

Characteristics of Large Public Education Pension Plans



NEA Collective Bargaining
and Member Advocacy

January 2016

The National Education Association (NEA) is the nation's largest professional employee organization, representing 3 million elementary and secondary teachers, higher education faculty, education support professionals, school administrators, retired educators, and students preparing to become teachers.

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Acknowledgments: NEA sincerely thanks the staff members of the public employee retirement plans included in this report who used a secure website provided by NEA to directly enter information for their plan. Their assistance was invaluable. We also thank the retirement and benefit specialists of NEA-affiliated education associations and member trustees who aided with the information-gathering process. The National Council on Teacher Retirement provided significant help by encouraging their member systems to submit the updated data required for this study. The publication would not have been possible without the knowledge and important assistance of now retired NEA staff persons Nancy McKenzie and Brad Herrington. Finally, we'd like to acknowledge the work of Randy Barber of the Center for Economic Organizing whose expertise, useful suggestions, and analysis of data for this report were important contributions.

Staff members of each of the public employee retirement plans included in this report provided all plan details, unless otherwise noted by this symbol: †. For those systems that did not offer updates for this study, data was taken from publicly available sources. While every attempt was made to ensure the accuracy of the data and information contained in our analysis, it is possible that errors have occurred. Please communicate any mistakes or comments you may have about this publication to: Dan Doonan or Ed Hurley, NEA Collective Bargaining and Member Advocacy, 1201 16th Street, N.W., Washington, D.C. 20036-3290, or by email to: ddoonan@nea.org; ehurley@nea.org.

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Great Public Schools for Every Student

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Foreword

Each and every student deserves to have dedicated, highly qualified teachers in the classroom. Parents must know that their children are getting to school safely, that the schools they are attending are well maintained, that they are being served nutritious food, and they have a real equal opportunity to learn. The nation requires this of us and we demand it of ourselves.

Maintaining a sound and predictable pension plan for educators and education support professionals enables us to have modest retirement security after a career in public service, and can give stakeholders the peace of mind knowing that public schools can continue to attract and retain the most well-trained, dedicated, and professional employees.

A lot of changes to pension plans have occurred in the five years since NEA last published *Characteristics of Large Public Education Plans*. Most states have increased employee contribution rates or reduced benefits, or both. A few states have modified their plan design, moving from a defined-benefit plan to a riskier, more inefficient model for determining benefits. The pension cuts and shifting of investment risk have compromised the ability of schools to attract and retain high quality employees. As pension benefits erode, our schools are imperiled, our local and state economies are harmed, and our students' education suffers.

Fortunately, the vast majority of extreme anti-pension proposals and bills over the past five years were rebuffed as the consequences of pension "reform" came to be realized by policy makers, legislators, and the public. Additionally, scare tactics that claimed pension systems were on the edge of financial collapse were proven false. Still the all-out, well-financed attacks on defined-benefit pensions continue.

Educators, administrators, parents, communities, elected leaders, and anyone with a stake in providing great public schools for every student must speak out against cuts that undermine retirement security. While we pay into our retirement plans with every paycheck, employers must hold up their end of the deal. When employers fail to fund their promises, public pensions are unfairly attacked as overly generous and unaffordable.

For more than 45 years, the NEA has gathered in one place the most detailed information of large public education retirement plans, provided almost exclusively by the trustees of the plans themselves. With so much misinformation distributed by opponents of public pension plans, our goal is for this publication to serve as a reliable source of accurate information for those involved with pension and retirement security policy.

The research for this report was conducted by NEA Collective Bargaining and Member Advocacy during the summer of 2015. This new edition provides data on more than 114 primary plans covering nearly 19 million active employees and retired annuitants—holding \$2.8 trillion in assets.

NEA's 3 million members work at every level of education—from pre-school to university graduate programs. NEA believes every student, regardless of the zip code of the school they attend, should receive a quality education. This is the mission which guides us. Thank you for the role you play in making it a reality through ensuring educators can devote their careers to our students knowing their retirement benefits will be there for them afterwards. Stay vigilant against pension attacks. *Go—Fight—Win!*



Lily Eskelsen García
President
National Education Association

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Introduction

Retirement benefits that provide education employees with post-employment income security are critical to the growth and maintenance of a well-trained and stable workforce in public education, which in turn is a key component of a quality education. To support this objective, the National Education Association (NEA) updates its examination of large public pension plans on a regular basis. This detailed study provides information that Association staff, leaders, and members can use to understand, defend, and strengthen the quality and level of retirement benefits of public education employees.

The 2016 edition builds on past studies by adding new plans, expanding the number of “sub-plans” (plans or tiers within a retirement system that cover different groups of employees), and updating information in the areas of plan membership, assets, plan governance, plan design, Social Security coverage, retirement eligibility, vesting, purchase of service credit, cost-of-living adjustments, state taxation of benefits, employee and employer contribution rates, benefits formulas and limitations, actuarial methods, funding, and board membership. While there were nine new primary plans added and three deleted, significantly more sub-plans have been added to the detail tables. Depending on the particular table, there are between 6 to 87 percent more records than were in the 2010 edition of *Characteristics*.¹ As a result, the data presented here is not strictly comparable to those in earlier editions. This is due to a number of factors—including a large number of new accrual and contribution rates, modified rules for retirement eligibility, and NEA staff’s continued data refinement (yielding more records and entries). An important function of *Characteristics of Large Public Education Pension Plans 2016* is to provide a rich, factual underpinning for discussions, analyses, and evaluations of public pensions, a role that is particularly crucial given the ongoing ideologically driven attacks on both public employees and their retirement systems. The findings in this publication dispel many of the myths and misrepresentations that have been put forth by these opponents of public retirement systems.

¹ Tables 1 and 2 increased from 108 in the previous edition to 114 for this edition; Table 3 from 128 to 242; Table 4 from 113 to 151; Table 5 from 127 to 177; Table 6 from 220 to 318; Table 7 from 94 to 110; and Table 8 from 84 to 116, including some sub-plans that do not appear in the printed tables.

Characteristics of Large Public Education Pension Plans 2016 does not include all plans in which pre-K–12 or higher education employees participate. Instead, it contains the largest plans covering such employees, plus a range of other plans that are representative of public education retirement systems. Included in this survey are plans for teachers, education support professionals (ESPs), higher education faculty (HEF), and higher education support professionals (HESPs).

In states or cities, the composition of education employees’ plans falls into one of three categories: (1) plans that are maintained exclusively for education employees; (2) plans that include education employees as well as other types of public employees, such as state and municipal employees; or (3) plans that are maintained exclusively for teachers, while, for instance, ESPs are then grouped with state, city, and county employees. This survey contains the plans that cover education employees only plus those that include a broader group of employees, as long as education employees also are covered by that plan. Plans in this edition must have teachers, ESPs, higher education faculty, or HESPs to be included.

Characteristics includes reference to NEA policies as they relate to issues of public education retirement security. This information is presented throughout the text and in Appendix 4, “Relevant Excerpts from 2015-2016 NEA Resolutions.”

Finally, *Characteristics* presents additional details about plans in a section named “Notes to Plans,” which appears as Appendix 1.

Overview of Plans

There are two major types of retirement plans in this report: defined benefit (DB) plans and defined contribution (DC) plans. In their basic form, DB plans provide a fixed, lifetime annuity to participants, with the benefits based on a formula that takes into account years of service and an average final salary over a specified number of years. The basic DC plan provides for a benefit that is derived from the accumulated contributions and earnings in an individual participant’s account; typically, both employer and employee contributions are mandatory and are set at some predetermined level.

This report provides a wide range of data on 114 retirement plans, six more than in the 2010 edition. Nine plans were added to this edition while three were removed.² Plans listed here are divided into four categories and serve as the *primary* retirement vehicle for those who participate in them. They include: (1) 83 pure primary DB plans (two, in Alaska, have been closed to new participants); (2) 16 primary DB plans with DC features; (3) nine primary DC plans that are offered as alternatives to a DB plan; (4) four pure DC plans that are not optional (although one, in West Virginia, has been closed to new participants); and (5) two newly created “Cash Balance” plans.³

Methodology

To ensure accuracy of our data and information, we introduced an online system in 2008 that allows staff of the retirement plans listed in the report to directly enter information about their system into a secure online database provided by NEA. In 2010, personnel from 75 plans utilized this online resource. Based on the feedback we received during this process, NEA continued to make minor modifications to the online data-collection system in an effort to make it more user-friendly and efficient. We asked retirement system staff to update the information for their plans as of the most recent comprehensive annual financial report and actuarial valuation. Ultimately, in 2015, personnel from 83 plans reviewed, updated, and added information. Thus, staff members of each of the public employee retirement plans included in this report provided all plan data for the current edition, unless otherwise noted by the symbol †. For the systems noted by the symbol †, data was taken from publicly available information sources. These sources included—when available—consolidated annual financial reports, state treasurers’ reports, actuarial valuations, system audits, legislative or plan-related

² The nine plans that were added to this edition of *Characteristics* are: Indiana PERF Annuity Savings Account Only, Kansas PERS Cash Balance, Kentucky CERS Cash Balance, Michigan PSERS Pension Plus, Michigan PSERS DC Plan, Tennessee CRS Hybrid Plan, Utah Retirement System-DC Plan, Utah Retirement System Hybrid Plan, and Virginia Retirement System Hybrid Retirement Plan. The three plans that were removed are: Duluth Teachers’ (merged with Minnesota TRA) and two Maryland plans, which were reclassified as sub-plans (Maryland Alternative Contributory Plan and Maryland Teachers’ Contributory Plan).

³ The new Cash Balance (CB) plans are Kansas PERS Tier 3 and Kentucky CERS Tier 3. CB plans are a form of defined-benefit plan, which can best be thought of as providing *career salary average* rather than *final salary average* benefits. Additional details about this type of plan are provided in Section 1, “Overview of Plans, Type of Plans.”

review commissions, plan handbooks and newsletters, departments of human resources’ guidelines for electing trustees, state legislators’ and governors’ websites containing information on legislative changes, state or local statutes, and publicly available communications between government officials and plan participants. NEA staff also conducted statutory research for the state taxation of retirement benefits in Table 4 and board information in Table 8 and Appendix 2. The data collection and research for this edition was conducted from June through December 2015; thus the details presented in this report provide the latest information available as of that time. Charts and figures expressing percentages of a whole may not add to 100 due to rounding.

It is important to bear in mind that the specifics in this survey represent a snapshot for each plan. For example, the data extracted from plans’ actuarial valuations (which contain both forward-looking and historic information) span a range of several years. The oldest valuation report is dated April 1, 2012, and the newest is dated January 1, 2015. Three percent of the valuations are dated December 31, 2012, or earlier; 19 percent are dated between January 1 and December 31, 2013; 74 percent are dated between January 1 and December 31, 2014, and 3 percent are dated January 1, 2015.

This edition of *Characteristics of Large Public Education Pension Plans* includes the following plans:

Alabama

1. Teachers’ Retirement System of Alabama

Alaska

2. Alaska Public Employees’ Retirement System Defined Benefit Retirement Pension Plan
3. Alaska Public Employees’ Retirement System Defined Contribution Retirement Pension Trust Fund
4. Alaska Teachers’ Retirement System Defined Benefit Retirement Pension Plan
5. Alaska Teachers’ Retirement System Defined Contribution Retirement Pension Trust Fund

Arizona

6. Arizona State Retirement System

Arkansas

7. Arkansas Teacher Retirement System

California

8. California Public Employees’ Retirement System†
9. California State Teachers’ Retirement System
10. University of California Retirement Plan†

Colorado

11. Colorado Public Employees' Retirement Association
12. Colorado Public Employees' Retirement Association Defined Contribution Plan

Connecticut

13. Connecticut Municipal Employees' Retirement System†
14. Connecticut Teachers' Retirement System

Delaware

15. Delaware State Employees' Pension Plan†

District of Columbia

16. District of Columbia 401(a) Defined Contribution Pension Plan
17. District of Columbia Teachers' Retirement Fund

Florida

18. Florida Retirement System Pension Plan
19. Florida Retirement System Investment Plan

Georgia

20. Georgia Public School Employees Retirement System
21. Teachers Retirement System of Georgia

Hawaii

22. Hawaii Employees' Retirement System†

Idaho

23. Public Employee Retirement System of Idaho

Illinois

24. Illinois Municipal Retirement Fund
25. Illinois State Universities Retirement System
26. Illinois Teachers' Retirement System
27. Municipal Employees' Annuity and Benefit Fund of Chicago†
28. Public School Teachers' Pension and Retirement Fund of Chicago†

Indiana

29. Indiana Public Employees' Retirement Fund†
30. Indiana Public Employees' Retirement Fund Annuity Savings Account Only†
31. Indiana State Teachers' Retirement Fund†

Iowa

32. Iowa Public Employees' Retirement System

Kansas

33. Kansas Public Employees Retirement System
34. Kansas Public Employees Retirement System 3 Cash Balance Plan

Kentucky

35. Kentucky County Employees Retirement System†
36. Kentucky County Employees Retirement System Hybrid Cash Balance Plan†
37. Kentucky Teachers' Retirement System

Louisiana

38. Louisiana School Employees' Retirement System

39. Teachers' Retirement System of Louisiana

Maine

40. Maine Public Employees Retirement System

Maryland

41. Maryland Employees' Retirement and Pension Systems
42. Maryland Teachers' Retirement and Pension Systems

Massachusetts

43. Massachusetts State Employees' Retirement System
44. Massachusetts Teachers' Retirement System
45. State-Boston Retirement System†

Michigan

46. Michigan Public School Employees' Retirement System Defined Benefit Plan
47. Michigan Public School Employees' Retirement System Pension Plus Plan
48. Michigan Public School Employees' Retirement System Defined Contribution Plan

Minnesota

49. Minnesota General Employees Retirement Plan
50. Public Employees Retirement Association of Minnesota
51. Minnesota Teachers Retirement Association
52. St. Paul Teachers' Retirement Fund Association

Mississippi

53. Public Employees' Retirement System of Mississippi

Missouri

54. Missouri State Employees' Retirement System
55. Public Education Employee Retirement System of Missouri
56. Public School Retirement System of Missouri
57. Public School Retirement System of Kansas City†
58. Public School Retirement System of the City of St. Louis

Montana

59. Montana Public Employees' Retirement System Defined Benefit Retirement Plan
60. Montana Public Employees' Retirement System Defined Contribution Retirement Plan
61. Montana Teachers' Retirement System

Nebraska

62. Nebraska School Employees Retirement System
63. Nebraska-Omaha School Employees' Retirement System

Nevada

64. Public Employees' Retirement System of Nevada

New Hampshire

65. New Hampshire Retirement System

New Jersey

66. New Jersey Public Employees' Retirement System†

67. New Jersey Teachers' Pension and Annuity Fund†

New Mexico

68. New Mexico Educational Retirement Board

New York

69. New York State and Local Employees' Retirement System

70. New York State Teachers' Retirement System

71. Board of Education Retirement System of the City of New York

72. Teachers' Retirement System of New York City

North Carolina

73. Teachers' and State Employees' Retirement System of North Carolina

North Dakota

74. North Dakota Public Employees Retirement System†

75. North Dakota Teachers' Fund for Retirement

Ohio

76. Ohio Public Employees Retirement System Traditional Pension Plan†

77. Ohio Public Employees Retirement System Member Directed Plan†

78. Ohio Public Employees Retirement System Combined Plan

79. School Employees Retirement System of Ohio

80. State Teachers Retirement System of Ohio Defined Benefit Plan

81. State Teachers Retirement System of Ohio Defined Contribution Plan

82. State Teachers Retirement System of Ohio Combined Plan

Oklahoma

83. Oklahoma Teachers Retirement System

Oregon

84. Oregon Public Employees Retirement System

Pennsylvania

85. Pennsylvania Public School Employees' Retirement System

86. Pennsylvania State Employees' Retirement System

Rhode Island

87. Employees' Retirement System of Rhode Island†

88. Rhode Island Municipal Employees' Retirement System†

South Carolina

89. South Carolina Retirement Systems

South Dakota

90. South Dakota Retirement System

Tennessee

91. Tennessee Consolidated Retirement System†

92. Tennessee Consolidated Retirement System Hybrid Pension Plan†

Texas

93. Teacher Retirement System of Texas

Utah

94. Utah Retirement Systems Tier 1

95. Utah Retirement Systems Tier 2 Hybrid Retirement System

96. Utah Retirement Systems Tier 2 Defined Contribution Plan

Vermont

97. Vermont Municipal Employees' Retirement System†

98. Vermont Municipal Employees' Defined Contribution Plan†

99. Vermont State Teachers' Retirement System†

Virginia

100. Virginia Retirement System†

101. Virginia Retirement System Hybrid Retirement Plan†

102. The Educational Employees' Supplementary Retirement System of Fairfax County

Washington

103. Washington Public Employees' Retirement System Plan 1

104. Washington Public Employees' Retirement System Plan 2

105. Washington Public Employees' Retirement System Plan 3

106. Washington School Employees' Retirement System Plan 2

107. Washington School Employees' Retirement System Plan 3

108. Washington Teachers' Retirement System Plan 1

109. Washington Teachers' Retirement System Plan 2

110. Washington Teachers' Retirement System Plan 3

West Virginia

111. West Virginia Teachers' Retirement System†

112. West Virginia Teachers' Defined Contribution Plan†

Wisconsin

113. Wisconsin Retirement System

Wyoming

114. Wyoming Retirement System

† Retirement system did not provide updates for this report; data was taken from publicly available information sources.

Summary of Findings

Type of Plans

All of the plans in this survey function as the *primary* retirement vehicle for their participants:

- Eighty-three plans in the survey (73 percent) are purely defined benefit (DB). This type of plan provides a guaranteed, definite future obligation related to employee service. A calculation is required to determine the level of the ultimate benefit, which usually reflects a formula under which an employee receives a benefit equal to a percentage of final average salary for each year of participation in the plan.
- Four plans in the survey (4 percent) are purely defined contribution (DC). These include two in Alaska associated with DB plans that were closed to new employees (who are required to participate in the new DC plans), and another in West Virginia that recently closed enrollment of new members in its DC plan (who now participate in an existing DB plan instead). DC plans provide participants with a riskier benefit based solely on a sum of money that has accumulated in an account at retirement—from employee and employer contributions, and investment earnings or losses.
- Sixteen plans in the survey (14 percent) are DB plans that include some DC-like features. The benefits in these plans are predominantly DB in nature.
- Nine plans in the survey (8 percent) are DC plans that are offered as an optional alternative to existing DB plans. Employees make a choice whether to participate in the DB or DC plan, but they always have the option of selecting the guaranteed benefit provided by a DB plan.
- Two plans in the survey (2 percent) are newly established Cash Balance plans, which provide employees with an annuity that is generally based on their career average salaries, although their accumulated benefits are reported as notional account balances. Employees have a choice of receiving their benefits in the form of an annuity (the default form of benefit) or a lump sum. CB plans can, but are not required

to, provide other options including split annuity and lump-sum payments.

Administration of Plans and Investment of Assets

A retirement system administers 87 of the plans included in this survey (76 percent). In the remaining cases, another entity does so, such as the state treasurer's office. The assets of 66 retirement plans in the survey (58 percent) are invested by a retirement system. In the other instances, a state board of investments or the state treasurer's office usually has the responsibility.

Plan Size and Coverage

Over 11.5 million active members are covered by the plans reviewed in this survey. The median active membership is 50,904. The largest of these plans covers 1,051,425 active members, and the smallest covers 293 active members. More than 7.4 million retirees and beneficiaries also are covered by these plans. The median retired membership is 35,131.

Unlike employees in the private sector, state and local government employees are not universally covered by Social Security. Individual governmental employers have the option of electing Social Security coverage for their employees if they are already covered by a state or local government retirement plan. Eighty plans (70 percent) report that all or most active participants also are covered by the Social Security system.

Assets

The plans in this survey exhibit a wide diversity in the amount of net assets they hold on behalf of their respective memberships. The California Public Employees' Retirement System holds the largest amount of assets at \$301.8 billion. The Vermont Municipal Employees' Retirement System holds the smallest amount of assets at about \$20 million. Total retirement system assets in this survey total about \$2.8 trillion.

Retirement Eligibility⁴

Most plans in this survey provide for some combination of years of service and age in order to qualify for an immediate, normal full retirement benefit or for an immediate but reduced early retirement benefit. Normal full retirement from active public employment is available at age 60 or age 62 in the majority of the plans studied. A member may be eligible for an early retirement in most plans, but with a reduced benefit. Two quite different early retirement reduction factors are the most commonly used by the plans in this survey: One is a 3 percent per year reduction and the other is a 6 percent per year reduction. These two reduction factors are each used by about 22 percent of plans, alone or in combination with other factors.⁵ Typically, these are the factors that are applied to the first five years prior to normal retirement age. Often, a different factor is applied to even earlier retirement (down to the earliest age at which a participant is allowed to retire).

Fifty-four percent of the 242 plans and sub-plans reviewed have adopted a five-year vesting standard similar to the private-sector Employee Retirement Income Security Act (ERISA) standard, while 12 percent of the plans have vesting periods shorter than five years. A longer vesting period of 10 years is used in 26 percent of the plans reviewed, and one plan requires 12 years for a participant to be fully vested (the DC plan in West Virginia, which has been closed to new entrants for a number of years).

Cost-of-Living Adjustments (COLAs) and Taxes

Social Security benefits are indexed to changes in the Consumer Price Index (CPI) to protect against the erosion of the value of a fixed pension over time, and Social Security benefits are at least partially exempt from federal and state income taxes. Similarly, the retirement benefits provided by a number of plans have some inflation protections built into the design of the plan, although the method of income protection

⁴ Some states have made changes to their defined-benefit plans for newly hired employees. For example, some have increased vesting periods and some have raised the normal retirement age. Others have added defined-contribution features—some are optional, some are mandatory. Two others have created Cash Balance plans, which, along with combination defined benefit-defined contribution plans, are often referred to as “hybrid” plans, even though Cash Balance plans are actually career-average defined-benefit plans. See “Notes to Plans” in Appendix 1.

varies. Fifty-seven percent of the plans in the survey either automatically provide for a fixed rate of adjustment (typically 3 percent) or a floating rate tied to changes in the CPI (usually with a 3-percent ceiling on the rate of adjustment). In other plans reviewed, cost-of-living adjustments were wholly discretionary or do not exist. In the case of ad-hoc increases, these may be granted from time to time by the state legislature. By their nature, defined-contribution plans provide no COLA.

A number of states have devised additional COLA-type features, such as purchasing power protection or 13th checks. These innovative designs can help retired education employees preserve the value of their retirement benefits against inflation. And they are important to consider when looking for ways to enhance COLAs.

Fifty-one percent of the plans are either fully tax exempt or have a fixed tax exemption.

Employer/Employee Contributions

Unlike private-sector defined-benefit plans, most public employee plans require a contribution from both the employer and the employee. Among the contributory plans reviewed in this survey, the median percent of salary paid by the employee is 6.8 percent. Employer contributions often vary from year to year, according to actuarially determined funding requirements plus the amount of such past and current requirements that may have been legislatively deferred. The median employer contribution is 13.0 percent of employee salaries.

Benefit Formulas

The vast majority of the plans reviewed in this survey are defined-benefit plans, which provide for a definite future obligation related to employee service with a calculation performed to determine the level of the ultimate benefit. For most of the plans reviewed, that calculation reflects a formula under which an employee receives a benefit equal to a percentage of final average salary for each year of participation in the plan.

The most common averaging period is three years. However, some plans also limit the pay increase that can occur and the resulting pension earnings

⁵ Of the 242 plans and sub-plans examined in Table 3, 218 have an identifiable reduction factor used for these calculations.

for any one year that can be counted as part of the average. Typically, the formula percentage factor in a defined benefit plan is stated as a single percentage or, in more complex approaches, as two or more percentage factors—with each factor applicable to a different portion of final average salary. Fifty-four percent of the plans reviewed provide a benefit based on a factor of 2 percent or more.

Actuarial Methods and Funding

How well any retirement plan is funded—that is, whether it has sufficient assets to meet its obligations—may vary with the actuarial cost method used by the plan, the actuarial assumptions employed in the actuarial calculation, and the asset valuation method used by the plan.

The overwhelming majority of the defined-benefit plans—81 of 96 plans with identifiable actuarial methods (84 percent)—use an entry-age-normal actuarial cost method. As part of calculating normal cost and past service liability, actuaries must make assumptions about the anticipated experience of the plan. Particular attention was paid in this survey to assumptions regarding future investment earnings of the plans (also known as interest rate assumptions) and general inflation rate assumptions. Interest rate assumptions ranged from 6.5 to 8.5 percent, and the average interest rate assumption was 7.7 percent. The rate of general inflation assumed in the plans ranged from 2.5 to 4.0 percent, with the average being 3.0 percent.

Although two plans may use the same actuarial cost method and the same assumptions, they may not be comparable from a funded status point of view because of differences in the asset valuation method applied in the actuarial valuation. No plan reviewed in this survey valued assets at cost for actuarial purposes. Instead, plans used some form of market value approach, typically a five-year smoothed actuarial asset valuation—practiced by almost two-thirds of those evaluated in this study.

The Governmental Accounting Standards Board (GASB) has issued requirements for public employee retirement plans to use when reporting on funding progress, including the funding ratio and the ratio of unfunded actuarial accrued liability (UAAL) to annual covered payroll. The UAAL as a percentage of covered payroll is a significant measure of a

plan's ability to pay its unfunded actuarial liability. Generally, the smaller this percentage, the stronger the retirement plan. Table 7 presents data on UAAL as a percentage of covered payroll for each defined-benefit plan as available.

Since the publication of our 2010 survey, GASB has changed many of its standards of accounting and financial reporting for U.S. state and local governments. To comply, public pension plans must use certain accounting methods and assumptions, and report certain information. Importantly, GASB has stated that its standards should be used for accounting purposes, but not for developing funding policy for pension plans. Public pension industry professionals are referring to this separation as a “divorce” between accounting and funding. Under the new standards, plans will determine contribution requirements and develop an actuarially sound pension funding strategy that is independent of GASB standards.

Also presented in Table 7: the associated underlying funding ratio—the actuarial value of assets as a percentage of the actuarial accrued liability—as determined in accordance with the actuarial cost method employed by the plan and reported as part of its actuarial valuation. There are 95 plans with an identifiable funding ratio. Funding measures may not be comparable across plans because of differences in the dates for which the latest actuarial valuations were published, actuarial cost methods, actuarial assumptions, amortization periods, and asset valuation methods. However, improvements in the funded ratio over time for any particular plan can be a good measure of funding progress for that plan, provided there is consistency in the timing and the use of actuarial cost methods, actuarial assumptions, amortization periods, and valuation methods. Funding ratios available for the plans reviewed in this survey range from 33.6 to 111.2 percent. Fifteen plans (16 percent) have funding ratios of 90 percent or more, while 45 plans (47 percent) have funding ratios of less than 70 percent. The median funding ratio for the plans was 72.5 percent; the average funding ratio was 73 percent. While these ratios are lower than those reported in the 2010 edition of *Characteristics*, many plans in that edition had valuations that reflected, at least in part, data before the financial crisis. In addition, lower discount rates now being used by plans also contribute to reports of lower funding

ratios. Recent surveys, however, found that public plan funding levels have improved for the first time since the market meltdown.⁶

Retirement Plan Board Membership

There is a wide variation in both the number of plan trustees and the proportion of trustees who are active or retired members. Active employees make up 32 percent of the total board memberships for plans reviewed as a whole in this survey, while retired members account for 10 percent. An additional 9 percent of trustees may be either active or retired members. Counting only plans that have at least one active or retiree trustee, 35 percent of all trustees are active participants, 11 percent are retirees, and 9 percent are trustees who may be either active or retired participants. The median size of these boards is ten total members, while the average board size is 10.4 trustees and 10 for boards that have either active or retired participant members.

Additional updated information about boards of trustees appears in Appendix 2, including the qualifications for each board member, methods of selection, and length of terms.

⁶ See “2015 Report on State Retirement Systems: Funding Levels and Asset Allocation,” Wilshire Consulting (February 2015) www.wilshire.com/media/38890/wilshire_2015_state_funding_report.pdf and “The Funding of State and Local Pensions: 2014-2018,” Center for State and Local Government Excellence (June 2015) <http://slge.org/publications/the-funding-of-state-and-local-pensions-2014-2018>

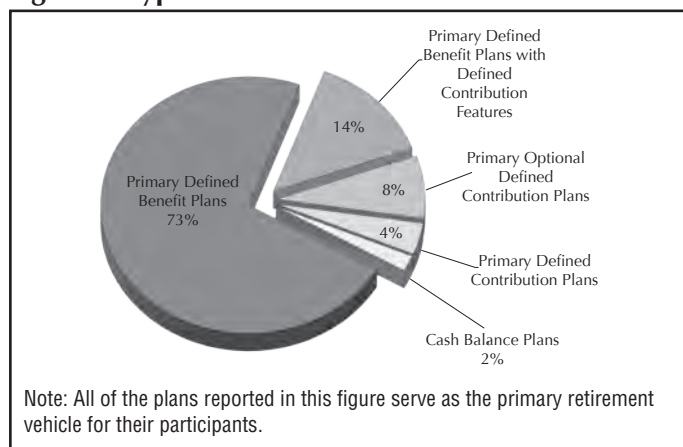
1. Overview of Plans

Types of Plans

Figure 1 categorizes the 114 primary plans contained in this report, with nine plans added since the 2010 edition of *Characteristics* and three removed. Eighty-three plans in the survey (73 percent) are pure defined benefit (DB). Such a design provides for a definite future pension related to employee service and compensation. A calculation is performed to determine the level of the ultimate benefit that usually reflects a formula under which an employee receives a benefit equal to a percentage of final average salary for each year of participation in the plan. Consequently, active participants can anticipate, well in advance, the benefits they will receive upon retirement, and retirees can rely on a stable pension check for the rest of their lives (and that of their spouses, assuming they have opted for a survivor benefit).

Four plans in the survey—two in Alaska, one in West Virginia, and another in the District of Columbia—are pure defined contribution (DC). Such a design provides for specified contributions into participant accounts with a benefit provided by the sum in the member's account balance at retirement. The amount in the account will be affected by investment gains and losses on contributions received. The West Virginia Teachers' Defined Contribution Plan covers teachers and ESPs hired on or after July 1, 1991, and before July 1, 2005. It is now closed to newly hired employees, who, instead, participate in the state's DB plan for teachers and ESPs. In the District of Columbia, ESPs and other employees hired after Sept. 30, 1987, are in the District of Columbia 401(a) Defined Contribution Pension Plan (DCPP). Those hired before then are in the now closed Federal Civil Service Retirement System. Teachers, police officers, firefighters, and several other categories of employees in the District of Columbia are in DB plans. When Alaska closed its two DB plans to employees hired after June 30, 2006, those employees then became members in new DC plans.

Figure 1. Types of Public Education Retirement Plans



Sixteen plans offer a range of designs that combine predominantly DB features with some DC elements. Several retirement systems have a plan design consisting of an employer-funded DB plan and an employee-funded DC plan, such as the plans that apply to some Indiana public employees and the most recently hired employees in Oregon and Washington state.

Nine DC plans are offered as alternatives to existing DB plans. Typically: Newly hired employees are given the choice between the two plans. By choosing to participate in the DB option, employees have the ability to receive a guaranteed benefit. These plans are in Colorado (for state employees hired on or after January 1, 2006, and for new employees of 14 community colleges hired on or after January 1, 2008), Florida, Indiana, Montana (for ESPs and other employees, but not teachers), Ohio (two plans), South Carolina, Utah, and Vermont (for ESPs and other employees, but not teachers).

Two plans in the survey (2 percent) are recently established cash balance plans. These plans, in Kansas and Kentucky, were so new that they have yet to produce their annual valuation reports, upon which much of the data in *Characteristics* is based; they have not disclosed key information on assets or participant counts. (A recent presentation of the Kentucky/CERS Hybrid Cash Balance Plan reports

2,885 members but offers no details regarding the plan's assets.)¹

With respect to retirement plans for qualifying employees at public colleges and universities, there is considerable variation. Both DB and DC plans are offered at many higher education institutions. Some institutions have DB plans, some have DC plans, and still others offer a choice between either option or a combination of the two types of plans. It is widely acknowledged that employees with a choice between plans choose the plan that they believe gives them the highest benefit. Typically, where a DC plan is the primary retirement vehicle, participation is mandatory and employee and employer contributions are set at predetermined levels.

Participants in DC plans bear the entire risk of investment performance, and are vulnerable to market losses such as what happened during the period after the Internet bubble burst or during the market turmoil initially spawned by the subprime financial meltdown in 2007 and 2008. That is not to say that DB plans are immune to poor investment performance; obviously, most plans suffered losses during the financial meltdowns over the past decade as well. However, studies comparing the relative performance of DB and DC plans continue to demonstrate that DB plans have superior returns. For example, a 2006 study by the Boston College Center for Retirement Research found that “over the period 1988-2004, defined benefit plans outperformed 401(k) plans by one percentage

point” per year.² A 2013 study by Towers Watson concluded that “DB plans outperformed DC plans by an annual average of 76 basis points from 1995 to 2011” (a basis point is 1/100th of 1%).³ The study noted other important points:

- In the largest one-sixth of plans, DB plans outperformed DC plans by an even greater margin (99 basis points) since 1995, and
- Defined benefit plans are better equipped to weather downturns.

Critically, a 1 percent greater annual return over the course of a 30-year career can result in about a one-third boost in assets available to pay benefits.

NEA strongly recommends the use of DB plans as the basis for an adequate and secure retirement: “The National Education Association believes that the retirement security of all pre-K through 12 members of retirement systems can be assured only by participation in a state or local retirement system with a guaranteed and adequate defined benefit retirement plan.”* As noted above, defined benefit plans provide participants with a predictable stream of retirement income. Moreover, the security of benefit payments is buffered by the fact that a DB plan assembles a pool of assets to provide for an entire group of participants. In a defined contribution plan, each individual is on his or her own.

**(Appendix 4, Resolution F-61—Retirement)*

¹ Compared to traditional defined benefit plans, cash balance plans typically provide a much lower retirement benefit to those who spend their careers in public education, and a larger benefit to short-term employees. A CB plan with the same overall cost as a traditional pension plan will shift resources away from educators who spend decades providing service to their community in favor of those who leave after a few years. Further, CB plans will generally provide lesser value to those who are hired at a more advanced age. CB plan reports to participants can be confusing since they reflect “employer additions” and “account balances” in ways that make them appear similar to individual account DC plans. In fact, these employer credits and account balances are “notional” and do not reflect actual separate accounts and employer contributions to the plan. CB plans are defined in the tax code as defined benefit plans and, by law, must offer annuities as their default form of benefit (one or more variations of a life annuity). Most CB plans offer lump-sum distributions, amounts which may equal or be more or less than participants’ stated notional account balance. CB plans are also funded in ways that are similar to traditional pension funds, with an actuarially determined normal cost, plus a contribution or credit based upon the amortization of unfunded actuarial accrued liabilities and gains.

Because they are group plans designed to pay benefits for many decades into the future, DB plans are much more able to weather difficult economic periods while continuing to pay the benefits that participants have earned. In effect, they shield participants from what could be called the timing risk associated with retirement. In DC plans, a participant has no control over the prevailing economic and market conditions at the time of retirement and thus has no way of predicting with any degree of certainty what level of income he or she will receive upon retirement.

² “Investment Returns: Defined Benefit vs. 401(k) Plans,” http://crr.bc.edu/wp-content/uploads/2006/09/ib_52-508.pdf

³ “DB vs. DC Investment Returns: The 2009-2011 Update,” www.towerswatson.com/en/Insights/Newsletters/Americas/insider/2013/DB-Versus-DC-Investment-Returns-the-2009-2011-Update

With regard to disability and death benefits, most DB plans provide for a disability retirement benefit, whereby a lifetime annuity is payable to a member who becomes unable to continue to work. In addition, most DB plans give active participants survivor benefit coverage. Both of these benefits, typically payable regardless of the active participant's age, are valuable forms of insurance. Cash balance plans are required to offer lifetime annuity options as the primary form of retirement benefit, but usually offer a lump-sum distribution option as well. DC plans are normally set up so that members' account balances are distributed upon the disability or death of the participant. In most cases, the value of these distributions would be far lower than what the value of true disability and survivor benefits would be. To provide disability or survivor coverage to DC participants, the employer would need to establish separate benefit plans for those purposes.

When it comes to public employee retirement plans, the facts are clear: Research has shown that DB pension plans are simply better positioned to weather economic storms than individual DC accounts, benefiting both employees and taxpayers. For example, DC plan participants tend to save less than they need for retirement, to misunderstand their investment options, and to make poor or inappropriate allocation decisions. Unfortunately, as demonstrated by the persistent annual 1 percent performance gap, the long-term costs to their retirement savings can be significant, undermining the ability of plan participants to generate adequate retirement income. On the other hand, DB plans have diversified, balanced portfolios that are professionally managed and produce higher returns with lower fees. According to an extensive analysis by the National Institute on Retirement Security, "a typical DB plan provides *equivalent retirement benefits at about half the cost of a typical DC plan*, and 29 percent lower cost than an ideal DC plan." This is because DB plans have "advantages based on longevity risk pooling, asset allocation, low fees, and professional management," which in turn results in "a 48 percent cost advantage compared to a typical individually directed DC plan."⁴ (*emphasis added*). While global financial turbulence impacts the assets of both types

⁴ "Still a Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans," (National Institute on Retirement Security, December 2014) http://www.nirsonline.org/storage/nirs/documents/Still%20a%20Better%20Bang/bangforbuck_2014.pdf

of plans, such uncertainty highlights the risks of DC plans where individuals are fully exposed to the vagaries of the market. Furthermore, due to significant management and administrative efficiencies, funding levels in defined benefit plans are less severely affected by financial crises than are DC plans.

As noted above, participants in DC plans bear high investment management and administrative costs and invest their assets with less success. Moreover, if DC participants purchase annuities upon retirement, the fees they end up paying can eat into their retirement savings. Worse, if they do not purchase an annuity when they retire and instead take their benefit in a lump sum, they have a significant risk of outliving their retirement savings.⁵

In recent years, some elected officials and anti-public sector activists have mounted concerted efforts to fundamentally alter retirement systems in a number of states by forcing newly hired employees to participate exclusively in DC plans. For educators specifically, these efforts are being pushed by those interested in moving away from teachers having long careers in education, and embracing incentives for teaching positions to become revolving door positions. Coalitions of public employees and their representatives have emerged in states since the recession to fight such damaging proposals.

While a few states moved to DC-only plans in the mid-2000s, even with the onset of the great recession, none of the plans in this study have been closed in a manner that would force new educators to participate in a DC-only plan since that time. However, there have been many modifications made to the current plans, and some states now allow new educators to choose a DC-only option.

Another key reason why replacing DB pensions with DC plans has largely failed is because doing so raises costs significantly. A pension fund stays "perennially young" when it is accepting new members, as this allows the plan to maintain a more balanced

⁵ For other analyses of the advantages of DB over DC plans, see additional reports from the National Institute on Retirement Security: "The Pension Factor 2012: The Role of Pensions in Reducing Elder Hardships," http://www.nirsonline.org/index.php?option=com_content&task=view&id=713&Itemid=48; and "Teacher Retirement Plans: Case Studies Indicate Value of Pensions," http://www.nirsonline.org/index.php?option=com_content&task=view&id=875&Itemid=49

investment profile with less risk. However, if a DB plan is closed to new entrants, the plan must start to manage its funds much more conservatively (more low-risk, low-yield investments), as it anticipates needing to liquidate investments to pay benefits in the nearer future. Since plan funding is based upon future expected returns, closing a plan actually increases costs for past service. This concept is well recognized by the actuarial community, where it is often referred to as a “termination liability.”

Having failed in this effort, opponents of DB plans have shifted much of their focus to advocating cash balance plans. Cash balance plans—despite actually being DB plans and being funded like DB plans—reduce the incentive to spend an entire career as an educator. Such plans devote more resources to relatively short-service participants and less to longer-serving members. Two states adopted cash balance plans since the recession, Kansas and Kentucky. However, the cash balance legislation enacted in Kentucky affected new state and county employees, but not teachers.

Despite DB pension critics’ claims that DC or CB plans would be advantageous to future educators, when teachers and other public employees have a choice between a DB pension and a DC plan, they overwhelmingly choose the traditional pension.⁶

In addition, a coalition of education employees was successful in convincing the West Virginia state legislature to re-open enrollment in the state’s closed DB plan to newly hired employees (2005), and to allow members of the state’s DC plan to switch to the re-opened DB plan after numerous education employees complained of not having enough money in their individual investment accounts to support anything close to an adequate retirement.⁷

Summary Chart 1. Public Education-Related Retirement Plans: Total Assets and Participants by Plan Type

Type Name	Total Assets (\$ Billions)	Total Assets %	Total Participants	Total Participants %
DB	2,642.82	94.80	17,640,119	93.11
DC	2.08	0.07	41,286	0.22
DB with DC Features	133.78	4.80	1,021,893	5.39
Optional DC	9.02	0.32	242,931	1.28
Total	2,787.70	100.00	18,946,229	100.00

While anti-public sector activists and their allies have succeeded in gaining some attention, DB plans remain the overwhelming norm. As can be seen in Summary Chart 1, pure DB plans account for almost 95 percent of public education-related retirement plan assets, while DB plans with some DC features have an additional 4.8 percent. In contrast, DC plans contain only 0.39 percent of plan assets (0.07 percent in primary DC plans and 0.32 percent in primary optional DC plans).⁸ Likewise, over 93 percent of all participants are in pure DB plans, while an additional 5.4 percent are in DB plans with some DC features. Pure DC plan participants account for an infinitesimal 0.2 percent.

⁶ “Decisions, Decisions: Retirement Plan Choices for Public Employees and Employers,” (National Institute on Retirement Security, 2011) www.nirsonline.org/storage/nirs/documents/Decisions%20Decisions/final_decisions_decisions_report.pdf

⁷ As can be seen in the Appendix 1 notes for the West Virginia Teachers’ Retirement System (TRS): In 2008, more than 78 percent of the participants in the Teachers’ Defined Contribution Plan (TDC) elected to transfer their TDC account balance to TRS and become participants in TRS. A total of 15,152 TDCP members transferred to TRS.

⁸ Due to the lack of reported assets and/or participants or uncertainties regarding attribution of DC assets to participants who are potentially in more than one plan, nine plans were excluded from calculations in Summary Chart 1. These are: Indiana/PERF-ASA Only, Kansas/PERS 3 (Cash Balance plan), Kentucky/CERS-Tier 3-Cash Balance plan, Michigan/MPERS-Pension Plus plan, Ohio/STRS-DC plan, Ohio/STRS-Combined plan, Tennessee/CRS-Combination plan, Utah/URS-Tier 2 DC plan, and Virginia/VRS-Combination plan. If included in the Summary Chart 1, these plans’ \$5.4 billion in assets and 20,340 participants would represent an additional 0.19 percent of plan assets and 0.11 percent of plan participants. If included in the plan asset proportion, optional primary DC plans would have 0.51 percent of total plan assets, rather than the 0.32 percent reported in the text. Likewise, total pure DC and optional primary DC assets would rise to 0.58 percent.

NEA's policy is that retirement boards should "[h]ave the duty and authority to oversee the administration of both benefits and investments." Needless to say, the composition of retirement boards is key, and NEA advocates that retirement systems be governed by boards of trustees that "[c]onsist of active members who are all elected by and from their plan's active membership and retired members who are all elected by and from their plan's retired membership; the total number of active and retired member trustees should constitute a majority of the board." The governance of retirement systems is more broadly addressed in Table 8's introduction.

(Appendix 4, Resolution F-61—Retirement: fourth paragraph, c. and a.)

