the number of active members since June 30, 2003 (**Exhibit L**). The average salary of Regular Employee active members as of June 30, 2012, was \$48,808 compared with \$39,193 as of June 30, 2003, representing a 24.5% increase over the 10-year period. In addition, the average salary for Police/Fire active members as of June 30, 2012, was \$72,523 compared with \$56,907 as of June 30, 2003, representing a 27.4% increase over the same period (**Exhibit M**). The average age of Regular Employee active members as of June 30, 2012, was 46.4 compared with average age of 44.8 as of June 30, 2003. Furthermore, the average age of Police/Fire active members as of June 30, 2012, was 40.4 compared with average age of 40.1 as of June 30, 2003 (**Exhibit N**).

Source: PERS of Nevada Actuarial Valuation Report as of June 30, 2012 and PERS of Nevada CAFR as of June 30, 2012

Exhibit K

Ratio of Active Members to Annuitants

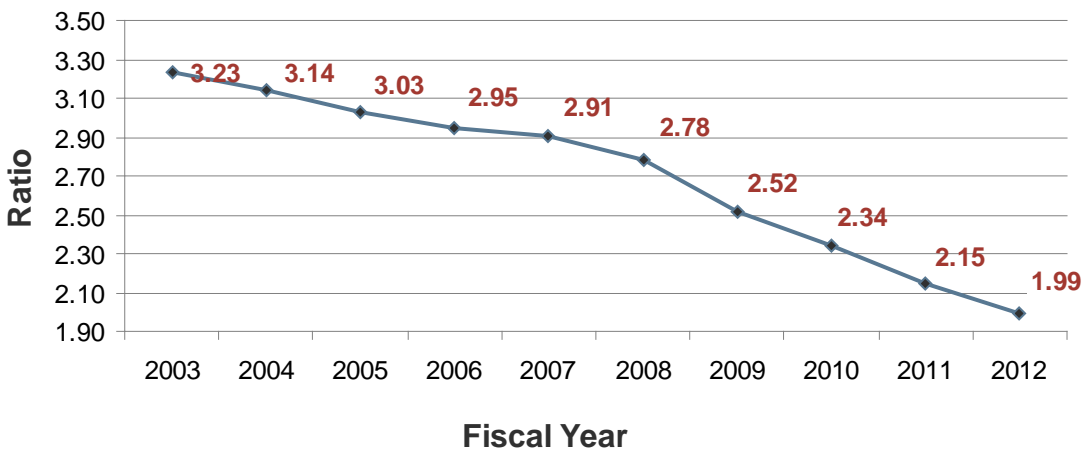


Exhibit L

Number of Active PERS of Nevada Members

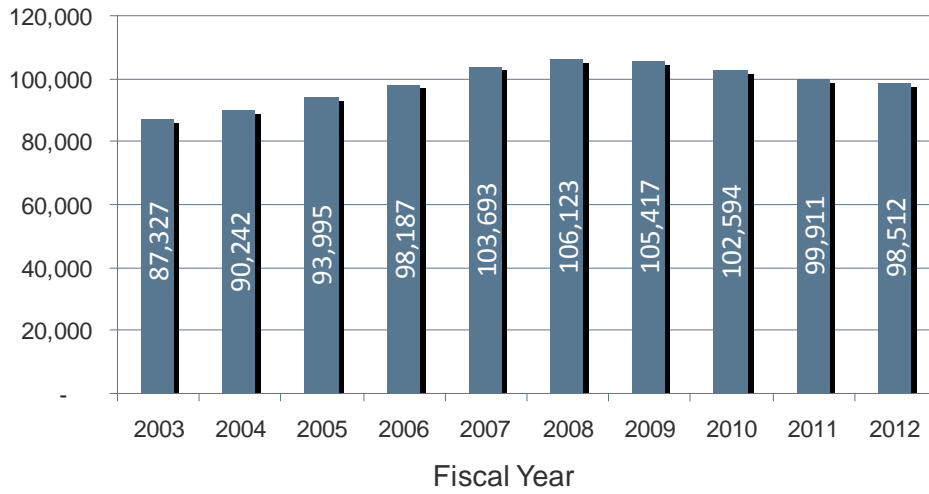