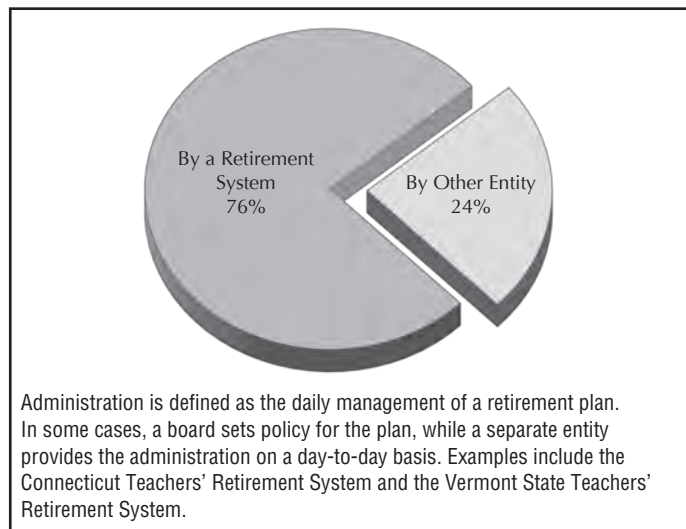
Administration of Plans and Investment of Assets

State and local government retirement systems provide various benefits. For DB plans, these can include disability benefits for active employees, pension benefits for retired employees, and death and survivor benefits for beneficiaries of deceased active or retired employees. In some states, the retirement systems also provide other types of benefits, such as health benefits. The state and local government retirement systems may cover education employees, public safety workers, and general employees. Some states and localities have more than one retirement system. In these states, membership in a system usually depends on an employee's job classification, his or her employer, or both.

Most retirement systems have two major functions: administration of benefits and investment of assets used to pay benefits. Administration of benefits includes such activities as calculating benefits, paying them out, and determining the amount of funding needed to pay for them.

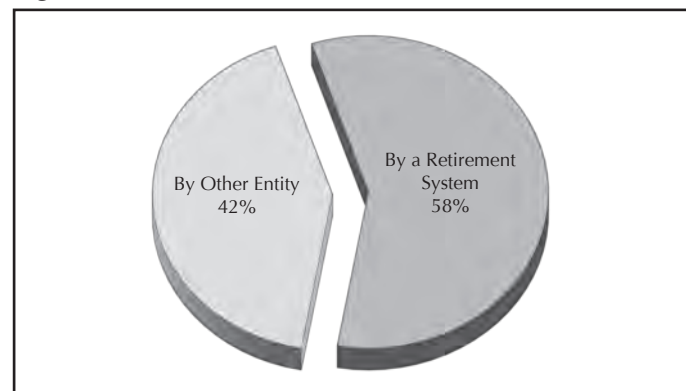
The plans in this survey are most commonly administered by a retirement system. As shown in Figure 2, a retirement system administers 87 of the plans (76 percent) and in 27 cases (24 percent), another entity does so, such as a division of the state treasurer's office

Figure 2. Administration of Retirement Plans



Fewer retirement systems invest assets than administer plans. As shown in Figure 3, the assets of 63 retirement plans in this survey (58 percent) are invested by a retirement system. In the case of 66 plans (42 percent), state boards of investment have the responsibility. In the remaining instances, the assets are invested under the purview of the state treasurer or other public entity. Total retirement system assets in this survey total about \$2.8 trillion. Looking at the ways in which administrative and investment authority are structured, 64 retirement systems (56 percent) have authority over both administration and investment of plan assets. Sixty-three plans (55 percent) have what could be described as unified administrative and investment authority, where the same entity has responsibility for all aspects of running a retirement system.

Figure 3. Investment of Retirement Plans



NEA believes that “experienced education professionals are valuable resources in the promotion of educational excellence. Experienced education professionals should be encouraged to remain in or return to the education profession through strategies consistent with NEA policies, including enhanced salaries, benefits, a supportive and respectful work environment, a reasonable workload, a secure pension, and retirement packages that reward extended years of service.”

(Appendix 4, Resolution D-24—Promote the Retention of Experienced Education Professionals)

Table 1, which follows, provides information on the type of plan and respective employees covered and the entities administering the plan and the plan assets.

TABLE 1.
Overview of Plans

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Alabama/TRS	DB	T, ESPs, HEF, HESPs	Retirement Systems of Alabama	Retirement Systems of Alabama
Alaska/PERS-DB plan*	DB	ESPs, HESPs	Division of Retirement and Benefits, Department of Administration	Alaska Retirement Management Board
Alaska/PERS-DC plan*	DC	ESPs, HESPs	Division of Retirement and Benefits, Department of Administration	Alaska Retirement Management Board offers a list of investments from which participants may choose
Alaska/TRS-DB plan*	DB	T, HEF	Division of Retirement and Benefits, Department of Administration	Alaska Retirement Management Board
Alaska/TRS-DC plan*	DC	T, HEF	Division of Retirement and Benefits, Department of Administration	Alaska Retirement Management Board offers a list of investments from which participants may choose
Arizona/ASRS*	DB	T, ESPs, HEF, HESPs	ASRS	ASRS
Arkansas/ATRS*	DB	T, ESPs, HEF, HESPs	ATRS	ATRS
California/PERS*†	DB	ESPs, HEF, HESPs	PERS	PERS
California/STRS*	DB	T, ESPs, HEF, HESPs	STRS	STRS
California/UCRP*†	DB	HEF, HESPs	UC	UC
Colorado/PERA-DB plan*	DB with alternate money purchase calculation	T, ESPs, HEF, HESPs	PERA	PERA
Colorado/PERA-DC plan*	Optional primary DC	HEF, HESPs	PERA	PERA

Abbreviations

DB = Defined Benefit
 DC = Defined Contribution
 ESPs = Education Support Professionals
 HEF = Higher Education Faculty

HESPs = Higher Education Support Professionals

T = Teachers

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Connecticut/CMERS*†	DB	ESPs	Connecticut State Employees Retirement Commission	State Treasurer
Connecticut/TRS	DB	T, HEF	Connecticut Teachers' Retirement Board	State Treasurer
Delaware/SEPP*†	DB	T, ESPs, HEF, HESPs	State Pension Office	State Board of Pension Trustees
District of Columbia/DCPP*	DC	ESPs	District of Columbia Department of Human Resources and Office of Finance and Treasury	District of Columbia Department of Human Resources and Office of Finance and Treasury offers a list of investment options from which participants may
District of Columbia/TRF	DB	T	District of Columbia Retirement Board	District of Columbia Retirement Board
Florida/FRS-DB plan*	DB	T, ESPs, HEF, HESPs	Department of Management Services, Division of Retirement	State Board of Administration
Florida/FRS-DC plan*	Optional primary DC	T, ESPs, HEF, HESPs	State Board of Administration	The FRS Investment Plan offers a list of investment options from which participants may choose
Georgia/PSERS*	DB	ESPs	Employees' Retirement System of Georgia	Employees' Retirement System of Georgia
Georgia/TRS*	DB	T, ESPs, HEF, HESPs	TRS	TRS
Hawaii/ERS*†	DB	T, ESPs, HEF, HESPs	ERS	ERS
Idaho/PERS*	DB	T, ESPs, HESPs	PERSI	PERSI
Illinois/IMRF*	DB	ESPs	IMRF	IMRF
Illinois/SURS*	DB with a DC component	ESPs, HEF, HESPs	SURS	SURS
Illinois/TRS	DB	T	TRS	TRS

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TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Illinois/Chicago/MEA&BF†	DB	ESPs	MEA&BF	MEA&BF
Illinois/Chicago/CTPF†	DB	T	CTPF	CTPF
Indiana/PERF*†	DB with some DC features	ESPs, HESPs	INPRS	INPRS
Indiana/PERF-ASA Only†	Optional primary DC	ESPs, HESPs	INPRS	INPRS
Indiana/TRF*†	DB with some DC features	T, HEF	INPRS	INPRS
Iowa/PERS	DB	T, ESPs, HEF, HESPs	Iowa/PERS	Iowa/PERS
Kansas/PERS*	DB	T, ESPs, HESPs	PERS	PERS
Kansas/PERS 3 (Cash Balance plan)*	Cash balance	T, ESPs, HESPs	PERS	PERS
Kentucky/CERS*†	DB	ESPs, HESPs	Kentucky Retirement Systems	Kentucky Retirement Systems
Kentucky/CERS Hybrid Cash Balance plan*†	Cash Balance	ESPs, HESPs	Kentucky Retirement Systems	Kentucky Retirement Systems
Kentucky/TRS	DB	T, ESPs, HEF, HESPs	TRS	TRS
Louisiana/SERS*	DB	ESPs	LSERS	LSERS
Louisiana/TRS*	DB	T, ESPs, HEF	TRS	TRS
Maine/PERS*	DB	T, ESPs, HEF, HESPs	MainePERS	MainePERS
Maryland/ERPS*	DB	ESPs, HESPs	Maryland State Retirement and Pension System	Maryland State Retirement and Pension System
Maryland/TRPS*	DB	T, HEF	Maryland State Retirement and Pension System	Maryland State Retirement and Pension System

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TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Massachusetts/SERS*	DB	HEF, HESPs	Massachusetts State Board of Retirement	Massachusetts Pension Reserves Investment Management Board
Massachusetts/TRS*	DB	T	Massachusetts Teachers' Retirement Board	Massachusetts Pension Reserves Investment Management Board
Massachusetts/Boston/SBRS*†	DB	T, ESPs	Boston Retirement Board	Boston Retirement Board
Michigan/MPSERS-DB plan*	DB	T, ESPs, HEF, HESPs	Department of Management and Budget, Office of Retirement Services	State Treasurer
Michigan/MPSERS-Pension Plus plan*	DB with some DC features	T, ESPs, HEF, HESPs	Department of Management and Budget, Office of Retirement Services	State Treasurer
Michigan/MPSERS-DC plan	Optional Primary DC	T, ESPs, HEF, HESPs	Voya Financial LLC	State Street (SSgA)
Minnesota/GERP*	DB	HESPs	Minnesota State Retirement System	Minnesota State Board of Investment
Minnesota/PERA*	DB	ESPs, HESPs	PERA	Minnesota State Board of Investment
Minnesota/TRA*	DB	T, HEF	TRA	Minnesota State Board of Investment
Minnesota/St. Paul/SPTRFA*	DB	T	SPTRFA	SPTRFA
Mississippi/PERS*	DB	T, ESPs, HEF, HESPs	PERS	PERS
Missouri/MOSERS*	DB	HESPs	MOSERS	MOSERS
Missouri/PEERS*	DB	ESPs, HESPs	PEERS	PSRS/PEERS
Missouri/PSRS*	DB	T, HEF	PSRS	PSRS/PEERS

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TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Missouri/Kansas City/PSRS†	DB	T, ESPs	PSRS	PSRS
Missouri/St. Louis/PSRS	DB	T, ESPs	PSRS	PSRS
Montana/PERS-DBRP*	DB	ESPs, HESPs	Montana Public Employee Retirement Administration (MPERA)	Montana Board of Investments
Montana/PERS-DCRP*	Optional primary DC	ESPs, HESPs	Montana Public Employee Retirement Administration (MPERA)	Montana Board of Investments
Montana/TRS*	DB	T, ESPs, HEF, HESPs	TRS	Montana Board of Investments
Nebraska/SERS*	DB	T, ESPs	Nebraska Public Employees' Retirement Systems	State Investment Officer and Investment Council
Nebraska/Omaha/OSERS*	DB	T, ESPs	Board of Education	Board of Education/OSERS
Nevada/PERS	DB	T, ESPs, HEF, HESPs	PERS	PERS
New Hampshire/NHRS*	DB	T, ESPs, HEF, HESPs	NHRS	NHRS
New Jersey/PERSt	DB	ESPs, HEF, HESPs	New Jersey Division of Pensions and Benefits, Department of the Treasury	New Jersey Division of Investment and State Investment Council
New Jersey/TPAF*†	DB	T	New Jersey Division of Pensions and Benefits, Department of the Treasury	New Jersey Division of Investment and State Investment Council
New Mexico/ERB	DB	T, ESPs, HEF, HESPs	ERB	ERB
New York/ERS	DB	ESPs, HEF, HESPs	ERS	State Comptroller is the sole trustee of the Common Retirement Fund
New York/STRS	DB	T, HEF	NYSTRS	NYSTRS

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T = Teachers

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(†) Data was collected by NEA staff from publicly available sources

TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
New York/New York City/ BERS	DB	ESPs, HESPs	BERS	BERS
New York/New York City/ TRS*	DB with optional DC plan	T, HEF	TRS	TRS
North Carolina/TSERS*	DB	T, ESPs, HEF, HESPs	Retirement Systems Division within Department of State Treasurer	Investment Management Division within Department of State Treasurer
North Dakota/PERS*†	DB with optional DC plan	ESPs, HESPs	PERS	North Dakota State Investment Board
North Dakota/TFFR	DB	T	Retirement and Investment Office	North Dakota State Investment Board
Ohio/PERS-DB plan*†	DB	ESPs, HESPs	PERS	PERS
Ohio/PERS-DC plan*†	Optional primary DC	ESPs, HESPs	PERS	PERS offers a list of investment options from which participants may choose
Ohio/PERS-Combined plan*†	DB with some DC features	ESPs, HESPs	PERS	PERS
Ohio/SERS*	DB	ESPs, HESPs	SERS	SERS
Ohio/STRS-DB plan*	DB	T, HEF	STRS	STRS
Ohio/STRS-DC plan*	Optional primary DC	T, HEF	STRS	STRS
Ohio/STRS-Combined plan*	DB with some DC features	T, HEF	STRS	STRS
Oklahoma/TRS*	DB	T, ESPs, HEF, HESPs	OTRS	OTRS
Oregon/PERS*	DB with some DC features	T, ESPs, HEF, HESPs	PERS	Oregon Investment Council
Pennsylvania/PSERS	DB	T, ESPs, HEF, HESPs	PSERS	PSERS
Pennsylvania/SERS*	DB	HEF, HESPs	SERS	SERS

Abbreviations

DB = Defined Benefit
DC = Defined Contribution
ESPs = Education Support Professionals
HEF = Higher Education Faculty

HESPs = Higher Education Support Professionals

T = Teachers

*See “Notes to Plans” in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Rhode Island/ERS*†	DB with some DC features	T, HEF, HESPs	ERSRI	Rhode Island State Investment Commission
Rhode Island/MERS*†	DB with some DC features	ESPs	ERSRI	Rhode Island State Investment Commission
South Carolina/SCRS*	DB with optional DC plan	T, ESPs, HEF, HESPs	South Carolina Public Employee Benefit Authority	Retirement System Investment Commission
South Dakota/SDRS*	DB	T, ESPs, HEF, HESPs	SDRS	South Dakota Investment Council
Tennessee/CRS*†	DB	T, ESPs, HEF, HESPs	CRS	CRS
Tennessee/CRS-Hybrid plan*†	DB with some DC features	T, ESPs, HEF, HESPs	DB portion: CRS DC portion: Great West Financial	DB portion: CRS DC portion: Great West Financial
Texas/TRS*	DB	T, ESPs, HEF, HESPs	TRS	TRS
Utah/URS-Tier 1*	DB	T, ESPs, HESPs	URS	URS
Utah/URS-Tier 2-Hybrid plan	DB with some DC features	T, ESPs, HESPs	URS	URS
Utah/URS-Tier 2 DC plan*	Optional primary DC	T, ESPs, HESPs	URS	URS
Vermont/MERS-DB plan*†	DB	ESPs	MERS	Vermont Pension Investment Committee
Vermont/MERS-DC plan*†	Optional primary DC	ESPs	MERS Board of Trustees	Fidelity
Vermont/STRS*†	DB	T	STRS Board of Trustees	Vermont Pension Investment Committee
Virginia/VRS*†	DB	T, ESPs, HEF, HESPs	VRS	VRS
Virginia/VRS-Hybrid plan*†	DB with some DC features	T, ESPs, HEF, HESPs	VRS	VRS
Virginia/Fairfax/ERFC	DB	T, ESPs	ERFC	ERFC

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TABLE 1.
Overview of Plans (Continued)

State/Plan	Type Plan	Covered Employees	Administrative Entity	Investment Entity
Washington/PERS-Plan 1*	DB	ESPs, HESPs	Department of Retirement Systems	Washington State Investment Board
Washington/PERS-Plan 2*	DB	HESPs	Department of Retirement Systems	Washington State Investment Board
Washington/PERS-Plan 3*	DB with a DC component	HESPs	Department of Retirement Systems	Washington State Investment Board
Washington/SERS-Plan 2*	DB	ESPs	Department of Retirement Systems	Washington State Investment Board
Washington/SERS-Plan 3*	DB with a DC component	ESPs	Department of Retirement Systems	Washington State Investment Board
Washington/TRS-Plan 1*	DB	T, ESPs, HEF	Department of Retirement Systems	Washington State Investment Board
Washington/TRS-Plan 2*	DB	T, ESPs, HEF	Department of Retirement Systems	Washington State Investment Board
Washington/TRS-Plan 3*	DB with a DC component	T, ESPs, HEF	Department of Retirement Systems	Washington State Investment Board
West Virginia/TRS*†	DB	T, ESPs	Consolidated Public Retirement Board	West Virginia Investment Management Board
West Virginia/TDCP*†	DC	T, ESPs	Consolidated Public Retirement Board	West Virginia Teachers' Defined Contribution Office offers a list of investments from which participants may choose
Wisconsin/WRS*	DB with alternate money-purchase calculation	T, ESPs, HEF, HESPs	Wisconsin Department of Employee Trust Funds	Wisconsin Investment Board
Wyoming/WRS*	DB	T, ESPs, HEF, HESPs	WRS	WRS

Abbreviations

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2. Assets, Membership, and Social Security Coverage

Most full-time employees of state and local governments participate in retirement plans—usually defined benefit plans that carry an obligation to provide a specified level of benefits at retirement according to formulas based on salaries and years of service.

Included in this survey are plans for

- Teachers
- Education support professionals (ESPs)
- Higher education support professionals (HESPs)
- Higher education faculty (HEF)

Figure 4 displays the various combinations of types of employees covered by the plans in the survey. Most commonly, teachers are in plans that primarily serve teachers and higher education faculty, along with certain ESPs and HESPs. ESPs and HESPs are just as likely to be in plans that cover a wide variety of employees.

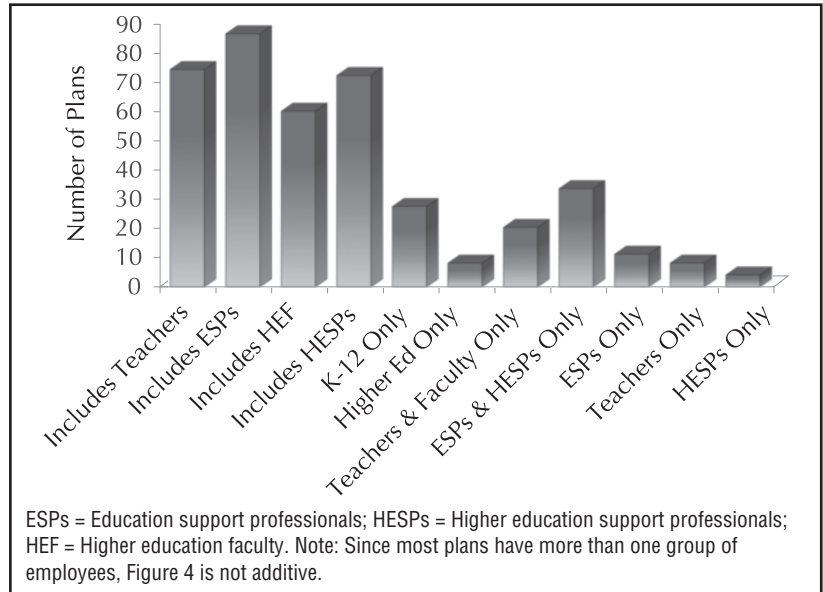
A total of 11,518,229 active members are covered by the plans reviewed by this survey. The median active membership is 50,904, while the average active membership is 101,037.¹ These plans range in size from the 1,051,425 active members of the Teacher Retirement System of Texas to the 293 active members of the Vermont Municipal Employees' Retirement System DC plan. The plans reviewed in this survey cover 7,448,340 annuitants.² The median annuitant membership is 35,131 and the average is 65,336.

Summary Chart 2 offers a brief overview of the plans covered by this survey in terms of active member plan size and annuitant population.

Assets

The value of the net assets held in the plans in this survey varies widely. The California Public Employees' Retirement System holds the highest level of assets (\$301.8 billion), while the Vermont

Figure 4. Distribution of Education Employee Groups Among the 114 Plans



Summary Chart 2. Overview of Plan Size

	Number of Plans
Active Members	
Fewer than 100,000	77
100,000 or more	37
Annuitants	
Fewer than 30,000	52
30,000 or more	62

Municipal Employees' Retirement System DC plan holds the lowest level (\$20 million). As noted in the previous section, market turmoil during the recent financial crisis has reduced plan assets. While most plans have achieved significant gains more recently, the volatility dampening technique of market smoothing means that a few of the plans will continue to reflect the impact of market losses (for more on market smoothing, see the discussion in Section 7).

Social Security Coverage

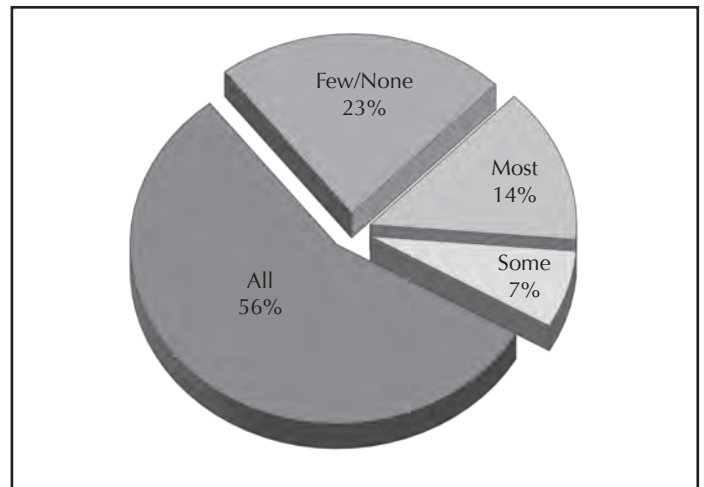
Unlike employees in the private sector, state and local government employees are not universally covered by Social Security. Individual government employers may choose Social Security coverage

¹ A number of plans have been closed to new participants, who then join follow-on plans. Obviously, the participant population in the old plans will decline over time. An example of this would be the Indiana Teachers' Retirement Fund, which has a pre-1996 fund and a separate "1996 fund."

² Annuitants include individuals receiving benefits from service retirement, disability retirement, or survivor payments.

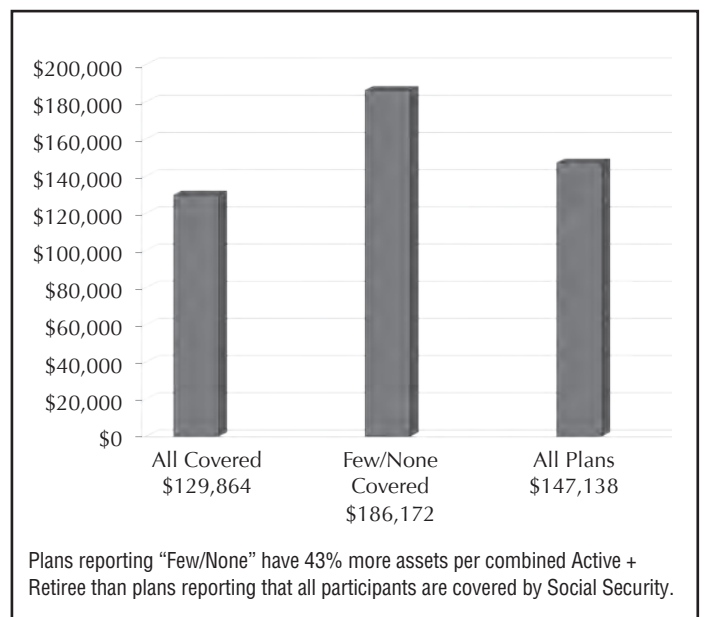
for their employees if they are already covered by a state or local retirement system. There are usually differences between the benefits received by government employees from their government-sponsored retirement plans, depending on whether they also are covered by Social Security. The primary differences are higher benefit formulas for those employees without Social Security coverage in order to make up for the lack of Social Security benefits. As shown in Figure 5, 80 out of the 114 plans in the survey (70 percent) report that all or most participants also are covered by the Social Security system. When measuring the Social Security coverage of active participants, plans reporting that all or most participate accounted for approximately 70 percent of total active members. In many plans, Social Security coverage is not a simple issue in which all retirement plan members are either covered by Social Security or not. In certain cases, only some members in a retirement plan have Social Security coverage. How is that possible? At the time Congress enacted the Social Security Act (SSA) in 1935, state and local government employees were excluded from Social Security coverage. In 1950, Congress amended the SSA to allow state governments to enter into voluntary agreements with the federal government to provide Social Security coverage to some or all state employees and employees of political subdivisions, such as school districts. States have master Section 218 agreements (called that because they are authorized in Section 218 of SSA), which are then modified as political subdivisions decide whether and how to cover their employees by Social Security. In states such as Georgia, Montana, Oklahoma, Rhode Island, and Texas, some school districts decided to cover their employees by Social Security while others did not. What's important to note is that all retirement plan members are entitled to the same retirement benefit, regardless of Social Security coverage, unless the plan provisions specify different terms based upon whether a member is covered by Social Security.³

Figure 5. Social Security Coverage of Education Employees by Plan



Employees not covered by Social Security must rely on their retirement system for benefits that equal those for covered employees whose benefits include payments from both Social Security and the retirement plan. Because of this, accrual rates for employees who are not covered by Social Security are typically higher than for those who are covered. Figure 6 compares the average assets per active and retired members of education-related pension plans, based on Social Security coverage. Not surprisingly, for plans with few or no participants covered by

Figure 6. Assets per Active and Annuitant, by Social Security Coverage



³ A pension design exists in which participants who are eligible for both a public employee pension and a Social Security benefit receive a benefit that integrates the pension benefits with Social Security benefits. Integrated plans explicitly recognize Social Security coverage in the design of the plan by means of such methods as step-up or offset formulas. Very few plans reviewed in the survey use this design. Step-up formulas apply lower pension-benefit rates to an employee's earnings up through a specified earnings level, such as the Social Security taxable wage base and higher rates above that level.

Social Security, the average assets per active and retiree are significantly higher; assets per active and retiree are 43 percent higher than plans that cover all actives and retirees.⁴

Table 2, which follows, provides detailed information on the total net assets, type of employees covered, active and retiree membership, and the status of Social Security coverage.

NEA's position on Social Security is that it should be available to eligible education employees where desired but that it should not be mandated.

Further, NEA believes that Social Security benefits should not be integrated or coordinated with the benefits payable by public education pension plans, a practice that reduces payments of total benefits earned.

Appendix 4, Resolution F-63—Social Security)

⁴ Public employees not covered by Social Security may well have earned benefits while working in other employment covered by Social Security. However, because of the Government Pension Offset (GPO) and the Windfall Elimination Provision (WEP), a retiree who receives a public pension will lose a significant portion of any Social Security retirement benefits or Social Security survivor benefits they would expect to collect. NEA supports the repeal of these unfair reductions.

TABLE 2.
Assets, Membership, and Social Security Coverage

State/Plan	Total Net Assets (billions of dollars)	Covered Employees	Active Members	Annuitants	Covered by Social Security
Alabama/TRS	22.40	T, ESPs, HEF, HESPs	133,791	86,181	All
Alaska/PERS-DB plan*	14.60	ESPs, HESPs	19,474	30,376	Some
Alaska/PERS-DC plan*	0.70	ESPs, HESPs	16,210	0	Some
Alaska/TRS-DB plan*	6.00	T, HEF	5,995	11,726	Few/None
Alaska/TRS-DC plan*	0.28	T, HEF	3,650	0	Few/None
Arizona/ASRS*	33.69	T, ESPs, HEF, HESPs	203,201	126,255	All
Arkansas/ATRS*	14.20	T, ESPs, HEF, HESPs	70,225	38,478	All
California/PERS*†	301.80	ESPs, HEF, HESPs	738,422	726,563	Most
California/STRS*	190.47	T, ESPs, HEF, HESPs	420,887	241,920	Few/None
California/UCRP*†	48.30	HEF, HESPs	120,568	64,191	Most
Colorado/PERA-DB plan*	44.20	T, ESPs, HEF, HESPs	202,750	107,577	Few/None
Colorado/PERA-DC plan*	0.13	HEF, HESPs	5,046	0	Few/None
Connecticut/CMERS*†	2.20	ESPs	8,477	6,511	Some
Connecticut/TRS	16.20	T, HEF	51,738	34,313	Few/None
Delaware/SEPP*†	8.40	T, ESPs, HEF, HESPs	35,571	23,579	All
District of Columbia/DCPP*	0.69	ESPs	15,480	1,748	All
District of Columbia/TRF	1.70	T	4,499	3,601	Few/None
Florida/FRS-DB plan*	149.90	T, ESPs, HEF, HESPs	512,364	401,092	All
Florida/FRS-DC plan*	7.90	T, ESPs, HEF, HESPs	109,725	48,275	All
Georgia/PSERS*	0.82	ESPs	36,096	16,395	Some
Georgia/TRS*	66.50	T, ESPs, HEF, HESPs	209,855	108,100	Most
Hawaii/ERS*†	13.64	T, ESPs, HEF, HESPs	67,206	43,087	Most

Abbreviations

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 HEF = Higher Education Faculty
 HESPs = Higher Education Support Professionals

T = Teachers

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TABLE 2.
Assets, Membership, and Social Security Coverage (Continued)

State/Plan	Total Net Assets (billions of dollars)	Covered Employees	Active Members	Annuitants	Covered by Social Security
Idaho/PERS*	14.20	T, ESPs, HESPs	66,223	40,776	All
Illinois/IMRF*	35.00	ESPs	173,579	111,989	All
Illinois/SURS*	18.90	ESPs, HEF, HESPs	80,845	59,406	Few/None
Illinois/TRS	45.80	T	159,838	101,184	Few/None
Illinois/Chicago/MEA&BF†	5.68	ESPs	30,160	24,855	Few/None
Illinois/Chicago/CTPF†	10.81	T	30,654	27,722	Few/None
Indiana/PERF*†	13.80	ESPs, HESPs	137,567	75,950	All
Indiana/PERF-ASA Only†	0.00	ESPs, HESPs	395	0	All
Indiana/TRF*†	10.40	T, HEF	70,414	53,010	All
Iowa/PERS	28.04	T, ESPs, HEF, HESPs	165,913	108,233	All
Kansas/PERS*	15.70	T, ESPs, HESPs	155,446	86,843	All
Kansas/PERS 3 (Cash Balance plan)*	0.00	T, ESPs, HESPs	0	0	Most
Kentucky/CERS*†	6.10	ESPs, HESPs	78,230	49,935	Most
Kentucky/CERS Hybrid Cash Balance plan*†	0.00	ESPs, HESPs	2,885	0	All
Kentucky/TRS	18.00	T, ESPs, HEF, HESPs	74,451	48,463	Few/None
Louisiana/SERS*	1.60	ESPs	12,054	12,711	Few/None
Louisiana/TRS*	17.90	T, ESPs, HEF	85,177	73,195	Few/None
Maine/PERS*	12.80	T, ESPs, HEF, HESPs	50,782	41,135	Some
Maryland/ERPS*	15.37	ESPs, HESPs	84,916	69,482	All
Maryland/TRPS*	27.49	T, HEF	104,470	68,929	All
Massachusetts/SERS*	22.70	HEF, HESPs	88,508	57,774	Few/None
Massachusetts/TRS*	22.94	T	88,788	61,034	Few/None

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TABLE 2.
Assets, Membership, and Social Security Coverage (Continued)

State/Plan	Total Net Assets (billions of dollars)	Covered Employees	Active Members	Annuitants	Covered by Social Security
Massachusetts/Boston/SBRS*†	5.40	T, ESPs	20,278	14,341	Few/None
Michigan/MPERS-DB plan*	43.70	T, ESPs, HEF, HESPs	227,756	204,512	All
Michigan/MPERS-Pension Plus plan*	0.00	T, ESPs, HEF, HESPs	0	0	All
Michigan/MPERS-DC plan	0.18	T, ESPs, HEF, HESPs	66,453	0	All
Minnesota/GERP*	11.49	HESPs	49,663	34,729	All
Minnesota/PERA*	15.60	ESPs, HESPs	143,343	73,552	All
Minnesota/TRA*	20.29	T, HEF	77,243	58,809	Most
Minnesota/St. Paul/SPTRFA*	1.00	T	3,959	3,529	Most
Mississippi/PERS*	25.00	T, ESPs, HEF, HESPs	161,360	93,504	All
Missouri/MOSERS*	9.27	HESPs	51,026	41,511	All
Missouri/PEERS*	3.85	ESPs, HESPs	45,589	25,029	All
Missouri/PSRS*	34.40	T, HEF	75,168	49,707	Few/None
Missouri/Kansas City/PSRS†	0.71	T, ESPs	3,493	4,011	All
Missouri/St. Louis/PSRS	0.94	T, ESPs	4,880	4,689	All
Montana/PERS-DBRP*	4.90	ESPs, HESPs	28,229	20,081	Most
Montana/PERS-DCRP*	0.13	ESPs, HESPs	2,188	29	Most
Montana/TRS*	3.60	T, ESPs, HEF, HESPs	18,272	14,349	Most
Nebraska/SERS*	9.45	T, ESPs	40,462	20,692	All
Nebraska/Omaha/OSERS*	1.25	T, ESPs	8,352	4,125	All
Nevada/PERS	33.60	T, ESPs, HEF, HESPs	100,522	55,208	Few/None
New Hampshire/NHRS*	7.41	T, ESPs, HEF, HESPs	48,307	31,054	Most
New Jersey/PERSt	29.00	ESPs, HEF, HESPs	266,526	160,716	All

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TABLE 2.
Assets, Membership, and Social Security Coverage (Continued)

State/Plan	Total Net Assets (billions of dollars)	Covered Employees	Active Members	Annuitants	Covered by Social Security
New Jersey/TPAF*†	27.30	T	152,812	94,822	All
New Mexico/ERB	11.30	T, ESPs, HEF, HESPs	61,173	42,246	All
New York/ERS	154.27	ESPs, HEF, HESPs	493,209	389,288	All
New York/STRS	108.20	T, HEF	270,039	155,931	All
New York/New York City/BERS	3.28	ESPs, HESPs	35,472	15,912	All
New York/New York City/TRS*	44.49	T, HEF	111,726	76,162	All
North Carolina/TSERS*	62.00	T, ESPs, HEF, HESPs	310,370	187,448	All
North Dakota/PERS*†	1.89	ESPs, HESPs	22,262	9,362	Most
North Dakota/TFFR	2.09	T	10,305	7,747	Most
Ohio/PERS-DB plan*†	85.26	ESPs, HESPs	328,341	202,789	Few/None
Ohio/PERS-DC plan*†	0.66	ESPs, HESPs	10,755	167	Few/None
Ohio/PERS-Combined plan*†	0.69	ESPs, HESPs	7,413	156	Few/None
Ohio/SERS*	13.20	ESPs, HESPs	121,251	72,605	Few/None
Ohio/STRS-DB plan*	70.99	T, HEF	164,028	152,208	Few/None
Ohio/STRS-DC plan*	0.85	T, HEF	8,483	100	Few/None
Ohio/STRS-Combined plan*	0.00	T, HEF	5,267	60	Few/None
Oklahoma/TRS*	14.40	T, ESPs, HEF, HESPs	89,570	56,389	Most
Oregon/PERS*	70.00	T, ESPs, HEF, HESPs	164,836	132,950	All
Pennsylvania/PSERS	53.30	T, ESPs, HEF, HESPs	263,312	213,900	All
Pennsylvania/SERS*	27.33	HEF, HESPs	104,431	122,249	All
Rhode Island/ERS*†	6.20	T, HEF, HESPs	24,567	21,941	Some
Rhode Island/MERS*†	0.89	ESPs	7,263	5,129	Some

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TABLE 2.
Assets, Membership, and Social Security Coverage (Continued)

State/Plan	Total Net Assets (billions of dollars)	Covered Employees	Active Members	Annuitants	Covered by Social Security
South Carolina/SCRS*	25.74	T, ESPs, HEF, HESPs	185,265	122,543	All
South Dakota/SDRS*	10.60	T, ESPs, HEF, HESPs	38,951	24,562	All
Tennessee/CRS*†	42.90	T, ESPs, HEF, HESPs	214,060	133,290	All
Tennessee/CRS-Hybrid plan*†	0.00	T, ESPs, HEF, HESPs	0	0	All
Texas/TRS*	132.80	T, ESPs, HEF, HESPs	1,051,425	363,182	Some
Utah/URS-Tier 1*	21.00	T, ESPs, HESPs	71,827	45,921	All
Utah/URS-Tier 2-Hybrid plan	0.09	T, ESPs, HESPs	17,225	0	All
Utah/URS-Tier 2 DC plan*	4.50	T, ESPs, HESPs	3,150	0	All
Vermont/MERS-DB plan*†	0.50	ESPs	6,664	2,359	All
Vermont/MERS-DC plan*†	0.02	ESPs	293	0	All
Vermont/STRS*†	1.61	T	9,952	8,086	All
Virginia/VRS*†	70.49	T, ESPs, HEF, HESPs	341,499	177,126	All
Virginia/VRS-Hybrid plan*†	0.00	T, ESPs, HEF, HESPs	0	0	All
Virginia/Fairfax/ERFC	2.10	T, ESPs	21,352	10,524	All
Washington/PERS-Plan 1*	7.94	ESPs, HESPs	4,059	50,679	All
Washington/PERS-Plan 2*	28.10	HESPs	117,484	37,903	All
Washington/PERS-Plan 3*	2.32	HESPs	30,093	3,064	All
Washington/SERS-Plan 2*	3.86	ESPs	25,780	6,465	All
Washington/SERS-Plan 3*	1.65	ESPs	31,408	5,634	All
Washington/TRS-Plan 1*	6.49	T, ESPs, HEF	1,367	35,532	All
Washington/TRS-Plan 2*	9.79	T, ESPs, HEF	16,330	4,275	All
Washington/TRS-Plan 3*	6.96	T, ESPs, HEF	54,061	7,337	All

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(†) Data was collected by NEA staff from publicly available sources

TABLE 2.
Assets, Membership, and Social Security Coverage (Continued)

State/Plan	Total Net Assets (billions of dollars)	Covered Employees	Active Members	Annuitants	Covered by Social Security
West Virginia/TRS*†	6.68	T, ESPs	35,724	34,000	All
West Virginia/TDCP*†	0.41	T, ESPs	4,037	161	All
Wisconsin/WRS*	92.13	T, ESPs, HEF, HESPs	257,255	185,605	Most
Wyoming/WRS*	6.67	T, ESPs, HEF, HESPs	36,489	23,760	All

Abbreviations

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(†) Data was collected by NEA staff from publicly available sources

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3. Eligibility for Retirement

Most plans in this survey provide for some combination of years of service and age in order to qualify for an immediate, normal full retirement benefit or for an immediate, reduced early retirement benefit. Minimum eligibility for a nonforfeitable right to a retirement benefit, at some time in the future, is usually stated in the form of vesting requirements. Service credits for retirement purposes may often be increased through the purchase of service credits for prior service outside of the plan. Each of these elements of service-related retirement eligibility is examined here for the plans reviewed in this survey.

Normal Retirement

A member of a retirement plan is eligible for normal retirement if he or she can retire on an immediate, unreduced benefit, although the actual benefit amount is dependent on the number of years of service that the participant has earned (the final average salary, however computed, also will have an important effect on the benefit amount). The normal retirement age and service requirements for the plans covered by this survey are examined in detail in Table 3.

While normal full retirement from active public employment is available at age 60 or age 62 in the majority of the plans studied, employees usually are offered more than one combination of age and service requirements for normal retirement eligibility.

Most of the plans studied permit normal full retirement at age 65, or earlier with sufficient service credit. However, a few plans have raised the normal retirement age above the traditional age of 65. For example, the Public Employees Retirement Association of Minnesota raised its normal retirement age to 66, increasing it in conjunction with the increase in Social Security's normal retirement age, but stopped at 66.¹ In addition, during 2009 through 2014, 34 states enacted legislation that establishes new provisions, including

higher normal retirement ages or higher age/service rules for unreduced retirement—typically for future workers (see Appendix 1, Notes to Tables). Among plans with alternative age/service provisions, about 30 percent of the plans permit normal retirement at any age for employees who have accumulated a specific number of years of service credit—most commonly 30 years. In this survey, the earliest age/service combination reported for normal retirement was any age with 20 years of service.

Early Retirement

A member is eligible for reduced early retirement benefits upon meeting age and/or service requirements that are somewhat lower than those imposed for normal full retirement. Almost all plans in the survey have some provision for early retirement. Age 55 is the most common early retirement age among these plans.

Early retirement benefits are reduced because the early retiree is expected to collect benefits over a longer period of time than an employee retiring at normal retirement age. Early retirement benefits are usually computed based on the normal retirement formula, with the benefit then reduced by either a specified annual percentage or by an actuarial reduction applied based on the number of years that the early-age retirement precedes normal-age retirement.²

For example, if a plan's normal retirement age is 62 and the reduction percentage is 6 percent per annum, then a person retiring at age 60 would receive 88 percent of the normal retirement benefit amount. Plus, it is important to note that his/her benefit is already likely to be lower because of fewer years of service credit. Table 3 lists the age and service requirements for an early retirement benefit for each plan along with the reduction factors applied in those plans that allow early retirements.

The most common annual percentage discounts for the first five years of difference between early and normal retirement are 3 percent and 6 percent; the former used by 48 plans, the latter by 49 plans,

¹ Social Security's normal retirement age has already increased from 65 to 66, and is slated to increase to age 67 over time. Age 62 is the earliest age at which Social Security benefits are payable, but only at a rate of 80 percent of the age 65 benefit. The 1983 Social Security amendments made significant changes in benefit eligibility. While reduced benefits will continue to be available at age 62, the full retirement age will gradually increase to 67 by the year 2027, and the reduction in benefits payable at age 62 also will increase, with a worker retiring at age 62 in the year 2027 scheduled to receive 70 percent of the age 67 benefit.

² In most plans, retirement may be taken at an early age or lower combination of age and service than for normal retirement, but the benefit-formula percentage factor is reduced.

each representing about 22 percent of the 219 plans and sub-plans reporting identifiable reduction factors. Other plans either use another percentage or a reduction factor that is actuarially computed by taking into account interest rates and life expectancy differences between early and normal retirement.

Vesting³

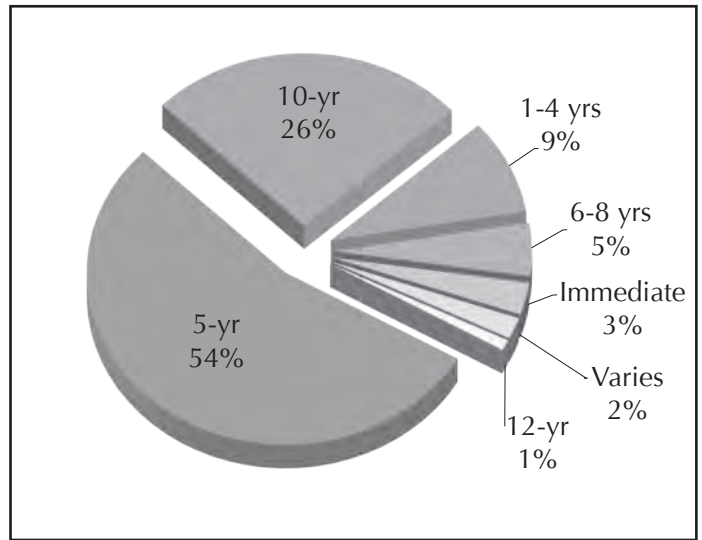
A retirement plan's full vesting provisions determine when employees acquire an irrevocable right to their full accrued benefits under the plan, even if they leave employment prior to eligibility for an immediate retirement benefit. In the plans studied, as Figure 7 shows, full vesting most often occurs after five years—that is the case in about 54 percent of the plans reviewed. Thus, vesting requirements are the same as under the private-sector ERISA standard. Twenty-six percent of the plans reviewed maintain a 10-year vesting period. The West Virginia Teachers' Deferred Compensation Plan, which is now closed to new members, provides for full vesting of employer matching contributions only after 12 years, with one-third of the employer's contributions vested at six years and two-thirds vested at nine years. Some plans provide that all employees automatically vest at normal retirement age, regardless of service credit.

Purchase of Service Credits

In many state plans, participants who change employers (such as school systems within the state) continue to accrue service in the same plan. Other states and local jurisdictions do not have such arrangements. When education employees accept employment in other states, they are not always eligible to transfer their service credits to their new employers. Often, however, plans offer provisions that permit employees to purchase (or otherwise receive credit for) service credits that reflect their previous employment in the public sector.

In the absence of full portability of benefits, the opportunity to purchase service credits for past service as a public employee, which would otherwise not be pensionable, is an important adjunct to a defined benefit plan. Without purchase-of-service-credit arrangements, a person could work under

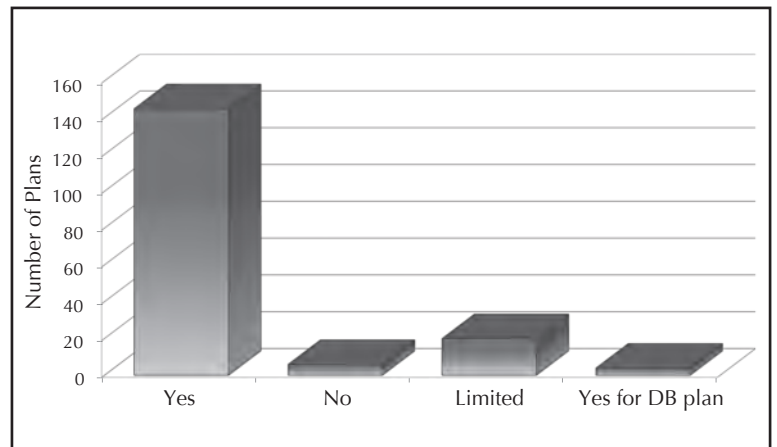
Figure 7. Full Vesting Requirements



NEA urges pension plans to adopt “[f]ull vesting in no more than 5 years.”

(Appendix 4, Resolution F-61—Retirement: third paragraph, a.)

Figure 8. Purchase of Service Credit Offered



several retirement plans during his or her career without becoming vested and, therefore, never become eligible for retirement benefits.

Purchase-of-service-credits provisions are very common. As can be seen in Figure 8, most plans provide for some arrangement for purchasing service credits. However, while many teacher plans provide for the purchase of service credits for past public

³ With DC plans, participants' own contributions are immediately vested, but employer contributions often vest over a longer period, usually between three and five years, but sometimes longer.

school teaching in another state, purchase-of-service-credit arrangements can differ as to the types of prior service that qualify, the amount that must be paid for the purchase, the maximum amount of service credits that can be purchased, and the payment options available.

Table 3, which follows, provides information on normal retirement age/service requirements, early retirement age/service requirements, vesting periods, and purchase-of-service-credit provisions.

NEA supports “[p]rovisions permitting the purchase of service credit earned while a member of another retirement system” and the purchase of service credit “for sabbatical leaves, maternity/paternity/adoption leaves where credit is not automatically given, and any other approved leaves of absence.”

(Appendix 4, Resolution F-61—Retirement: l. and m.)

TABLE 3.
Eligibility for Retirement

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Alabama/TRS-Tier I-Hired before 1/1/2013	60/10; A/25	None	N/A	10	Yes
Alabama/TRS-Tier II-Hired on or after 1/1/2013	62/10	None	N/A	10	Yes
Alaska/PERS-DB plan*	60/5; A/30	55/5	6%	5	Yes
Alaska/PERS-DC plan*				0	N/A
Alaska/TRS-DB plan*	60/8; A/20	55/8	6%	8	Yes
Alaska/TRS-DC plan*				0	N/A
Arizona/ASRS*	Hired before 7/1/2011: 65/A; 62/10; R-80 Hired on or after 7/1/2011: 65/A; 60/25; 55/30	50/5	3%; 5%	0	Yes
Arkansas/ATRS*	60/5; A/28	A/25	5%	5	Yes
California/PERS-Hired before 1/1/2013-Classic Members*†	55/5	50/5	Varies between 9-14%, based on multiplier	5	Yes
California/PERS-Hired on or after 1/1/2013-New Members*†	62/5	52/5	Varies between 5-9%, based on multiplier	5	Limited
California/STRS-Hired before 1/1/2013*	60/5	55/5; 50/30	6%; 3%	5	Limited
California/STRS-Hired on or after 1/1/2013*	62/5	55/5	6%	5	Limited
California/UCRP-1976 Tier*†	50/5	None	Varies between 5.6-11.3%, based on multiplier	5	Limited
California/UCRP-2013 Tier*†	55/5; 50/5 for AFSCME, CNA and UPTE	None	Varies between 5.6-11.3%, based on multiplier	5	Limited

Abbreviations

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R-n = "Rule of n" (Age + Service = n)

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Colorado/PERA-DB plan*	Hired before 7/1/2005 : 65/5; 50/30; R-80 Hired on or after 1/1/2011: 65/5; 58/30; R-88	60/5; 55/20; 50/25	4%; 3%; 6% for members eligible to retire prior to 1/1/2011; actuarial equivalent for members not eligible to retire 1/1/2011	5	Yes
Colorado/PERA-DC plan*				0	N/A
Connecticut/CMERS*†	55/5; A/25	A/5	AR	5 years of continuous service or 15 aggregate	Yes
Connecticut/TRS*	60/20; A/35	55/20; A/25	6%; 4%	10	Yes
Delaware/SEPP-Hired before 1/1/2012*†	62/5; 60/15; A/30	55/15; A/25	2.4%	5	Yes
Delaware/SEPP-Hired on or after 1/1/2012*†	65/10; 60/20; A/30	55/15; A/25	4.8%	10	Yes
District of Columbia/DCPP*	A/5	N/A	N/A	5	No
District of Columbia/TRF*	Hired before 11/1/96: 62/5; 60/20; 55/30 Hired on or after 11/1/96: 62/5; 60/20; A/30	A/25; 50/20	2%	5	Yes
Florida/FRS-DB plan-Hired before 7/1/2011*	62/6; A/30	A/6	5%	6	Yes
Florida/FRS-DB plan-Hired on or after 7/1/2011*	65/8; A/33	A/8	5%	8	Yes
Florida/FRS-DC plan*	A/1	None		1	No
Georgia/PSERS*	65/10	60/10	6%	10	Limited
Georgia/TRS*	60/10; A/30	A/25	7%	10	Yes
Hawaii/ERS-Contributory-Hired before 7/1/2012*†	62/5; 55/30	55/20	5% for each year under age 62	5	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Hawaii/ERS-Contributory-Hired on or after 7/1/2012*†	65/10; 60/30	55/20	5% for each year under age 65	10	Yes
Hawaii/ERS-Non-Contributory*†	62/10; 55/30	55/20	6% for each year under age 62	10	Yes
Idaho/PERS*	65/5; R-90	55/5	3%; 5.75%	5	Yes
Illinois/IMRF-Tier I-Hired before 1/1/2011*	60/8; 55/35	55/8	3%	8	Yes
Illinois/IMRF-Tier II-Hired on or after 1/1/2011*	67/10	62/10	6%	10	Yes
Illinois/SURS-Tier I-Hired before 1/1/2011*	60/8; 62/5; A/30	55/8	Reduction of 0.5% for each month under age 60 at retirement may apply	5	Yes
Illinois/SURS-Tier II-Hired on or after 1/1/2011*	67/10	62/10	Reduction of 0.5% for each month under age 67 at retirement may apply	10	Yes
Illinois/TRS-Tier I-Hired before 1/1/2011*	62/5; 60/10; 55/35	55/20	6%	5	Yes
Illinois/TRS-Tier II-Hired on or after 1/1/2011*	67/10	62/10	6%	10	Yes
Illinois/Chicago/MEA&BF-Tier I-Hired before 1/1/2011*†	60/10; 55/20; 50/30	60/A	1/4 of 1% each month under 60	10	Yes
Illinois/Chicago/MEA&BF-Tier II-Hired on or after 1/1/2011*†	65/10	60/10	1/2% for each month under 65	10	Yes
Illinois/Chicago/CTPF-Tier I-Hired before 1/1/2011*†	62/5; 60/20; 55/34	55/20	6%	5	Yes
Illinois/Chicago/CTPF-Tier II-Hired on or after 1/1/2011*†	67/10	62/10	6%	10	Yes
Indiana/PERF*†	65/10; 60/15; R-85	50/15	11% at age 59 plus 5%/year earlier	10	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Indiana/PERF-ASA Only*†				Graded Vesting	N/A
Indiana/TRF*†	65/10; 60/15; R-85	50/15	11% at age 59 plus 5%/year earlier	10	Yes
Iowa/PERS	65/A; 62/20; R-88	55/7	6%	7 or age 55 and making contributions	Yes
Kansas/PERS 1*	65/1; 62/10; R-85	55/10	2.4%; 7.2%	5	Yes
Kansas/PERS 2*	65/5 or 60 with 30 YOS	55/10	Reduced actuarially		Yes
Kansas/PERS 3 (Cash Balance plan)*	65/5; 60/30	55/10		5	Yes
Kentucky/CERS-Tier 1-Hired before 9/1/2008*†	65/4; A/27	55/5; A/25	6.5%; 4.5%	5 under age 65, 4 at 65 or older	Yes
Kentucky/CERS-Tier 2-Hired on or after 9/1/2008 and before 1/1/2014*†	65/5; R-87 at age 57	60/10	6.5%; 4.5%	5 under age 65, 4 at 65 or older	Yes
Kentucky/CERS Hybrid Cash Balance plant	65/5; R-87 at age 57			5	Yes
Kentucky/TRS*	60/5; A/27	Membership began prior to 07/01/08: 55/5 Membership began after 06/30/08: 55/10	Membership began prior to 7/01/08: 5% for the lesser of each year under age 60 or 27 years of service Membership after 6/30/08: 6% for the lesser of each year under age 60 or 27 years of service	5	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Louisiana/SERS*	Hired before 7/1/2010: 60/10; 55/25; A/30 Hired on or after 7/1/2010: 60/5	A/20	AR	Hired before 7/1/2010: 10 years; Hired on or after 7/1/2010: 5 years	Yes
Louisiana/TRS-Regular plan*	62/5	A/20	AR	5	Yes
Louisiana/TRS-Plan A*	60/5; 55/25; A/30	None	N/A	5	Yes
Louisiana/TRS-Plan B*	62/5	A/20	AR	5	Yes
Maine/PERS*	60/10, 62/5 or 65/5	A/25	2.25% or 6%	5	Yes
Maryland/ERS*	60; A/30	A/25	6%	5	Yes
Maryland/EPF*	ACPS: A/30; 62/5; 63/4; 64/3; 65+2 RCPB: 65/10; R-90	ACPS: 55/15 RCPB: 60/15	6%	10	Yes
Maryland/TRS*	60; A/30	A/25	6%	5	Yes
Maryland/TPS*	ACPS: A/30; 62/5; 63/4; 64/3; 65/2 RCPB: 65/10; R-90	ACPS: 55/15 RCPB: 60/15	6%	10	Yes
Massachusetts/SERS*	Hired before 4/2/2012: 65/10; A/20 On or after 4/2/2012: 67/10	Hired before 4/2/2012: 55/10 On or after 4/2/2012: 60/10	Hired before 4/2/2012: multiplier reduced 0.1%/year under age 65 On or after 4/2/2012: Multiplier reduced 0.15%/year under age 67	10	Yes
Massachusetts/TRS-Tier 1*	65/10	55/10	Multiplier reduced 0.1%/year	10	Yes
Massachusetts/TRS-Tier 2*	67/10	60/10	Multiplier reduced 0.125-0.150%/ year	10	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Massachusetts/Boston/SBRS*†	Tier 1: 65/10 Tier 2: 67/10	Tier 1: 55/10; A/20 Tier 2: 60/10	Tier 1: multiplier reduced 0.1%/year under age 65 Tier 2: multiplier reduced 0.15%/ year under age 67	10	Limited
Michigan/MPSERS-DB plan*	MIP: 46/30; 60/10; 60/5 Basic: 55/30; 60/10	55/15	6%	10	Yes
Michigan/MPSERS-Pension Plus plan*	60/10			10	N/A
Michigan/MPSERS-DC plan*				4	N/A
Minnesota/GERP*	66	Hired before 7/1/2010: 55/3; Hired after July 1, 2010: 55/5	Hired before 7/1/2010: AR; Hired on or after 7/1/2010: AR	Hired before 7/1/2010: 3; Hired on or after 7/1/2010: 5	Limited
Minnesota/PERA*	Method 1: 65/1; R-90. Only for members hired before July 1, 1989 Method 2: SSA age (66 maximum)	Method 1: 55/3; A/30 Method 2: 55/3, or 55/5 years if enrolled (hired) on or after July 1, 2010.	Hired before 7/1/2010: Method 1: 3%/year Method 2: AR (about 6%)	Hired before 7/1/2010: 3; Hired on or after 7/1/2010: 5	Limited
Minnesota/TRA-Tier 1*	65/3; 62/30; R-90	55/3; A/30	3%	3	Limited
Minnesota/TRA-Tier 2*	66/3	55/3	4.0-6.7%	3	Limited
Minnesota/St. Paul/SPTRFA-Basic plan, Tier 1*	60/25; 65/5; R-90	55/5; 55/25	3%	5	Limited
Minnesota/St. Paul/SPTRFA-Basic plan, Tier 2*	65/5	55/5	AR	5	Limited
Minnesota/St. Paul/SPTRFA- Coordinated plan, Tier 1*	62/30; 65/3	A/30	3%	3	Limited
Minnesota/St. Paul/SPTRFA- Coordinated plan, Tier 2*	65-66/3	55/3; A/30	AR	3	Limited

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Mississippi/PERS-Tiers 1-3*	60/8; A/25	None	N/A	8	Yes
Mississippi/PERS-Tier 4*	60/8; A/30	None	N/A	8	Yes
Missouri/MOSERS-MSEP*	65/4 and active; 65/5; 60/15; R-80	55/10	6%	5	Limited
Missouri/MOSERS-MSEP 2000*	62/5; R-80	57/5	6%	5	Limited
Missouri/MOSERS-MSEP 2011*	67/10; R-90	62/10	6%	10	Limited
Missouri/PEERS*	60/5; A/30; R-80	55/5; A/25	AR	5	Yes
Missouri/PSRS*	60/5; A/30; R-80	55/5; A/25	AR	5	Yes
Missouri/Kansas City/PSRS-Plan B*†	60/5; R-75	55/5	AR	5	Yes
Missouri/Kansas City/PSRS-Plan C*†	62/5; R-80	55/5	AR	5	Yes
Missouri/St. Louis/PSRS*	65/A; R-85	60/5	6.67%	5	Yes
Montana/PERS-DBRP-Hired before 7/1/2011*	65/A; 60/5; A/30	50/5; A/25	6%; 3.6%	5	Yes
Montana/PERS-DBRP-Hired on or after 7/1/2011*	70/A; 60/5	55/5	AR	5	Yes
Montana/PERS-DCRP*				0	No
Montana/TRS-Tier 1-Member before 7/1/2013*	60/5; A/25	50/5	Actuarially determined based on age	5	Yes
Montana/TRS-Tier 2-Member on or after 7/1/2013*	60/5; 55/30	55/5	Actuarially determined based on age	5	Yes
Nebraska/SERS*	65/5; R-85 at ages 55-64	60/5; A/35; 55/R- 85	60/5: 3% for each year under age 65; A/35: actuarially reduced on the basis of age 65	5 years, or 1/2 year if working at a participating employer up to age 65	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Nebraska/Omaha/OSERS*	65/5; 62/10; R-85 at ages 55-61	55/10	3%	5	Yes
Nevada/PERS*	Hired before 1/1/2010: 65/5; 60/10; A/30 Hired on or after 1/1/2010: 65/5; 62/10; A/30	A/5	Hired before 1/1/2010: 4% Hired on or after 1/1/2010: 6%	5	Yes
New Hampshire/NHRS-Group 1*	60/A - for members hired prior to 7/1/2011 65/A - for members hired on or after 7/1/2011	50/10; R-70 - for members hired prior to 7/1/2011 60/30 - for members hired on or after 7/1/2011	1.5-6.67%	10	Yes
New Jersey/PERS-Tier 1*†	60/A	A/25	3%	10	Yes
New Jersey/PERS-Tier 2*†	60/A	A/25	1%; 3%	10	Yes
New Jersey/PERS-Tier 3*†	62/A	A/25	1%; 3%	10	Yes
New Jersey/PERS-Tier 4*†	62/A	A/25	1%; 3%	10	Yes
New Jersey/PERS-Tier 5*†	65/A	A/30	3%	10	Yes
New Jersey/TPAF-Tier 1*†	60/A	A/25	3%	10	Yes
New Jersey/TPAF-Tier 2*†	60/A	A/25	1%; 3%	10	Yes
New Jersey/TPAF-Tier 3*†	62/A	A/25	1%; 3%	10	Yes
New Jersey/TPAF-Tier 4*†	62/A	A/25	1%; 3%	10	Yes
New Jersey/TPAF-Tier 5*†	65/A	A/30	3%	10	Yes
New Mexico/ERB-Tier 1*	65/5; 25/A; R-75 reduced if age less than 60		2.4%/year between ages 55-60; 7.2% for years under age 55	5	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
New Mexico/ERB-Tier 2*	67/5; 30/A; R-80 reduced if age less than 65		2.4%/year between ages 55-65; 7.2% for years under age 55	5	Yes
New Mexico/ERB-Tier 3*	67/5; 30/A reduced if age less than 55; R-80 reduced if age less than 65		Under 30 & out: actuarial reduction equal to value at age 55; R-80: 2.4%/year between ages 55-65	5	Yes
New York/ERS-Tier 3*	62	55/5	6%	5	Yes
New York/ERS-Tier 4*	62	55/5	6%	5	Yes
New York/ERS-Tier 5*	62	55	6.67%	10	Yes
New York/ERS-Tier 6*	63	55	6.5%	10	Yes
New York/STRS-Tier 3*	55/30; 62/5	55/5	up to 30%	5	Yes
New York/STRS-Tier 4*	55/30; 62/5	55/5	up to 27%	5	Yes
New York/STRS-Tier 5*	57/30; 62/10	55/10	up to 38.33%	10	Yes
New York/STRS-Tier 6*	63/10	55/10	up to 52%	10	Yes
New York/New York City/BERS- Tier 4*	62/5; 55/25 for certain positions; 57/5 for certain positions	55	For members not participating in the early enhancement plan the reduction is 6%/year from age 60	5 or 10	Limited
New York/New York City/BERS- Tier 6*	63/10	55	6.5%/year	10	Limited
New York/New York City/TRS- Tier 3*	62/5 ;55/30	A) 55/5 B) after 2/2008 55/25 and no discount	0.5% for each of the first 24 months before age 62 and 0.25% for each additional month	5	Yes
New York/New York City/TRS- Tier 4*	62/5 (or 55/30)	A) 55/5 B) 55/25, 55/27	0.5% for each of the first 24 months before age 62 and 0.25% for each additional month	5	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
New York/New York City/TRS-Tier 6*	63/10	55/10	6.5%	10	Yes
North Carolina/TSERS*	65/5; 60/25; A/30	60/5; 50/20	3% between ages 60 and 64; 5% between ages 50 and 59	5	Yes
North Dakota/PERS*†	65/A; R-85	55/3	6%	3 for DB plan	Yes
North Dakota/TFFR-Tier 1-Grandfathered*	65/3 or R-85	55/3	6%	3	Yes
North Dakota/TFFR-Tier 1-Non-Grandfathered*	65/3 or R-90, with age 60 minimum	55/3	8%	3	Yes
North Dakota/TFFR-Tier 2*	65/5; R-90 (minimum age of 60, if not grandfathered)	55/5	6% if grandfathered, otherwise 8%	5	Yes
Ohio/PERS-DB plan-Group A*†	65/5; A/30	55/25; 60/5	AR	5	Yes
Ohio/PERS-DC plan*†	A/55	None	None	5 (20% per year)	Yes
Ohio/PERS-DB plan-Group B*†	66/5; A/32; 52/31	55/25; 60/5	AR	5	Yes
Ohio/PERS-DB plan-Group C*†	67/5; 55/32	57/25; 62/5	AR	5	Yes
Ohio/PERS-Combined plan-Group A*†	65/5; A/30	55/25; 60/5	AR	5	Yes
Ohio/PERS-Combined plan-Group B*†	66/5; A/32; 52/31	55/25; 60/5	AR	5	Yes
Ohio/PERS-Combined plan-Group C*†	67/5; 55/32	57/25; 62/5	AR	5	Yes
Ohio/SERS*	67/10; 57/30	62/10 or 60/25	Percentages vary	10 years vesting, not applicable if disabled	Yes
Ohio/STRS-DB plan*	65/5; A/30	55/25 or greater age or service	Percentages vary	5	Yes
Ohio/STRS-DC plan*	50/A	Before age 50	AR	1	N/A

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*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Ohio/STRS-Combined plan*	60/5	50/5	AR	5	N/A
Oklahoma/TRS*	Hired before 7/1/92: 62/5, R-80; Hired after 6/30/92: 62/5, R-90; Hired after 10/31/11: 65/5, R-90 with minimum age 60	Hired before 11/1/11: 55/5; Hired after 10/31/11: 60/5	Percentages vary	5	Yes
Oregon/PERS-Tier 1	General service: 58/5; A/30 Police and fire: 55/5; 50/25	General service: 55/A Police and fire: 50/A	AR	5 years or age 50	Yes
Oregon/PERS-Tier 2	General service: 60/5; A/30 Police and fire: 55/5; 50/25	General service: 55/A Police and fire: 50/A	AR	5 years or age 50	Yes
Oregon/PERS OPSRP	General service: 65/5; A/30 Police and fire: 60/5; 53/25	General service: 55/5 Police and fire: 50/5	AR	5 years or age 65	No
Pennsylvania/PSERS-Class T-C	Age 62; 60/30; or A/35	5 years of service; special early retirement available at 55/25	AR; special early retirement reduced 0.25%/ month preceeding superannuation age	5	Yes
Pennsylvania/PSERS-Class T-D	Age 62; 60/30; or A/35	5 years of service; special early retirement available at 55/25	AR; special early retirement reduced 0.25%/ month preceeding superannuation age	5	Yes
Pennsylvania/PSERS-Class T-E	65/3; R-92 with minimum service of 35 years	10 years of service; special early retirement available at 55/25	AR; special early retirement reduced 0.25%/ month preceeding superannuation age	10	Yes
Pennsylvania/PSERS-Class T-F	65/3; R-92 with minimum service of 35 years	10 years of service; special early retirement available at 55/25	AR; special early retirement reduced 0.25%/ month preceeding superannuation age	10	Yes
Pennsylvania/SERS-Class A1 and A2*	60/3; A/35	Vested	AR	5	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Pennsylvania/SERS-Class A3 and A4*	65/3; R-92 with minimum service of 35 years	Vested	AR	10	Yes
Rhode Island/ERS-Schedule A*†	65/30; 64/31; 63/32; 62/33; Less than 5 years on 6/30/2012: Social Security normal retirement age; 5 or more 5 years on 6/30/2012: Individually determined age	See plan notes	AR	10	Yes
Rhode Island/ERS-Schedule B*†	65/30; 64/31; 63/32; 62/33; Less than 5 years on 6/30/2012: Social Security normal retirement age; 5 or more 5 years on 6/30/2012: Individually determined age	See plan notes	AR	10	Yes
Rhode Island/MERS*†	65/30; 64/31; 63/32; 62/33; Less than 5 years on 6/30/2012: Social Security normal retirement age	See plan notes	AR	10	Yes
South Carolina/SCRS-Class II*	65/5; A/28	60/A; 55/25	5%; 4%	5 years; immediate for DC plan	Yes for DB plan
South Carolina/SCRS-Class III*	65/A; R-90	age 60	5%	8 years; immediate for DC plan	Yes for DB plan
South Dakota/SDRS*	65/3; R-85	55/3	3%	3	Yes
Tennessee/CRS*†	60/5; A/30	55/5; A/25	4.8%; AR	5	Yes
Tennessee/CRS-Hybrid plan†	65/5; R-90	60/5; R-80	AR	5 years; immediate for DC plan	Yes for DB plan
Texas/TRS-Tiers 1 & 2*	65/5; R-80 (with 5 years)	55/5; A/30	AR	5	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Texas/TRS-Tiers 3 & 4*	65/5; R-80 (with 5 years and at least age 60)	55/5; less than age 60/30; R-80 and be less than age 60	AR	5	Yes
Texas/TRS-Tier 5 & 6*	65/5; R-80 (with 5 and at least 62)	55/5; less than age 62/30; R-80 and be less than age 62	AR	5	Yes
Utah/URS-Tier 1*	A/30; 65/4	62/10; 60/20; A/25	3% for ages 60-65; 7%/year under age 60	4	Yes
Utah/URS-Tier 2-Hybrid plan	65/A; A/35	62/10; 60/20	3% for ages 60-65; 7%/year under age 60	4	Yes for DB plan
Utah/URS-Tier 2-DC plan				4	N/A
Vermont/MERS-Group A†	65/5; 55/35	55/5	6%	5	Yes
Vermont/MERS-Group B†	62/5; 55/30	55/5	6%	5	Yes
Vermont/MERS-Group C†	55/5	None		5	Yes
Vermont/MERS-Group D†	55/5	50/20	None	5	Yes
Vermont/MERS-DC plan*†				1	N/A
Vermont/STRS-Group A*†	60/5; A/30	55/5	AR	5	Yes
Vermont/STRS-Group C1*†	62/5; A/30	55/5	6% from age 62	5	Yes
Vermont/STRS-Group C2*†	65 or R-90	55/5	AR	5	Yes
Virginia/VRS-Plan 1*†	65/5; 50/30	55/5; 50/10	Formula	5	Yes
Virginia/VRS-Plan 2*†	Normal Social Security retirement age/5; R-90	60/5	Formula	5	Yes
Virginia/VRS-Hybrid plan*†	Normal Social Security retirement age/5; R-90	60/5	Formula	DB-5 years; DC-4 years	Yes

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TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
Virginia/Fairfax/ERFC Legacy plan*	55/25; 65/5	45/25; 55/5	AR	5	Yes
Virginia/Fairfax/ERFC 2001 plan*	A/30; 60/5	None		5	No
Washington/PERS-Plan 1*	A/30; 60/5; 55/25	None		5	Yes
Washington/PERS-Plan 2*	65/5	55/20; 55/30	AR; choice of 3% or smaller ERF with stricter return-to-work rules	5	Yes
Washington/PERS-Plan 3*	65/10 or vested	55/10; 55/30	Hired before 5/1/2013: AR; choice of 3% or smaller ERF with stricter return-to-work rules Hired on or after 5/1/2013: 5%	10; 5 with 12 months of service after age 44	Yes
Washington/SERS-Plan 2*	65/5	55/20; 55/30	AR; choice of 3% or smaller ERF with stricter return-to-work rules	5	Yes
Washington/SERS-Plan 3*	65/vested	55/10; 55/30	Hired before 5/1/2013: AR; choice of 3% or smaller ERF with stricter return-to-work rules Hired on or after 5/1/2013: 5%	10, 5 with 12 months of service after age 44	Yes
Washington/TRS-Plan 1*	A/30; 60/5; 55/25	None		5	Yes
Washington/TRS-Plan 2*	65/5	55/20; 55/30	AR; choice of 3% or smaller ERF with stricter return-to-work rules	5	Yes
Washington/TRS-Plan 3*	65/10 or vested	55/10; 55/30	Hired before 5/1/2013: AR; choice of 3% per year or smaller ERF with stricter return-to-work rules Hired on or after 5/1/2013: 5%	10; 5 with 12 months of service after age 44	Yes

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*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 3.
Eligibility for Retirement (Continued)

State/Plan	Normal Retirement Age/ Years of Service	Early Retirement Age/Years of Service	Early Retirement Annual Discount	Vesting Period (in years)	Purchase Service Credits
West Virginia/TRS*†	60/5; 55/30; A/35	A/30	AR	5	Yes
West Virginia/TDCP*†	55/12			12	No
Wisconsin/WRS*	65/A; 57/30	55/A	4.8%	0-5 years	Yes
Wyoming/WRS-Tier 1*	60/4; R-85	50/4; A/25	5% for each year before age 60	48 months do not have to be consecutive	Yes
Wyoming/WRS-Tier 2*	65/4; R-85	55/4; A/25	5%/year before age 65		Yes

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4. Post-Retirement Considerations

The real value of retirement benefits to individuals is derived from their purchasing power during retirement years, which can be impacted both by post-retirement inflation protection and by how benefits are treated for tax purposes. For example, Social Security benefits are indexed to changes in the Consumer Price Index (CPI) to protect against the erosion of their value over time, and Social Security benefits are at least partially exempt from federal and state income taxes.¹

Similarly, the retirement benefits provided by a number of plans in this survey have some inflation protections built into the design of the plan and also may be partially or, in some cases, wholly exempt from state income taxes. However, as shown in Table 4, the method of retirement income-inflation protection afforded by each plan and the tax treatment of retirement benefits for state income tax purposes vary widely among plans and taxing jurisdictions.

COLAs

Cost-of-living adjustments (COLAs) help maintain the purchasing power of pensions over time. In 20 percent of the plans reviewed, COLAs are wholly discretionary, granted from time to time by state legislatures. These ad hoc COLAs may apply to retirees equally across the board, or larger adjustments may be directed to long-time retirees whose purchasing power has declined by the greatest amount. For example, a 2 percent benefit adjustment might be adopted for retirees who have retired within the past two years, while a 4 percent adjustment may be applied to retirees who have been retired for longer than two years. Since 2009, 29 states modified their post-retirement COLA provisions using various arrangements, including: reducing or eliminating the COLA, delaying the onset of the COLA for a period of time, suspending COLAs, and basing COLAs upon specified funding criteria. See Appendix 1 Notes to Plans for details.

A few retirement plans make irregular adjustments to benefits based on the

investment experience of the plan. No adjustment takes place unless the plan has a sufficiently favorable investment experience. For example, the Teachers' Retirement System of Louisiana uses a complicated formula that takes into account investment experience, the system's funded status, and the urban CPI to determine whether, and at what level, permanent benefit increases might be granted. Ultimately, the retirement board makes a recommendation and the legislature must approve the board's recommendation. One plan, the Wisconsin Retirement System, provides what amounts to investment earnings-based cost-of-living "dividends," which can be reduced when returns decline. These supplemental adjustments in benefits are provided when investment earnings are in excess of the actuarially assumed rate, but they are not guaranteed. Participants' core annuities cannot be reduced in the face of poor investment returns, however.²

In contrast to such discretionary approaches, 64 percent of the plans either automatically provide for a fixed rate of adjustment (typically 3 percent) or a floating rate tied to changes in the CPI (typically with a 3-percent ceiling on the rate of adjustment). Figure 9 shows the number of plans by type of COLA. (Note: If a plan has an ad hoc, plus some other type of complicated COLA, Figure 9 classifies it under "Other.") Summary Chart 3 looks at this issue in terms of plan size. While the majority of plans of any size have some form of automatic COLAs

Summary Chart 3. COLAs by Plan Size*

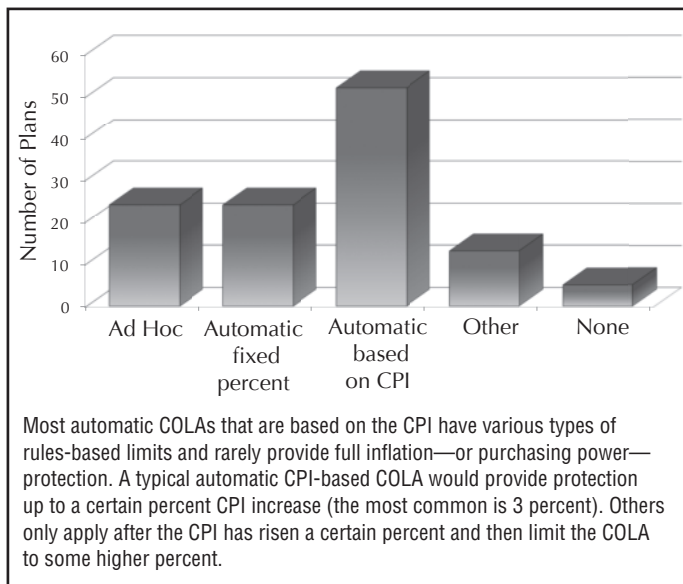
Plan Size	Ad Hoc	Automatic Fixed %	Automatic CPI	Other	None
100,000 or more	8	12	16	5	3
Active Members < 100,000	16	12	36	8	2

*Excludes defined contribution plans, which by their very nature provide no COLAs

¹ Tax treatment varies by income level and taxing jurisdiction.

² See Appendix 1: "Notes to Plans" for more detail on both of these plans' cost-of-living adjustments.

Figure 9. Types of Retirement COLAs



(fixed or variable), these summary descriptions do not adequately capture the rich diversity of COLA approaches adopted by the plans studied. For example, some plans employ an automatic adjustment on the low end of the typical range, but they also add a discretionary excess investment provision as a supplement. Other plans have a multipart automatic adjustment, with a small, fixed amount (such as 1 percent) being guaranteed and a further adjustment based on changes in the CPI up to a stated ceiling. By their very nature, defined contribution plans provide no COLA. Table 4 and its explanatory notes (see Appendix 1) provide additional details on these variations in COLA approaches.

Special COLA Features

A number of states have devised additional COLA-type features—including several states that have enacted purchasing power protection. This protection guarantees that the value of a retiree’s benefit can never be lower than some percentage of its value when his or her retirement first began. In California, for example, the rate of guarantee is 80 percent for STRS participants and 75 percent for PERS participants, while in Nebraska it is 75 percent. Those retired longest likely have lost the most purchasing power and they would be entitled to a higher payment than those who retired most recently.

NEA advocates “[a]utomatic pre-funded full cost-of-living pension increases for retirees and beneficiaries.”

(Appendix 4, Resolution F-61—Retirement: third paragraph, d.)

Other states have “13th checks”: three plans in Illinois, two in Indiana, and one in Missouri. Under this concept, retirees receive an additional payment if investment returns exceed a specified threshold. In years of high returns, a 13th check is paid. When investment gains are low or nonexistent, the check is not paid. In some instances, legislators can grant either an ad-hoc COLA or a 13th check with significant flexibility on what circumstances need to be in play for the additional payment to kick in. For example, the Indiana legislature approved a 13th check for members of the Indiana State Teachers’ Retirement Fund (TRF), effective July 1, 2015, with flat dollar amounts ranging from \$150 to \$450 based upon the number of years of service provided under the plan. According to the retirement system, since the TRF is actuarially funded with the assumption that a 1-percent COLA will be provided each year, the granting of a one-time 13th check in lieu of a 1-percent COLA actually presents savings relative to the projected plan costs.

Arizona has taken still another approach called the enhanced permanent benefit increase (EPBI), which provides benefit increases based on the total number of years since the individual’s original retirement date. The funds for the EPBI are generated from the assumed earnings on the assets set aside for the permanent benefit increase (PBI). The PBI is the COLA paid to Arizona retirees. The EPBI provides an additional boost to those retired the longest and helps offset the cumulative effect of inflation on the value of retirement benefits. In 2013, however, the Arizona legislature eliminated post-retirement benefit increases altogether for ASRS members hired on or after September 13, 2013.

These features can help retired education employees preserve the value of their retirement benefits against inflation. They provide a range of ideas for affiliates and retiree associations that are looking for ways to enhance COLAs.

State Income Tax Liability

The value of retirement benefits also can be affected by how they are treated under varying state income tax laws. The survey covers plans in 50 states plus the District of Columbia, for a total of 51 governmental entities.³ Fourteen states tax benefits fully (affecting participants in 26 percent of the plans), 17 governments provide some form of limited tax exemption or deduction (affecting 26 percent of the plans), two provide a tax credit (affecting nine plans), and one provides a tax credit combined with a limit on income that is taxed. Benefits in 10 states are wholly exempt from state income taxes (affecting 33 plans). Nine states impose no state income tax (affecting 22 plans); they are: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming.⁴ In many cases, the tax exemptions for retirement income described here are available to all citizens above a specified age. While the exemptions, deductions, and exclusions vary widely, they are generally designed to serve a dual public policy function: alleviating some or all of the tax burden for residents who are no longer in the workforce and serving as a tool to attract retirees from other states.

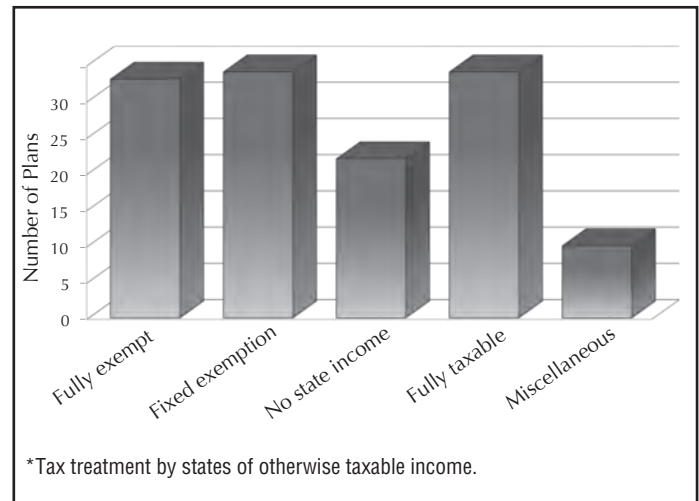
For plans that have employee contributions (and over 90 percent do), the part of the benefit attributable to the employee contribution is not taxable (since it was contributed on a post-tax basis). However, the portion of the benefit attributable to the earnings of the employee contribution can be taxed.

NEA believes that “[b]enefits paid should not be subject to any state’s income tax.”

(Appendix 4, Resolution F-61 – Retirement: fifth paragraph, c.)

Table 4, which follows, provides information about COLAs, special COLA features, and data about the nature of applicable tax exemptions for retirement benefits

Figure 10. State Income Tax Treatment*



³ In two states, Connecticut and Virginia, retiree income from different plans have separate tax treatments.

⁴ New Hampshire and Tennessee have a limited income tax on interest, dividends, and capital gains.