Exhibit M

Average Salary of Active Members

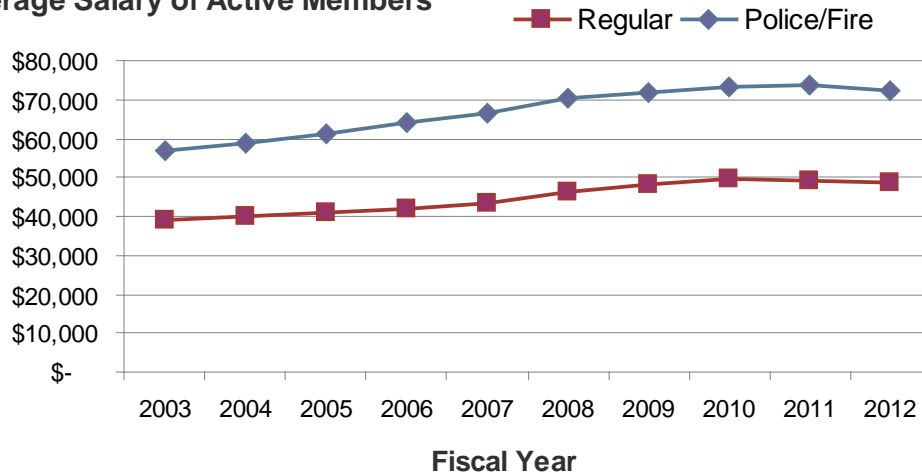
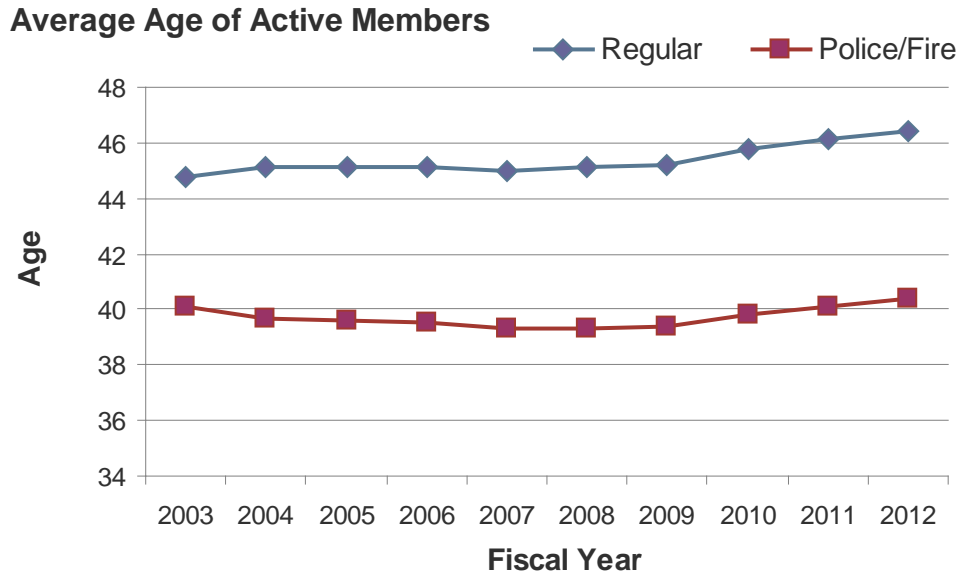


Exhibit N



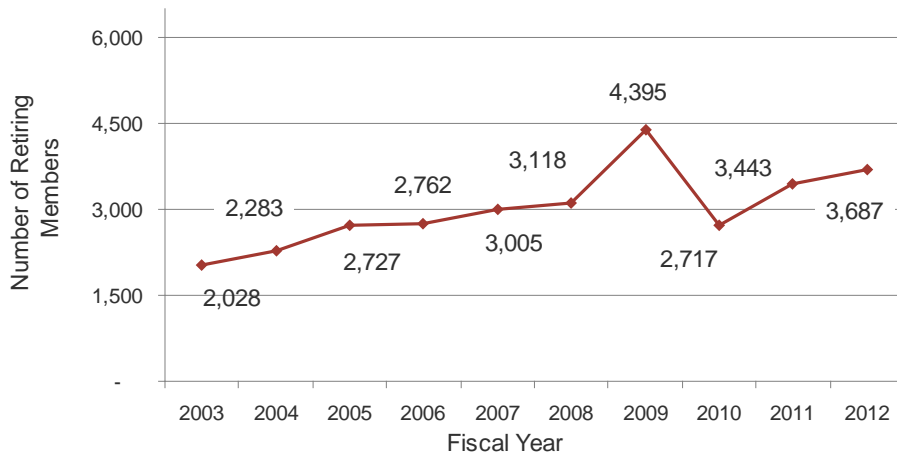
PERS of Nevada Service Retirement – Review of Recent Data

A retirement allowance is paid upon receipt of a completed application for retirement benefits from any member who retires and has attained age 65 with 5 years of service, or age 62 with 10 years of service, or at any age with 30 years of service. Police/Fire members must attain age 65 with 5 years of service, or age 55 with 10 years of Police/Fire service, or age 50 with 20 years of Police/Fire service, or at any age with 25 years of Police/Fire service. For Police/Fire members hired on or after January 1, 2010, the eligibility age increases from age 55 with 10 years Police/Fire service to age 60, while the service eligibility increases from 25 years Police/Fire service at any age to 30 years. Over the last five years, an average of 3,472 members have retired each year (**Exhibit O**).