TABLE 4.
Post-Retirement Considerations

State/Plan	COLA	Special Feature	State Taxation of Benefits
Alabama/TRS	Ad hoc as approved by the legislature		Exempt
Alaska/PERS-DB plan*	If 65, smaller of 9% or 3/4 CPI increase; if 60, smaller of 6% or 1/2 CPI increase	Alaska COLA	No state income tax
Alaska/PERS-DC plan	None		No state income tax
Alaska/TRS-DB plan*	If 65, smaller of 9% or 3/4 CPI; if 60, smaller of 6% or 1/2 CPI	Alaska COLA	No state income tax
Alaska/TRS-DC plan	None		No state income tax
Arizona/ASRS*	Hired before 9/13/2013: up to 4%, paid from a reserve of "excess investment earnings;" hired on or after 9/13/2013: no COLA mechanism	Enhanced permanent benefit increase	Exempt to \$2,500
Arkansas/ATRS*	Annual 3%	One time compounding of COLA on 7/1/2009, reset base to 7/1/2009 benefit	Exempt to \$6,000
California/PERS*†	CPI up to 2%	Purchasing power protection	Taxable
California/STRS*	Annual 2%, not compounded	Purchasing power protection	Taxable
California/UCRP†	CPI up to 2%, plus 75% of the CPI increase over 4%, capped at 6%	CPI used is average of CPIs for Los Angeles and San Francisco	Taxable
Colorado/PERA-DB plan*	Hired before 1/1/2007: COLA Cap (currently 2.0%), compounded; hired on or after 1/1/2007: non-guaranteed COLA, lesser of the COLA Cap (currently 2%) or average of CPI-W	See note	65+, \$24,000; 55-65, \$20,000
Colorado/PERA-DC plan	None		65+, \$24,000; 55-65, \$20,000

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Connecticut/CMERS†	Retired prior to 1/1/2002: 2.5%; retired on or after 1/1/2002: 60% of the increase in CPI up to 6%, plus 75% of the increase in CPI in excess of 6%, with a floor of 2.5% and a cap of 6%		Taxable
Connecticut/TRS*	Amount varies from 0% to 6% depending on the date of retirement, the CPI, Social Security benefit COLA, and the fund's prior year investment performance		Taxable
Delaware/SEPP*†	Ad hoc		60+, \$12,500; under 60, \$2,000
District of Columbia/DCPP	None		62+, \$3,000
District of Columbia/TRF	CPI up to 3% if hired on or after 11/1/1996		62+, \$3,000
Florida/FRS-DB plan-Hired on or after 7/1/2011	None		No state income tax
Florida/FRS-DC plan	None		No state income tax
Georgia/PSERS*	Annual 3%		Exempt to \$35,000, 62+
Georgia/TRS*	1.5% semi-annual based on CPI, July 1 & January 1	Current average CPI must be equal to or greater than average CPI at date of retirement	Exempt to \$35,000, 62 to 64 Exempt to \$65,000, 65+
Hawaii/ERS-Contributory-Hired before 7/1/2012†	Annual 2.5% not compounded		Exempt
Hawaii/ERS-Contributory-Hired on or after 7/1/2012†	Annual 1.5% not compounded		Exempt
Hawaii/ERS-Non-Contributory†	Annual 2.5% not compounded		Exempt

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Idaho/PERS*	CPI up to 1% mandatory; lesser of CPI or 6% discretionary maximum	Discretionary and retroactive COLAs and gain-sharing	Taxable
Illinois/IMRF-Tier I-Hired before 1/1/2011*	Annual 3%, not compounded	13th check	Exempt
Illinois/IMRF-Tier II-Hired on or after 1/1/2011*	Annual 3% or 1/2 CPI, whichever is less	13th check	Exempt
Illinois/SURS-Tier I-Hired before 1/1/2011	Annual 3%		Exempt
Illinois/SURS-Tier II-Hired on or after 1/1/2011	Calculated using the lesser of 3% or 1/2 of the change in CPI, not compounded.		Exempt
Illinois/TRS-Tier I-Hired before 1/1/2011*	Annual 3% compounded		Exempt
Illinois/TRS-Tier II-Hired on or after 1/1/2011*	Annual 3% or 1/2 CPI, whichever is less		Exempt
Illinois/Chicago/MEA&BF-Tier I-Hired before 1/1/2011*†	Lesser of 3% or 1/2 the increase in the CPI, compounded		Exempt
Illinois/Chicago/MEA&BF-Tier II-Hired on or after 1/1/2011*†	Lesser of 3% or 1/2 the increase in the CPI, not compounded		Exempt
Illinois/Chicago/CTPF-Tier I-Hired before 1/1/2011†	Annual 3% compounded	Provided 1 year after retirement or age 61, whichever comes later	Exempt
Illinois/Chicago/CTPF-Tier II-Hired on or after 1/1/2011†	3% or 1/2 the increase in the CPI, whichever is lower, not compounded		Exempt
Indiana/PERF*†	Ad hoc	13th check	Taxable
Indiana/PERF-ASA Only†	N/A		Taxable
Indiana/TRF*†	Ad hoc	13th check	Taxable
Iowa/PERS*	CPI up to 3% for pre-July 1990 retirees		\$6,000 single, \$12,000 joint
Kansas/PERS 1*	Ad hoc		Exempt

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Kansas/PERS 2*	Ad hoc, except a small, closed group with 2% annual COLAs		Exempt
Kansas/PERS 3 (Cash Balance plan)*	Member-funded optional form available		Exempt
Kentucky/CERS*†	Ad hoc		All service prior to 1/1/1998 is exempt; limited exemption exists for benefits earned thereafter
Kentucky/CERS Hybrid Cash Balance plan†	N/A		Limited exemption
Kentucky/TRS*	Annual fixed 1.5% COLA, plus an ad hoc COLA if funding is available		Exempt to \$41,110
Louisiana/SERS*	Ad hoc		Exempt
Louisiana/TRS*	Ad hoc		Exempt
Maine/PERS*	State employees and teacher members: CPI-U up to 3% on the first \$20,000 (as of 2011); PLD members: CPI-U up to 3% on the entire benefit		Exempt to \$6,000, minus Social Security benefit
Maryland/EPs*	Based upon CPI, capped at 2.5% or 1% depending on fund earnings		age 65+
Maryland/ERS*	Annual CPI unlimited for selection A; up to 5% for selection B; up to 3% for selection C		age 65+
Maryland/TRS*	Annual CPI unlimited for selection A; up to 5% for selection B; up to 3% for selection C		age 65+
Maryland/TPS*	Based upon CPI, capped at 2.5% or 1% depending on fund earnings		age 65+

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Massachusetts/SERS*	Ad hoc with 3% maximum on first \$13,000		Exempt
Massachusetts/TRS*	Ad hoc with 3% maximum on first \$13,000		Exempt
Massachusetts/Boston/SBRS*†	Ad hoc with 3% maximum on first \$13,000		Exempt
Michigan/MPSERS-DB plan*	Annual 3%		Exempt
Michigan/MPSERS-Pension Plus plan	None		Exempt
Michigan/MPSERS-DC plan	None		Exempt
Minnesota/GERP*	2.0% until plan is 90% funded for two consecutive years based on market value of assets, then 2.5%		Taxable
Minnesota/PERA*	Fixed at 1% increase		Taxable
Minnesota/TRA*	Fixed 2% compounded		Taxable
Minnesota/St. Paul/SPTRFA*	1% to CPI, depending on system's funding level		Taxable
Mississippi/PERS-Tiers 1-3*	3% simple interest to age 55, 3% compounded thereafter		Exempt
Mississippi/PERS-Tier 4*	3% simple interest to age 60, 3% compounded thereafter		Exempt
Missouri/MOSERS*	80% of CPI up to 5%		Exempt at 62+
Missouri/PEERS*	Annual CPI up to 5%; lifetime COLAs limited to 80% of original benefit		Exempt at 62+
Missouri/PSRS*	Annual CPI up to 5%	Lifetime COLAs limited to 80% of original benefit	Exempt at 62+
Missouri/Kansas City/PSRS*†	Ad hoc CPI up to 3%	13th check	Exemption limited to \$36,442 for each spouse

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Missouri/St. Louis/PSRS*	Ad hoc		Exempt at 62+
Montana/PERS-DBRP*	Hired before 7/1/2007: 3%; hired on or after 7/1/2007: 1.5%		Exempt to \$3,600
Montana/PERS-DCRP*	None		Exempt to \$3,600
Montana/TRS*	Tier 1: annual 1.5% after 3 years; tier 2: annual 0.5% to 1.5% after 3 years		Exempt to \$3,600
Nebraska/SERS-Tier 1*	CPI up to 2.5%	75% purchasing power guarantee	Pre 1986 (post tax) contributions are not taxed
Nebraska/SERS-Tier 2*	CPI up to 1.0%		Taxable
Nebraska/Omaha/OSERS-Hired before 7/1/2013*	CPI up to 1.5% plus ad hoc	Medical COLA	Taxable
Nebraska/Omaha/OSERS-Hired on or after 7/1/2013*	CPI up to 1.0% plus ad hoc	Medical COLA	Taxable
Nevada/PERS*	CPI varying from 0% to 5%		No state income tax
New Hampshire/NHRS*	Ad hoc		No state income tax; no federal tax on job-related disability benefit
New Jersey/PERS*†	COLA suspended		62+: exempt to \$15,000 single, \$20,000 married; income limits apply
New Jersey/TPAF*†	COLA suspended		62+: exempt to \$15,000 single, \$20,000 married; income limits apply
New Mexico/ERB*	CPI up to 2%, plus 1/2 of change in CPI above 2%, but not more than 4%	If change in CPI is negative, no reduction in benefit	Taxable
New York/ERS*	50% of change in CPI up to 3%, but at least 1%		Exempt

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
New York/STRS*	50% of change in CPI up to 3%, but at least 1%	Based on the first \$18,000 of the retiree's maximum retirement benefit	Exempt
New York/New York City/BERS*	50% of change in CPI up to 3%, but at least 1%		Exempt
New York/New York City/TRS*	50% of change in CPI up to 3%, but at least 1%		Exempt
North Carolina/TSERS*	Ad hoc		Only Bailey Class TSERS members are exempt from state income taxation of retirement benefits; Bailey Class members are defined as members having earned 5 or more years of service credit as of 8/12/1989
North Dakota/PERS†	Ad hoc		Taxable
North Dakota/TFFR	Ad hoc		Taxable
Ohio/PERS-DB plan*†	Percentage change in CPI up to 3%	Not compounded	Tax credit
Ohio/PERS-DC plan†	None		Tax credit
Ohio/PERS-Combined plan*†	Percentage change in CPI up to 3% (on DB portion)	Not compounded	Tax credit
Ohio/SERS*	Annual 3%		Tax credit
Ohio/STRS-DB plan*	Annual 2%; new retirees after 8/1/2013, receive 2% on the fifth anniversary after retirement		Taxable treatment depends on when employer implemented pickup provisions but generally most pension benefit is taxable
Ohio/STRS-DC plan*	None		Taxable treatment depends on when employer implemented pickup provisions but generally most pension benefit is taxable

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Ohio/STRS-Combined plan*	None		Taxable treatment depends on when employer implemented pickup provisions but generally most pension benefit is taxable
Oklahoma/TRS*	Ad hoc		Exempt to \$10,000
Oregon/PERS-Tiers 1 & 2*	CPI up to 2%, with bank; ad hoc		Tax credit; income limits apply
Oregon/PERS-OPSRP*	CPI up to 2%, without bank		Tax credit; income limits apply
Pennsylvania/PSERS*	Ad hoc		Exempt
Pennsylvania/SERS*	Ad hoc		Exempt
Rhode Island/ERS*†	See notes for Terms of RIRSA and 2015 Settlement		Taxable
Rhode Island/MERS*†	See notes for Terms of RIRSA and 2015 Settlement		Taxable
South Carolina/SCRS*	The lesser of 1% or \$500 annually		Partial exemption
South Dakota/SDRS	Annual 3.1% in FY 2014	COLA based on CPI and funded status	No state income tax
Tennessee/CRS*†	CPI up to 3%		No state income tax
Tennessee/CRS-Hybrid plan*†	0-3% based on change in CPI		No state income tax
Texas/TRS	Ad hoc		No state income tax
Utah/URS-Tier 1*	CPI up to 4%		Taxable
Utah/URS-Tier 2-Hybrid plan*	CPI up to 2.5%		Taxable
Utah/URS-Tier 2-DC plan	None		Taxable
Vermont/MERS-Group A†	1/2 CPI up to 2%		Taxable
Vermont/MERS-Groups B, C, and D†	1/2 CPI up to 3%		Taxable

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
Vermont/MERS-DC plant†	None		Taxable
Vermont/STRS-Group At	CPI up to 5%; minimum of 1%		Taxable
Vermont/STRS-Groups C1 & C2†	1/2 CPI up to 5%; minimum 1%		Taxable
Virginia/VRS-Plan 1*†	CPI up to 3% + 1/2 CPI between 3% and 7% up to total of 5% maximum		65+: exempt to \$12,000
Virginia/VRS-Plan 2*†	CPI up to 2% + 1/2 CPI between 2% and 4% up to total of 3% maximum		65+: exempt to \$12,000
Virginia/VRS-Hybrid plant	CPI up to 2% + 1/2 CPI between 2% and 4% up to total of 3% maximum		65+: exemption to \$12,000
Virginia/Fairfax/ERFC Legacy plan*	3%		65+: Exempt to \$12,000
Virginia/Fairfax/ERFC 2001 plan*	3%		65+: Exempt to \$12,000
Washington/PERS-Plan 1*	CPI up to 3%	Additional COLA; optional COLA; minimum monthly benefi	No state income tax
Washington/PERS-Plan 2	CPI up to 3%		No state income tax
Washington/PERS-Plan 3*	CPI up to 3%		No state income tax
Washington/SERS-Plan 2	CPI up to 3%		No state income tax
Washington/SERS-Plan 3*	CPI up to 3%		No state income tax
Washington/TRS-Plan 1*	CPI up to 3%	Additional COLA; optional COLA; minimum monthly benefi	No state income tax
Washington/TRS-Plan 2	CPI up to 3%		No state income tax
Washington/TRS-Plan 3*	CPI up to 3%		No state income tax

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 4.
Post-Retirement Considerations (Continued)

State/Plan	COLA	Special Feature	State Taxation of Benefits
West Virginia/TRS†	Ad hoc		Exempt to \$2,000, 65+: exempt to \$8,000
West Virginia/TDCP†	None		Exempt to \$2,000, 65+: exempt to \$8,000
Wisconsin/WRS*	Depends on investment performance and other indicators		Taxable
Wyoming/WRS*	Up to 3%, contingent upon funding status and legislative approval		No state income tax

*See “Notes to Plans” in Appendix 1 for more information

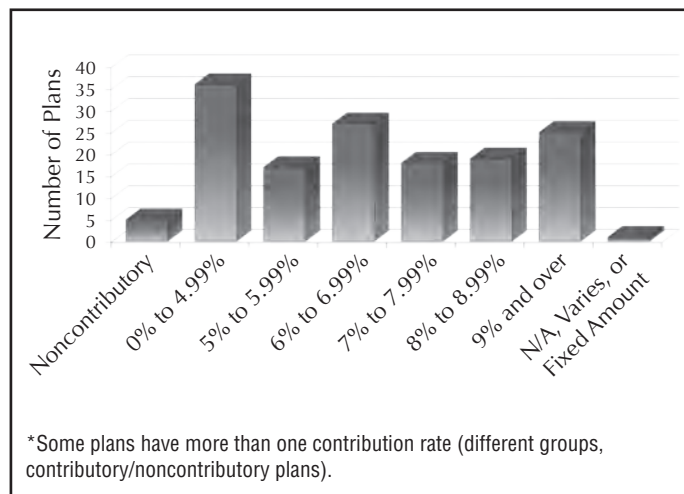
(†) Data was collected by NEA staff from publicly available sources

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5. Employee and Employer Contributions

The sources of funding for retirement plans are employment-related contributions and the return generated by the investment of the plans' monies. One common misunderstanding about public pensions is how benefits are funded. Unlike large retirement plans in the private sector, most public employee plans require a contribution from both the employee and the employer. Public employees generally contribute a fixed percentage of their salary into the fund. The rest comes from employers' contributions and investment income. In some cases, employers may pick up the employees

Figure 11. Employee Contribution Rate*

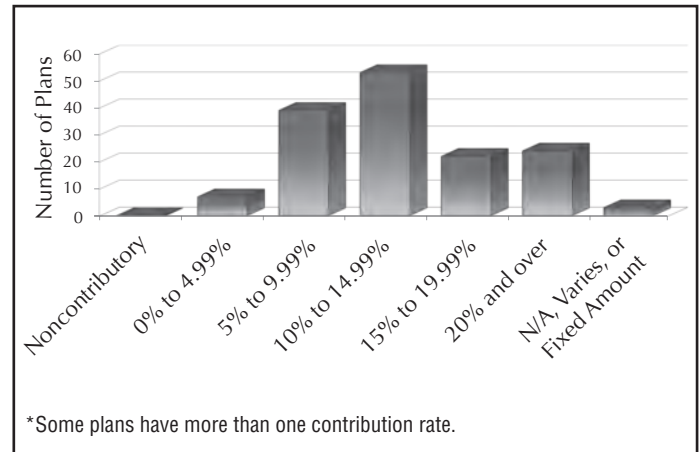


contributions. Some plans also offer, as an alternative, a noncontributory plan with lesser benefits. In most cases, these contributions are calculated to meet defined benefit obligations in accordance with actuarial determinations.

Four of the plans that are reviewed—the District of Columbia 401(a) Defined Contribution Pension Plan, the West Virginia Teachers' Defined Contribution Plan,¹ the Alaska Public Employees' Retirement System Defined Contribution Retirement Pension Trust Plan, and the Alaska Teachers' Retirement System Defined Contribution Retirement Trust Fund—are defined contribution plans with specified employee and employer contributions that are not related to meeting a predetermined benefit amount. Similarly, the optional DC plans offered by other retirement systems have no predetermined benefit amount.

¹ The West Virginia DC plan was closed to new members as of July 1, 2005. Since that date, new hires participate in the DB plan.

Figure 12. Employer Contribution Rate*



Among plans with contributory features that were reviewed in this survey, the median percent of salary paid by the employee is 6.8 percent. The employees in these plans contribute amounts ranging from 2.25 to 14.5 percent of salary. Figure 11 classifies the plans reviewed according to the employee contribution rate, and Figure 12 provides employer contribution rate data.

Employers contribute a percent of covered payroll ranging from 3 to 37.3 percent, which often varies from year to year. The median employer contribution is about 13.0 percent (the average is 14.2 percent). These contributions come from several sources, such as school districts and/or the states. There are a number of reasons—some are valid while others are open to question—that employer contribution rates vary. A legitimate reason contribution rates could differ is that they are set to actuarially determined levels, based on calculations of the normal cost (operating plan costs and crediting service during the current year) and the amortization of actuarial gains and losses, plus a portion of the plan's unfunded liability.

NEA urges that contributions “from both employees and employers should be remitted in a timely fashion in accordance with state statutes.”

(Appendix 4, Resolution F-61—Retirement: fifth paragraph, e.)

As can be seen in Summary Chart 4, employers and employees contribute, on average, much more to their retirement plans when few, if any, members participate in Social Security. Combined, their contributions are 44 percent higher than for plans in which all members participate in Social Security. Indeed, members themselves contribute, on average, 63 percent more while their employers contribute about 35 percent more.

Summary Chart 4. Average Employee and Employer Contributions by Social Security Coverage

Social Security Coverage	All	Few/None
Average of Employee Contribution Rate	5.79%	9.41%
Average of Employer Contribution Rate	13.21%	17.88%
Combined Employee/ Employer Contribution Rate	19.00%	27.30%

Compares average and combined contributions of employees and employers for plans in which all members participate in Social Security and for those in which few or none participate.

Unfortunately, some plans' employer contribution rates are set by legislatures without regard to the actual funding requirements of the plans. Worse, far too many state legislatures have diverted required employer contributions to other purposes, such as balancing a budget or funding other projects. Some plans have encountered unnecessary funding difficulties because, for a period of time they were overfunded, and the employers then took a partial or full funding holiday—sometimes with the actuaries' blessing. Other employers (as instructed by state or local legislative bodies) have ignored the recommendations of plan trustees and actuaries, and set contribution rates below the actuarially required level. Even in the face of significant underfunding, some states persist in their long-established patterns of undercontributing to retirement plans.

An extreme example of this can be found in New Jersey. Despite the state's three primary pension funds being more than 100 percent funded in 2001, New Jersey's public employee pension plans are now

seriously underfunded primarily because politicians have persistently chosen not to make required contributions. Between 2000 and 2012, New Jersey

NEA has taken the position that “employee contributions, if any, should be made on a pre-tax basis and be a percentage of total salary not to exceed the amount contributed by employers. The employer may pay part or all of the employee contribution.”

(Appendix 4, Resolution F-61—Retirement: second paragraph, c.)

has ranked last among the 50 states in actual pension contributions made versus the amount actuaries say should have been made (contributing, on average, only 27 percent of the Annual Required Contribution [ARC]).² The New Jersey Education Association (NJEA) has sued the state twice in an effort to compel politicians to fund the state's public pension plans in a responsible manner. After years of legal battles, the courts found that workers had a right to the benefit, but not to responsible funding practices. With the underfunding continuing, NJEA has asked the U.S. Supreme Court to review this matter of great importance.

As this research demonstrated, even when the plan's actuary approves employer contributions below the normal cost level, it is vital that contribution levels be maintained at least at the normal-cost level. Not only will this provide the plan with something of a cushion, but it also will ensure that the employer is paying the costs of maintaining the retirement system as they are incurred.

Table 5 and its explanatory notes in Appendix 1 provide additional details on employee and employer contribution rates.

² “How to Dig an Even Deeper Pension Hole,” New Jersey Policy Perspective, 2014, <http://www.njpp.org/reports/how-to-dig-an-even-deeper-pension-hole>

TABLE 5.
Contribution Rates

State/Plan	Employee Rate**	Employer Rate**
Alabama/TRS-Tier 1-Hired before 1/1/2013*	7.50	11.71
Alabama/TRS-Tier 2-Hired on or after 1/1/2013*	6.00	11.08
Alaska/PERS-DB plan*	6.75	24.84
Alaska/PERS-DC plan*	8.00	5.00
Alaska/TRS-DB plan*	8.65	29.27
Alaska/TRS-DC plan*	8.00	7.00
Arizona/ASRS*	11.30	11.30
Arkansas/ATRS-Contributory*	6.00	14.00
Arkansas/ATRS-Non-contributory*	None	14.00
California/PERS*†	4.00 to 15.25; 6.00 or 7.00 for school employees	5.42 to 47.42; 11.44 for school employees
California/STRS-Hired before 1/1/2013*	8.15	8.88
California/STRS-Hired on or after 1/1/2013*	8.15	8.88
California/UCRP-1976 Tier*†	8.00	14.00
California/UCRP-2013 Tier*†	7.00	14.00
Colorado/PERA-DB plan*	8.00	18.35
Colorado/PERA-DC plan*	8.00	10.15
Connecticut/CMERS*†	2.25 to 5.00	10.91 to 11.38
Connecticut/TRS	6.00	23.65
Delaware/SEPP-Hired before 1/1/2012*†	3% of earnings over \$6,000	9.50
Delaware/SEPP-Hired on or after 1/1/2012*†	5% of earnings over \$6,000	9.50

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
District of Columbia/DCPP	None	5.00
District of Columbia/TRF-Hired prior to 11/1/1996*	7.00	See plan note
District of Columbia/TRF-Hired on or after 11/1/1996*	8.00	See plan note
Florida/FRS-DB plan	3.00	5.75
Florida/FRS-DC plan*	3.00	3.55
Georgia/PSERS*	Hired before 7/1/2012: \$4.00 per month; hired on or after 7/1/2012, \$10.00 per month	\$727.97 per year per active member
Georgia/TRS*	6.00	14.27
Hawaii/ERS-Contributory-Hired before 7/1/2012*†	6.00	17.00
Hawaii/ERS-Contributory-Hired on or after 7/1/2012*†	8.00	17.00
Hawaii/ERS-Non-Contributory*†	None	17.00
Idaho/PERS*	6.79	11.32
Illinois/IMRF*	4.50	11.69
Illinois/SURS	8.00	11.71
Illinois/TRS*	9.40	35.99
Illinois/Chicago/MEA&BF*†	8.50	9.34
Illinois/Chicago/CTPF†	9.00	26.20
Indiana/PERF*†	3.00	11.20
Indiana/PERF-ASA Only*†	3.00	4.60
Indiana/TRF*†	3.00	26.60
Iowa/PERS*	5.95	8.93

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
Kansas/PERS*	6.00	10.91
Kansas/PERS 3 (Cash Balance plan)*	6.00	10.91
Kentucky/CERS*†	5.00	13.74
Kentucky/CERS Hybrid Cash Balance plan*†	5.00	13.74
Kentucky/TRS*	12.855; 8.185 for university members	13.105; 15.865 for university members
Louisiana/SERS-Hired before 7/1/2010*	7.50	33.00
Louisiana/SERS-Hired on or after 7/1/2010*	8.00	33.00
Louisiana/TRS-Regular plan*	8.00	26.20
Louisiana/TRS-Plan A*	9.10	31.30
Louisiana/TRS-Plan B*	5.00	28.80
Maine/PERS*	7.65	16.06
Maryland/ERS*	7.00 or 5.00	14.03
Maryland/EPs*	RCPB & ACPS: 7.00; NCPS: 5% of compensation over Social Security wage base; ECPS: 2.00	14.03
Maryland/TRS*	5.00	15.85
Maryland/TPS*	7.00	15.85
Massachusetts/SERS*	5.00 to 12.00 (varies by group and hire date)	11.20
Massachusetts/TRS*	5.00 to 11.00	15.69
Massachusetts/Boston/SBRS*†	5.00 to 11.00	20.70

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
Michigan/MPSERS-DB plan*	Basic: 0.0 to 4.0; MIP: 3.0 to 7.0	Basic/MIP: 18.34 to 19.61
Michigan/MPSERS-Pension Plus plan	DB: 3% first \$5,000 of compensation; 3.6% of \$5,000.01 - \$15,000; 6.4% of \$15,000.01 and over; DC: 2%	DB: 18.11; DC: 1.00
Michigan/MPSERS-DC plan*	6.00	3.00
Minnesota/GERP	5.50	5.50
Minnesota/PERA	6.50	7.50
Minnesota/TRA*	7.50	7.50
Minnesota/St. Paul/SPTRFA-Basic plan*	13.14	9.50
Minnesota/St. Paul/SPTRFA-Coordinated plan*	7.00	9.84
Mississippi/PERS	9.00	15.75
Missouri/MOSERS-MSEP and MSEP 2000	None	16.97
Missouri/MOSERS-MSEP 2011	4.00	16.97
Missouri/PEERS	6.86	6.86
Missouri/PSRS	14.50	14.50
Missouri/Kansas City/PSRS†	8.50	8.50
Missouri/St. Louis/PSRS*	5.00	15.87
Montana/PERS-DBRP*	7.90	8.27
Montana/PERS-DCRP	7.90	4.19
Montana/TRS*	8.15	10.96
Nebraska/SERS*	9.78	9.88
Nebraska/Omaha/OSERS*	9.78	9.88

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
Nevada/PERS-EPC*	12.88	12.88
Nevada/PERS-EECP*	13.25	13.25
New Hampshire/NHRS-Group 1*	7.00	14.16 for teachers; 10.77 for employees
New Jersey/PERS*†	6.78	8.22
New Jersey/TPAF*†	6.78	3.91
New Mexico/ERB*	7.90 or 10.70	13.90
New York/ERS-Tier 3 & Tier 4*	3.00 for first 10 years	20.10
New York/ERS-Tier 5*	3.00	20.10
New York/ERS-Tier 6*	3.00 to 6.00	20.10
New York/STRS-Tier 3 & Tier 4*	3.00 for first 10 years	17.53
New York/STRS-Tier 5*	3.50	17.53
New York/STRS-Tier 6*	3.00 to 6.00	17.53
New York/New York City/BERS-Tier 4*	3.00	19.04
New York/New York City/BERS-Tier 6*	3.00 to 6.00	19.04
New York/New York City/TRS-Tier 3*	0.00 to 4.85	37.65
New York/New York City/TRS-Tier 4*	0.00 to 4.85	37.65
New York/New York City/TRS-Tier 6*	3.00 to 6.00	37.65
North Carolina/TSERS*	6.00	9.15
North Dakota/PERS*†	7.00	7.12
North Dakota/TFFR*	11.75	12.75
Ohio/PERS-DB plan*†	10.00	14.00
Ohio/PERS-DC plan*†	10.00	14.00

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
Ohio/PERS-Combined plan*†	10.00	14.00
Ohio/SERS*	10.00	14.00
Ohio/STRS-DB plan*	12.00	14.00
Ohio/STRS-DC plan*	13.00	9.50
Ohio/STRS-Combined plan*	12.00	14.00
Oklahoma/TRS*	7.00	9.50
Oregon/PERS-Tiers 1 and 2*	6.00	11.71 school districts; 13.79 community colleges
Oregon/PERS-OPSRP*	6.00	7.34 general service
Pennsylvania/PSERS-Class T-C*	5.25 or 6.25	21.40
Pennsylvania/PSERS-Class T-D*	6.50 or 7.50	21.40
Pennsylvania/PSERS-Class T-E*	7.50 to 9.50	21.40
Pennsylvania/PSERS-Class T-F*	10.30 to 12.30	21.40
Pennsylvania/SERS-Class A1*	5.00	19.89
Pennsylvania/SERS-Class A2*	6.25	24.86
Pennsylvania/SERS-Class A3*	6.25	17.18
Pennsylvania/SERS-Class A4*	9.30	17.18
Rhode Island/ERS*†	8.75 or 10.75 for teachers	23.76 to 26.26 for teachers
Rhode Island/MERS*†	6.00 to 9.00	DB rates vary by employer; 1.00 to 3.50 for DC plans
South Carolina/SCRS*	8.00	10.90
South Dakota/SDRS*	6.00	6.00

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
Tennessee/CRS*†	None or 5.00	8.88 teachers, 14.91 state and higher education employees
Tennessee/CRS-Hybrid plan*†	5.00 DB; 2.00 DC	4.00 DB; 5.00 DC
Texas/TRS*	6.70	7.76
Utah/URS-Tier 1	None	18.47
Utah/URS-Tier 2-Hybrid plan*	0.00	10.00
Utah/URS-Tier 2-DC plan	Contributions are voluntary	10.00
Vermont/MERS-Group A†	2.50	4.00
Vermont/MERS-Group B†	4.75	5.38
Vermont/MERS-Group C†	9.63	6.88
Vermont/MERS-Group D†	11.25	9.75
Vermont/MERS-DC plan†	5.00	5.00
Vermont/STRS-Group A*†	5.50	12.80
Vermont/STRS-Groups C1 & C2*†	5.00	12.80
Virginia/VRS*†	5.00	11.66
Virginia/VRS-Hybrid plan*†	4.00 DB; 1.00 DC	11.66 Combined
Virginia/Fairfax/ERFC	3.00	5.60
Washington/PERS-Plan 1*	6.00	11.00
Washington/PERS-Plan 2*	6.12	11.00
Washington/PERS-Plan 3*	5.00 to 15.00	11.00
Washington/SERS-Plan 2*	5.63	11.40
Washington/SERS-Plan 3*	5.00 to 15.00	11.40
Washington/TRS-Plan 1*	6.00	12.95

*See "Notes to Plans" in Appendix 1 for more information
**Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

TABLE 5.
Contribution Rates (Continued)

State/Plan	Employee Rate**	Employer Rate**
Washington/TRS-Plan 2*	5.95	12.95
Washington/TRS-Plan 3*	5.00 to 15.00	12.95
West Virginia/TRS*†	6.00	7.50 or 15.00
West Virginia/TDCP†	4.50	7.50
Wisconsin/WRS*	6.60	6.60
Wyoming/WRS*	8.25	8.37

*See "Notes to Plans" in Appendix 1 for more information
 **Percentage unless indicated otherwise

(†) Data was collected by NEA staff from publicly available sources

6. Calculation of Benefits¹

Because most of the plans reviewed in this survey are defined benefit (DB) plans that provide for a definite future obligation based on the length of employee service, a calculation is required to determine the level of the ultimate benefit generated by the plan. For most of the plans reviewed, that calculation reflects a formula under which employees receive a benefit equal to a percentage of “final average salary” for each year that they participated in the plan. For example, an employee might receive an annual post-retirement benefit equal to 2 percent of the salary that he or she averaged over the last three years of active employment, multiplied by the number of years of service rendered by the employee. While this type of final pay plan predominates among the plans studied, as shown in Table 6 and the Notes to Plans in Appendix 1, other DB approaches may be used. For instance, the Georgia Public School Employees Retirement System calculates benefits by means of a flat amount per-year-of-service formula.

Final Average Salary

The definition of final average salary (sometimes also referred to as final average earnings or average final compensation) is important in determining the retirement benefit. Commonly used final average salary definitions include: 1) average salary for the three highest years of service earnings; 2) average salary for the highest three consecutive years of service earnings; or 3) average salary for the highest five consecutive years of service earnings. Generally, if fewer years of service are considered in the average, the dollar amount of the average will be higher because earnings tend to be highest in the final years of employment.

Summary Chart 5 shows the variety of final average salary definitions found among the DB plans reviewed in this survey. The most common averaging period is three years. However, some plans also provide for limitations on the rate of pay increase that can occur and the amount of earnings that result for any single year that can be counted as part of the average.

Formula Percentage Factor

Typically, the formula percentage factor or formula multiplier in a DB plan is stated as a single percentage factor or, in more complex approaches, as two or more percentage factors with each factor applicable to a different portion of the final average salary. Some plans provide a benefit whereby part of the benefit is calculated by a formula, with the balance of the benefit derived from an annuity purchased from the employee’s contributions to an annuity savings account plus earnings. Formulas within a single plan may vary based on date of hire or participation (or nonparticipation) in Social Security. As illustrated in Figure 13, of the 219 plans and sub-plans with identifiable accrual rates in the survey, a total of 30 plans provide a benefit based on a percentage factor of 2.5 percent or more, 88 plans provide a benefit based on a percentage factor between 2 percent and 2.49 percent, 79 plans provide a benefit based on a percentage factor between 1.5 percent and 1.99 percent, and 22 plans provide a benefit based on a percentage factor under 1.5 percent. Since many plans have varied formulas for different groups of employees, or they have multiple formulas based on years of service, Figure 13 reports identifiable variations among groups and shows the initial accrual rate for plans with varying rates based on years of service. Also, for plans with different accrual rates for past periods of employment, Figure 13 reflects only the current accrual rate.

While interpreting this information, it should be kept in mind that, in many cases, the amount of a member’s actual benefit will be different than the computed amount. For example, if a member retires prior to normal retirement age, the annual retirement benefit will likely be reduced by an actuarial or other early retirement factor. Or, if the member chooses an option that guarantees his or her spouse or other survivors will continue to receive some percentage of the retirement benefit upon his or her death, the annual amount paid out will be reduced by some predetermined amount.

¹ Since, by definition, defined-contribution plans only provide a benefit funded by contributions to and earnings from individual participants’ accounts, they have no “benefit formula” as such. Thus, this section only addresses defined-benefit plan benefits.

NEA also advocates “[n]ormal retirement eligibility, including health benefits, with 25 creditable years of service or at age 55 if fully vested” and that “[n]o provisions in core plans to reduce benefits because of the existence of any annuity or retirement benefit source including Social Security; supplemental retirement plans designed to provide a leveling benefit must assure a level lifetime replacement income that significantly augments existing benefits of all members over time.”

(Appendix 4, Resolution F-61—Retirement: third paragraph, e. and f.)

Summary Chart 5. Definitions of Final Average Salary*

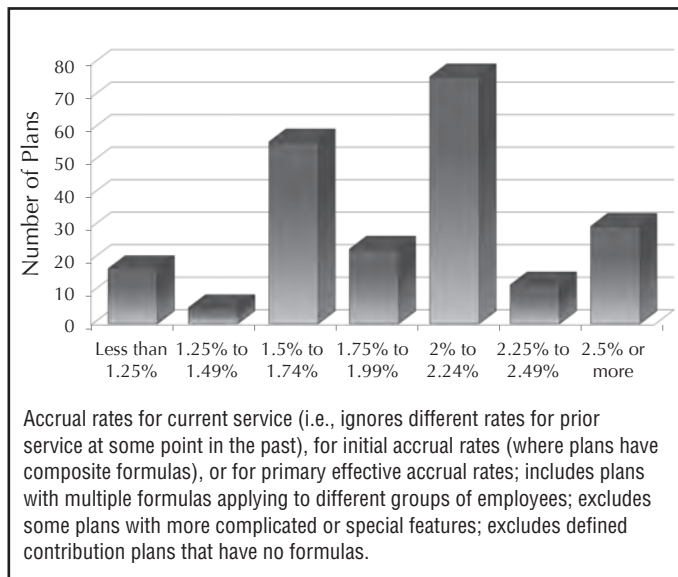
	Number of Plans
Highest year	1
Highest 2 years	4
Highest 2 consecutive years	4
Highest 3 years	79
Highest 3 years	43
Highest 3 consecutive years	32
Highest 3 out of last 10 years	1
Highest 3 consecutive out of last 10 years	3
Highest 3.5 years	1
Highest 3.5 consecutive years	1
Highest 4 years	10
Highest 4 years	2
Highest 4 out of last 10 years	1
Highest 4 consecutive years	5
Highest 4 consecutive out of last 10 years	2
Highest 5 years	62
Highest 5 years	25
Highest 5 consecutive years	33
Highest 5 out of last 10 years	3
Highest 5 out of last 15 years	1
Highest 8 years	6
Other	24

*Includes plans with multiple definitions; not applicable to defined contribution plans

Formula Limitations

Sixty-six percent of the plans place some limit on the total retirement benefit that can be paid to an employee (or some subset of employees). These limits are usually expressed as a maximum percentage of final average salary, as a maximum number of creditable years of service, as a limitation on pensionable salary, or as a limitation on salary increases. Thirty-four percent of the plans place no limit on total retirement benefits that can be paid to an employee (or some subset of employees). Table 6, which follows, presents a review of the final average salary periods, benefit formulas, and plan-specific limits.

Figure 13. Benefit Formulas



With respect to goals for adequate retirement security, NEA advocates “[a]n initial benefit constituting a replacement income of 50 percent of the single highest year’s salary from all sources after 20 years of creditable service and 75 percent after 30 years of creditable service; this benefit calculation equates to a basic benefit formula multiplier of 2.5 percent for all creditable years of service.”

(Appendix 4, Resolution F-61—Retirement: third paragraph, b.)

TABLE 6.
Calculation of Benefits

State/Plan	Final Average Salary Period	Formulas	Limitations
Alabama/TRS-Tier 1-Hired before 1/1/2013*	3H/10	2.0125% x years x FAS	None
Alabama/TRS-Tier 2-Hired on or after 1/1/2013*	5H/10	1.65% x years x FAS	None
Alaska/PERS-DB plan*	5HC	[(2% x 1st 10 years) + (2.25% x 2nd 10 years) + (2.5% x 20+ years on or after 7/1/1986, all service before that date is 2%)] x FAS	None
Alaska/PERS-DC plan*	N/A	Vested account balance	None
Alaska/TRS-DB plan*	3H	[(2% x 1st 20 years) + (2.5% x 20+ years)] x FAS	None
Alaska/TRS-DC plan*	N/A	Vested account balance	None
Arizona/ASRS*	3HC/10 or 5HC/10	[(2.1% x years less than 20) + (2.15% x 20 years up to 24.99) + (2.2% x 25 years up to 29.99) + (2.3% x 30+ years)] x FAS	None
Arkansas/ATRS	3H	[(2.15% x years with member contributions) + (1.39% x years without member contributions)] x FAS	None
California/PERS-Hired before 1/1/2013-Classic Members*†	1H or 3H	2% x years x FAS @ 55	None
California/PERS-Hired on or after 1/1/2013-New Members*†	3H	2% x years x FAS @ 62	Pensionable pay limited
California/STRS-Hired before 1/1/2013*	3HC or 1HC	2% x years x FAS	None
California/STRS-Hired on or after 1/1/2013*	3HC	2% x years x FAS	Pensionable pay limited
California/UCRP-1976 Tier*†	3HC	At age 60: 2.5% x years x (FAS minus \$133)	100% FAS minus \$133
California/UCRP-2013 Tier*†	3HC	At age 65: (2.5% x years) x (FAS minus \$133); at age 60 for members represented by AFSCME, CNA and UPTE	100% FAS minus \$133
Colorado/PERA-DB plan*	3H	2.5% x years x FAS	100% FAS
Colorado/PERA-DC plan	N/A	Vested account balance	None

Abbreviations

FAS = Final Average Salary
H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Connecticut/CMERS*†	3H	2% x years x FAS for members not covered by Social Security; 1.5% x years x FAS for members covered by Social Security	100% FAS
Connecticut/TRS*	3H	2% x years x FAS	75% FAS
Delaware/SEPP*†	3H	(2% x years x FAS, for service prior to 1/1/1997) + (1.85% x years x FAS, for service after 12/31/1996)	None
District of Columbia/DCPP	N/A	Vested account balance	None
District of Columbia/TRF*	3HC	Hired before 11/1/1996: [(1.5% x years up to 5) + (1.75% x years 6-10) + (2% x years over 10)] x FAS; hired on or after 11/1/1996: 2% x years x FAS	None
Florida/FRS-DB plan-Hired before 7/1/2011	5H	[(1.60% for age 62 or A/30) or (1.63% for age 63 or A/31) or (1.65% for age 64 or A/32) or (1.68% for age 65 or A/33)] x years x FAS	100% FAS
Florida/FRS-DB plan-Hired on or after 7/1/2011	8H	[(1.60% for age 65 or A/30) or (1.63% for age 66 or A/31) or (1.65% for age 67 or A/32) or (1.68% for age 68 or A/33)] x years x FAS	100% FAS
Florida/FRS-DC plan	N/A	Vested account balance	None
Georgia/PSERS*	N/A	\$14.75 per month x years	None
Georgia/TRS	2HC	2% x years x FAS	80% FAS
Hawaii/ERS-Contributory-Hired before 7/1/2012†	3H	2% x years x FAS	None
Hawaii/ERS-Contributory-Hired on or after 7/1/2012†	5H	1.75% x years x FAS	None
Hawaii/ERS-Non-Contributory†	3H	1.25% x years x FAS	None
Idaho/PERS	3.5HC	2% x years x FAS	100% FAS

Abbreviations

FAS = Final Average Salary
H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Illinois/IMRF-Tier I-Hired before 1/1/2011*	4HC	$[(1.66\% \times 1\text{st } 15 \text{ years}) + (2\% \times \text{years over } 15)] \times \text{FAS}$	75% FAS
Illinois/IMRF-Tier II-Hired on or after 1/1/2011*	8HC/10	$[(1.66\% \times 1\text{st } 15 \text{ years}) + (2\% \text{ over } 15 \text{ years})] \times \text{FAS}$	75% FAS
Illinois/SURS-Tier I-Hired before 1/1/2011*	4HC	$2.2\% \times \text{years} \times \text{FAS}$	80% FAS
Illinois/SURS-Tier II-Hired on or after 1/1/2011*	8HC	$2.2\% \times \text{years} \times \text{FAS}$	80% FAS
Illinois/TRS-Tier I-Hired before 1/1/2011*	4HC/10	$2.2\% \times \text{years} \times \text{FAS}$	75% FAS
Illinois/TRS-Tier II-Hired on or after 1/1/2011*	8HC/10	$2.2\% \times \text{years} \times \text{FAS}$	75% FAS
Illinois/Chicago/MEA&BF-Tier I-Hired before 1/1/2011*†	4HC/10	$2.4\% \times \text{years} \times \text{FAS}$	80% FAS
Illinois/Chicago/MEA&BF-Tier II-Hired on or after 1/1/2011*†	8HC/10	$2.4\% \times \text{years} \times \text{FAS}$	Pensionable pay limited
Illinois/Chicago/CTPF-Tier I-Hired before 1/1/2011*†	4H/10	$2.2\% \times \text{years} \times \text{FAS}$	None
Illinois/Chicago/CTPF-Tier II-Hired on or after 1/1/2011*†	8H/10	$2.2\% \times \text{years} \times \text{FAS}$	Pensionable pay limited
Indiana/PERF†	5H	$1.1\% \times \text{years} \times \text{FAS} + \text{optional employee annuity purchase}$	None
Indiana/PERF-ASA Only†	N/A	Vested account balance	N/A
Indiana/TRF*†	5H	$1.1\% \times \text{years} \times \text{FAS} + \text{optional employee annuity purchase}$	None
Iowa/PERS	5H	$[(2\% \times \text{years up to } 30) + (1\% \text{ for each year } 31 \text{ through } 35)] \times \text{FAS}$	65% FAS
Kansas/PERS 1*	3H	$1.75\% \times \text{years} \times \text{FAS}$ for all service in calendar years prior to 2014; $1.85\% \times \text{years} \times \text{FAS}$ for all service on and after calendar year 2014	None
Kansas/PERS 2*	5H	$1.85\% \times \text{years} \times \text{FAS}$	None

Abbreviations

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H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

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TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Kansas/PERS 3 (Cash Balance plan)*	N/A	Notional account balance with annuity the default option	
Kentucky/CERS-Tier 1-Hired before 9/1/2008*†	5H	Member prior to 8/1/2004: 2.2% x years x FAS; member on or after 8/1/2004: 2.0% x years x FAS	None
Kentucky/CERS-Tier 2-Hired on or after 9/1/2008 and before 1/1/2014*†	Last 5 years	(Multiplier ranges from 1.1% to 2.0% based upon service) x years x FAS	None
Kentucky/CERS Hybrid Cash Balance plan*†	N/A	Notional account balance with annuity the default option	None
Kentucky/TRS*	5H or 3H if 27/55	If hired before 7/1/08 - non-university members: [(2% x years up to 30 for service to 7/1/83) + (2.5% x years up to 30 for service after 6/30/83) + (3% x years 30+) x FAS]; university members: 2% x years x FAS If hired on or after 7/1/08 – non-university members: (1.7% x FAS x years if 10 or less at retirement); (2% x FAS x years if 10+ to 20 years); (2.3% x FAS x years if 20+ to 26 years); (2.5% x FAS x years if 27+ to 30 years) + (3% x FAS x years 30+); university members: (1.7% x FAS x years if 10 or less at retirement); (1.7% x FAS x years if 10+ to 20); (1.85% x FAS x years if 20+ to 27); (2% x FAS x years if 27 or more)	100% FAS
Louisiana/SERS*	5HC	(2.5% x years x FAS) + (\$2/month x years)	100% FAS
Louisiana/TRS-Plan A*	3HC	3% x years x FAS	Limit on salary increases
Louisiana/TRS-Plan B*	5HC	2% x years x FAS	Limit on salary increases
Louisiana/TRS-Regular plan*	5HC	2.5% x years x FAS	Limit on salary increases
Maine/PERS*	3H	2% x years x FAS	Limit on salary increases before retirement
Maryland/ERS*	3H	1.818% x years x FAS	None
Maryland/EPS*	5HC	1.5% x FAS x years (hired after 7/1/2011)	None

Abbreviations

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H = Highest Years

HC = Highest Consecutive Years

*See “Notes to Plans” in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Maryland/TRS*	3H	1.818% x years x FAS	None
Maryland/TPS*	5HC	1.5% x FAS x years (hired after 7/1/2011)	None
Massachusetts/SERS-Hired before 4/2/2012*	3HC	2.5% x years x FAS at age 65	80% FAS
Massachusetts/SERS-Hired on or after 4/2/2012*	5HC	2.5% x FAS x years at age 67	80% FAS
Massachusetts/TRS-Tier 1*	3HC	Tier 1: if age 65, then 2.5% x creditable service (plus Retirement Plus enhancement, if applicable) x FAS	80% FAS
Massachusetts/TRS-Tier 2*	5HC	Tier 2: if age 67, then 2.5% x creditable service (plus Retirement Plus enhancement, if applicable) x FAS	80% FAS
Massachusetts/Boston/SBRS-Hired before 4/2/2012*†	3H	2.5% x years x FAS at age 65	80% FAS
Massachusetts/Boston/SBRS-Hired on or after 4/2/2012*†	5HC	2.5% x years x FAS at age 67	80% FAS
Michigan/MPERS-DB plan*	3HC	1.5% x years x FAS	None
Michigan/MPERS-Pension Plus plan	5HC	1.5% x years x FAS	
Michigan/MPERS-DC plan	N/A	Vested account balance	
Minnesota/GERP*	5HC	1.7% x years x FAS	None
Minnesota/PERA*	5HC	Method 1: [(1.2% x years up to 10) + (1.7% for years 11 and beyond)] x FAS (5HC) Method 2: 1.7% x years x FAS (5HC)	100% FAS
Minnesota/TRA-Tier 1*	5HC	1.2% x years x FAS (for 1st 10 years up to 6/30/2006) + 1.4% x years x FAS (if any of 1st 10 years after 6/30/2006) + 1.7% x years x FAS (for years 11 and beyond up to 6/30/2006) + 1.9% x years x FAS (for years 11 and beyond after 6/30/2006)	

Abbreviations

FAS = Final Average Salary
H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Minnesota/TRA-Tier 2*	5HC	1.7% x years x FAS (for service prior to 7/1/2006) + 1.9% x years x FAS (for service after 6/30/2006)	
Minnesota/St. Paul/SPTRFA-Basic plan-Tier 1*	5H/10	2% x years x FAS	None
Minnesota/St. Paul/SPTRFA-Basic plan-Tier 2*	5H/10	2.5% x years x FAS	None
Minnesota/St. Paul/SPTRFA-Coordinated plan-Tier 2*	5HC	1.7% x years x FAS	None
Mississippi/PERS-Tiers 1 - 3*	4H	(2% x years 25 and under x FAS) + (2.5% x years after 25 x FAS)	\$265,000 maximum earnings
Mississippi/PERS-Tier 4*	4H	(2% x years 30 and under x FAS) + (2.5% x years after 30 x FAS)	\$265,000 maximum earnings
Missouri/MOSERS-MSEP*	3HC	1.6% x years x FAS	None
Missouri/MOSERS-MSEP 2000*	3HC	1.7% x years x FAS	None
Missouri/MOSERS-MSEP 2011*	3HC	1.7% x years x FAS	None
Missouri/PEERS*	3HC	1.61% x years x FAS	100% FAS
Missouri/PSRS*	3HC	2.5% x years x FAS	100% FAS
Missouri/Kansas City/PSRS-Plan B*†	4HC	2% x years x FAS	60% FAS
Missouri/Kansas City/PSRS-Plan C*†	4HC	1.75% x years x FAS	60% FAS
Missouri/St. Louis/PSRS	3HC/10	2% x years x FAS	60% FAS
Montana/PERS-DBRP-Hired before 7/1/2011	3HC	1.785% x years x FAS if less than 25 years of service; 2% x years x FAS if greater than 25 years of service	None
Montana/PERS-DBRP-Hired on or after 7/1/2011	5HC	1.5% x years x FAS if less than 10 years of service; 1.785% x years x FAS if between 10 and 30 years of service; 2% x years x FAS if over 30 years of service	

Abbreviations

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HC = Highest Consecutive Years

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(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Montana/PERS-DCRP	N/A	Vested account balance	None
Montana/TRS-Tier 1-Member before 7/1/2013	3HC	1.67% x years x FAS	10% limit on salary increases before retirement
Montana/TRS-Tier 2-Member on or after 7/1/2013	5HC	1.67% x years x FAS; if age 60 with 30 or more years of service, 1.85% x years x FAS	10% limit on salary increases before retirement
Nebraska/SERS-Tier 1*	3H	2% x years x FAS	None
Nebraska/SERS-Tier 2*	5H	2% x years x FAS	None
Nebraska/Omaha/OSERS-Hired before 7/1/2013	3H	2% x years x FAS	None
Nebraska/Omaha/OSERS-Hired on or after 7/1/2013	5H	2% x years x FAS	None
Nevada/PERS-Hired before 1/1/2010*	3HC	2.5% x years x FAS for service prior to 7/1/01 + 2.67% x years x FAS for service on or after 7/1/01	90% FAS or 75% FAS
Nevada/PERS-Hired on or after 1/1/2010*	3HC	2.5% x years x FAS	90% FAS or 75% FAS
New Hampshire/NHRS-Group 1*	3H or 5H	Age 60-64: 1.67% x years x FAS; age 65 and above: 1.515% x years x FAS	100% or 85% FAS
New Jersey/PERS-Tier 1*†	3H	Years/55 x FAS	FAS limitation
New Jersey/PERS-Tier 2*†	3H	Years/55 x FAS	FAS limitation
New Jersey/PERS-Tier 3*†	3H	Years/55 x FAS	FAS limitation
New Jersey/PERS-Tier 4*†	5H	Years/60 x FAS	FAS limitation
New Jersey/PERS-Tier 5*†	5H	Years/60 x FAS	FAS limitation
New Jersey/TPAF-Tier 1*†	3H	Years/55 x FAS	FAS limitation
New Jersey/TPAF-Tier 2*†	3H	Years/55 x FAS	FAS limitation
New Jersey/TPAF-Tier 3*†	3H	Years/55 x FAS	FAS limitation

Abbreviations

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TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
New Jersey/TPAF-Tier 4*†	5H	Years/60 x FAS	FAS limitation
New Jersey/TPAF-Tier 5*†	5H	Years/60 x FAS	FAS limitation
New Mexico/ERB	5HC	2.35% x years x FAS	None
New York/ERS-Tier 3, Tier 4, & Tier 5*	3HC	1.66% x FAS x years if years are less than 20; 2% x FAS x years for 20-30 years; for each year of service beyond 30 years, the benefit increases by 1.5% of FAS.	FAS restrictions
New York/ERS-Tier 6*	5HC	1.66% x FAS x years if years are less than 20; 1.75% x FAS x years if 20 years; for each year of service beyond 20 years, the benefit increases by 2.0% of FAS.	FAS restrictions
New York/STRS-Tier 3*	3HC	For less than 20 years of service: 1.666% x years x FAS, or For 20 or more years of service: 2% x years x FAS	60% FAS
New York/STRS-Tier 4*	3HC	For less than 20 years of service: 1.666% x years x FAS, or For 20 or more years of service: (2% x years x FAS) up to 30 years + (1.5% x years of service x FAS) for over 30 years	None
New York/STRS-Tier 5*	3HC	For less than 25 years of service: 1.666% x years x FAS, or For 25 or more years of service: (2% x years x FAS) up to 30 years + (1.5% x years x FAS) for over 30 years	None
New York/STRS-Tier 6*	5HC	For less than 20 years of service: 1.666% x years x FAS, or For 20 or more years of service: (1.75% x years x FAS) for first 20 years + (2.0% x years x FAS) for over 20 years	
New York/New York City/BERS-Tier 4*	3HC/10	More than 20 years of service: (2% x years up to 30 x FAS) + (1.5% x years over 30 X FAS); Less than 20 years of service: 1.66% x FAS x years	
New York/New York City/BERS-Tier 6*	5HC/15	(1.66% x FAS x years up to 20) + (2% x years X FAS for years after 20)	
New York/New York City/TRS-Tiers 3*	3H	Less than 20 years: 1.666% x FAS x years; More than 20 years: (2% x FAS x years) + (1.5% x FAS x years above 30)	60% FAS

Abbreviations

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TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
New York/New York City/TRS-Tier 4*	3H	Less than 20 years: 1.666% x FAS x years; More than 20 years: (2% x FAS x years) + (1.5% x FAS x years above 30)	Limit on salary increases
New York/New York City/TRS-Tier 6*	5H	Less than 20 years: 1.666% x FAS x years; More than 20 years: (35% FAS for the first 20 years) + (2% x FAS x years above 20)	10% limit on salary increases before retirement
North Carolina/TSERS	4HC	1.82% x years of service x FAS	None
North Dakota/PERS†	3H/15	2% x years x FAS	None
North Dakota/TFFR-Tier 1	3H	2% x years x FAS	None
North Dakota/TFFR-Tier 2	5H	2% x years x FAS	None
Ohio/PERS-DB plan*†	3H	(2.2% x FAS x years up to 30) + (2.5% x FAS x years 30 and after)	Limit on salary increases
Ohio/PERS-DC plan*†	N/A	Vested account balance	N/A
Ohio/PERS-DB plan-Group C*†	5H	(2.2% x FAS x years up to 35) + (2.5% x FAS x years 35 and after)	Limit on salary increases
Ohio/PERS-Combined plan*†	3H	(1% x FAS x years up to 30) + (1.25% x FAS x years 30 and after) + DC accumulation	Limit on salary increases
Ohio/PERS-Combined plan-Group C*†	5H	(1% x FAS x years up to 30) + (1.25% x FAS x years 30 and after) + DC accumulation	Limit on salary increases
Ohio/SERS*	3H	(2.2% x years up to 30 x FAS) + (2.5% x years 30 and after x FAS)	100% FAS
Ohio/STRS-DB plan*	3H	2.2% x FAS x years up to 30; varying rates after 30	Limit on salary increases
Ohio/STRS-DC plan*	N/A	Vested account balance	N/A
Ohio/STRS-Combined plan*	3H	1% x years x FAS	100% FAS with limitations
Oklahoma/TRS*	3H or 5HC	2% x years x FAS	100% FAS

Abbreviations

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TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Oregon/PERS-Tiers 1 and 2*	3H or last 36 months	1.67% x years x FAS	IRC 415 limit, with Amounts in excess paid from the Benefit Equalization Fund
Oregon/PERS-OPSRP*	3HC or last 36 months	1.5% x years x FAS	IRC 415 limit
Pennsylvania/PSERS-Class T-C	3H	2% x years x FAS	
Pennsylvania/PSERS-Class T-D	3H	(2.5% x years x FAS) + (2% x years of credited non-school service x FAS)	
Pennsylvania/PSERS-Class T-E	3H	2% x years x FAS	100% FAS
Pennsylvania/PSERS-Class T-F	3H	2.5% x years x FAS	100% FAS
Pennsylvania/SERS-Class A1*	3H	2.0% x years x FAS	100% FAS
Pennsylvania/SERS-Class A2*	3H	2.5% x years x FAS	100% FAS
Pennsylvania/SERS-Class A3*	3H	2.0% x years x FAS	100% FAS
Pennsylvania/SERS-Class A4*	3H	2.5% x years x FAS	100% FAS
Rhode Island/ERS-Schedule A+	3HC	[(1.7% x years 1-10) + (1.9% x years 11-20) + (3% x years 21-34) + (2% x years 35+) x FAS as of 6/30/12] for service before 7/1/12 + [(1% x years x FAS) for service on or after 7/1/12] + DC account balance; for members with 20 years as of 6/30/12: prior accumulation + (2% x FAS x years on and after 7/1/15)	80% FAS
Rhode Island/ERS-Schedule B+	5HC	[(1.6% x years 1-10) + (1.8% x years 11-20) + (2% x years 21-25) + (2.25% x years 26-30) + (2.5% x years 31-37) + (2.25% x years 38+) x FAS as of 6/30/12) + (1% x years x FAS) for service after 7/1/12] + DC account balance; for members with 20 years as of 6/30/12: prior accumulation + (2% x FAS x years on or after 7/1/2015)	75% FAS

Abbreviations

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HC = Highest Consecutive Years

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TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Rhode Island/MERS†	3HC at 6/30/2012 or 5HC	[(2% x years) for service prior to 7/1/12 + (1% x years) for service after 7/1/12 x FAS as of 6/30/12] + DC account balance; for members with 20 years as of 6/30/12: prior accumulation + (2% x FAS x years on or after 7/1/15)	75% FAS
South Carolina/SCRS-Class II*	3HC	1.82% x years x FAS	New members after 1/1/1996, IRC limitation.
South Carolina/SCRS-Class III*	5HC	1.82% x years x FAS	New members after 1/1/1996, IRC limitation.
South Dakota/SDRS*	3HC/10	(1.7% x years before 7/1/2008 x FAS) + (1.55% x years after 7/1/2008 x FAS)	Limit salary increases before retirement
Tennessee/CRS-up to SS integration level*†	5HC	1.5% x years x FAS	94.5% FAS
Tennessee/CRS-over the SS integration level*†	5HC	1.75% x years x FAS	94.5% FAS
Tennessee/CRS-Hybrid plan*†	5H	(1.0% x years x FAS) + DC accumulation	Lower of 90% FAS or dollar cap
Texas/TRS-Tier 1	3H	2.3% x years x FAS	Limited salary increase and converted service
Texas/TRS-Tier 2	5H	2.3% x years x FAS	Limited salary increase and converted service
Texas/TRS-Tier 3	5H	2.3% x years x FAS	Limited salary increase and converted service
Texas/TRS-Tier 4	3H	2.3% x years x FAS	Limited salary increase and converted service
Texas/TRS-Tier 5	5H	2.3% x years x FAS	Limited salary increase and converted service

Abbreviations

FAS = Final Average Salary
H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Texas/TRS-Tier 6	3H	2.3% x years x FAS	Limited salary increase and converted service
Utah/URS-Tier 1*	3H	2% x years x FAS	Salary increase limited
Utah/URS-Tier 2-Hybrid plan	5H	1.5% x years x FAS + DC Account	
Utah/URS-Tier 2-DC plan	N/A	Vested account balance	
Vermont/MERS-Group A†	5HC	1.4% x years x FAS	60% FAS
Vermont/MERS-Group B†	3HC	(1.7% x years x FAS) + (1.4% x Group A previous service x FAS)	60% FAS
Vermont/MERS-Group C†	3HC	(2.5% x years x FAS) + (1.4% x Group A previous service x FAS) + (1.7% x Group B previous service x FAS)	50% FAS
Vermont/MERS-Group D†	2HC	(2.5% x years x FAS) + (1.4% x Group A previous service x FAS) + (1.7% x Group B previous service x FAS) + (2.5% x Group C previous service x FAS)	50% FAS
Vermont/MERS-DC plan†	N/A	Vested account balance	None
Vermont/STRS-Group A*†	3HC	1.67% x years x FAS	100% FAS
Vermont/STRS-Group C1*†	3HC	(1.25% x years before 7/1/90 x FAS) + (1.67% x years after 6/30/90 x FAS)	53.34% FAS
Vermont/STRS-Group C2*†	3HC	(1.25% x years before 7/1/90 x FAS) + (1.67% x years after 6/30/90 x FAS); 2.0% after attaining 20 years	60% FAS
Virginia/VRS-Plan 1†	3HC	1.7% x years x FAS	None
Virginia/VRS-Plan 2†	5HC	(1.65 x years of service after 1/1/2013 x FAS) + (1.7 x years of service before 1/1/2013 x FAS)	

Abbreviations

FAS = Final Average Salary
H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

TABLE 6.
Calculation of Benefits (Continued)

State/Plan	Final Average Salary Period	Formulas	Limitations
Virginia/VRS-Hybrid plant	5H	(1.0% x years x FAS) + DC accumulation	
Virginia/Fairfax/ERFC Legacy plan	3HC	1.85% x years x FAS (if joined after 7/1/1988 and before 7/1/2001), less VRS adjustment: 1.65% x years x (FAS - 1200) x reduction factor, plus additional 3% benefit adjustment.	
Virginia/Fairfax/EFRC 2001 plan	3HC	0.8% x years x FAS (if joined after 7/1/01)	
Washington/PERS-Plan 1	2HC	2% x years x FAS	60% FAS
Washington/PERS-Plan 2	5HC	2% x years x FAS	None
Washington/PERS-Plan 3*	5HC	(1% x years x FAS) + DC accumulation	None
Washington/SERS-Plan 2	5HC	2% x years x FAS	None
Washington/SERS-Plan 3*	5HC	(1% x years x FAS) + DC accumulation	None
Washington/TRS-Plan 1	2HC	2% x years x FAS	60% FAS
Washington/TRS-Plan 2	5HC	2% x years x FAS	None
Washington/TRS-Plan 3*	5HC	(1% x years x FAS) + DC accumulation	None
West Virginia/TRS†	5H/15	2% x years x FAS	None
West Virginia/TDCP†	N/A	Vested account balance	N/A
Wisconsin/WRS*	3H	(1.6% x years x FAS for service after 1999) + (1.765% x years x FAS for service prior to 2000)	70% FAS
Wyoming/WRS-Tier 1	3HC	(2.125% x years up to 15 x FAS) + (2.25% x years after 15 x FAS)	None
Wyoming/WRS-Tier 2	5HC	2% x FAS x years	None

Abbreviations

FAS = Final Average Salary
H = Highest Years

HC = Highest Consecutive Years

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

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7. Actuarial Methods and Funding

Defined benefit (DB) plans, which have legal obligations to retirees and beneficiaries to make funds available to pay the benefits promised, make up the vast majority of plans surveyed. How well any retirement plan is funded—that is, whether it has sufficient assets to meet its obligations—may vary with the actuarial cost method used by the plan, the actuarial assumptions employed in the actuarial calculation, and the asset valuation method used by the plan. As in the previous section, this discussion applies only to DB plans and not to defined contribution (DC) plans, which, by their nature, are based solely on contributions and investment earnings, with no additional obligation for the employer.

Actuarial Cost Methods

Actuarial cost methods may be broadly described as either accrued-benefit cost methods such as the projected unit credit method or projected benefit cost methods such as the entry-age-normal method, frozen-entry-age method, or aggregate-cost method. Accrued benefit cost methods accumulate each individual employee's benefits as a projected total that will be credited by the retirement date. Each method may produce a normal cost and a past service liability cost.¹ Normal cost represents the amount of annual cost, determined by the plan's specific actuarial cost method, attributable to that given year. Past service liability cost refers to the annual cost of amortizing past service liability. However, measures of past service or actuarial liability that determine funding status are not comparable between plans using different methods. In the case of the aggregate cost method, a zero-unfunded actuarial liability may be produced regardless of the extent to which the plan has been funded.² Even when examining plans using the same actuarial cost method, varying assumptions about wage growth or different asset valuation methods can make funding comparisons difficult across the full range of public plans.

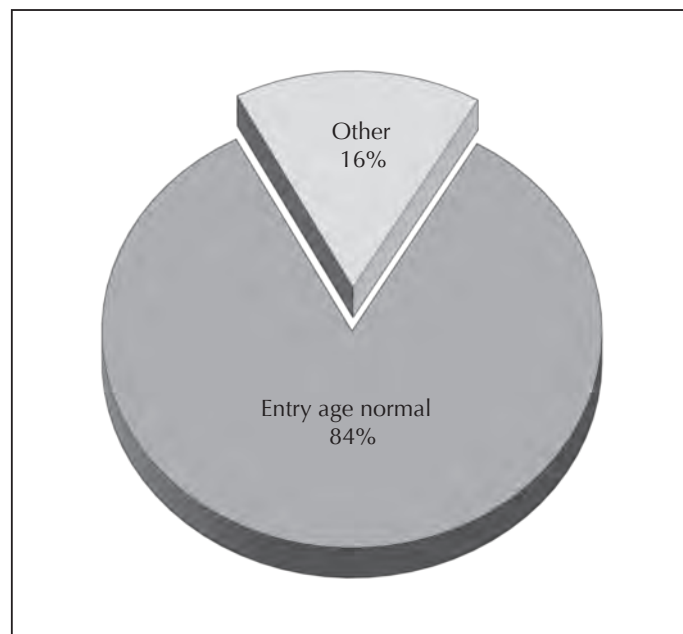
¹ At the very inception of any plan, past service liability—sometimes called actuarial liability—arises from past service credits that have been granted or some other benefits under the plan that have been attributed to past service.

² Given the assumption that no normal costs have been accrued prior to the plan's inception date, an aggregate cost approach does not create an explicit past service liability or actuarial cost liability.

As Figure 14 shows, the overwhelming majority of the DB plans—about 84 percent—use an entry-age-normal actuarial cost method.³ About 5 percent of the plans use either a projected unit-credit or an aggregate-cost actuarial method.⁴

As part of calculating normal cost and past service liability, actuaries must make assumptions about the anticipated experience of the plan such as: mortality rates for active and retired participants, retirement rates, rates of investment returns on plan assets expressed as an interest rate, the rate of inflation, and the rate of salary increases. This survey emphasized interest rate assumptions (the rate the plan is projected to earn on its investments into the indefinite future) and general inflation rate assumptions.

Figure 14. Actuarial Method Used by Plans



³ The entry-age-normal actuarial cost method projects the total benefits of each person included in the actuarial valuation and allocates the costs of those benefits on a level payment or level percentage of pay over some future period. This method spreads the costs over several generations of taxpayers who benefit from the services of the public employees involved, rather than placing the whole burden on either current or future taxpayers.

⁴ The projected unit-credit-actuarial-cost method requires the allocation of total prospective benefits to particular years of service by means of a consistent formula. This arrangement may tend to accumulate assets more slowly than other methods and, as a consequence, may result in rising—rather than level—contribution rates.

Interest rate assumptions in this study ranged from 6.5 to 8.5 percent. The median and average interest rate assumptions were 7.8 percent and 7.7 percent, respectively. The rate of general inflation assumed in the plans ranged from 2.5 to 4.0 percent. The median and average general inflation rate assumptions were both 3.0 percent. Therefore, the difference between the average interest rate assumption and the average general inflation rate assumption was about 4.7 percent.

Asset Valuation Methods

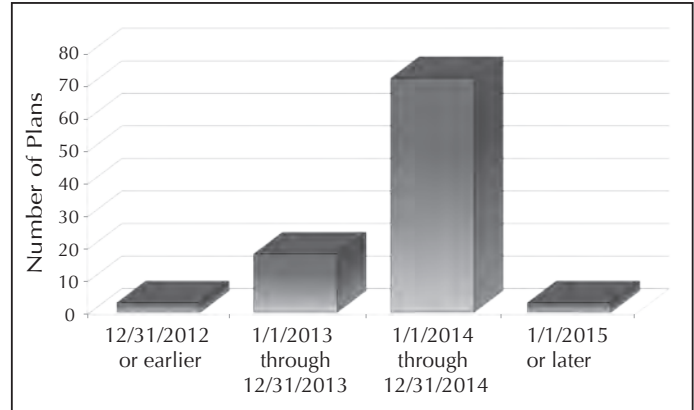
A retirement plan's full investment return may or may not be recognized for actuarial purposes in the year in which it occurs. Assets may be valued at fair market value (fair value or market) or at book value (cost). Alternatively, assets may be valued by some averaging method (smoothing) over a particular period of time—typically five years—in order to recognize more gradually the effect of any unusual investment return experience.⁵

Clearly, the asset valuation method employed in the actuarial valuation can affect a plan's funded status. Two plans using the same actuarial cost method and the same assumptions may not be comparable from a funded status point of view because of differences in the asset valuation method used in the actuarial valuation. No plan reviewed in this survey valued assets at cost for actuarial purposes. Instead, plans used some form of market value approach, typically a five-year smoothed actuarial asset valuation. The method employed by each plan is described in detail in Table 7.

Research for this publication, gathered between June and October 2015, represents only a snapshot for each plan. As can be seen in Figure 15, the data extracted from plans' actuarial valuations (which contain both forward looking and historic data) span a range of several years. The oldest valuation report is dated April 1, 2012, and the newest is dated Jan. 1, 2015. Twenty-two percent of the valuations are dated Dec. 31, 2013, or earlier; 74 percent are dated between Jan. 1 and Dec. 31, 2014; and 3 percent are dated Jan. 1, 2015.

As can be seen in Summary Chart 6, most plans value their assets using a four- or five-year smoothing method. Asset smoothing, the actuarial practice of gradually recognizing gains and losses, is designed to

Figure 15. Valuation Dates for Reported Plan Data



reduce volatility in funding methods. A plan employing five-year smoothing will recognize 20 percent of each year's gains or losses over a five-year period. The practical result of this method is that investment results from both very good and very bad years are only gradually being recognized (and thus counted as actuarial assets); with five-year smoothing, there are always five years of results being blended into the current year's gains or losses. With four-year smoothing, 25 percent of any particular year's gains and losses are recognized over the four-year period until they have been completely incorporated into the calculation of the plan's actuarial assets.

Funding Measures

Public employee retirement plans typically present information on funding progress in their actuarial valuation reports and their audited comprehensive annual financial reports.

There are two broad issues to consider when evaluating the ability of pension funds to keep their promises: the pension fund's own financial metrics and the overall health and stability of the employer.

When evaluating a pension fund's financial picture, it is useful to look at the ratio of unfunded actuarial accrued liability (UAAL) to annual covered payroll. The UAAL as a percentage of covered payroll is a good measure of the plan's ability to pay its unfunded actuarial liability.⁶ Analysis of this ratio over time

⁶ Looking at just the nominal or dollar amounts of the unfunded actuarial liabilities can be misleading. In an inflationary environment, employee pay, retirement benefits, and unfunded accrued liabilities all may be increasing in dollar amount, even though the real value of one or all of these items may be shrinking. UAAL divided by active employee payroll provides an index adjusted for the effect of inflation and, therefore, aids analysis of real progress made in accumulating sufficient assets to pay benefits when they are due.

⁵ The resulting value of assets is often referred to as the actuarial value of assets.

Summary Chart 6. Asset Valuation Method

	Number of Plans
Market	4
Modified market	2
Market, 3-year smoothing	3
Market, 4-year smoothing	8
Market, 4-year smoothing with corridor	7
Market, 5-year smoothing	48
Market, 5-year smoothing with corridor	12
Market, 6-year smoothing	1
Market, 7-year smoothing	1
Market, 10-year smoothing	3
Market, 15-year smoothing	1
Not available/applicable	7

indicates whether the plan is becoming financially stronger. Generally, the smaller this percentage, the stronger the retirement plan. In effect, the employer is prefunding its pension obligations.

The UAAL-to-covered-payroll ratio may take on a negative or positive value. When a plan is more than fully funded, a negative number will appear in the numerator of the UAAL to covered payroll ratio, making the value of the ratio as a whole negative. Table 7 presents data on UAAL as a percentage of covered payroll for the defined benefit plans reviewed.

The associated underlying funding ratio—the actuarial value of assets as a percentage of the actuarial accrued liability—as determined in accordance with the actuarial cost method employed by the plan and reported as part of its actuarial valuation, is also presented in Table 7. These latter measures may not be comparable across plans because of differences in actuarial cost methods, actuarial assumptions, amortization periods, and asset valuation methods. Funding ratios available for the plans reviewed in this survey range from 33.6 to 111.2 percent. Summary Chart 7 lists the number of plans with funded ratios in specific portions of that range. Fifteen plans (16

Summary Chart 7. Range of Funding Ratios

	Number of Plans
Funded ratio of 100 percent or more	3
Funded ratio of 90 to 99.99 percent	12
Funded ratio of 80 to 89.99 percent	20
Funded ratio of 70 to 79.99 percent	15
Funded ratio of 50 to 69.99 percent	38
Funded ratio of 49.99 or less	7

percent) with identifiable funding ratios report being 90 percent or more funded, while 45 plans (47 percent) have funded ratios of less than 70 percent. The median funding ratio for the plans was 72.5 percent and the average funding ratio was 73.0 percent. The average funding ratio is 6 percentage points lower than what was reported in our 2010 study (79.0 percent), which appears to be due to three key factors: the discount rates being used by plans are now lower on average—producing higher liability figures, the failure by some politicians to fund plans’ Actuarially Required Contribution (ARC), and the tail-end of the financial impacts from the losses during the Great Recession of 2008-2009.

When evaluating a plan’s relative funding status, it is important to understand a number of key variables in order to fully grasp the status of the plan.

These include:

- Recent market experience;
- Practices regarding recognition of investment gains and losses (the asset valuation method);
- Funding history;
- The degree to which the plan has been used as a budgetary or management tool by employers in ways that have a fiscal effect on the plan;
- Practices regarding recognition of actuarial gains and losses;
- Material changes in key assumptions (interest, demographics, retirement behavior, and so forth);
- Benefit improvement history and its temporary influence on funding status;
- Legislative restrictions—or requirements—governing investment practices.

The most recent actuarial valuations of over 74 percent of the plans analyzed in this report were dated in 2014 (an additional 3 percent were dated Jan. 1, 2015). By smoothing calculations of asset values over a multiyear period, public plan sponsors may be able to avoid abrupt swings in required contributions. Properly deployed, smoothing techniques result in required contribution levels that tend to mute the year-to-year influence of changing market conditions. While, in the end, underfunding or overfunding will need to be incorporated in contribution rates, smoothing ensures that these rates reflect long-term trends and not potentially fleeting highs and lows. As noted above, plans utilizing five year or more smoothing techniques may still be including the “tail” of the 2008-2009 market declines. The roughly 22 percent of plans with earlier valuation dates probably reflect the impact of the financial crisis even more in their smoothing.

NEA maintains a strong position on methods for adequately funding retirement plans, arguing that “[w]hen actuarial liabilities exceed actuarial assets, the state and/or employer must make the necessary additional contributions to amortize the unfunded liability in no more than 30 years.” NEA also opposes any reduction in employer contributions below the normal cost of the plan: “When actuarial assets exceed actuarial liabilities, the state and/or employer should not reduce the rate of contributions below the normal cost of the plan.”

(Appendix 4, Resolution F-61—Retirement: second paragraph, a. and b.)

Sixty-two cents of every dollar paid in pensions come from investment returns, not tax dollars. Because investment returns have done most of the work of financing pension benefits, the historic stock market decline during 2008-2009 had a huge impact on many plans’ funded levels.

Another important consideration in a plan’s funded status is whether the employer has consistently made its actuarially required contributions. Too many public employee plans have suffered from employer undercontributions, even during prosperous times. Chronic underfunding of defined benefit systems in

some states, combined with market-driven investment losses, has resulted in the need for increased levels of required contributions today. It’s important to note that while certain employers were taking a virtual pension contribution holiday, employees never stopped contributing.

Although financial conditions have improved in many states since the Great Recession of 2008-2009, certain states must now make larger pension contributions to make up for past underfunding, even those that are close to moving beyond the market downturns in their smoothing mechanisms.

As pension contributions compete with other state spending priorities, this struggle for limited resources threatens the funded status of pension plans. While policy makers, the public, and the media ask questions about how best to spend limited resources for the public good, retirement plans are under attack and assailed as unsustainable. Instead: Pensions are economic engines with pension benefits—as well as localized investment practices—providing valuable stable sources of revenues to states and localities across the country.⁷ While every plan felt the impact of the financial market collapse, those plans that have consistently received appropriate employer contributions fared better than those systems that have been consistently underfunded.

In a related vein, employers have been known to use a retirement system to meet political goals, such as enticing certain employees into early retirement. Such practices can have a major—and unanticipated— influence on the plan’s liabilities and thus on its funding status.

NEA urges retirement plan boards of trustees to “[a]dminister the plan for the exclusive benefit of the beneficiaries of the system” and to “[u]se actuarial and investment policies with the highest level of fiscal integrity.”

(Appendix 4, Resolution F-61—Retirement: fourth paragraph, b. and g.)

⁷ “Pensionomics: Measuring the Economic Impact of State & Local Pension Plans,” National Institute on Retirement Security, 2014, http://www.nirsonline.org/storage/nirs/documents/Pensionomics%202014/pensionomics2014_final.pdf

On a somewhat more technical note, when evaluating a plan's status, it is important to understand how it recognizes gains and losses from retirement experience, and how these practices relate to any material changes in key assumptions. Typically, experience gains and losses are booked each year by the actuary and recognized over some predetermined period (which can range from a few years to a few decades). These can include an unexpectedly high number of younger retirees or increased longevity. Beyond the annual settling of accounts by the actuary, there are sometimes significant changes in key assumptions, the most important of which relate to demographics (retirement behavior, mortality), inflation (as reflected through assumptions about salary increases), and the expected

earnings from plan assets (the interest assumption). Changes in these assumptions can have an important (and usually negative) influence on the plan's liabilities, and thus on its funding status.

By their very nature, improvements in benefits also can have a significant influence on funding status. Since the present value of benefit payments are calculated far into the future, any change is likely to alter the funding status; initially, liabilities increase while assets remain the same. A well-managed retirement plan will have a plan to amortize these increased liabilities over a relatively short period. Also, legislative restrictions can affect investment performance.

TABLE 7.
Actuarial Methods and Funding**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL*** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Alabama/TRS	09/30/2013	Entry age normal	66.20	160.20	3.00	3.50 to 8.25	8.00	Market, 5-year smoothing	30
Alaska/PERS-DB plan	06/30/2013	Entry age normal	60.80	N/A	3.12	3.62 to 9.60	8.00	Market, 5-year smoothing	17
Alaska/TRS-DB plan	06/30/2013	Entry age normal	51.90	N/A	3.12	3.62 to 6.11	8.00	Market, 5-year smoothing	17
Arizona/ASRS	06/30/2014	Projected unit credit	76.30	111.20	3.00	3.00 to 6.75	8.00	Market, 10-year smoothing	30
Arkansas/ATRS	06/30/2014	Entry age normal	77.30	142.70	2.75	3.25 to 9.10	8.00	Market, 4-year smoothing	39.1
California/PERS*†	06/30/2013	Entry age normal	75.20	218.70	2.75	3.20 to 10.80	7.50	Market, 15-year smoothing	30
California/STRS*	06/30/2013	Entry age normal	67.00	278.00	3.00	3.75 to 9.35	7.50	Market, 3-year smoothing	30
California/UCRP†	06/30/2014	Entry age normal	80.00	130.00	3.50	4.30 to 6.75	7.50	Market, 5-year smoothing	1.58
Colorado/PERA-DB plan*	12/31/2014	Entry age normal	62.30	331.90	2.80	3.90 to 9.57	7.50	Market, 4-year smoothing w/ corridor	30
Connecticut/CMERS*†	07/01/2014	Entry age normal	87.80	62.70	3.25	4.25 to 11.00	8.00	Market, 5-year smoothing	25
Connecticut/TRS	06/30/2014	Entry age normal	59.00	281.90	3.00	3.75 to 7.50	8.50	Market, 4-year smoothing	23
Delaware/SEPP*†	06/30/2014	Entry age normal	95.80	20.00	3.00	3.50 to 11.50	7.20	Market, 5-year smoothing	20
District of Columbia/TRF*	10/01/2014	Entry age normal	94.42	55.60	3.50	4.45 to 8.25	6.50	Market, 7-year smoothing	18
Florida/FRS-DB plan	07/01/2014	Entry age normal	86.60	87.00	2.60	3.25 to 5.85	7.65	Market, 5-year smoothing	30

*See "Notes to Plans" in Appendix 1 for more information

**Some decimals have been rounded to the hundredth place

***Unfunded Accrued Actuarial Liability

(†) Data was collected by NEA staff from publicly available sources

TABLE 7.
Actuarial Methods and Funding (Continued)**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL*** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Georgia/PSERS	06/30/2014	Entry age normal	82.80	N/A	3.00	N/A	7.50	Market, 5-year smoothing	25
Georgia/TRS*	06/30/2014	Entry age normal	81.90	137.20	3.00	3.75	7.50	Market, 5-year smoothing w/ corridor	29
Hawaii/ERS*†	06/30/2014	Entry age normal	61.40	214.90	3.00	4.00 to 8.50	7.75	Market, 4-year smoothing	26
Idaho/PERS*	07/01/2014	Entry age normal	93.90	38.90	3.25	4.50 to 10.25	7.10	Market	5.5
Illinois/IMRF*	12/31/2014	Entry age normal	87.30	70.80	3.50	3.50 to 14.50	7.50	Market, 5-year smoothing w/ corridor	Varies
Illinois/SURS	06/30/2014	Projected unit credit	42.30	612.80	2.75	3.75 to 15.00	7.25	Market, 5-year smoothing	30
Illinois/TRS*	06/30/2014	Projected unit credit	40.60	647.40	3.00	5.75 to 9.90	7.50	Market, 5-year smoothing	31
Illinois/Chicago/MEA&BF†	12/31/2014	Entry age normal	40.90	453.40	3.00	4.50 to 8.25	7.50	Market, 5-year smoothing	30
Illinois/Chicago/CTPF†	06/30/2012	Projected unit credit	51.51	423.50	2.75	4.25 to 15.75	7.75	Market, 4-year smoothing	30
Indiana/PERF*†	06/30/2014	Entry age normal	82.40	60.00	3.00	3.25 to 4.50	6.75	Market, 4-year smoothing w/ corridor	30
Indiana/TRF*†	06/30/2014	Entry age normal	48.10	107.80	3.00	3.00 to 12.50	6.75	Market, 4-year smoothing w/ corridor	30
Iowa/PERS*	06/30/2014	Entry age normal	82.68	78.09	3.00	4.00 to 17.00	7.50	Modified market	30 Closed
Kansas/PERS	12/31/2013	Entry age normal	59.90	150.00	3.00	4.00 to 12.00	8.00	Market, 5-year smoothing	19
Kansas/PERS 3 (Cash Balance plan)*	12/31/2013	Entry age normal	N/A	N/A	3.00	4.00 to 10.00	8.00	Market, 5-year smoothing	19

*See "Notes to Plans" in Appendix 1 for more information
**Some decimals have been rounded to the hundredth place

***Unfunded Accrued Actuarial Liability
(†) Data was collected by NEA staff from publicly available sources

TABLE 7.
Actuarial Methods and Funding (Continued)**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL*** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Kentucky/CERS†	06/30/2014	Entry age normal	62.60	160.90	3.50	4.75 to 13.00	7.75	Market, 5-year smoothing	29
Kentucky/CERS Hybrid Cash Balance plan†	06/30/2014	Entry age normal	N/A	N/A	3.50	4.75 to 13.00	7.75	Market, 5-year smoothing	29
Kentucky/TRS*	06/30/2014	Projected unit credit	53.60	401.90	4.00	4.00 to 8.20	7.50	Market, 5-year smoothing	30
Louisiana/SERS	06/30/2014	Entry age normal	66.90	294.02	2.75	3.20 to 5.50	7.25	Market, 5-year smoothing w/ corridor	30
Louisiana/TRS*	06/30/2014	Entry age normal	57.40	318.00	2.50	3.50 to 10.00	7.75	Market, 5-year smoothing w/ corridor	5-30
Maine/PERS*	06/30/2014	Entry age normal	83.20	117.21	3.50	3.50 to 13.50	7.13	Market, 3-year smoothing	Varies
Maryland/ERPS	06/30/2014	Entry age normal	65.95	178.00	2.90	3.40 to 11.90	7.65	Market, 5-year smoothing	25
Maryland/TRPS	06/30/2014	Entry age normal	70.68	171.00	2.90	3.40 to 11.90	7.65	Market, 5-year smoothing	25
Massachusetts/SERS*	01/01/2015	Entry age normal	67.50	196.00	3.00	4.00 to 7.00	7.75	Market, 5-year smoothing	21
Massachusetts/TRS*	01/01/2014	Entry age normal	56.30	334.95	3.00	4.00 to 7.50	8.00	Market, 5-year smoothing w/ corridor	21
Massachusetts/Boston/SBRS*†	01/01/2014	Entry age normal	60.60	266.00	3.00	4.50 to 5.00	7.75	Market, 5-year smoothing w/ corridor	11-22
Michigan/MPSERS-DB plan	09/30/2014	Entry age normal	59.94	297.68	3.50	3.50 to 15.80	8.00	Market, 5-year smoothing	23

*See "Notes to Plans" in Appendix 1 for more information
 **Some decimals have been rounded to the hundredth place

***Unfunded Accrued Actuarial Liability
 (†) Data was collected by NEA staff from publicly available sources

TABLE 7.
Actuarial Methods and Funding (Continued)**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL*** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Michigan/MPSERS-Pension Plus plan	09/30/2014	Entry age normal	59.94	297.68	3.50	3.50 to 15.80	7.00	Market, 5-year smoothing	23
Minnesota/GERP	07/01/2014	Entry age normal	82.97	5.13	3.00	4.25 to 5.75	8.50	Market, 5-year smoothing	26
Minnesota/PERA*	06/30/2014	Entry age normal	73.51	105.30	3.00	3.50 to 12.03	8.00	Market, 5-year smoothing	19
Minnesota/TRA*	07/01/2014	Entry age normal	74.13	156.46	3.00	3.50 to 12.00	8.50	Market, 5-year smoothing	23
Minnesota/St. Paul/SPTRFA	07/01/2014	Entry age normal	68.17	225.47	4.00	4.00 to 8.90	8.00	Market, 5-year smoothing	25
Mississippi/PERS*	06/30/2014	Entry age normal	61.00	247.60	3.50	4.25 to 19.50	8.00	Market, 5-year smoothing	29.2
Missouri/MOSERS*	06/30/2014	Entry age normal	75.10	150.10	3.00	3.20 to 5.90	8.00	Market, 3-year smoothing	30
Missouri/PEERS*	06/30/2014	Entry age normal	85.10	43.40	2.50	5.00 to 12.00	8.00	Market, 5-year smoothing	30
Missouri/PSRS*	06/30/2014	Entry age normal	82.80	150.00	2.50	4.00 to 10.00	8.00	Market, 5-year smoothing	30
Missouri/Kansas City/PSRS†	01/01/2015	Entry age normal	79.90	104.90	3.50	5.00	8.00	Market, 5-year smoothing	30
Missouri/St. Louis/PSRS*	01/01/2014	Frozen entry age	84.40	70.10	N/A	4.50	8.00	Market, 5-year smoothing	30
Montana/PERS-DBRP	06/30/2014	Entry age normal	74.00	140.08	3.00	4.00 to 6.00	7.75	Market, 4-year smoothing	29.3
Montana/TRS	07/01/2014	Entry age normal	65.45	238.95	3.25	4.00 to 8.51	7.75	Market, 4-year smoothing	28
Nebraska/SERS	06/30/2014	Entry age normal	82.70	101.70	3.25	4.00 to 9.00	8.00	Market, 5-year smoothing	26

*See "Notes to Plans" in Appendix 1 for more information
**Some decimals have been rounded to the hundredth place

***Unfunded Accrued Actuarial Liability
(†) Data was collected by NEA staff from publicly available sources

TABLE 7.
Actuarial Methods and Funding (Continued)**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL *** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Nebraska/Omaha/OSERS*	09/01/2014	Entry age normal	74.00	138.18	3.00	4.00 to 5.60	8.00	Market, 4-year smoothing w/ corridor	23
Nevada/PERS*	06/30/2014	Entry age normal	71.50	245.10	3.50	4.60 to 9.75	8.00	Market, 5-year smoothing w/ corridor	22
New Hampshire/NHRS*	06/30/2014	Entry age normal	60.70	173.20	3.00	4.45 to 11.30	7.75	Market, 5-year smoothing w/ corridor	25
New Jersey/PERS*†	06/30/2014	Entry age normal	42.70	339.30	3.01	2.15 to 5.40	7.90	Market, 5-year smoothing	30
New Jersey/TPAF*†	06/30/2014	Entry age normal	33.60	536.05	2.50	1.75 to 5.40	7.90	Market, 5-year smoothing	30
New Mexico/ERB	06/30/2014	Entry age normal	63.10	252.00	3.00	3.75 to 10.00	7.75	Market, 5-year smoothing	28
New York/ERS*	04/01/2012	Aggregate cost	87.20	70.20	2.70	4.90	7.50	Market, 5-year smoothing	N/A
New York/STRS*	06/30/2014	Aggregate cost	92.90	N/A	3.00	2.38 to 12.03	8.00	Market, 5-year smoothing	N/A
New York/New York City/BERS	06/30/2012	Entry age normal	60.90	150.10	2.50	3.00 to 7.00	7.00	N/A	2
New York/New York City/TRS*	06/30/2013	Entry age with frozen UAAL	57.60	310.90	2.50	3.00	7.00	Market, 6-year smoothing	5
North Carolina/TSERS	12/31/2013	Entry age normal	94.80	25.29	3.50	4.25 to 9.10	7.25	Market, 5-year smoothing w/ corridor	12
North Dakota/PERS*†	06/30/2014	Entry age normal	78.18	71.69	3.50	4.86 to 8.25	8.00	Market, 5-year smoothing	20
North Dakota/TFFR*	07/01/2014	Entry age normal	61.80	180.60	3.00	4.50 to 14.75	8.00	Market, 5-year smoothing	30
Ohio/PERS-DB plant	12/31/2014	Entry age normal	83.80	119.00	3.00	4.25 to 10.05	8.00	Market, 4-year smoothing w/ corridor	21

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**Some decimals have been rounded to the hundredth place

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TABLE 7.
Actuarial Methods and Funding (Continued)**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL *** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Ohio/PERS-Combined plan*†	12/31/2014	Entry age normal	111.15	(8.40)	3.00	4.25 to 8.05	8.00	Market, 4-year smoothing	0
Ohio/SERS*	06/30/2014	Entry age normal	68.10	173.18	3.25	4.00 to 22.00	7.75	Market, 4-year smoothing	28
Ohio/STRS-DB plan	07/01/2014	Entry age normal	69.30	275.00	2.75	3.50 to 12.25	7.75	Market, 4-year smoothing w/ corridor	29.5
Ohio/STRS-Combined plan	07/01/2014	Entry age normal	69.30	275.00	2.75	3.50 to 12.25	7.75	Market, 4-year smoothing w/ corridor	29.5
Oklahoma/TRS	06/30/2014	Entry age normal	63.20	269.00	3.00	4.25 to 6.00	8.00	Market, 5-year smoothing	30
Oregon/PERS-Tiers 1 and 2*	12/31/2013	Entry age normal	95.90	91.00	2.75	3.75	8.00	Market	20
Oregon/PERS-OPSRP*	12/31/2013	Entry age normal	95.90	91.00	2.75	3.75	8.00	Market	20
Pennsylvania/PSERS	06/30/2014	Entry age normal	62.00	278.30	3.00	3.75 to 10.75	7.50	Market, 10-year smoothing	24
Pennsylvania/SERS*	12/31/2014	Entry age normal	59.40	317.60	2.75	4.30 to 11.05	7.50	Market, 5-year smoothing	30
Rhode Island/ERS*†	06/30/2014	Entry age normal	59.60	257.90	2.50	3.50 to 13.50	7.50	Market, 5-year smoothing	25
Rhode Island/MERS*†	06/30/2014	Entry age normal	84.10	80.60	2.75	3.50 to 7.50	7.50	Market, 5-year smoothing	22
South Carolina/SCRS*	07/01/2014	Entry age normal	62.70	211.90	2.75	3.50 to 12.50	7.50	Market, 5-year smoothing	30
South Dakota/SDRS*	06/30/2014	Entry age normal	100.00	0.00	3.25	3.87 to 5.83	7.75	Market, 5-year smoothing w/ corridor	0
Tennessee/CRS*†	07/01/2013	Frozen entry age	93.60	30.94	3.00	4.75	7.50	Market, 10-year smoothing	8

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TABLE 7.
Actuarial Methods and Funding (Continued)**

State/Plan	Valuation Date	Actuarial Method	Funded Ratio %	UAAL *** as % of Covered Payroll	Assumed Inflation %	Salary Assumed Growth %	Assumed Interest Rate %	Asset Valuation Method	Amortization Period (in years)
Texas/TRS	08/31/2014	Entry age normal	80.20	82.10	3.00	4.25 to 26.40	8.00	Market, 5-year smoothing	Open
Utah/URS-Tier 1*	06/30/2014	Entry age normal	84.10	107.00	2.75	3.50 to 10.50	7.50	Market, 5-year smoothing w/ corridor	20
Utah/URS-Tier 2 Hybrid plan	06/30/2014	Entry age normal	102.90	(0.50)	2.75	3.50 to 10.50	7.50	Market, 5-year smoothing w/ corridor	20
Vermont/MERS-DB plan*†	06/30/2014	Projected benefit cost	86.20	40.80	3.00	5.00	N/A	Market, 5-year smoothing	25
Vermont/STRS*†	06/30/2014	Entry age normal	60.00	189.90	3.25	4.25 to 8.40	N/A	Modifie market	25
Virginia/VRS†	06/30/2013	Entry age normal	66.00	176.00	2.50	3.50 to 5.95	7.00	Market, 5-year smoothing	30
Virginia/Fairfax/ERFC and ERFC 2001	12/31/2014	Entry age normal	77.70	45.50	3.75	3.75 to 9.05	7.50	Market, 5-year smoothing	24
Washington/PERS-Plan 1*	06/30/2013	Entry age normal	63.00	1,517.00	3.00	3.75 to 9.75	7.80	N/A	N/A
Washington/PERS-Plan 2, PERS-Plan 3*	06/30/2013	Aggregate cost	92.00	26.00	3.00	3.75 to 9.75	7.80	N/A	N/A
Washington/SERS-Plan 2, SERS-Plan 3*	06/30/2013	Aggregate cost	93.00	16.00	3.00	3.75 to 10.35	7.80	N/A	N/A
Washington/TRS-Plan 1*	06/30/2013	Entry age normal	71.00	1,481.00	3.00	3.75 to 8.85	7.80	N/A	N/A
Washington/TRS-Plan 2, TRS-Plan 3*	06/30/2013	Aggregate cost	96.00	9.00	3.00	3.75 to 8.85	7.80	N/A	N/A
West Virginia/TRS†	07/01/2014	Entry age normal	66.20	280.00	3.00	3.40 to 6.50	7.50	Market	20
Wisconsin/WRS	12/31/2014	Frozen initial liability	99.96	0.20	2.70	3.40 to 9.00	7.20	Market, 5-year smoothing	12.7
Wyoming/WRS	01/01/2015	Entry age normal	78.96	96.86	3.25	4.25 to 6.00	7.75	Market, 5-year smoothing	26

*See "Notes to Plans" in Appendix 1 for more information

**Some decimals have been rounded to the hundredth place

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8. Retirement Plan Governance

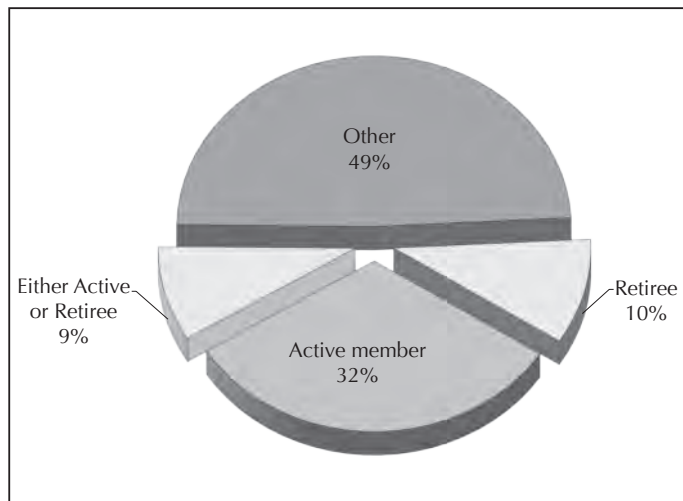
Boards of trustees generally oversee retirement plans that cover education employees. These boards act as fiduciaries who are subject to a strict set of duties set by legislatures, courts, and the boards themselves. The composition of boards varies widely. Most require at least one board member to be an active teacher, while many also require that at least one member be a retiree. Others require a greater range of education employees, including ESPs, HESPs, or administrators.