Source: PERS of Nevada Actuarial Valuation Report as of June 30, 2012 and PERS of Nevada CAFR as of June 30, 2012

Exhibit O

Service Retirements



Growth in Number of PERS of Nevada Annuitants

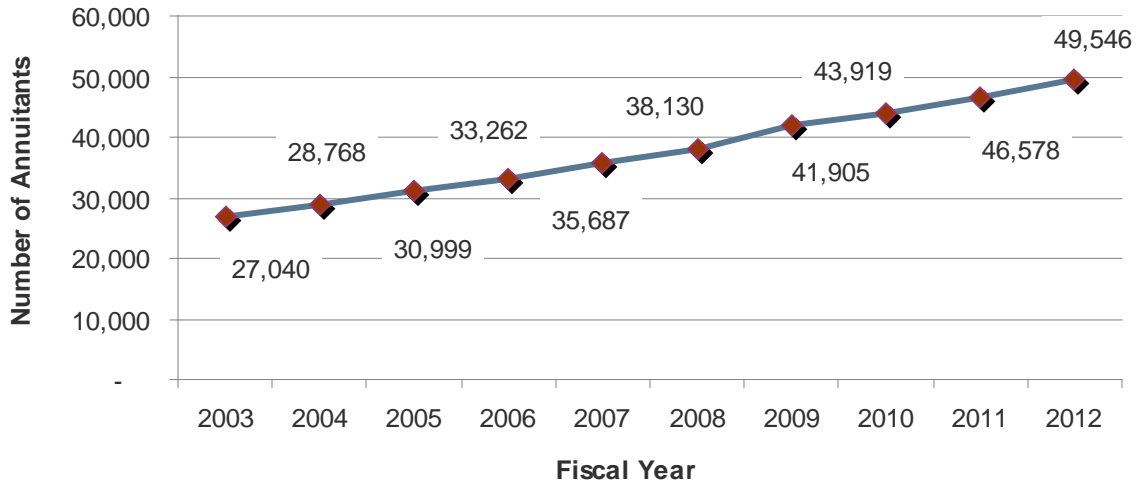
As of June 30, 2012, the system had a total of 49,546 annuitants, including those retired on service retirement, disability retirement, and survivor retirement. PERS of Nevada has seen an 83.2% increase in the number of annuitants since June 30, 2003 (**Exhibit P**). Over this 10-year period, the number of active members increased by 12.81%.

These numbers represent a system that is maturing. Given the growth of the state, its hiring practices, and other events, these statistics are not unusual or a reason for concern. Many other systems have seen budgetary controls imposed on to limit or slow the growth of public sector employment. In addition, the trend to outsource various governmental services to private companies or to employ staff in positions ineligible for retirement coverage (e.g., true independent contractors) in other systems has tended to limit growth in the number of active employees among public systems across the country. Nevada's active to annuitant ratio shows that its plan is still less retiree weighted than the "average" large public plan, and while we would expect to see the ratio move toward the average over time, this is not of itself, a reason for concern.

Source: PERS of Nevada CAFR as of June 30, 2012

Exhibit P

Annuitants



Post-Retirement Annual Benefit Adjustment

Average Annual Benefit

The average annual benefit, paid to annuitants as of June 30, 2012, was \$31,932 compared to \$25,590 as of June 30, 2006, which includes transfers in/out of the System (e.g. to the Judicial Retirement System) that correspond to transfers of liability. Total average benefits have increased 25% since 2006, or an increase of about 4% per annum (**Exhibit Q**). In addition, the average years of service at retirement for Regular members increased from 18.51 years in 2006 to 19.38 years in 2011. The average years of service at retirement for Police/Fire members also increased during this time period from 22.33 years to 22.53 years. Furthermore, the average age at retirement in 2012 increased for both Nevada Plans by 4 years since 2006. This information consequently translates to higher final average salaries and thus higher average base pensions

Source: PERS of Nevada CAFR as of June 30, 2012

Exhibit Q

Average Annual Benefit