Boards of trustees for the plans reviewed by this survey ranged in size from one member (New York State and Local Employees' Retirement System) to 26 members (University of California Retirement Plan). Some plans, such as the Florida Retirement System and the District of Columbia 401(a) Defined Contribution Pension Plan, are administered without boards of trustees, with governing authority vested in a senior official of the sponsoring agency. (Note: Even though some systems do not have a board to administer their retirement plans, they may have a board to act in an advisory capacity or to oversee the investment of retirement plan assets; see Table 1, Appendix 1, and Appendix 2.) Table 8 shows the wide variance in both the number of plan trustees and the proportion of trustees who are active or retired members of the plan. Thirty-eight of the 79 plan governing bodies with trustees that were reviewed (48 percent) had half or more of their governing bodies composed of active and/or retired participants.

As shown in Figure 16, active employees make up about 32 percent of the total board members and retired members account for 10 percent. An additional 9 percent of board members may be either active or retired participants. The percentages shown in Figure 16 reflect the governing bodies of all boards, including those with no participant trustees. For boards that have at least one active or retiree member, active employees account for 35 percent, retired members account for 11 percent, and trustees who may be either active or retired account for 9 percent.

In some states, proposals have been made to reduce the number of member trustees on pension boards and replace them with political appointees.

Figure 16. Composition of Boards of Trustees



NEA believes that active and retired participants should have representatives on retirement system governing bodies. This will ensure that members will have a seat at the table when important decisions are being made regarding their retirement income security. NEA also says that retirement plans should be governed by boards of trustees consisting of “active members who are all elected by and from their plan’s active membership and retired members who are all elected by and from their plan’s retired membership; the total number of active and retired member trustees should constitute a majority of the board.” In addition, subject to their fiduciary responsibilities, these governing bodies should “have all the powers necessary to ensure their independence from the plan sponsor, including the power to obtain by employment or contract the services necessary to exercise the trustees’ powers and perform the trustees’ duties, including actuarial, auditing, custodial, investment, and legal services.”

(Appendix 4, Resolution F-61—Retirement: fourth paragraph, a. and d.)

Proponents of such measures often overlook the considerable time and effort that member trustees devote to their board responsibilities and education, and maintain that member trustees are not financial experts. In fact, there is empirical data to show that member trustees on pension boards work better with investments and tax dollars than political appointees. Outside experts have concluded that member trustees, unlike political appointees, have a direct stake in a fund's long-term health and are shielded from outside pressure. Member trustees have a special interest in assuring that there are sufficient assets in the retirement system to pay current and future benefits. This perspective heightens their concern that they manage the retirement system in the most effective manner possible.¹

The method of selecting members for the boards of trustees is shown in Summary Chart 8. The median size of these boards was ten total members, while the average board size was 10.4 members. Appendix 2 expands on the data in Table 8.

Summary Chart 8. Selection Methods for Boards of Trustees*

	Number of plans
Total number of governing boards reviewed	79
Type of Trustee Selection**	
Elected by constituent groups	50
Appointed by governor	57
Appointed by other	37
Ex officio	61
Other	5

*Reflects ultimate governing bodies for each plan
 **More than one type of trustee may be used in any governing body.

¹ See David Hess: "Protecting and Politicizing Public Pension Fund Assets: Empirical Evidence on the Effects of Governance Structures and Practices," University of California-Davis Law Review (November 2005), pp. 13-14; Roberta Romano: "Pension Fund Activism in Corporate Governance Reconsidered," Columbia Law Review, Vol. 93, No. 4 (May 1993), p. 820; and David H. Webber: "Is 'Pay-to-Play' Driving Public Pension Fund Activism in Securities Class Actions? An Empirical Study," Boston University Law Review, Vol. 90, No. 5 (October 2010), pp. 2031-2081

TABLE 8.
Retirement Plan Governance

State/Plan	Total Members	Active Employees	Retired Employees	Elected by Constituents	Appointed by Governor	Other Appointees	Ex Officio**	Other
Alabama/TRS	15	8	2	12	0	0	3	0
Alaska/PERS and TRS*	9	4	0	0	7	0	2	0
Arizona/ASRS	9	4	1	0	9	0	0	0
Arkansas/ATRS*	15	7	3	11	0	0	4	0
California/PERS†	13	5	1	6	2	1	4	0
California/STRS	12	3	1	3	5	0	4	0
California/UCRP*†	26	0	0	0	18	1	7	0
Colorado/PERA*	16	9	2	12	3	0	1	0
Connecticut/CMERS*†	15	0	0	0	9	6	0	0
Connecticut/TRS	14	4	2	6	5	0	3	0
Delaware/SEPP*†	7	0	0	0	5	0	2	0
District of Columbia/DCPP*	0	0	0	0	0	0	0	0
District of Columbia/TRF	13	4	3	6	0	6	1	0
Florida/FRS	0	0	0	0	0	0	0	0
Georgia/PSERS*	9	0	0	0	3	3	3	0
Georgia/TRS	10	5	1	0	5	3	2	0
Hawaii/ERS†	8	3	1	4	3	0	1	0
Idaho/PERS	5	2	0	0	5	0	0	0
Illinois/IMRF	8	7	1	8	0	0	0	0
Illinois/SURS	11	4	2	6	4	0	1	0
Illinois/TRS*	13	4	2	6	6	0	1	0
Illinois/Chicago/MEA&BF†	5	3	0	3	0	0	2	0

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

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TABLE 8.
Retirement Plan Governance (Continued)

State/Plan	Total Members	Active Employees	Retired Employees	Elected by Constituents	Appointed by Governor	Other Appointees	Ex Officio**	Other
Illinois/Chicago/CTPF†	12	7	3	10	0	2	0	0
Indiana/PERF and TRF†	9	3	0	0	6	0	3	0
Iowa/PERS*	11	2	1	0	6	4	1	0
Kansas/PERS*	9	0	0	2	4	2	1	0
Kentucky/CERS*†	13	0	0	6	3	3	1	0
Kentucky/TRS	9	4	1	7	0	0	2	0
Louisiana/SERS	12	4	2	6	0	0	6	0
Louisiana/TRS	17	10	2	12	0	0	5	0
Maine/PERS	8	3	2	3	4	0	1	0
Maryland/ERPS and TRPS*	15	2	2	5	7	0	3	0
Massachusetts/SERS	5	0	0	2	0	1	1	1
Massachusetts/TRS	7	0	1	2	1	1	3	0
Massachusetts/Boston/SBRS*†	5	0	0	2	0	1	1	1
Michigan/MPSERS	12	6	2	0	11	0	1	0
Minnesota/GERP	11	7	1	7	3	1	0	0
Minnesota/PERA	11	4	2	5	5	0	1	0
Minnesota/TRA	8	4	1	5	0	1	2	0
Minnesota/St. Paul/SPTRFA	10	0	0	9	0	0	1	0
Mississippi/PERS*	10	8	2	8	1	0	1	0
Missouri/MOSERS	11	2	1	3	2	4	2	0
Missouri/PEERS and PSRS*	7	0	1	4	3	0	0	0
Missouri/Kansas City/PSRS†	12	4	2	6	0	5	1	0

*See "Notes to Plans" in Appendix 1 for more information

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TABLE 8.
Retirement Plan Governance (Continued)

State/Plan	Total Members	Active Employees	Retired Employees	Elected by Constituents	Appointed by Governor	Other Appointees	Ex Officio**	Other
Missouri/St. Louis/PSRS	11	5	2	7	0	4	0	0
Montana/PERS*	7	3	1	0	7	0	0	0
Montana/TRS	6	3	1	0	6	0	0	0
Nebraska/SERS*	9	0	0	0	8	0	1	0
Nebraska/Omaha/OSERS*	10	3	1	0	0	9	1	0
Nevada/PERS	7	6	1	0	7	0	0	0
New Hampshire/NHRS*	13	4	0	0	12	0	1	0
New Jersey/PERSt	9	0	0	6	2	0	1	0
New Jersey/TPAF†	7	0	0	3	2	0	1	1
New Mexico/ERB	7	0	1	3	2	0	2	0
New York/ERS*	1	0	0	0	0	0	1	0
New York/STRS	10	3	1	4	0	5	1	0
New York/New York City/BERS	16	2	0	2	0	13	1	0
New York/New York City/TRS	7	0	0	3	0	2	2	0
North Carolina/TSERS	13	4	2	0	9	2	2	0
North Dakota/PERS*†	7	3	1	4	1	1	1	0
North Dakota/TFFR	7	3	2	0	5	0	2	0
Ohio/PERSt	11	5	2	7	1	2	1	0
Ohio/SERS	9	4	2	6	1	2	0	0
Ohio/STRS	11	5	2	0	1	2	1	0
Oklahoma/TRS*	13	4	2	0	6	4	3	1
Oregon/PERS	5	1	0	0	5	0	0	0

*See "Notes to Plans" in Appendix 1 for more information

(†) Data was collected by NEA staff from publicly available sources

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TABLE 8.
Retirement Plan Governance (Continued)

State/Plan	Total Members	Active Employees	Retired Employees	Elected by Constituents	Appointed by Governor	Other Appointees	Ex Officio**	Other
Pennsylvania/PSERS	15	4	1	1	2	4	3	0
Pennsylvania/SERS	11	5	1	0	6	4	1	0
Rhode Island/ERS and MERS*†	15	4	2	1	2	2	4	0
South Carolina/SCRS*	11	2	1	0	3	8	0	0
South Dakota/SDRS	17	10	1	13	2	0	1	1
Tennessee/CRS*†	20	9	2	2	2	7	9	0
Texas/TRS*	9	3	1	0	9	0	0	0
Utah/URS	7	2	0	0	6	0	1	0
Vermont/MERS†	5	2	0	3	1	0	1	0
Vermont/STRS†	6	2	1	3	0	0	3	0
Virginia/VRS†	9	0	0	0	5	4	0	0
Virginia/Fairfax/ERFC	7	3	0	3	0	3	0	1
Washington/PERS, SERS, and TRS*	0	0	0	0	0	0	0	0
West Virginia/TDCP and TRS*†	15	0	0	0	11	0	4	0
Wisconsin/WRS	13	5	1	4	1	6	2	0
Wyoming/WRS	11	4	1	0	10	0	1	0

*See "Notes to Plans" in Appendix 1 for more information

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Appendix 1: Notes to Plans

Alabama

Alabama/TRS

Table 5: Contribution Rates. The Alabama Legislature sets the employee contribution rate. The employee rate of 7.5 percent in the table is for the Teachers' Retirement System's regular employees (includes public education members) hired before January 1, 2013. The rate for Regular Employees hired on or after January 1, 2013 is 6 percent. Both rates pertain to FY 2014. Full-time, certified state firefighters, correctional officers, and law enforcement officers pay a different rate—8.5 percent if hired before January 1, 2013, and 7 percent if hired on or after January 1, 2013. The employer contribution rates for Tiers 1 and 2 employees are for FY 2014.

Table 6: Calculation of Benefits. Data in the table are for the Maximum Annual Benefit. Plan members also have four options to choose from that are a reduction from the Maximum Annual Benefit.

Alaska

Alaska/PERS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. PERS has four tiers, each of which provides different benefits. Members hired before July 1, 1986, are in Tier 1; members hired after June 30, 1986, and before July 1, 1996, are in Tier 2; members hired after June 30, 1996, and before July 1, 2006, are in Tier 3; and members hired after June 30, 2006, are in Tier 4. The DB plan is closed to new entrants. Employers can elect to allow non-vested DB plan members to convert to the new DC plan.

Some political subdivisions participate in both Social Security and PERS—for example, the Anchorage School District does not include teachers in Social Security but does include other school district employees in Social Security. The state and 13 certain political subdivisions participate only in PERS.

Table 3: Eligibility for Retirement. Normal retirement age/service is 55/5 for employees hired before July 1, 1986. Early retirement age is 50 for employees hired before July 1, 1986.

Table 4: Post-Retirement Considerations. Data are for the automatic post-retirement pension adjustment (PRPA). Ad hoc PRPAs, up to a maximum of 4 percent, may be granted to eligible recipients who first entered PERS before July 1, 1986, if the Consumer Price Index (CPI) increases and the financial condition of the fund permits an increase. Eligible benefit recipients who reside in the state also receive the Alaska COLA, which is equal to 10 percent of their base benefits or \$50, whichever is more.

Table 5: Contribution Rates. Most employees, including ESPs, contribute 6.75 percent. Each employer pays a simple uniform contribution rate of 22 percent, and the state contributes an amount (in addition to the state's contribution as an employer) that when combined with the employer contribution will be sufficient to pay the total contribution rate adopted by the Alaska Retirement Management Board. For FY 2016, the total employer contribution rate of 24.84 percent of payroll is split between the state (2.84%) and employers (22%).

Table 6: Calculation of Benefits. For members hired before July 1, 1996, the final average salary period is the three highest years.

Table 8: Retirement Plan Governance. A single board, the Alaska Retirement Management Board, manages the assets and liabilities of PERS and TRS (see Appendix 2 for details).

Alaska/PERS-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The DC plan covers employees who first became members of PERS on or after July 1, 2006. Employers can elect to allow non-vested DB plan members to convert to the DC plan. Membership is mandatory for all permanent full-time and part-time employees of the state and participating political subdivisions and public organizations, unless they are specifically excluded by Alaska law or employer-participation agreements. PERS does not cover participants in the University of Alaska's Optional Retirement Plan or other state-funded retirement plans. Elected officials can waive PERS membership.

Some political subdivisions participate in both Social Security and PERS—for example, the Anchorage School District does not include teachers in Social Security but does include other school district employees in Social Security. The state and 13 certain political subdivisions participate only in PERS.

Appendix 1: Notes to Plans (Continued)

Table 3: Eligibility for Retirement. The DC plan has no age or service requirements, but taxes and penalties may apply if funds are withdrawn before age 59 1/2. DC plan members are 100-percent vested in employee contributions immediately and vested in employer contributions based on the following schedule: 25 percent after two years of service, 50 percent after three years, 75 percent after four years, and 100 percent after five years.

Table 5: Contribution Rates. State employees, as well as 20 additional political subdivisions that have elected to participate are entered into an additional defined contribution plan, the Alaska Supplemental Annuity plan. This plan replaces contributions to the Social Security system, and has contribution rates of 6.13 percent for both employees and employers.

Table 6: Calculation of Benefits. Participants receive their contributions plus or minus returns on investments.

Alaska/TRS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The DB plan is closed to new entrants.

Table 3: Eligibility for Retirement. Normal retirement age/service is 55/8 if hired before July 1, 1990. Members can purchase up to 10 years of out-of-state teaching public school service or Alaska private school service. The combined total of such outside service and claimed military service cannot exceed 10 years.

Table 4: Post-Retirement Considerations. If the Consumer Price Index (CPI) has risen during the preceding calendar year, the automatic post-retirement pension adjustment (PRPA) is payable to a TRS retiree under age 60 if retired for eight years, to retirees age 65 or older, and to all disability benefit recipients. Ad hoc PRPAs, up to a maximum of 4 percent, may be granted to eligible recipients who first entered TRS before July 1, 1990, if the CPI increases and the financial condition of the fund permits an increase. Tier 1 retirees do not receive ad-hoc PRPAs unless the funding ratio is at least 105 percent.

Eligible benefit recipients who also reside in the state receive the Alaska COLA, which is equal to 10 percent of their base benefits. Eligible benefit recipients include members who were first hired under TRS before July 1, 1990, and their survivors; members who were first hired under TRS after June 30, 1990, and their survivors if they are at least age 65; and disabled members.

Table 5: Contribution Rates. Contributions made by the state of Alaska are required if the employer contribution rate of 12.56 percent is not sufficient to pay the plan's past service liability at the consolidated actuarially required contribution (ARC) adopted by the board of trustees. For FY 2016, the total employer contribution rate of 29.27 percent of payroll is split between the state (16.71%) and employers (12.56%).

Table 6: Calculation of Benefits. Service for years after 20 is calculated at 2.5 percent, except that service before July 1, 1990, is calculated at 2 percent.

Table 8: Retirement Plan Governance. A single board, the Alaska Retirement Management Board, manages the assets and liabilities of PERS and TRS. See Appendix 2 for details.

Alaska/TRS-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Employees who first became members of TRS on or after July 1, 2006, are in the Tier 3 DC plan. Employers can elect to allow non-vested DB plan members to convert to the DC plan.

Table 3: Eligibility for Retirement. The Tier 3 DC plan has no retirement age/service requirements, but taxes and penalties may apply if funds are withdrawn before age 59 1/2. DC plan members are 100-percent vested in employee contributions immediately and vested in employer contributions based on the following schedule: 25 percent after two years of service, 50 percent after three years, 75 percent after four years, and 100 percent after five years.

Table 5: Contribution Rates. State employees, as well as 20 additional political subdivisions that have elected to participate are entered into an additional defined contribution plan, the Alaska Supplemental Annuity plan. This plan replaces contributions to the Social Security system, and has contribution rates of 6.13 percent for both employees and employers.

Table 6: Calculation of Benefits. Participants receive their contributions plus or minus returns on investments.

Arizona

Arizona/ASRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. In addition to pension assets, the system has \$1.8 billion in assets held for health care supplements and long-term disability funds.

Appendix 1: Notes to Plans (Continued)

Table 3: Eligibility for Retirement. The early retirement reduction varies with age and years of service: with five to 10 years of service, the reduction is 3 percent per year between ages 60 and 65, and 5 percent per year between ages 50 and 60; with 10 to less than 20 years of service, the reduction is 3 percent per year between ages 60 and 62, and 5 percent per year between ages 50 and 60; with 20 or more years of service, the reduction is 5 percent per year between ages 50 and 60. Under the Rule of 77, the reduction is limited to 3 percent for each unit below 80.

Members vest immediately for benefits; they can elect to receive all contributions to the plan plus accrued interest at 8 percent prior to July 1, 2005, 4 percent from July 1, 2005, through July 1, 2013, and 2 percent after July 1, 2013, if they terminate before becoming eligible for retirement. Members hired prior to July 1, 2011, can receive a portion of employer contributions based on years of service: employees with less than five years of service receive 0 percent of employer contributions; employees with 5 to 5.9 years of service receive 25 percent of employer contributions; employees with 6 to 6.9 years of service receive 40 percent of employer contributions; employees with 7 to 7.9 years of service receive 55 percent of employer contributions; employees with 8 to 8.9 years of service receive 70 percent of employer contributions; employees with 9 to 9.9 years of service receive 85 percent of employer contributions; and employees with 10 or more years of service receive 100 percent of employer contributions.

Service credits can be purchased for any period of employment with another public employer—federal or state governments or political subdivisions of federal or state governments—even if the service was not covered by a retirement plan. For example: Credit may be purchased for out-of-state public teaching service for which no benefit is being received or will be received otherwise. The number of years of service credit that can be purchased is limited to five years for members hired on or after July 1, 2011.

Legislation enacted in 2011 eliminates the Rule of 85 (age and years of service) for members who join on or after July 1, 2011. It also changes the early retirement annual discounts to conform to the new normal retirement.

Table 4: Post-Retirement Considerations. Retirees who have been retired for one year are eligible for the permanent benefit increase (PBI), up to a maximum of 4 percent. The PBI is not tied to the federal cost-of-living index and is not structured as an annual increase. The PBI is paid from a reserve of excess earnings on the actuarial value of assets in the ASRS fund; if no excess investment earnings are reserved, no PBI is paid that year. The enhanced permanent benefit increase (EPBI) provides benefit increases to members who have been retired five or more years. The additional benefit is incremental, based on the total number of years since the individual's original retirement date, and it is in addition to the PBI. The EPBI concept is to provide an additional benefit to retirees based on years elapsed since retirement to help offset the cumulative effects of inflation. Funds for the EPBI are generated from earnings accumulated on monies set aside to pay the PBI.

Table 5: Contribution Rates. Contribution rates are reviewed and adjusted annually to ensure that the pension plan, health-insurance-premium-benefit program, and long-term disability plan remain fiscally sound. There are two rates: the pension and health insurance benefit plan rate and the long-term disability program rate. Contribution rates for both employees and employers for FY 2013-2014 were 11.30 percent for the pension fund and health insurance plan and 0.24 percent for the long-term disability plan, for a total of 11.54 percent beginning July 1, 2013. Effective July 1, 2014, the rate is 11.48 percent for the pension fund and health insurance plan and 0.12 percent for the long-term disability plan, for a total of 11.60 percent.

Table 6: Calculation of Benefits. Benefit calculations vary according to date of participation. For those whose participation began before July 1, 2011, FAS is based on the best 36-month average of compensation in the last 120 months. For those whose participation began on or after July 1, 2011, the final average salary period is based upon the average of the highest consecutive 60 months in the last 120 months.

Arkansas

Arkansas/ATRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The system's DB plan has a contributory and a noncontributory option for certain participants. New employees automatically get the contributory option. Most noncontributory members can make an irreversible choice to get the contributory option. ESPs who began service before July 1, 1989, and did not elect to be covered by ATRS, are covered by a closed plan administered by the Arkansas Public Employees Retirement System.

The plan includes DROP participants. Optional DROP programs allow members with 28 or more years of credited service to "retire," freeze their retirement benefits, and continue employment in a position covered by the system. Each month,

Appendix 1: Notes to Plans (Continued)

a reduced portion of the amount the member would have received in retirement benefits is deposited in a tax-deferred account. At the end of the DROP employment period, participants receive a monthly benefit payment, which is added to the regular monthly retirement benefits; they may choose to receive a lump-sum payment. DROP participants do not continue to accumulate service credit in ATRS.

Table 3: Eligibility for Retirement. Benefits are reduced by 5 percent for each year below 28 years of service or age 60, whichever is less. For example, the reduction for a 51-year-old member with 26 years of credited service would be 10 percent, while the reduction for a 59-year-old member with 26 years of credited service would be 5 percent.

Additional service credit can be purchased for up to 15 years of out-of-state public school teaching, up to 10 years of Arkansas private school teaching, or up to 10 years of service in an overseas school sponsored and approved by the U.S. Departments of Defense or State, or service rendered in the Peace Corps or Volunteers in Service to America. Out-of-state, overseas, and private school service cannot be used for vesting purposes. Service credit is obtained by paying the actuarial cost of service.

Table 4: Post-Retirement Considerations. The COLA is a simple 3-percent increase determined by the retiree's base benefit and does not compound. The base benefit is the amount the member originally received when he or she retired, plus the amount of any increase voted by the ATRS Board and approved by the Arkansas Legislature.

Table 5: Contribution Rates. New members are automatically placed in the contributory plan; they currently contribute 6 percent of gross earnings or \$7,800, whichever applies. Noncontributory members contribute nothing. Employer contributions for members in the Teacher Deferred Retirement Option Plan (T-DROP) are being increased from 0 percent to 12 percent over a 10-year timetable.

Table 8: Retirement Plan Governance. State law requires seven active and three retiree members, as well as one member who is from a racial/ethnic minority group—who can be an active or retired member. Participants in the DROP program are considered eligible active members for this purpose. See Appendix 2 for details.

California

California/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Benefits vary for different categories of employees. The data in the tables are the aggregate totals of PERF A, B, and C plans. Participation in PERS is mandatory for eligible faculty and staff of the California State University system after six months of full-time employment or one year of part-time employment. The number of University of California participants in PERS is declining since new employees join the University of California Retirement System.

Table 3: Eligibility for Retirement. Early retirement reductions are made by using various retirement factors, based upon age. For classic members, the retirement factor is 2 percent at age 55, but 1.1 percent at age 50. Similarly, new members use a multiplier of 2 percent at age 62, which is reduced for each year under age 62 until reaching 1 percent at age 52.

Members with at least five years of earned service credit who are in compensated employment with a covered employer can buy one to five years of additional service credit. Credit must be purchased in whole year increments and only one election can be made (even if the member purchases fewer than five years of credit). Additional limitations were added for new members, prohibiting the purchase of "air time."

Table 4: Post-Retirement Considerations. COLAs of most state retirees and all school retirees are currently limited to 2 percent (compounded) annually. Public agencies can contract for 2 percent, 3 percent, 4 percent, or 5 percent COLAs. The COLA increase begins in the second calendar year after retirement.

The Purchasing Power Protection Allowance (PPPA) is added protection against inflation for those whose benefits fall below minimum levels established by law. This supplemental cost-of-living benefit is paid when a retiree's benefits fall below 75 percent of the purchasing power of benefits at the time of retirement. By contrast, STRS protection is 80 percent.

Table 5: Contribution Rates. Required employee contributions vary by employer and membership category, and range from 4 to 15.25 percent in the contributory plan. For FY 2015-16, school employees that meet the definition of a new member under the Public Employees' Pension Reform Act (PEPRA) contribute 6 percent of reportable compensation. Classic members contribute 7 percent of reportable compensation.

Table 6: Calculation of Benefits. Final compensation is the highest average full-time monthly pay rate for a one- or three-year period depending upon the employer contract or collective bargaining agreement unit. State and school members in general use the one-year period unless they were hired on or after January 1, 2013, in which case a three-year

Appendix 1: Notes to Plans (Continued)

period is used. The 2-percent multiplier is for normal retirement at age 55 for classic members or age 62 for new members. The multiplier is adjusted based upon the member's age at retirement. For classic members, the multiplier ranges from 1.1 percent at age 50 to a maximum of 2.5 percent at age 63. For new members, the multiplier ranges from 1 percent at age 52 to 2.5 percent at age 67.

For service coordinated with Social Security, the same basic benefit rate applies, but final compensation is reduced by \$133. School members' final compensation for service earned on or after January 1, 2001, is not subject to reduction.

For new members, pensionable pay is limited to the 2013 Social Security Wage Base (indexed to CPI) if participating in Social Security, 120 percent of indexed wage base otherwise.

Table 7: Actuarial Method and Funding. Salary growth assumptions vary for individual plans. The figures shown in the table apply to the school plan.

California/STRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The DB program includes California public school employees—kindergarten through community college—who teach, are involved in selecting and preparing instructional materials, or who supervise people engaged in those activities.

School districts, community colleges, and county offices of education may elect to offer part-time employees the "Cash Balance Benefit Program," a DB plan with a lump-sum distribution. Employees are eligible to participate when their employer offers the program, provided they are hired to perform creditable service for less than 50 percent of the full-time equivalent for the position and do not perform creditable service full time in another position. Annuity options are available if employer and employee contributions equal or exceed \$3,500.

CalSTRS provides an account under the Defined Benefit Supplement Program for DB program members who perform creditable service and make contributions to CalSTRS on creditable compensation earned for that service. Each member and their employer contribute 8 percent of earnings, for a total of 16 percent, to the Defined Benefit Supplement account on earnings in excess of one year of service credit as well as special limited-term payments or retirement incentives.

The DB program includes California public school employees—kindergarten through community college—who teach, are involved in selecting and preparing instructional materials, or who supervise people engaged in those activities.

Table 3: Eligibility for Retirement. For members hired before January 1, 2013, the early retirement reduction is based on the number of months the member is below age 60. For each full or partial month the member is below age 60, the normal retirement allowance is reduced by 0.5 percent, plus 0.25 percent for each full or partial month the member is below age 55.

For members hired on or after January 1, 2013, the early retirement reduction is based on the number of months the member is below age 62. For each full or partial month the member is below age 62, the normal retirement allowance is reduced by 0.5 percent.

Members may purchase out-of-state service credited by a public retirement system for public education in another U.S. state or territory or provided by the United States for its citizens.

Table 4: Post-Retirement Considerations. Each year, retirees receive a COLA increase equal to 2 percent of their initial benefit, starting September 1 following the first anniversary of retirement. These adjustments are not compounded. Purchasing Power Protection (PPP) is a supplementary benefit paid when a retiree's benefits fall below a certain level of the purchasing power of his or her benefits at the time of retirement. The PPP level is currently 85 percent. By contrast, CalPERS protection is 75 percent. In addition, the Legislature may grant ad-hoc permanent increases to the monthly benefit.

Table 5: Contribution Rates. Prior to July 1, 2014, all members contributed 8 percent of creditable compensation to the DB program. As a result of the 2014 funding plan, the member contribution to the DB program increased for all members to 8.15 percent of creditable compensation for the 2014-15 school year.

For 2 percent at 60 members (hired before January 1, 2013), the total contribution rate on creditable compensation to the DB program will increase to 9.2 percent for 2015-16 and 10.25 percent, effective July 1, 2016.

For 2 percent at 62 members (hired on or January 1, 2013), the contribution rate is equal to the sum of the increase required by the 2014 funding plan and 50 percent of the normal, ongoing cost of benefits rounded to the nearest quarter percent. As of the June 30, 2013, valuation, the normal cost of the CalSTRS 2-percent-at-62 benefit structure is 16.059 percent. As a result, 50 percent of the normal cost, rounded to the nearest quarter percent, continues to remain 8 percent. Assuming that the normal cost remains stable and after accounting for the additional contribution required by the 2014 funding plan, the 2-percent-at-62 member contribution on creditable compensation to the DB program will increase to 8.56 percent for 2015-16 and 9.205 percent, effective July 1, 2016.

Appendix 1: Notes to Plans (Continued)

As a result of the 2014 funding plan, employers contribute 8.88 percent of the total creditable compensation for 2014-15 to the DB program on which member contributions are based. The contribution rate is 10.73 percent in 2015-16 and continues to increase each year until it reaches 19.1 percent in 2020-21, after which point the board may make incremental adjustments, if necessary, up to a maximum of 20.25 percent. In 2014-15, the total state contribution rate is 3.454 percent and will increase to 4.891 percent in 2015-16 and 6.328 percent in 2016-17.

Table 6: Calculation of Benefits. For those members hired before January 1, 2013, and having 25 or more years of service credit, the final average salary period is the single highest year. CalSTRS searches the most recent 15 years of salary information to find the highest 12 consecutive months. The “one highest year” feature is available to classroom teachers who have fewer than 25 years of service if it is included in a written collective bargaining agreement and the employer, the employee, or the two together pay all costs. If the member has less than 25 years of service, CalSTRS will search the most recent 15 years of salary information to find the 36 highest consecutive months of creditable earnings. If the member’s highest final compensation period occurred more than 15 years ago, the member must specify the time period.

The 2-percent retirement factor is for a normal retirement at age 60. This factor increases by 0.033 percent with each quarter year of age up to a maximum of 2.4 percent. In addition, a 0.2-percent career factor is added to the age factor for 30 years or more of earned service credit up to a maximum age factor of 2.4 percent. For members attaining 30 years of service by January 1, 2011, a longevity bonus of \$200 per month is added to the retirement benefit. The bonus is increased to \$300 per month with 31 years of service and \$400 per month with 32 or more years of service.

For employees hired on or after January 1, 2013, CalSTRS searches the most recent 15 years of salary information to find the 36 highest consecutive months of creditable earnings. If the member’s highest final compensation period occurred more than 15 years ago, the member must specify the time period. The 2-percent retirement factor is for normal retirement at age 62. This factor increases by 0.033 percent with each quarter year of age up to a maximum of 2.4 percent.

Table 7: Actuarial Method and Funding. The 2014 funding plan increases state, employer, and member contributions to the Teachers’ Retirement Fund in order to eliminate the unfunded accrued actuarial liability of the DB program by June 30, 2046.

California/UCRP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The plan has two tiers (1976 plan and 2013 plan) and four membership classifications: members with Social Security coverage, members without Social Security coverage, safety members (police and firefighters), and Tier 2. The largest group is members with Social Security coverage, as most University of California employees hired since 1976 have Social Security coverage.

Table 3: Eligibility for Retirement. The data in the table are for retirement plan members with Social Security. Early retirement reductions are made by using various retirement factors, based upon age. For 1976 Tier members, the retirement factor is 2.5 percent at age 60, and 1.1 percent at age 50. Similarly, 2013 Tier members use a multiplier of 2.5 percent at age 65, which is reduced for each year under age 65 until reaching 1.1 percent at age 55. The 2013 Tier members represented by American Federation of State, County, and Municipal Employees (AFSCME), California Nurses Association (CNA), and University Professional and Technical Employees (UPTA) continue to use retirement benefit factors which are the same as the 1976 Tier.

Table 5: Contribution Rates. The total funding policy contribution rate, after timing adjustment, is 28.79 percent. In February 2009, the regents approved restarting contributions for the campus and medical center segments of UCRP. In July 2013, the regents approved increases in the contribution rates for the plan year beginning July 1, 2014. The university rate increased from 12 to 14 percent of covered payroll. The employer contribution rate is uniform, applying to all members regardless of hire date. The pretax contribution rate for 1976 Tier members, other than those members subject to the Modified 2013 Tier contribution rate described below, increased from 6.5 to 8 percent of covered pay (less \$19 per month). The contribution rate for 2013 Tier members remains at 7 percent of covered pay (with no \$19 per month offset) as of July 1, 2014. The 7 percent-rate was initially approved by the regents in December 2010.

Member rates are subject to collective bargaining for represented employees. During bargaining, three unions agreed to modifications of benefits and to the standard employee contribution rates established for 1976 Tier and 2013 Tier members, pursuant to which all their members began contributing 9 percent of covered pay (less \$19 per month for 1976 Tier members) effective on or about July 1, 2014. Those unions are AFSCME, CNA, and UPTA.

Table 6: Calculation of Benefits. For members with partial-year appointments, highest average compensation is calculated on the 9-, 10-, or 11-month full-time equivalent compensation received during a plan year, divided by 12, and then averaged over the highest consecutive 36-month period.

Appendix 1: Notes to Plans (Continued)

The 2.5-percent retirement factor is for retirement at age 60 for the 1976 Tier and 2013 Tier members who are represented by AFSCME, CNA, and UPTA. For other 2013 Tier members, the 2.5-percent retirement factor is available at age 65. Retirement factors vary based upon the age of the member at retirement. For all members, the retirement factor is reduced to 1.8 percent if retiring five years before the age when the maximum factor would be available, and reduced to 1.1 percent if retiring 10 years before the age when the maximum factor would be available.

For members with Social Security, the final average salary is reduced by \$133 to account for the university's contributions to Social Security. The maximum UCRP retirement benefit is 100 percent of the member's final average salary minus \$133; the limit affects only a few members, most of whom have 40 years or more of service credit. Federal Internal Revenue Code provisions may also limit benefits.

Table 8: Retirement Plan Governance. The 26-member University of California Board of Regents serves as trustee for the plan. See Appendix 2 for details. The UCRS Advisory Board consists of 11 members, representing a cross-section of the UC community, who serve without compensation (but are reimbursed for necessary expenses). The members are: an officer of the university appointed by the president of the university; three persons appointed by the president of the university; the treasurer of the regents or the treasurer's designee; two persons selected by the Academic Senate from the 10 UC campuses; two persons from different UC locations elected by active members of the UCRP who are not members of the Academic Senate; and two retired UCRP members currently serving as Chair of the Council of University of California Emeriti Associations (CUCEA) and/or the Council of University of California Retiree Associations (CUCRA).

Colorado

Colorado/PERA-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. PERA administers 11 fiduciary funds, including five DB pension trust funds: the State Division Trust Fund, the School Division Trust Fund, the Local Government Division Trust Fund, the Judicial Division Trust Fund and the DPS Division Trust Fund (the Division Trust Funds). Effective January 1, 2006, eligible new employees of state agencies and departments have chosen among the PERA DB plan, the PERA DC plan, and the state of Colorado DC plan. Since January 1, 2008, eligible new community college employees have chosen between the State Division Trust Fund and the PERA DC plan. Eligible employees, who do not elect a plan within 60 days of the starting date of employment, are automatically enrolled in the plan to which they last participated or the State Division Trust Fund if they were not previously enrolled in any.

Retirement benefits are based on a DB or money-purchase calculation, whichever is higher. The DB benefit is based on the member's years of service, age, and highest average salary. The money-purchase benefit is based on the member's life expectancy, the value of the member's contribution account, and a matching amount equal to 100 percent of the member's contributions plus interest earned.

Member contribution accounts accrue interest at a rate set by the PERA board each year, not to exceed 3 percent; that rate has been in effect since January 1, 2009. Money-purchase benefits, which can be paid in a lump sum or as a monthly benefit, are advantageous to members who terminate covered employment and do not withdraw their accounts. Members with fewer than five years of service are not eligible for the money-purchase benefit until age 65.

Net assets are for state and school division DB plans. As of December 31, 2014, total PERA-DB plan net assets (state, school, local government, judicial, and DPS divisions) were \$44.2 billion.

Table 3: Eligibility for Retirement. Any member can retire at age 65 with five years of service. Members hired before July 1, 2005, can retire with unreduced benefits at age 50 with 30 years of service, or under the Rule of 80, if at least age 55 with five years of service. Members hired between July 1, 2005, and December 31, 2006, can receive unreduced benefits at any age with 35 years of service, or under the Rule of 80, if at least age 55 with five years of service. Members hired on or after January 1, 2007, can retire at any age with 35 years of service, or under the Rule of 85 if at least age 55 and with five years of service. Members hired on or after January 1, 2011, can retire at any age with 35 years of service, or under the Rule of 88, if at least age 58 with five years of service.

Major legislation (Senate Bill 10-1) was signed into law on February 23, 2010, that returned the Colorado PERA fund to long-term sustainability. SB 10-1 changed service retirement requirements for all existing employees (including employees of PERA's new DPS Division, effective January 1, 2010), with fewer than five years of service credit on January 1, 2011, and for all new hires (including those in PERA's DPS Division) effective January 1, 2011. This legislation included a modified Rule of 85 for existing members with less than five years of service credit on January 1, 2011.

Appendix 1: Notes to Plans (Continued)

For members who were eligible to retire on January 1, 2011, SB 10-1 maintained existing eligibility requirements for reduced-service retirement benefits and current reduction factors (4% annual reduction for ages 60 to 65, 3% annual reduction for ages 55 to 60, and 6% annual reduction below age 55). However, this legislation changed the reduced-service retirement benefit reduction factors for all members (including PERA DPS Division members) who are not eligible to retire on January 1, 2011. The reduction factors will be changed to the actuarial equivalent of the single-life-benefit amount on the member's effective retirement date.

Members with at least one year of service can purchase up to 10 years of service credit for out-of-state schools, public colleges, and public universities, based on actuarial cost.

Table 4: Post-Retirement Considerations. For employees hired before January 1, 2007, the COLA applied is the applicable COLA cap (currently 2%), unless PERA has a negative investment year, in which case the COLA for the subsequent three years will be the lesser of the applicable COLA cap or the CPI-W. The COLA cap is to be adjusted based on PERA's overall year-end funded status, with increases mandated when PERA's funded status is over 103 percent and decreases mandated when PERA's funded status subsequently falls below 90 percent. The COLA cap is not allowed to fall below 2 percent.

In 2013, the 2.0-percent annual COLA was paid to eligible retirees and benefit recipients in this group. For employees hired on or after January 1, 2007, the non-guaranteed ad-hoc COLA is the lesser of the COLA cap (currently 2%), the actual CPI, or an increase that exhausts 10 percent of the COLA fund's assets at market value. To receive the COLA, an employee must be retired for a full calendar year and meet the Rule of 85 if receiving service or early retirement benefits, or reach age 60 if receiving early retirement benefits. Disability retirees and recipients of survivor benefits receive the COLA regardless of age or service.

The COLA is contingent on available funding from new reserve accounts in each PERA division. In 2013, an increase of 1.4 percent was paid to eligible retirees and benefit recipients in this group.

All members with a retirement date of January 1, 2011, or later are required to receive benefits for a 12-month period prior to being eligible to receive a COLA. In addition, members not eligible to retire as of January 1, 2011, who subsequently retire with a reduced-service retirement, must reach age 60 or meet the applicable age and service requirement for a full-service retirement in order to be eligible for a COLA.

Table 5: Contribution Rates. Contribution rates vary for state employers, state troopers, school employers, local government employers, and judicial division plans. All PERA employers, regardless of their division, must contribute the total contribution rate required for that division.

The total rate in the table is for state and school employers, effective January 1, 2015. It includes the 10.15 percent permanent statutory payroll rate, of which 1.02 percent is allocated to the PERA Health Care Trust Fund to pay a portion of health care premiums for benefit recipients enrolled in the PERA health care program; the Amortization Equalization Disbursement (AED), which is currently 4.2 percent; and the Supplemental Amortization Equalization Disbursement (SAED), which is currently 4 percent.

The AED and the SAED have been paid by employers since January 1, 2006, and January 1, 2008, respectively. However, a state statute mandates that the SAED be funded by monies otherwise available for employee compensation increases. The AED and SAED help amortize the DB Plan's unfunded accrued actuarial liability over the 30-year statutory period. Prior to passage of SB 10-1, the AED was scheduled to increase 0.4 percent annually through 2012, and the SAED was scheduled to increase by 0.5 percent annually through 2013.

SB 10-1 provided for the following AED and SAED increases in the state, school, and DPS divisions: The State Division's AED will increase 0.4 percent annually until reaching a maximum of 5 percent in 2017. The School and DPS divisions' AED will increase 0.4 percent annually in 2013, 2014, and 2015, and by 0.3 percent in 2016, to a maximum of 4.5 percent. The State Division's SAED will increase by 0.5 percent annually to a maximum of 5.0 percent in 2017. The school and DPS divisions' SAED will increase by 0.5 percent annually to a maximum of 5.5 percent in 2018.

The AED and SAED amounts will be adjusted based on the year-end funded status for each of the school, DPS, and state divisions, with decreases mandated when the division's year-end funded status reaches 103 percent, and increases mandated when the division's funded status subsequently fall below 90 percent.

Table 6: Calculation of Benefits. The final average salary period shown in the table is for members who were hired before January 1, 2007, and eligible to retire before January 1, 2011. For employees hired before January 1, 2007, who were eligible to retire on January 1, 2011, the final average salary is the highest annual salaries associated with four periods of 12 consecutive months of service credit. The four 12-month periods do not have to be consecutive, nor do they have to include the last four years of service. The lowest of the four periods becomes a base year used as a starting point for the 15-percent cap on annual salary increases.

Appendix 1: Notes to Plans (Continued)

For employees hired before January 1, 2007, who were not eligible to retire on January 1, 2011, and for employees hired on or after January 1, 2007, the lowest of the four periods becomes a base year used as a starting point for the 8-percent cap on annual salary increases.

A money-purchase benefit is also calculated and is paid to the retiree as an alternative if the money-purchase benefit is higher than the defined-service retirement benefit. The money-purchase benefit is determined by the member's life expectancy, the value of the member's contribution account, and a matching amount equal to 100 percent of the member's contributions plus interest. Member contribution accounts accrue interest at a rate set by the PERA board annually, not to exceed 5 percent. The interest rate is currently set at 3 percent.

Table 7: Actuarial Method and Funding. The ratio in the table is for all state, school, local government, judicial and DPS divisions as of December 31, 2014. On that date, the funded ratio for the state division was 57.8 percent, and the ratio for the school division was 60.9 percent. On December 31, 2014, the unfunded actuarial accrued liability was 331.9 percent of covered payroll in all divisions, 385.4 percent in the state division, and 350.5 percent in the school division. The maximum assumed salary growth range in the table is for the state division. The maximum assumed salary growth for the school division is 10.10 percent.

Table 8: Retirement Plan Governance. The governor's three board appointments must be approved by the Colorado Senate. The Colorado PERA Board of Trustees' consists of 16 members. Eleven of the members are voting members elected by the membership, three voting trustees appointed by the governor, the state treasurer (voting member) and a non-voting, ex-officio trustee who represents PERA's Denver Public Schools (DPS) Division. The DPS Division member must be a DPS Division employee or retiree, may participate in discussions, but cannot vote or make any motion. The trustee is elected by the members and retirees of the DPS Division.

Colorado/PERA-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Colorado PERA Defined Contribution (DC) Retirement Plan was established January 1, 2006, as an alternative to PERA's Defined Benefit (DB) Plan. It is also known as the PERA CHOICE plan. Participation is generally available to all new state employees hired on or after January 1, 2006, and to all new employees of 14 community colleges hired on or after January 1, 2008. The PERA DC Plan is not available to any other new employees of higher education institutions. Eligible employees have the option of choosing the Colorado PERA DB Plan or the PERA DC Plan. Eligible employees who do not file a plan-election form default to the Colorado PERA DB Plan. The investment options available to PERA DC Plan members include six primary funds, one additional specialized fund, and nine target date retirement funds.

Table 3: Eligibility for Retirement. Colorado PERA DC Plan members are 100-percent vested in employee contributions immediately and in employer contributions based on the following schedule: 50 percent immediately, 60 percent after one year of service, 70 percent after two years, 80 percent after three years, 90 percent after four years, and 100 percent after five years.

Table 5: Contribution Rates. Since community college system employees (like all higher education employees) are part of the State Division, the rate in the table is the rate placed into the account of the DC plan participant. The rate is equivalent to the statutory rate in the State Division of the DB plan. In 2015, the Amortization Equalization Disbursement (AED), currently 4.2 percent; and the Supplemental Amortization Equalization Disbursement (SAED), currently 4 percent are remitted to PERA for each DC plan participant. All PERA State Division employers must give the AED and SAED contributions for all employees, regardless of whether the employee has selected the DB or DC plan. All AED and SAED contributions are credited to the State Division Trust Fund to reduce the fund's actuarial liabilities. In the State Division, the AED and SAED will both reach a maximum of 5 percent in 2017.

Table 8: Retirement Plan Governance. The Colorado PERA DC Plan has the same retirement board membership as the Colorado PERA DB Plan.

Connecticut

Connecticut/CMERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Only ESPs of participating municipalities are covered. According to the July 1, 2014, valuation report, Social Security covered 4,371 of 6,808 active general

Appendix 1: Notes to Plans (Continued)

members (excluding police and fire who are counted in the table) and 3,447 of 5,800 retired general members (excluding police and fire who are counted in the table) and their beneficiaries.

Table 3: Eligibility for Retirement. Members are eligible for retirement upon completing 25 years of aggregate service or at age 55 with five years of continuous service or 15 years of active aggregate service in a participating municipality. If a member covered by Social Security retires before age 62, his or her benefit, until reaching age 62—or receiving a Social Security disability award—is computed as if he or she were not covered by Social Security.

Table 5: Contribution Rates. The employee contribution rate for members not covered by Social Security is 5 percent of compensation; the rate for members covered by Social Security is 2.25 percent of compensation for the Social Security taxable wage base, plus 5 percent of compensation, if any, above the base. Participating municipalities' annual contributions include a current service contribution and a prior service amortization payment. Rates vary for police and fire members versus general employees and, within those groups, based upon Social Security participation. FY 2016 employer contributions for general members are 11.38 percent for those participating in Social Security and 10.91 percent for those not participating in Social Security.

Table 6: Calculation of Benefits. For members eligible for Social Security on or after January 1, 2002, the benefit formula is 1.5 percent of final average salary (FAS) up to the “breakpoint” for the calendar year in which the member severs municipal service, plus 2 percent of FAS in excess of the breakpoint multiplied by years and completed months of service. The breakpoint is \$69,200 in 2014 and will rise each year by 6 percent rounded to the nearest \$100, but will not exceed Social Security-covered compensation.

For members not covered by Social Security, the benefit is 2 percent of average final compensation (based on the three highest years) multiplied by years of service.

Table 7: Actuarial Method and Funding. Amortization is based upon 25 years, using a level-dollar closed amortization period.

Table 8: Retirement Plan Governance. The State Employees Retirement Commission administers CMERS. The commissioners appoint a representative from among the municipalities that participate in CMERS to serve as a liaison to the commission.

Connecticut/TRS

Table 3: Eligibility for Retirement. Members are eligible for early retirement at age 55 with 20 years of service, 15 years of which must be Connecticut service, and at any age with 25 years of service, 20 years of which must be Connecticut service. The early retirement annual actuarial discount is 6 percent per year for the first five years and 4 percent per year thereafter. With 30 years of service, the actuarial discount is 3 percent per year. A member with at least 10 years of service, at least five of which are in Connecticut public schools, can receive a prorated retirement benefit at age 60.

Table 4: Post-Retirement Considerations. For members who retired before September 1992, the COLA is based on the Consumer Price Index and ranges from 3 to 5 percent per year. For members who retired during or after September 1992, the COLA is equal to the Social Security benefit COLA, but no more than 6 percent, or, if the total return on the Teachers' Retirement Fund (TRF) assets was less than 8.5 percent the prior year, no more than 1.5 percent. For members joining TRS on or after July 1, 2007, the COLA is based on the Social Security-benefit COLA granted and TRF investment returns for the prior year, to a maximum of 5 percent. If total fund returns for the prior year are less than 8.5 percent, the maximum COLA is 1 percent; if returns are 8.5 to 11.5 percent, the maximum COLA is 3 percent; and if returns are more than 11.5 percent, the maximum COLA is 5 percent.

Table 6: Calculation of Benefits. Benefit calculations are based on the formula plus any additional amounts derived from the 6-percent contribution made prior to July 1, 1989, and voluntary contributions made by employees.

Delaware

Delaware/SEPP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Participant counts and asset value shown are for the State Employees' plan.

Appendix 1: Notes to Plans (Continued)

Table 3: Eligibility for Retirement. For those hired before January 1, 2012, the benefit is reduced by 0.2 percent for each month under age 60 at retirement or each month short of 30 years of service. For those hired on or after January 1, 2012, the reduction is 0.4 percent per month. Members can purchase up to four years of credit for full-time employment performed for another state, a political subdivision of another state (such as a school district), the federal government, an accredited private school or college anywhere in the world, or service with the state of Delaware for which members will not receive credit in another Delaware state, county, or municipal pension plan.

Table 4: Post-Retirement Considerations. Ad hoc COLAs are funded through the use of a Post-Retirement Increase Fund. Each Post-Retirement Increase is funded over five years.

Table 5: Contribution Rates. Employer contributions are actuarially based and determined by the Board of Pension Trustees. For FY 2014, the employer contribution rate is 9.5 percent.

Table 6: Calculation of Benefits. Overtime is excluded from pensionable pay for those hired after January 1, 2012.

Table 7: Actuarial Method and Funding. State law requires unfunded actuarial accrued liabilities for plan amendments effective after FY 2007 to be amortized over an open amortization period of 20 years.

Table 8: Retirement Plan Governance. A 10-member State Pension Advisory Council, composed of representatives of employee organizations, makes recommendations to the State Board of Pension Trustees, the General Assembly of Delaware and its committees, the State Pension Office, and state employees on all matters the council deems appropriate. The Delaware Code specifies the council's composition; a representative of the Delaware State Education Association must be a member.

District of Columbia

District of Columbia/DCPP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The District of Columbia Department of Human Resources and the Office of Finance and Treasury are jointly responsible for the management of the plan. Voya Financial is the plan's third-party administrator responsible for recordkeeping, administration, participant communication, investment management, and trustee services. According to the District of Columbia Office of Finance and Treasury, 1,748 members received payouts in FY 2014.

Table 3: Eligibility for Retirement. The plan's vesting schedule changed effective December 8, 2009, to vest employee contributions based on the following schedule: 20 percent after two years of service, 40 percent after three years, 60 percent after four years, and 100 percent after five years. The plan has no retirement age/service requirements, but taxes and penalties may apply if funds are withdrawn before age 59 1/2.

Table 8: Retirement Plan Governance. The District of Columbia Office of Finance and Treasury and the Department of Human Resources oversee the plan.

District of Columbia/TRF

Table 3: Eligibility for Retirement. Members who have worked for at least five years as a District of Columbia public school teacher can purchase up to 10 years of service credit for work in a public day school or equivalent system outside of the DCPS system.

Table 5: Contribution Rates. Members hired before November 1, 1996, contribute 7 percent and members hired on or after November 1, 1996, contribute 8 percent. The plan is also funded by government contributions, which are based on a certified actuarial valuation conducted by the District of Columbia Retirement Board's actuary. In 1997, the U.S. government assumed the District's unfunded pension liabilities for teacher and other retirement plans. The U.S. government pays retirement, death, survivor, and a share of disability benefits earned by beneficiaries prior to July 1, 1997; benefits earned on July 1, 1997, and thereafter are the District's responsibility. In fiscal years 2009 through 2012, the District government did not make an employer contribution to the fund because of its well-funded status.

Table 6: Calculation of Benefits. The average salary used in the plan's benefit formula is determined by the member's highest 36 consecutive months of pay.

Table 7: Actuarial Method and Funding. The plan's funded ratio is 94.42 percent based on the market value of the plan's assets, and 88.61 percent based on the actuarial value.

Florida

Florida/FRS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Social Security coverage is required—and has been required since December 1, 1970—for all participants in state-administered retirement systems except members of the closed Teachers' Retirement System and Division A of the State and County Officers and Employees' Retirement System.

FRS has a board for investment but not for administration. The board that invests FRS funds is composed of three state officials: the governor, chief financial officer, and attorney general.

Figures for active employees and annuitants include regular class and teachers' retirement system DB plan members.

Table 3: Eligibility for Retirement. Early retirement may be taken after a member has vested and is within 20 years of retirement age. Vested members can purchase up to five years of service credit.

Florida/FRS-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Since mid-2002, most new employees in covered positions have had the option of electing the FRS Investment Plan, an optional DC plan. Employees who do not make a choice are automatically enrolled in the DB plan. The total active member count includes DROP members, beneficiaries, pension plan members who bought back to the DB pension plan and left a balance in the investment plan, and alternate payees, which include former spouses or beneficiaries of deceased members.

Table 3: Eligibility for Retirement. Former DB plan members who transfer the value of their DB plan to the DC plan must complete six years of service to vest.

Table 5: Contribution Rates. The employer contribution rate shown in the table (3.55%) includes the cost of the disability benefit. Members receive 3.3 percent of pay for their DC accounts from those employer contributions. Rates shown exclude contributions for FRS' health insurance subsidy. The rates shown are for the July 1, 2014, through June 30, 2015, plan year.

Georgia

Georgia/PSERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The plan covers bus drivers, cafeteria workers, and maintenance workers. Their supervisors and all other employees of local boards of education are in Georgia/TRS.

Table 3: Eligibility for Retirement. Members can purchase credit for military service if called to active duty while working under PSERS, for leave-without-pay periods, and for service covered by Georgia/TRS.

Table 4: Post-Retirement Considerations. The board for the Employees' Retirement System of Georgia may approve a COLA.

Table 5: Contribution Rates. By law, the state (not the employer) must make contributions that are actuarially determined to be sufficient to support benefits. The contribution period for employees is nine months of the year.

Table 6: Calculation of Benefits. Benefits are not based on members' salaries, but are \$14.75 per month multiplied by years of creditable service.

Table 8: Retirement Plan Governance. The board of trustees is composed of the trustees of the Employees' Retirement System plus two additional trustees appointed by the governor.

Georgia/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The plan includes all employees of local boards of education except nonsupervisory bus drivers, cafeteria workers, and maintenance workers.

Table 3: Eligibility for Retirement. After five years as a contributing member of TRS, members can purchase credit for out-of-state public school teaching experience or Georgia private school teaching experience; one year of credit can be purchased for each year above five years in Georgia public schools, up to a maximum of 10 years. TRS members with at least 25 years of service can purchase up to three years of additional credit at the actuarial cost; this service credit is called "air time" as it is not associated with previous teaching experience.

Appendix 1: Notes to Plans (Continued)

Table 4: Post-Retirement Considerations. Members under age 60 who retire with less than 30 years of service become eligible for COLAs upon reaching age 60 or when they would have reached 30 years of service, whichever comes first.

Table 5: Contribution Rates. Rates are shown for FY 2016, beginning on July 1, 2015.

Table 7: Actuarial Method and Funding. While state law allows a maximum amortization period of 30 years, legislation that has a fiscal impact on public retirement systems such as TRS must be funded the year it is enacted. Georgia/TRS adopted a closed 30-year amortization period in 2013. The unfunded actuarial accrued liability (UAAL) as of June 30, 2013, is amortized over a closed 30-year period. Each subsequent valuation will produce a new incremental UAAL consisting of all benefit changes, assumption and method changes, and experience gains and/or losses that have occurred since the previous valuation. Each incremental change will be amortized over a closed 30-year period.

Hawaii

Hawaii/ERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Members are covered by a contributory plan (which was closed to new members on July 1, 1984), a noncontributory plan (employees hired between July 1, 1984, and June 30, 2006, as well as some employees hired before July 1, 1984, who elected to transfer from the contributory plan), and the new contributory plan (employees hired since July 1, 2006, as well as employees hired before that date who elected to join). The new contributory plan is an optional alternative and eventual replacement for the prior contributory and noncontributory plans. While Hawaiians call the new contributory plan a “hybrid,” it does not have the combination of DB and DC provisions which that term normally means. As of June 30, 2014, the new contributory plan had 43,864 members or 65.3 percent of the active membership.

Table 3: Eligibility for Retirement. Participants in the now-closed contributory plan can retire with an unreduced benefit at age 55 with five years of service or with a benefit at any age with 25 years of service, which is reduced 5 percent per year under age 55 plus 4 percent per year under age 50.

Table 5: Contribution Rates. Contribution rates are established by law. 2011 legislation made significant changes to future employer contribution rates. Once rates reach 17 percent of payroll in FY 2016, they are expected to remain at that level until the system is fully funded. Employer contribution rates are uniform over the various plans, except that a separate rate is calculated for police and fire employees. The employer contribution rate in the table is for FY 2016 and after.

Table 7: Actuarial Method and Funding. The amortization period of 26 years is an aggregate expectation that was determined based upon the current contribution rates as set by law, the changes in benefits and employee contributions for those hired on or after January 1, 2012, and the current financial status of the retirement system. Assumed salary growth ranges from 4.5 to 8.5 percent for teachers and from 4 to 8 percent for other employees.

Idaho

Idaho/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data in the table are for the base DB plan (the Firefighters Retirement Fund is also a DB plan). There is also a voluntary DC plan called the Choice 401(k) Plan, which contains any gain-sharing contributions received, voluntary contributions made, and rollovers from other plans. It covers faculty in community colleges, postsecondary vocational schools, colleges, and universities on a limited basis (usually associated with PERS members who were vested when an optional DC retirement plan for faculty was established).

Table 3: Eligibility for Retirement. The early retirement reduction is based on how many years an employee would have to work to reach service retirement age (called “points”) or the Rule of 90, whichever is less. Benefits are reduced by 3 percent for each of the first five years (points) and by 5.75 percent for each additional five years (points). Members can purchase up to four years of service credit for any reason. There are no service requirements.

Table 4: Post-Retirement Considerations. A 1-percent COLA is mandatory if the Consumer Price Index (CPI) rises by more than 1 percent. The board can approve a higher COLA, which automatically goes into effect March 1, unless the Legislature modifies the board’s recommendation by the 45th day of the legislative session. The board is also authorized to

Appendix 1: Notes to Plans (Continued)

award post-retirement adjustments for prior years in which the COLA was less than the actual CPI. On March 1, 2008, a 2-percent COLA was authorized and implemented. In years with excess investment earnings, the board may provide gain sharing with a 13th check. Some gain-sharing funds may be allocated to employers and active employees in proportions determined by the board.

Table 5: Contribution Rates. The July 1, 2009 valuation found that the contribution rates were insufficient to amortize the unfunded actuarial accrued liability (UAAL) within 25 years of the valuation date. As a result, in December 2009 the board approved three contribution rate increases to take effect: 1.5 percent on July 1, 2011, 1.5 percent on July 1, 2012, and 2.28 percent on July 1, 2013. But December 2010, these scheduled rate increases were each delayed one year. The one-year delay was repeated in December 2011. On July 1, 2013, the first contribution rate increase went into effect as scheduled. In October 2013, the remaining two scheduled rate increases were each delayed one year; and in September 2014 these increases were canceled altogether.

Table 7: Actuarial Method and Funding. Under Idaho law, the maximum amortization period is 25 years when an UAAL exists.

Illinois

Illinois/IMRF

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data shown are for the regular plan—which do not include plans for sheriff's law enforcement personnel or elected county officials.

Table 3: Eligibility for Retirement. The annual discount for early retirement is 3 percent for each year under age 60 or each year under 35 years of service, whichever is less. Effective January 1, 2011, regular plan members who are hired on or after that date will be in Tier 2. Vesting increased from eight years to 10 years. The normal retirement age is increased to 67 years and the early retirement age is increased to 62. The final average salary period is increased to eight years during the last 10 years of service and is capped at \$106,800, which will increase annually by one-half the CPI increase, up to 3 percent (\$111,572 in 2015).

Table 4: Post-Retirement Considerations. The COLA is based on the original benefit and does not compound. Each July, retirees who have been receiving benefits for at least a year receive a 13th check funded entirely by employer contributions (0.62% of the participating payroll). Each retiree receives a pro-rata-share based on the ratio of his or her benefit to total benefits paid. In 2015, the 13th check is 33.889 percent of the monthly pension amount.

Effective January 1, 2011, for regular plan members hired on or after that date, the COLA is limited to one-half the increase in the CPI or 3 percent, whichever is lower based on the original amount of the pension. COLAs do not begin until a retiree is age 67.

Table 5: Contribution Rates. The average employer contribution rate for 2015 is 11.69 percent. IMRF is a multiemployer system and each employer funds the retirement benefits of its employees. An independent actuary calculates the contribution rate each year, which is expressed as a percent of the participating payroll.

Table 6: Calculation of Benefits. Pensionable earnings were limited to \$106,800 starting in 2011, to be increased annually by 3 percent or one-half the CPI, whichever is less. The amount in 2015 is \$111,572.

Table 7: Actuarial Method and Funding. As of December 31, 2014, the system served 2,976 employers. Each employer contributes to separate accounts to provide future retirement benefits for their own employees. Under Illinois law, unfunded liabilities must be amortized over a period allowed by generally accepted accounting principles. For taxing bodies, the unfunded liability is amortized over a closed 30-year period (28 years in 2015). Non-taxing bodies use a rolling 10-year period.

Illinois/SURS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. SURS offers three options for members: Traditional Benefit Package (DB), Portable Benefit Package (DB), or the Self-Managed Plan (DC). The self-managed DC plan has 11,409 active members and 381 annuitants.

Table 3: Eligibility for Retirement. DC plan members who leave SURS-covered employment with less than five years of service can withdraw employee contributions plus investment returns; members who leave with five years or more years of service can withdraw employee and employer contributions, and investment returns on both. Participants can purchase up

Appendix 1: Notes to Plans (Continued)

to 10 years of service credit for prior employment with a U.S. public school, college, or university. Purchased credits cannot be more than two-thirds of direct credits and cannot be used to meet vesting requirements.

Table 6: Calculation of Benefits. For employees who retire after July 7, 1999, the normal retirement benefit is the amount produced by the formula, an annuity based on accumulated employee and deemed employer contributions, or \$25 per month multiplied by years of service (a maximum of 30), whichever is greatest. The Portable Benefit Plan provides a more generous separation benefit, however the provisions for survivor benefits require a reduction to the retirement and death benefits.

Illinois/TRS

Table 3: Eligibility for Retirement. The current version of the early retirement option (ERO) terminates on July 1, 2016, but it may be modified and extended. Under the ERO, members at least age 55 but under age 60 with 20 to 34.999 years of service who retire within six months of the last day of service can avoid a discount if they and their employers made one-time contributions to the system. Members pay 14.4 percent of pay for each year under age 60 or 35 years of service, whichever is less. The school district contributes 29.3 percent for each year the member is under age 60. The Early Retirement Option (ERO) is not available to Tier 2, but Tier 2 members are required to pay the 0.4 percent contribution for ERO that Tier 1 pays.

Table 4: Post-Retirement Considerations. Tier 1: The first COLA is paid January 1 after the retiree attains age 61 or January 1 after the first anniversary of retirement, whichever is later. The first increase is based on time elapsed since retirement. If the member retired 3.5 years before being eligible for the first increase, the first increase is 10.5 percent (3.5 times 3%), with future increases of 3 percent of the current benefit.

Tier 2: The first COLA increase is on the latter of the January 1 following the first anniversary of retirement or age 67.

Table 5: Contribution Rates. Tiers 1 and 2 pay the same contribution rate: 7.5 percent for retirement, 0.5 percent for annual increases, 1.0 percent for survivor benefits, and 0.4 percent for the Early Retirement Option. The Tier 2 member contribution exceeds the actuarial cost of the Tier 2 benefit so Tier 2 subsidizes Tier 1. The employer rate (paid mainly by the state) is for Tiers 1 and 2 combined.

Table 6: Calculation of Benefits. After July 1, 1998, service accrues at 2.2 percent. A graduated formula applies to service before that date: (1.67 percent x 1st 10 yrs.) + (1.9 percent x 2nd 10 yrs.) + (2.1 percent x 3rd 10 yrs.) + (2.3 percent x 30+ yrs.) x FAS, with certain exceptions. Members can upgrade their graduated formula service to the 2.2 formula, with the required contribution decreasing according to the number of years worked after enactment. If the member entered service before July 1, 2005, the 75-percent FAS limit does not apply to money-purchase (actuarial) benefits that exceed the amount the formula provides. All service for Tier 2 is under the 2.2-percent formula. The money purchase option is not available to Tier 2.

Table 7: Actuarial Method and Funding. The amortization period is 31 years from the June 30, 2014, valuation until June 30, 2045, when the 90-percent funding target will be reached.

Illinois/Chicago/MEA&BF

Table 3: Eligibility for Retirement. A vested employee with fewer than 20 years of service cannot begin receiving an annuity before age 60.

Table 4: Post-Retirement Considerations. Tier 1: An employee annuitant is eligible to receive an increase of the lesser of 3 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12-month period ending with the September preceding the increase. There is a minimum increase of 1 percent for those receiving an annuity of less than \$22,000. The increase is calculated using the 2014 annuity amount or if the member was not yet receiving an annuity prior to January 1, 2015, on the originally granted annuity amount. This increase begins in January of the year of the first payment date following the earlier of: (1) the latest of the third anniversary of retirement or age 53, or (2) the later of the first anniversary of retirement or age 60. An annuitant who retires after June 9, 2014, is not eligible for the annual increase until one year after the date on which the annual increase would have taken effect. No automatic annual increase will be given in 2017, 2019, or 2025 except for those receiving a minimum increase.

Tier 2: An employee annuitant or surviving spouse who is eligible to receive an increase in annuity benefit, shall receive an annual increase equal to the lesser of 3 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U. The increase is based on the amount of the originally granted benefit (simple). This increase

Appendix 1: Notes to Plans (Continued)

begins in January of the year of the first payment date following the later of: (1) the attainment of age 65, or (2) the second anniversary of the annuity start date. No automatic annual increase will be given in 2025.

Table 5: Contribution Rates. Public Act 98-0641 (Senate Bill 1922), an initiative of the city of Chicago (the “plan sponsor”), makes several changes to the plan that include benefit changes for both Tiers 1 and 2 members, an increase in employer and employee contributions, and other reform provisions. These amendments to the statute changed the funding requirements for future years. The objective of the plan sponsor is for the plan to reach 90-percent funding by 2055. To do this, future increases in benefits will be reduced and both employees and the plan sponsor will contribute more to the plan. The plan sponsor currently contributes an amount equal to 1.25 times the total contribution by employees two years earlier to the plan. Beginning in payment year 2016, the multiplier for employer contributions will increase as follows: 1.85 in 2016, 2.15 in 2017, 2.45 in 2018, 2.75 in 2019, and 3.05 in 2020.

From payment year 2016-2020, the plan sponsor will contribute based on the increased multiplier, or an actuarial schedule, whichever is less. Beginning in 2021, the plan sponsor will contribute more into the plan and begin contributing the normal cost and amortization of the unfunded liability to achieve 90-percent funded ratio by 2055. Currently, employee contributions are equal to 8.5 percent of salary. Under the bill, all employee contributions would increase by 0.5 percent each year from 2015 to 2019. Contributions would increase to 9 percent in 2015, 9.5 percent in 2016, 10 percent in 2017, 10.5 percent in 2018, and finally 11 percent in 2019 and going forward. When the plan reaches 90-percent funded, employee contributions will decrease to 9.75 percent and remain 9.75 percent as long as the plan stays 90-percent funded. The employer contribution rate is for 2014 and does not include the other post-employment benefits (OPEB) contribution.

Table 6: Calculation of Benefits. Employees who withdraw from service at age 60 or older with 10 or more years of service are entitled to a minimum of \$850 per month. Pensionable salary is limited for Tier 2 members to \$106,800 in 2011, increased by the lesser of 3 percent or one-half of the change in CPI, not less than zero. For 2014 the salary limit is \$110,631.

Illinois/Chicago/CTPF

Table 3: Eligibility for Retirement. Up to 10 years of service credit can be purchased for public school teaching in another state and up to 36 months for employer-approved leaves of absence.

Table 6: Calculation of Benefits. After July 1, 1998, service accrues at 2.2 percent. The formula in the table applies to such service and service before that date if the member made contributions to upgrade it. The previous formula is used for service before July 1, 1998, that has not been upgraded: (1.67 percent x 1st 10 years) + (1.9 percent x 2nd 10 years) + (2.1 percent x 3rd 10 years) + (2.3 percent x 30+ years) x FAS. FAS capped at \$111,571.63 in 2015. Cap increases by 3 percent or one-half of the increase in CPI for preceding year.

Indiana

Indiana/PERF

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Indiana Public Retirement System (INPRS) includes the two largest public retirement plans in the state. The Indiana State Teachers’ Retirement Fund (TRF) was created in 1921 and the Indiana Public Employees’ Retirement Fund (PERF) was created in 1945. In 2011, the Indiana General Assembly integrated the management of the two systems under INPRS. Data in this table are for PERF, which has an employer-financed DB plan and also requires active members to contribute 3 percent of gross wages to individual annuity savings accounts (ASA); this “employee contribution” may be paid by the employer, the employee, or shared. Members have various investment options for their annuity savings accounts.

Following legislation enacted in 2011, newly hired state workers are allowed to choose a DC-only plan (Annuity Savings Account-Only Plan). Quasi-governmental and state educational employers may choose to offer the ASA-Only Plan as an option for their qualified employees. From inception through June 30, 2014, 395 members have selected the ASA-Only Plan, or approximately 9 percent of eligible new hires of the state.

Table 3: Eligibility for Retirement. The minimum age for the Rule of 85 is 55. The early retirement actuarial discount is 11 percent at age 59 and 5 percent for each year under 59. Members who are not eligible for retirement or disability and leave PERF-covered employment can withdraw the funds in their annuity savings accounts. After January 1, 2009, vested members (10 years of creditable service) who leave and have not performed any service in a PERF-covered position for 90

Appendix 1: Notes to Plans (Continued)

days may withdraw their annuity savings accounts and upon becoming eligible for retirement will still be entitled to receive his or her PERF DB pension benefits. A vested member who withdrew his or her annuity savings account and left PERF prior to January 1, 2009, and failed to wait the 90-day period, forfeits his or her PERF pension benefits. Members can purchase credit for prior service in another state in a comparable position (work that would be creditable service if performed in Indiana). For every five years of accrued service, vested members can purchase a year of service credit.

Table 4: Post-Retirement Considerations. While COLAs and 13th checks are granted on an ad-hoc basis, the plan is funded with the assumption that a 1-percent COLA will be granted annually. Legislation provided a one-time check (13th check) in 2015 to benefit recipients of PERF, TRF, and other INPRS plans in various amounts based on years of service.

Table 5: Contribution Rates. The actuarially determined contribution rate for the state for FY 2016 is 9.80 percent. However, the board has approved a state employer contribution rate for FY 2016 of 11.20 percent starting July 1, 2015.

Table 7: Actuarial Method and Funding. Asset valuation equals 75 percent of expected actuarial value plus 25 percent of cost value for annual funding purposes. Actuarial value of assets is limited to a 20-percent corridor based upon the market value of assets. For funding, gains and losses occurring from census experience, plan assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period.

Indiana/PERF-ASA Only

Table 3: Eligibility for Retirement. Members are 100-percent vested in their employee contributions immediately, while employer contributions vest 20 percent per year reaching 100 percent vesting after five years.

Table 5: Contribution Rates. The employer contribution rate is set by the INPRS Board based upon DB plan costs.

Indiana/TRF

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Indiana Public Retirement System (INPRS) includes the two largest public retirement plans in the state. The Indiana State Teachers' Retirement Fund (TRF) was created in 1921 and the Indiana Public Employees' Retirement Fund (PERF) was created in 1945. In 2011, the Indiana General Assembly integrated the management of the two systems under INPRS. Data in this table are for TRF. In addition to the employer-financed DB plan, TRF requires active members to contribute 3 percent of gross wages to individual annuity savings accounts; this "employee contribution" may be paid by the employer, the employee, or shared. Members have various investment options and can reallocate investments quarterly. As of June 30, 2014, the closed, pre-1996 fund had 19,210 active members and the 1996 fund had 51,204 active members.

Data shown includes an aggregate total for the TRF pre-1996 fund and the TRF 1996 fund.

Table 3: Eligibility for Retirement. The early retirement actuarial discount is 11 percent at age 59 and 5 percent for each year under 59. For members who terminate Indiana teaching service, options for annuity savings accounts vary with vesting status. Vested members can leave their accounts with TRF until they are old enough to receive a retirement benefit or elect to withdraw the entire balance; the money can be paid to the member or deposited in another tax-deferred retirement account. Members who are not vested may withdraw the money up to 10 years after they terminate service, the point at which interests stops accruing.

Members with at least 10 years of earned Indiana service can purchase a year of service credit for every five years of Indiana earned service. Members who have prior military service and/or private teaching service in Indiana may also be eligible to purchase service credits.

Table 4: Post-Retirement Considerations. While COLAs and 13th checks are granted on an ad-hoc basis, the plan is funded with the assumption that a 1-percent COLA will be granted annually. Legislation provides a one-time check (13th check) in 2015 to benefit recipients of PERF, TRF, and other INPRS plans in various amounts based on years of service.

Table 5: Contribution Rates. The closed pre-1996 plan was historically funded on a pay-as-you-go basis. With dwindling payroll, the employer contribution rate in the closed pre-1996 plan is now 65.9 percent. The 1996 plan, which has been prefunded, has employer contributions of 7.5 percent. The 26.6-percent rate in the table represents the aggregate of the funds.

Employees contribute to individual annuity savings accounts; the money in these accounts are invested in various fund options. Active members can make additional, voluntary contributions.

Table 6: Calculation of Benefits. The final average salary period includes up to \$2,000 of any amount received in contemplation of retirement (for example, pay for unused sick or vacation days, severance, etc.).

Appendix 1: Notes to Plans (Continued)

Table 7: Actuarial Method and Funding. Data in the table are the combined totals for the closed, pre-1996 fund, which had a 32.8-percent funded ratio, and the 1996 fund, which had a 96.1-percent funded ratio. The closed plan was historically funded on a pay-as-you-go basis for members hired prior to July 1, 1995; their benefits are obligations of the state. The new plan is pre-funded for members hired on or after July 1, 1995, and certain employees hired before that date (members previously covered by the Indiana State Teachers' Retirement Fund, hired by another ISTRF-covered school or institution after June 30, 1995, or rehired by a covered prior employer).

Assets are valued on a market-related basis that recognizes the annual difference between actual and assumed investment returns over a closed four-year period. The actuarial value of assets used for funding purposes is limited by a 20-percent corridor around the market value of assets. For funding, gains and losses occurring from census experience that is different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period.

Iowa

Iowa/PERS

Table 4: Post-Retirement Considerations. The COLA is not applied to the base unless the plan's actuary certifies that the current contribution rates can support the increase. There are no COLA provisions for post-June 1990 retirees.

Table 5: Contribution Rates. Actuarially determined contributions rates are paid annually and split 60/40 between employer and employee. A statute limits the amount rates can vary each year to 1 percentage point. The contribution rate funding policy limits how the rates decrease.

Table 7: Actuarial Method and Funding. Beginning June 30, 2014, the amortization method amortizes the UAL as a level percentage of payroll over a closed 30-year period. Each year thereafter, changes in the UAL will result in the establishment of new bases. Future bases arising from plan experience will be amortized over a closed 20-year period beginning on the date the base is established. The amortization period for changes in the UAL due to plan amendments and assumption changes will be determined by the investment board at the time they occur.

Table 8: Retirement Plan Governance. The investment board is designated as the fund's trustee. It sets investment policy and oversees the actuarial program. Eleven members serve on the investment board: seven voting members and four nonvoting members. The voting members are appointed by the governor and the four nonvoting members are appointed by the Legislature. IPERS also has a Benefits Advisory Committee that is statutorily charged to make benefit and service recommendations to IPERS and the General Assembly.

Kansas

Kansas/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Kansas Public Employees Retirement System (KPERS) is a state-wide DB retirement plan containing three different groups: Kansas Public Employees Retirement System; Kansas Police and Firemen's Retirement System; and Kansas Retirement System for Judges. Data in this report are for all three groups in KPERS. With the exception of some community college faculty, most higher education faculty are not members of the pension system.

Table 3: Eligibility for Retirement. PERS 1: The early retirement annual actuarial discount is 2.4 percent for ages 60 to 62 and 7.2 percent for ages 55 to 60. Out-of-state teaching service credit can be purchased for an unlimited number of years.

PERS 2: The normal retirement benefit is reduced actuarially for early commencement. The reduction factor is 35 percent at age 60 and 57.5 percent at age 55. If the member has 30 years of credited service, the early retirement reduction is less (50% of regular reduction at 55 years of age).

Table 4: Post-Retirement Considerations. PERS 2: New benefits for employees hired on or after July 1, 2009, included an automatic 2-percent COLA, beginning at age 65 or one year after retirement, whichever is later. That COLA was eliminated by the 2011 Legislature.

Kansas pensions are not taxed by the state; out-of-state pensions are taxed.

Appendix 1: Notes to Plans (Continued)

Table 5: Contribution Rates. The employee contribution rate for KPERS 1 members increased from 4 percent in CY 2014 to 6 percent in CY 2015 as part of plan design changes (which included an increase in the multiplier for future service) passed by the 2011 Legislature. The employer contribution rate in the table is the statutory rate for school employers. Rates are certified by the board of trustees, based on the results of annual actuarial evaluations, but annual rate increases are capped by state statute. Legislation limiting required employer contributions has kept rates below the actuarially determined rates. In addition, the 2015 Legislature lowered the employer contribution rates for FY 2016 and FY 2017 as part of legislation authorizing the sale of \$1.0 billion in bonds. According to PERS, the employer contribution rate will be 10.91 percent in FY 2016 and 10.81 percent in FY 2017.

Table 6: Calculation of Benefits. For members hired prior to July 1, 1993, the final average salary (FAS) period is four years that include payments for sick and annual leave or three years that do not include such payments, whichever is greater. For members hired on or after July 1, 1993, the FAS period is three years and does not include sick and annual leave payments.

At retirement, a member may receive a lump-sum payment of up to 50 percent of the actuarial present value of his or her lifetime benefit; the member's monthly benefit is then permanently reduced.

Starting in CY 2014, the benefit multiplier was increased for KPERS 1 members as part of plan design changes (which included an increase in employee contributions) passed by the 2011 Legislature.

Table 8: Retirement Plan Governance. The two elected members of the board may be either active or retired members of the system; one must be a school employee and one must be a non-school employee. Only active and retired members of the system are eligible to vote for these members.

Kansas/PERS 3 (Cash Balance plan)

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The cash balance plan became effective for new members on January 1, 2015. Assets and membership information will first be included in the December 31, 2015, actuarial valuation. Most higher education faculty are not members of the pension system. Some community college faculty would be members of the pension system.

Table 3: Eligibility for Retirement. There is no specific reduction factor for early retirement under the cash balance plan. However, the actuarial calculations used to convert the employee contributions and retirement credits to an annuity include mortality factors, and therefore, benefits are based, in part, on age at retirement.

Table 4: Post-Retirement Considerations. The board of trustees is to establish one or more fixed COLA percentages for members to select.

Table 5: Contribution Rates. The employer contribution rate in the table is the statutory rate for school employers. Rates are certified by the board of trustees, based on the results of annual actuarial evaluations, but annual rate increases are capped by state statute. Legislation limiting required employer contributions has kept rates below the actuarially determined rates.

Employer contributions to the cash balance plan do not coordinate with the employer credits that accumulate for each member. While the employer provides the full statutory contribution, employer credits to member accounts are based on years of service as follows: less than five years—3 percent of compensation, five to 11 years—4 percent of compensation, 12-23 years—5 percent of compensation, 24 or more years—6 percent of compensation. According to PERS, the employer contribution rate will be 10.91 percent in FY 2016 and 10.81 percent in FY 2017.

Table 6: Calculation of Benefits. Each member's annuity will be calculated using mortality tables selected by the Board of Trustees and in effect at the time of retirement and an interest rate based on the system's investment return assumption minus 2 percent, which is currently equal to an interest rate of 6 percent.

Table 7: Actuarial Methods and Funding. The valuation assumptions and methods are the same for the cash balance plan as the DB plans. However, the most recent valuation (December 31, 2013) does not reflect any assets or liability for the cash balance plan because it opened to new members on January 1, 2015.

Kentucky

Kentucky/CERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Kentucky Retirement Systems include the Kentucky Employees Retirement System (KERS), State Police Retirement System (SPRS), and the County Employ-

Appendix 1: Notes to Plans (Continued)

ees Retirement System (CERS), which has a hazardous fund for police, firefighters, and corrections personnel, and a non-hazardous fund. The nonhazardous fund includes staffs of local school boards and regional universities who do not teach. Data shown in the table are for the nonhazardous fund. CERS employees hired on or after January 1, 2014, are not eligible to participate in the traditional DB plans, and will instead participate in the CERS cash balance plan.

Table 3: Eligibility for Retirement. Benefits are reduced by 6.5 percent per year for the first five years and 4.5 percent for the next five years, based on the lesser of number of years before reaching age 65 or 27 years of service for those hired before September 1, 2008, and those hired on or after September 1, 2008, the lesser of the number of years before reaching age 65 or Rule of 87.

Members can purchase up to 10 years of credit for full-time, out-of-state service. Members with 15 years of service who participated prior to August 1, 2002, can purchase up to five years of nonqualified service, but it does not count for benefit purposes until the member has 20 years of qualified service.

Table 4: Post-Retirement Considerations. The Kentucky General Assembly, by passage of SB2 in 2013, eliminated all future COLAs unless the state Legislature so authorizes on a biennial basis and either (1) the system is over 100-percent funded or (2) the Legislature appropriates sufficient funds to pay the increased liability for the COLAs.

Table 5: Contribution Rates. Effective September 1, 2008, new employees contribute an additional 1 percent toward the retiree health fund (nonrefundable) for a total of 6 percent.

Table 6: Calculation of Benefits. The final average salary period is the three highest fiscal years for members who retire between August 1, 2001, and January 1, 2009, who have at least 27 years of total service and whose age and service equal at least 75. Effective September 1, 2008, the final average salary period for new employees is the average of the last five fiscal years prior to retirement, not the highest five years; the calculation does not include lump-sum payments before and at retirement.

The benefit multiplier is 2.2 percent for members who began participating before August 1, 2004. For those hired on or after September 1, 2008, and before January 1, 2014, the multiplier will vary based upon years of service. As a member reaches a specific service level, the multiplier is increased for all service credit. The multiplier is 1.1 percent for 10 or fewer years of service, 1.3 percent for 11 to 20 years, 1.5 percent for 21 to 26 years, 1.75 percent for 27 to 30 years, and 2 percent for Year 31 and beyond.

Table 8: Retirement Plan Governance. The retirement plan is administered by the 13-member Kentucky Retirement Systems Board. The board has two CERS members, who may be either active or retired. See Appendix 2 for additional details.

Kentucky/CERS Hybrid Cash Balance plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Kentucky Retirement Systems include the Kentucky Employees Retirement System (KERS), the County Employees Retirement System (CERS), and State Police Retirement System (SPRS). Each of these plans are divided by hazardous and non-hazardous positions. The data shown on the tables are for the CERS cash balance fund, as of June 30, 2014. CERS employees hired on or after January 1, 2014, are not eligible to participate in the traditional DB plans, and will instead participate in the CERS cash balance plan.

Table 5: Contribution Rates. In addition to the 13.74-percent pension contribution rate, employers contributed 5.15 percent for retiree health care benefits. Rates shown are for FY 2014.

Table 6: Calculation of Benefits. Employees contribute 5 percent of pay, while employers contribute an additional 4 percent to notional accounts. The notional accounts are then credited with interest equal to 4 percent, plus 75 percent of the amount by which actual plan investments outperform the assumed rate of return. At retirement, participants can take the account balance or convert the account balance to an actuarially equivalent monthly annuity.

Kentucky/TRS

Table 3: Eligibility for Retirement. Employees hired on or after July 1, 2008, can retire at age 55 with 10 years of service; benefits are reduced by 6 percent for each year below normal retirement age.

Members can purchase one year of out-of-state teaching service for every two years of completed Kentucky service. Members with 10 years of Kentucky service can purchase up to 10 years of service for out-of-state experience. Members with 20 years of service can purchase up to five years of non-qualified service at the full actuarial cost of any benefit enhancement. Employees hired on or after July 1, 2008, cannot purchase non-current leave or "air time"; upon retirement, they may purchase up to 10 months of air time to complete the 27-year requirement.

Members may combine years of total creditable service in any of Kentucky's state-administered retirement systems in order to achieve the five years required for vesting.

Appendix 1: Notes to Plans (Continued)

Table 4: Post-Retirement Considerations. Ad hoc COLA above the 1.5 percent COLA is provided if funding is available in the budget to pay for it. Funding has not been available since the 2006-2008 budget.

Table 5: Contribution Rates. The employee contribution rate for higher education members is lower (10.4%), because higher education members are covered by Social Security. TRS statutes allow universities to reduce their members' contributions by 2.125 percent; therefore, university members actually contribute only 8.185 percent.

Table 6: Calculation of Benefits. For members age 55 or older who have 27 or more years of service, the final average salary period is the three highest years.

The retirement allowance, as measured by the straight life annuity, cannot exceed the member's last annual compensation or final average salary, whichever is greater.

Table 7: Actuarial Methods and Funding. Under GASB 67, the net pension liability as a percentage of covered payroll is 627.1 percent.

Louisiana

Louisiana/SERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Membership in SERS is mandatory for employees of a Louisiana parish or city school board. This includes school bus drivers, custodian workers, maintenance workers, bus aides, attendants/monitors, or any other regular school employee who actually works on a school bus helping with the transportation of school children. (Employees classified as lunch workers are in TRS.) Employees must also work more than 20 hours per week to qualify as a member of SERS. The figure for active employees does not include 537 DROP participants. Data are from the auditor's June 30, 2014, report.

Table 3: Eligibility for Retirement. Employees hired after July 1, 2010, with five or more years of service, can retire at age 60 and normal, unreduced retirement will only be available at age 60 with five years of service. Early retirement with an actuarial reduction will be available at any age with 20 years of service.

Table 4: Post-Retirement Considerations. Legislation passed in 2007 created a mechanism for providing permanent COLAs after July 2009. Each year, half the system's excess earnings (if any) are deposited in the "experience account." When the account contains sufficient funds, the board may recommend a COLA to the Legislature. The COLA is limited to 3 percent or the increase in the CPI the previous year. The system provided a 3.15-percent COLA on July 1, 2013, to retirees who were at least age 60 or beneficiaries of retirees who would have been age 60 and who retired prior to July 1, 2001, or entered DROP before July 1, 2001, and retired before July 1, 2012. The system provided a 1.5-percent COLA on July 1, 2014, to retirees who were retired and/or receiving a benefit for one year and at least age 60 (no age restriction for disability retirees). Louisiana does not tax state pensions. Portions of out-of-state and private pensions are tax exempt for people over 65: The exemption is \$6,000 on single returns and \$12,000 on joint returns.

Table 5: Contribution Rates. The employee contribution rate for those hired on or after July 1, 2010, is 8 percent. Members hired before that date contribute 7.5 percent. Employer contributions are actuarially determined.

Table 6: Calculation of Benefits. For employees hired before July 1, 2006, the final average salary period is the three highest consecutive years. For employees hired between July 1, 2006, and June 30, 2010, the final average salary period will include limits on earnings considered (10% anti-spiking provision). For employees hired on or after July 1, 2010, the final average salary period will include limits on earnings considered (15% anti-spiking provision).

Louisiana/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. State law requires full-time employees of parish and city school boards, except bus drivers and maintenance personnel, to become TRS members. Full-time, unclassified public college, university, community college, and technical college faculty and administrative employees must also become TRS members. Data shown in this report are for the Regular Plan, Plan A, and Plan B. The Regular Plan includes all members, except those in Plan A and Plan B. Plan A includes school food-service employees who were active members of the School Lunch Employees' Retirement System as of July 1, 1983, when it merged with TRS, and are employed in one of the 46 parishes that contribute to Plan A. All other school food service employees of those 46 parishes participate in the Regular Plan. Plan B—includes school food-service employees—members active before the merger and hired after the merger—in the 20 parishes that still contribute to Social Security: Allen, Assumption, Avoyelles, Cameron,

Appendix 1: Notes to Plans (Continued)

Catahoula, Concordia, DeSoto, East Feliciana, Jefferson, Jefferson Davis, Lafayette, LaSalle, Morehouse, Orleans, Red River, St. Helena, St. John the Baptist, St. Mary, Washington, and West Feliciana.

The figure for active members includes DROP participants.

Table 3: Eligibility for Retirement. The data in the table are for Regular Plan members and Plan B members joining on or after July 1, 2015. Members who joined TRS between January 1, 2011, and June 30, 2015, are eligible for full retirement at age 60 with five years of service. Members who joined between July 1, 1999, and December 31, 2010, are eligible for full retirement at age 60 with five years of service, at age 55 with 25 years of service, or at any age with 30 years of service. Members who joined on or after July 1, 1999, may retire at any age with 20 years of service, but benefits are actuarially reduced. Members who joined before July 1, 1999, are eligible for full retirement at age 65 with 20 years of service, at age 55 with 25 years of service, or at any age with 30 years of service. They may retire at age 60 with five years of service or at any age with 20 years of service with a benefit multiplier less than the full retirement multiplier. Plan B members joining before July 1, 2015, are eligible for full retirement at age 60 with five years of service or at age 55 with 30 years of service.

Table 4: Post-Retirement Considerations. TRS COLAs are funded by an account (Experience Account) created for the purpose of providing permanent benefit increases. A percentage of excess investment returns above a threshold is deposited in the Experience Account, subject to a cap. When there are sufficient funds to grant a permanent benefit increase, the TRS Board may recommend such to the Legislature. No increase can be granted if the legislature granted an increase in the preceding fiscal year, unless the system is at least 85% funded. Additionally permanent benefit increases are limited to the lesser of the increase in the CPI-U or an amount determined by the system's funded ratio. Retirees must be at least age 60 and have retired for at least one year to be eligible for a permanent benefit increase, when granted.

Table 5: Contribution Rates. For the purposes of setting the employer contribution rate, Louisiana law establishes four subplans within TRS. The employer contribution rate in the table for the TRS Regular Plan is an aggregate rate for FY 2015-16. The distinct subplan rates for FY 2015-16 are as follows: K-12—26.3 percent; Higher Education—25.3 percent; Lunch Plan A—31.3 percent; and Lunch Plan B—28.8 percent. Plan B members also contribute to Social Security.

Table 6: Calculation of Benefits. Regular Plan data in the table (2.5%/5HC) are for Regular Plan members who joined TRS on or after January 1, 2011, and are eligible for full retirement (see notes to Table 3). For members who joined TRS on or before December 31, 2010, the FAS period is 3HC, and the multiplier is 2.5 percent for members eligible for full retirement (see notes to Table 3). Members who joined on or after July 1, 1999, are eligible for an actuarially reduced retirement at any age with 20 years of service. Members who joined prior to July 1, 1999, are eligible for a benefit multiplier of 2.0 percent at age 60 with five years of service or at any age with 20 years of service. The Plan B data in the table (2.0%/5HC) are for members who joined TRS on or after January 1, 2011. Plan B members who joined TRS prior to January 1, 2011, have a 3HC FAS.

Table 7: Actuarial Method and Funding. A 1987 amendment to the Louisiana Constitution requires TRS to be actuarially sound, and the Legislature to provide for the amortization of the unfunded accrued liability (UAL), with required payments guaranteed. Liabilities existing as of June 30, 1988, are to be paid by 2029. Subsequent constitutional amendments require any benefit provision with a cost to have a funding source and be paid within 10 years, and have a two-thirds legislative vote to be approved. In addition to other legislative steps to improve TRS funding since 1987, changes in 2009 and 2014 restructured UAL payments, prioritized and increased the portion of excess investment earnings applied to the UAL, and restructured granting, amount, and frequency of COLAs. The amortization period varies by schedule, ranging from five to 30 years.

Maine

Maine/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The system includes the state employee and teacher plan, the legislative plan, the judicial plan, and the consolidated plan for participating local districts (PLD). School districts can elect to cover ESPs through the PLD plan, which has 11 retirement plans that commingle assets for investment purposes.

Table 3: Eligibility for Retirement. Normal retirement age for State employees and teacher members is age 60 for members with at least 10 years of credited service or one year of credited service before July 1, 1993, immediately prior to reaching age 60; age 62 for members with at least 5 years of service on July 1, 2011; and age 65 for other members. For

Appendix 1: Notes to Plans (Continued)

members of the PLD plan, normal retirement age is 60 for members of the plan prior to July 1, 2014 and age 65 for members after that date. For State employees and teacher members, the early retirement discount rate is 2.25 percent under the age-60 plan, 6 percent under the age-62 and age-65 plans. For PLD members, the early retirement discount rate is 2.25 percent under the age-60 plan and 6 percent under the age-65 plan.

Table 4: Post-Retirement Considerations. For state employees and teacher members, the COLA was frozen from 2011-2013. Lump-sum noncumulative COLAs were paid to eligible retirees in 2012, 2013 and 2014.

Table 5: Contribution Rates. Some state employees covered by the 1998 Special Plan contribute 8.65 percent. Employee contribution rates for PLD plans range from 3 to 8 percent. The employer contribution rate in the table is the composite rate for state employees and teachers. Employers contribute 22.23 percent for state employees and 12.89 percent for teachers. Employer contribution rates for PLD plans range from 3.4 to 12.8 percent.

Table 6: Calculation of Benefits. The formula is for the state employee and teacher plans. The limit on earnings used in FAS applies to state employees and teacher members. PLD plans use various formulas and multipliers, and the limit on earnings does not apply. Salary increases are limited for FAS, which are not to exceed 5 percent per year over the prior year or 10 percent over a three-year period used in FAS.

Table 7: Actuarial Method and Funding. The funded ratio is for all retirement programs. The state employee and teacher plan funded ratio was 81.3 percent and the PLD plan funded ratio was 89.5 percent. Net pension liability as a percentage of payroll was 117.21 percent for the state employee and teacher plan, and 33.45 percent for the PLD plan.

A 1995 amendment to the Maine Constitution requires the state to fund the unfunded actuarial liabilities of the state employee and teacher plan existing on June 30, 1996, over a period not to exceed 31 years beginning July 1, 1997. The amendment prohibits new unfunded liabilities in these plans except those arising from experience losses, which must be funded over a period not to exceed 10 years. In addition, the amendment requires actuarially sound current cost accounting, reinforcing statutory requirements.

The Legislature subsequently shortened, then extended the constitutionally required amortization period to the full extent the constitution allows. A 1998 law required the state to fund the unfunded actuarial liabilities of the state employee and teacher plan existing on June 30, 1998, over a period not to exceed 25 years beginning June 30, 1998. A 2000 law reduced the amortization period to 19 years beginning June 30, 2000. In 2004, the Legislature extended the amortization period to the full extent the constitution permits, and then enacted a sunset provision that effectively reduced the amortization period beginning July 1, 2005 (the start of FY 2006), to 14 years. In 2005, the state repealed the sunset provision, thereby extending the amortization period until June 30, 2028.

Maryland

Maryland/ERPS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data are for both the Employees' Retirement System (ERS) and the Employees' Pension System (EPS). The ERS was established on October 1, 1941, to provide retirement allowances and other benefits to state employees, elected and appointed officials, and the employees of participating governmental units. Effective January 1, 1980, the ERS was closed to new members and the EPS was established. As a result, state employees and employees of participating governmental units hired after December 31, 1979, became members of the EPS as a condition of employment. On or after January 1, 2005, an individual who is a member of the ERS may not transfer membership to the EPS. There are 8,741 active members and 22,013 annuitants in the ERS, and 76,084 active members and 47,446 annuitants in the EPS.

Table 3: Eligibility for Retirement. The Employees' Pension System (EPS) consists of four parts. The Non-Contributory Pension System (NCPS) was established on January 1, 1980, and consists only of those participating employers that did not elect membership in the Employees' Contributory Pension System (ECPS) or the Alternate Contributory Pension Selection (ACPS). The ECPS was established as of July 1, 1998, and consists of those participating employers that elected participation in the ECPS effective July 1, 1998, through July 1, 2005, and did not elect membership in the ACPS as of July 1, 2006. Employees who transferred from the ERS to the EPS after April 1, 1998, were not eligible for the benefits of the ECPS. The ACPS was established as of July 1, 2006, and consists of all eligible state employees and those participating employers that elected participation in the ACPS effective July 1, 2006. Employees who transferred from the ERS to the EPS after April 1, 1998, were not eligible for the benefits of the ACPS. The Reformed Contributory Pension Benefit (RCPB) was established as

Appendix 1: Notes to Plans (Continued)

of July 1, 2011, and consists of all state employees and employees of participating governmental units enrolling in the EPS on or after July 1, 2011. It does not apply to employees of participating governmental units participating in the NCPS or ECPS who enrolled in the EPS on or after July 1, 2011.

Table 4: Post-Retirement Considerations. For the Employees' Retirement System (ERS), annual COLAs are based on choices made by members who were active on July 1, 1984. Those who chose option A agreed to contribute no more than 7 percent of compensation in return for unlimited annual COLAs after retirement. Those who chose option B agreed to contribute no more than 5 percent of compensation in return for annual COLAs limited to 5 percent after retirement. Those who chose option C agreed to contribute 2 percent of compensation (or 5% of compensation in excess of the Social Security wage base if their employer did not elect to participate) in return for a two-part COLA, both calculated using the formula for a full-service retirement allowance. The first part, based on creditable service before the election, is unlimited unless the member chose option B before option C; in that case, the COLA is limited to 5 percent. The second part, based on creditable service after the election, is limited to 3 percent.

Table 5: Contribution Rates. For the Employees' Retirement System (ERS), members who elected in 1984 to receive unlimited future COLAs contribute 7 percent if enrolled after June 30, 1973. Members enrolled before July 1, 1973, contribute the lesser of 7 percent or 2 percent more than the rate of contribution in effect on the date of their enrollment. Members who elected in 1984 to receive limited future COLAs contribute 5 percent if enrolled after June 30, 1973. Members enrolled before July 1, 1973, contribute the lesser of 5 percent or the rate of contribution in effect on the date of their enrollment. All other ERS members contribute 5 percent.

Table 6: Calculation of Benefits. The following four benefit determination methods pertain to members in the Employees' Pension System (EPS). For the Non-Contributory Pension System (NCPS) option, full service pension allowance equals .8 percent of the highest three consecutive years AFC up to the Social Security Income Limit (SSIL), plus 1.5 percent of the AFC in excess of the SSIL, multiplied by the number of years of accumulated creditable service. For purposes of computing pension allowances, the SSIL is the average of the Social Security wage bases for the 35 years immediately prior to the year of retirement.

For the Employees' Contributory Pension System (ECPS) option, a full-service pension allowance equals 1.2 percent of the AFC for the three highest consecutive years as an employee for each year of creditable service accrued prior to July 1, 1998, plus 1.4 percent of the AFC for the three highest consecutive years as an employee for each year of creditable service accrued on or after July 1, 1998.

For the Alternative Contributory Pension Selection (ACPS) option, a full-service pension allowance equals 1.2 percent of the AFC for the three highest consecutive years as an employee for each year of creditable service accrued prior to July 1, 1998, plus 1.8 percent of the AFC for the three highest consecutive years as an employee for each year of creditable service accrued on or after July 1, 1998.

For the Reformed Contributory Pension Benefit (RCPB) option, a full-service pension allowance equals 1.5 percent of AFC for the five highest consecutive years as an employee for each year of creditable service accrued on or after July 1, 2011.

Table 8: Retirement Plan Governance. The Maryland State Retirement and Pension System (MSRPS) includes both the Employees' Retirement and Pension System (ERPS) and the Teachers' Retirement and Pension System (TRPS), and other plans for state police, judges, law enforcement officers, correctional officers, and legislators. A single board of trustees manages the system. See Appendix 2 for details.

Maryland/TRPS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data are for both the Teachers' Retirement System (TRS) and the Teachers' Pension System (TPS). TRS was established on August 1, 1927, to provide retirement allowances and other benefits to teachers in the state. Effective January 1, 1980, TRS was closed to new members and TPS was established. As a result, teachers hired after December 31, 1979, became members of TPS as a condition of employment. On or after January 1, 2005, an individual who is a member of TRS may not transfer membership to the TPS. There are 1,276 active members and 28,762 annuitants in the TRS, and 103,194 active members and 40,167 annuitants in the TPS.

Table 3: Eligibility for Retirement. All individuals who are members of the Teachers' Pension System (TPS) on or before June 30, 2011, participate in the Alternate Contributory Pension Selection (ACPS) except for the few members who transferred from the Teachers' Retirement System (TRS) after April 1, 1998, or former vested members who terminated employment prior to July 1, 1998. All individuals who enroll in TPS on or after July 1, 2011, participate in the Reformed Contributory Pension Benefit (RCPB).

Appendix 1: Notes to Plans (Continued)

Table 4: Post-Retirement Considerations. For the Teachers' Retirement System (TRS), annual COLAs are based on choices made by members who were active on July 1, 1984. Those who chose Option A agreed to contribute no more than 7 percent of compensation in return for unlimited annual COLAs after retirement. Those who chose option B agreed to contribute no more than 5 percent of compensation in return for annual COLAs limited to 5 percent after retirement. Those who chose option C agreed to contribute 2 percent of compensation (or 5% of compensation in excess of the Social Security wage base if their employer did not elect to participate) in return for a two-part COLA, both calculated using the formula for a full-service retirement allowance. The first part, based on creditable service before the election, is unlimited unless the member chose option B before option C; in that case, the COLA is limited to 5 percent. The second part, based on creditable service after the election, is limited to 3 percent.

Table 5: Contribution Rates. For the Teachers' Retirement System (TRS), members who elected in 1984 to receive unlimited future COLAs contribute 7 percent if enrolled after June 30, 1973. Members enrolled before July 1, 1973, contribute the lesser of 7 percent or 2 percent more than the rate of contribution in effect on the date of their enrollment. Members who elected in 1984 to receive limited future COLAs contribute 5 percent if enrolled after June 30, 1973. Members enrolled before July 1, 1973, contribute the lesser of 5 percent or the rate of contribution in effect on the date of their enrollment. All other TRS members contribute 5 percent.

Table 6: Calculation of Benefits. For most individuals who retired from the Teachers' Pension System (TPS) on or before June 30, 2006, the annual pension allowance equals 1.2 percent of the member's AFC, multiplied by the number of years of creditable service accumulated prior to July 1, 1998, plus 1.4 percent of the member's AFC, multiplied by the number of years of creditable service accumulated subsequent to June 30, 1998. With certain exceptions, for individuals who are members of TPS on or after July 1, 2006, the annual pension allowance equals 1.2 percent of the member's AFC, multiplied by the number of years of creditable service accumulated prior to July 1, 1998, plus 1.8 percent of the member's AFC, multiplied by the number of years of creditable service accumulated subsequent to June 30, 1998. Beginning July 1, 2011, any new member of TPS earns an annual pension allowance equal to 1.5 percent of the member's AFC multiplied by the number of years of creditable service accumulated as a member of TPS.

Table 8: Retirement Plan Governance. The Maryland State Retirement and Pension System (MSRPS) includes both the Teachers' Retirement and Pension System (TRPS) and the Employees' Retirement and Pension System (ERPS). A single board of trustees manages the system. See Appendix 2 for details.

Massachusetts

Massachusetts/SERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Information is from the January 1, 2015, actuarial valuation by the Public Employee Retirement Administration Commission (PERAC).

Table 3: Eligibility for Retirement. Retirement benefits are based on the member's age and group classification.

Table 4: Post-Retirement Considerations. The first \$13,000 of a retiree's total allowance is subject to an annual COLA of up to 3 percent, which the Massachusetts General Court votes on each year. Out-of-state pensions are tax exempt if the state treats Massachusetts pensions the same way.

Table 5: Contribution Rates. Employee contribution rates vary based on when the employee became a member: prior to January 1, 1975, 5 percent; January 1, 1975, to December 31, 1978, 7 percent; January 1, 1979, to December 31, 1983, 7 percent plus 2 percent of salary in excess of \$30,000; January 1, 1984, to June 30, 1996, 8 percent plus 2 percent of salary in excess of \$30,000; and July 1, 1996, to present, 9 percent plus 2 percent of salary in excess of \$30,000. Employees appointed to the state police on or after July 1, 1996, contribute 12 percent.

The employer contribution rate is an approximation based on PERAC's 2014 actuarial valuation. The law does not specify an employer contribution rate.

Table 6: Calculation of Benefits. Most education employees are in Group One, which has a 2.5-percent maximum multiplier at age 65 for those hired before April 2, 2012, or age 67 for those hired thereafter. The multiplier is reduced (hired before April 2, 2012: 0.1%, hired after April 1, 2012: 0.15%) for each year the member is under the maximum retirement age. For a Group One member hired before April 2, 2012, for example, the multiplier is 2 percent at age 60, 1.5 percent at age 55, and 1 percent at age 50.

Table 7: Actuarial Method and Funding. The funding schedule, mandated by a 1987 law, requires payment of the normal cost plus an amortization payment to reduce the unfunded actuarial liability to zero by June 30, 2040.

Appendix 1: Notes to Plans (Continued)

Massachusetts/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The information on TRS is from the Public Employee Retirement Administration Commission's (PERAC) January 1, 2014, actuarial valuation.

The assets of SERS and TRS are pooled for investment and overseen by the Pension Reserves Investment Management Board (PRIM). A 9-member board of trustees governs PRIM.

Table 3: Eligibility for Retirement. Tier 1 covers members first employed before April 2, 2012. Tier 2 covers members first employed on or after April 2, 2012. Retirement benefits are based on the member's age, service, and salary. Purchases of out-of-state teaching service may not exceed 10 years and cannot exceed the amount of creditable Massachusetts teaching service at retirement. No more than five years may be for service rendered in Puerto Rico or an overseas school supervised by the U.S. Department of Defense. Members may also purchase other kinds of credit, including up to 20 years of other Massachusetts public service, up to 10 years of Massachusetts publicly funded nonpublic school teaching service, up to three years of vocational service credit, up to four years of military service credit, up to four years of maternity service credit prior to 1975, and up to three years of Peace Corps service credit.

The early retirement annual discount is based on date of hire and years of service. For Tier 1 employees there is a 0.1-percent reduction in the 2.5-percent formula multiplier for each year under 65. For Tier 2 employees with more than 30 years of service there is a 0.125-percent reduction in the 2.5-percent formula multiplier for each year under 67. For Tier 2 employees with less than 30 years of service there is a 0.15-percent reduction in the 2.5-percent formula multiplier for each year under 67.

Table 4: Post-Retirement Considerations. The first \$13,000 of a retiree's total allowance is subject to an annual COLA of up to 3 percent, which the Massachusetts General Court votes on each year. Out-of-state pensions are tax exempt if the state treats Massachusetts pensions the same way.

Table 5: Contribution Rates. Employee contribution rates vary based on when the employee became a member: prior to January 1, 1975, 5 percent; January 1, 1975, through December 31, 1978, 7 percent; January 1, 1979, through December 31, 1983, 7 percent plus 2 percent of salary in excess of \$30,000; January 1, 1984, through June 30, 1996, 8 percent plus 2 percent of salary in excess of \$30,000; July 1, 1996, through April 1, 2012, 9 percent plus 2 percent of salary in excess of \$30,000; For those hired after April 2, 2012, contributions will decrease to 6 percent plus 2 percent on earnings over \$30,000 with 30 years of creditable service. Members hired on or after April 2, 2012, who elect to participate in the "Retirement Plus" program contribute a flat 11-percent rate which is reduced to 8 percent after 30 years of service.

The employer contribution rate is an approximation based on PERAC's 2014 actuarial valuation. In FY 2014, the system received \$935,900,000 from the Commonwealth which, divided by the covered payroll of \$5,962,649,621, equals 15.69 percent. The law does not specify an employer contribution rate. Local employers do not contribute to the Massachusetts Teachers' Retirement System; the state pays employer costs associated with teachers' retirement benefits.

Table 6: Calculation of Benefits. Tier 1 covers members first employed before April 2, 2012. Tier 2 covers members first employed on or after April 2, 2012. Tier 1 members have a 2.5-percent maximum multiplier at age 65. Benefits are reduced by 0.1-percent in the formula multiplier for each year the member is below age 65. For example, the multiplier is 2 percent at age 60, 1.5 percent at age 55, and 1 percent at age 50.

Members with 30 or more years of service who participate in the alternative "Retirement Plus" program receive a bonus of 2 percent in allowable percentage of average salary for each year of service in excess of 24 years. The maximum benefit is 80 percent of the final salary average.

Tier 2 members have a 2.5-percent maximum multiplier at age 67 and are not eligible to retire before age 60. If retiring with less than 30 years of service, benefits are reduced by .15-percent in the formula multiplier for each year the member is below age 67. For example, the multiplier is 2.35 percent at age 66, 2.2 percent at age 65, and 1.45 percent at age 60. If retiring with at least 30 years of service, benefits are reduced by .125 percent in the formula multiplier for each year the member is below age 67. For example, the multiplier is 2.375 percent at age 66, 2.25 percent at age 65, and 1.625 percent at age 60. Members with 30 or more years of service who participate in the alternative Retirement Plus program receive a bonus of 2 percent in allowable percentage of salary average each year of service in excess of 23 years. The maximum benefit is 80 percent of the final salary average.

Table 7: Actuarial Method and Funding. Data are an approximation based on the 2014 PERAC actuarial valuation. There is no provided assumed inflation rate for the valuation—it is included in the investment return assumption. The 3-percent inflation rate is an approximate figure. The funding schedule, mandated by law, requires payment of the normal cost plus an amortization payment to reduce the unfunded actuarial liability to zero by June 30, 2036.

Appendix 1: Notes to Plans (Continued)

Under the current schedule, amortization payments increase by 10 percent per year in FY 2015 through 2017. Beginning in FY 2018, total appropriations increase 7 percent each year until FY 2035 with a final amortization payment in FY 2036.

Massachusetts/Boston/SBRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The figure for net assets is as of December 31, 2013. The figure for active and retired members includes most city employees. The January 1, 2014, valuation report reflected that 6,043 active teachers and 4,416 annuitants are SBRS members.

Table 3: Eligibility for Retirement. Retirement benefits are based on the member's age and group classification.

Members may purchase credit for military service. A member with at least 10 years of service employed as a teacher in a vocational-technical school may purchase up to three years' credit for prior work experience in a corresponding occupational field required as a condition of employment. Tier 1 includes those hired before April 2, 2012, and Tier 2 includes those hired on or after April 2, 2012.

Table 4: Post-Retirement Considerations. Each year, the Boston Retirement Board reviews and votes on whether to grant an increase for the first \$13,000 of retirement income. Out-of-state pensions are tax exempt if the state treats Massachusetts pensions the same way.

Table 5: Contribution Rates. Employee contribution rates vary based on when the employee became a member: prior to January 1, 1975, 5 percent; January 1, 1975, to December 31, 1978, 7 percent; January 1, 1979, to December 31, 1983, 7 percent plus 2 percent of salary in excess of \$30,000; January 1, 1984, to June 30, 1996, 8 percent plus 2 percent of salary in excess of \$30,000; and July 1, 1996, to present, 9 percent plus 2 percent of salary in excess of \$30,000. Members who elect to participate in the accelerated retirement program—and teachers hired after July 1, 2001—contribute 11 percent. Teachers hired on or after April 2, 2012, contribute 11 percent, which is reduced to 8 percent after 30 years of service.

Contributions made by the state of Massachusetts cover the actual cost of pension benefits for SBRS participants serving in the Boston School Department in a teaching capacity. The cost of pension benefits for other participants is the city of Boston's responsibility.

Table 6: Calculation of Benefits. Most education employees are in Group One, which has a 2.5-percent maximum multiplier at age 65 for Tier 1 and age 67 for Tier 2. The multiplier is reduced (hired before April 2, 2012: 0.1%, hired after April 1, 2012: 0.15%) for each year the member is under the maximum retirement age. For a Group One member hired before April 2, 2012, for example, the multiplier is 2 percent at age 60, 1.5 percent at age 55, and 1 percent at age 50.

Teachers with 30 or more years of service who participate in the "Retirement Plus" program receive a bonus of 2 percent for each year of service in excess of 24 years; the maximum benefit is 80 percent of the final average salary. Members who are also veterans get extra benefits that are not subject to the 80-percent maximum.

Table 7: Actuarial Method and Funding. According to the actuarial report, the asset valuation method used is the "[s]um of actuarial value at beginning of the year, contributions and investment earnings based on the actuarial interest assumption less benefit payments and operating expenses plus 20 percent of market value at end of year in excess of that sum, plus additional adjustment toward market value as necessary so that final actuarial value is within 20 percent of market value. Similar formula used for negative adjustment toward market value if actuarial value exceeds market value." The amortization period has 11 years remaining for SBRS excluding teachers, and 22 years for teachers.

Michigan

Michigan/MPSERS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Members in the DB plan are either in the Member Investment Plan (MIP) or the Basic Plan. Those in the Basic Plan began public school employment before January 1, 1990, and did not elect the MIP during enrollment periods. Those in the MIP either elected MIP during enrollment periods or first worked within the retirement system on or after January 1, 1990, but before July 1, 2010.

On September 4, 2012, the governor signed Public Act 300 of 2012 into law. The legislation grants all active members who first became a member before July 1, 2010, and who earned service credit in the 12 months ending September 3, 2012, or were engaged in approved professional services or military leave of absence on September 2, 2012, a voluntary election regarding their pension. Any changes to a member's pension are effective as of the member's transition date, which is defined as the first day of the pay period that begins on or after February 1, 2013. Under the reform, DB plan members

Appendix 1: Notes to Plans (Continued)

voluntarily chose to increase, maintain, or stop their contributions to the pension fund. The notes for Table 5/Contribution Rates describe the four options that employees have.

Table 3: Eligibility for Retirement. Members qualify for full retirement at age 60 with credited service provided the member has worked through his or her 60th birthday and has credited service in each of the five school fiscal years immediately preceding the retirement effective date. Basic Plan members are eligible for full retirement at age 55 with 30 years of credited service or at age 60 with 10 years of credited service. Members with at least 15 years but fewer than 30 years of service can retire early and receive a reduced benefit with 10 years of MPSERS service that includes credited service in each of the last five years. Members who retire under the 60/5 provision vest in five years if they work through their 60th birthday and have credited service in each of the last five years.

Generally, members with five years of MPSERS service can purchase up to 15 years of credit for work in public K-12 schools, community colleges, colleges, and universities in the United States or its territories. Members cannot purchase more service than they earn in MPSERS.

Table 4: Post-Retirement Considerations. The COLA for the MIP does not compound; basic plan recipients get a supplemental payment if investment earnings exceed actuarial assumptions. Michigan pensions are tax-exempt. Out-of-state pensions are tax-exempt if the state treats Michigan pensions the same way.

Table 5: Contribution Rates. Basic Plan members make no contributions. MIP members enrolled prior to January 1, 1990, contribute at a permanently fixed rate of 3.9 percent of gross wages. The MIP contribution rate was 4.0 percent from January 1, 1987, until January 1, 1990, when it was reduced to 3.9 percent. Members first hired between January 1, 1990, and June 30, 2008, and returning members who did not work between January 1, 1987 and December 31, 1989, contribute at the following graduated permanently fixed contribution rates: 3 percent of the first \$5,000; 3.6 percent of \$5,001 through \$15,000; 4.3 percent of all wages over \$15,000.

Under the 2012 reform, eligible members voluntarily chose between increasing, maintaining, or stopping their contributions to the pension fund as of the transition date. Member options are described below.

Option 1: Members voluntarily elect to increase their contributions to the pension fund as noted below, and retain the 1.5-percent pension factor in their pension formula. The increased contribution would begin as of their transition date and continue until they terminate public school employment. Basic Plan members have a 4-percent contribution and the Member Investment Plan (MIP) participants have a flat 7-percent contribution.

Option 2: Members voluntarily elect to increase their contribution to the pension fund as stated in Option 1 and retain the 1.5-percent pension factor in their pension formula. The increased contribution begins as of their transition date and continues until they reach 30 years of service. If and when they reach 30 years of service, their contribution rates return to the previous level in place as of the day before their transition date (0% for Basic Plan members, 3.9-6.4% for MIP members). The pension formula for any service thereafter would include a 1.25-percent pension factor.

Option 3: Members voluntarily elect not to increase their contribution to the pension fund and maintain their current level of contribution to the pension fund. The pension formula for their years of service as of the day before their transition date includes a 1.5-percent pension factor. The pension formula for any service thereafter includes a 1.25-percent pension factor.

Option 4: Members voluntarily elect to no longer contribute to the pension fund and therefore are switched to the DC plan for future service as of their transition date. As a DC participant, they receive a 4-percent employer contribution to a tax-deferred 401(k) account and can choose to contribute to a 457 account up to the maximum amounts permitted by the IRS. They vest in employer contributions and related earnings in their 401(k) account based on the following schedule: 50 percent at two years, 75 percent at three years, and 100-percent at four years of service. They are 100 percent vested in any personal contributions and related earnings in their 457 account. Upon retirement, if they meet age and service requirements (including their total years of service), they would also receive a pension (calculated based on years of service and Financial Average Compensation as of the day before their transition date and a 1.5% pension factor).

Employers must make the full actuarial contribution required to fund accrued pension benefits, plus an additional amount to fund retiree health care on a cash disbursement basis.

Table 6: Calculation of Benefits. For Basic Plan members, the final average salary period is the average of the five highest consecutive years and for MIP members, it is the highest three consecutive years of earnings. Under the pension reform of 2012, members voluntarily chose to increase, maintain, or stop their contributions to the pension fund.

The notes for Table 5 describe the benefit formula associated with the four contribution options.

Appendix 1: Notes to Plans (Continued)

Michigan/MPERS-Pension Plus plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Employees are in the Pension Plus retirement plan if they either first worked for a Michigan public school between July 1, 2010, and September 3, 2012, or first worked for a Michigan public school on or after September 4, 2012, and did not choose the DC retirement plan. The number of active members, number of annuitants, and total net assets are included with the DB plan numbers.

Table 3: Eligibility for Retirement. Plan members cannot buy service credit under the Pension Plus plan. Exceptions apply for intervening military service and repaying a refund of pension contributions.

For the DC component of the Pension Plus plan, employee contributions to the retirement investment account and any earnings on those contributions are 100-percent available upon employment termination. Members become 50-percent vested in their employer's contributions after two years of service, 75-percent vested after three years of service, and 100-percent vested after four years of service.

Table 7: Actuarial Method and Funding. With the exception of the assumed interest rate the same actuarial assumptions and values are used by the Pension Plus plan as the MPERS DB plan.

Michigan/MPERS-DC plan

Table 3: Eligibility for Retirement. Employee contributions are immediately vested; Employer contributions are vested according to the following schedule: at the end of two years—50 percent; at the end of three years—75 percent; at the end of four years—100 percent.

Table 5: Contribution Rates. The 6-percent employee contribution rate and 3-percent employer contribution rate are for plan members who first worked for a Michigan public school on or after September 4, 2012, and elected the DC retirement plan. Both the employer and members contribute an additional 2 percent toward retiree health care. Other rates apply depending upon the situation. For public school employees who elected out of the Basic/MIP Plan in 2012 and chose the straight DC option with subsidized retiree insurance, the required employee contribution rate is 0 percent and the employer-required contribution rate is 4 percent. Voluntary employee contributions are allowed up to the IRS limit. For public school employees who elected out of the Basic/MIP Plan in 2012 and chose the straight DC option with the Personal Healthcare Fund for retiree health care, the required employee contribution rate is 2 percent and the employer required contribution rate is 6 percent. Voluntary employee contributions are allowed up to the IRS limit.

Minnesota

Minnesota/GERP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Minnesota State Retirement System (MSRS) administers six DB and four DC plans. The General Employees Retirement Plan (GERP) is the largest plan in the State Employees Retirement Fund (SERF). Data are for SERF unless otherwise indicated. MSRS assets are pooled with other funds and invested by the State Board of Investment. GERP covers state employees who are not members of any other plan, University of Minnesota non-faculty employees (HESPs), and selected metropolitan agency employees.

Table 3: Eligibility for Retirement. The hire date determines when a member is eligible for unreduced benefits. Members hired before July 1, 1989, qualify for full benefits at age 65 or when age plus service total 90 (Rule of 90); members hired after June 30, 1989, meet the requirements with three years of service credit when they reach the age for full Social Security retirement benefits (a maximum age of 66). As the result of legislation enacted in 2010, vesting increased from three to five years for employees hired after June 30, 2010.

Table 4: Post-Retirement Considerations. As the result of benefit changes enacted in 2010, retirees began receiving a 2-percent COLA each year on January 1, 2011. The COLA increases to 2.5 percent per year when the retirement plan is 90-percent funded.

Table 6: Calculation of Benefits. For members hired before July 1, 1989, benefits are calculated using the level formula (in the table) or the step formula (1.2% of the highest five years of salary for the first 10 years and 1.7% for subsequent years), whichever is higher. Most who qualify for the Rule of 90 or have 30 years of service use the step formula. Members hired after June 30, 1989, use the level formula.

Appendix 1: Notes to Plans (Continued)

For members hired before July 1, 1989, benefits are reduced by 0.25 percent for each month under age 65 or each month under age 62 with 30 years of service at the time of retirement using the step formula. Benefits are actuarially reduced for each month under age 65 at the time of retirement using the level formula. Benefits of members hired after July 1, 1989, are actuarially reduced for each month under the full Social Security retirement age (a maximum of 66) at the time of retirement.

Minnesota/PERA

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data are for the coordinated plan, which covers employees of counties, cities, townships, and ESPs across the state.

Table 3: Eligibility for Retirement. Members first hired for a position covered by PERA or another Minnesota public retirement plan before July 1, 1989, are eligible for a full pension at age 65 with one year of public service or at any age if age plus years of public service total 90. Members hired after June 30, 1989, qualify at SSA age (a maximum of 66 years); if less than SSA age, the employee must meet three- or five-year vesting. Legislation passed in 2010 changed vesting to five years beginning with members first enrolled on or after July 1, 2010. Members may purchase credit for military service, authorized leaves, and strikes.

Table 4: Post-Retirement Considerations. COLA are expected to be fixed at 1 percent for the near term. The COLA can go to a fixed 2.5-percent rate when the funding level is 90 percent two years in a row.

Table 6: Calculation of Benefits. For members hired before July 1, 1989, benefits are calculated using method 1 (a step-rate formula of 1.2% of the highest five years of salary for the first 10 years and 1.7% for subsequent years) or method 2 (a level formula of 1.7%), whichever is higher. Method 2 is used for members who enrolled after June 30, 1989.

For members hired before July 1, 1989, early retirement benefits are reduced by 3 percent for each year: a) before full retirement age of 65 or b) under age 62 with 30 years of service. For members hired on or after July 1, 1989, early retirement benefits are actuarially reduced for each month under the full Social Security retirement age (a maximum of 66) at the time of retirement.

Table 7: Actuarial Method and Funding. Salary growth assumptions are determined by age and service credit and can currently be as low as 3.50 percent or as high 12.03 percent. In years with an unfunded actuarial accrued liability, the plan uses a closed amortization period ending July 1, 2031.

Minnesota/TRA

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Most teachers employed by public elementary and secondary schools, charter schools, and state education institutions are required to be members of TRA. Exceptions include teachers employed by the University of Minnesota and the city of St. Paul, who are covered by other retirement systems.

State university, community college, and technical college teachers first employed by Minnesota State Colleges and Universities (MnSCU) can elect TRA or primary retirement coverage through a DC plan administered by MnSCU within one year of achieving retirement coverage eligibility.

Table 3: Eligibility for Retirement. Tier 1 covers members first employed before July 1, 1989. Tier 2 covers members first employed after June 30, 1989.

Tier 2 members are not eligible to retire under the Rule of 90. Normal retirement age for Tier 2 members is the retirement age for full Social Security benefits (up to a maximum of age 66). Benefits of Tier 2 members who retire early are actuarially reduced for each month below normal retirement age. The annual reduction can range from 4 to 6.7 percent per year under normal retirement age. Beginning July 1, 2015, members who are age 62 and have 30 years of service will receive lower (more favorable) annual reductions at retirement.

Service credit may be purchased for certain leaves of absence, part-time teaching, and prior military service.

Table 4: Post-Retirement Considerations. The 2010 Minnesota Legislature froze retiree increases for 2011 and 2012, and reduced increases to 2 percent annually beginning January 1, 2013.

Table 5: Contribution Rates. The vast majority of members are in the Coordinated Plan; they and their employers also contribute to Social Security. Less than 15 members remain in the Basic Plan. They and their employers pay higher TRA rates, but do not pay into Social Security.

Table 6: Calculation of Benefits. Members employed before July 1, 1989, receive Tiers 1 or 2 benefits, whichever is greater. Members employed after June 30, 1989, receive Tier 2 benefits.

Appendix 1: Notes to Plans (Continued)

Table 7: Actuarial Method and Funding. The TRA plan, as of July 1, 2014, has an unfunded accrued actuarial liability of about \$6.35 billion, which must be amortized over a closed period ending June 30, 2037, under Minnesota law. TRA recently completed an experience study with its actuarial consultant. TRA expects that the 2016 Minnesota Legislature will review and act upon this report. The recommendations include lowering the assumed rate of return and strengthening TRA's post-retirement mortality tables.

Minnesota/St. Paul/SPTRFA

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Membership is mandatory upon employment in any position requiring a license issued by the Minnesota Department of Education, with St. Paul Public Schools (SPPS), St. Paul College (SPC) if first employed prior to July 1, 1995, and St. Paul charter schools from July 1, 1995, through June 30, 2002. PERA covers ESPs.

In general, teachers who were members prior to July 1, 1978, are covered by the Basic Plan and do not participate in Social Security through the school district. The Coordinated Plan, which commenced July 1, 1978, covers members who do participate in Social Security.

Table 3: Eligibility for Retirement. The Basic Plan covers teachers hired before July 1, 1978, who have had no breaks in service and did not elect to join the Coordinated Plan in 1978. Members receive Tiers 1 or 2 benefits, whichever is higher. The Rule of 90 does not apply to Tier 2. Under the 55/5 option, benefits are reduced by 0.25 percent for each month below age 65; with 25 years of service credit, benefits are reduced for each month below age 60.

The Coordinated Plan covers teachers hired after June 30, 1978, and those hired earlier who elected to join the plan. Teachers hired before July 1, 1989, receive Tiers 1 or 2 benefits, whichever is higher. Members hired on or after July 1, 1989, are only eligible for Tier 2 benefits. Tier 1 members are eligible for the Rule of 90, but Tier 2 members are not. Normal retirement age for Tier 2 members is the retirement age for full Social Security benefits (a maximum age of 66).

Table 4: Post-Retirement Considerations. The increase for the post-retirement benefit adjustment was modified to require the Fund to achieve the following accrued liability funding ratio percentage for two consecutive years rather than one year: less than 80 percent, the COLA is 1.00 percent; at least 80 percent, but less than 90 percent, the COLA is 2.00 percent; if at least 90 percent, then the subdivisions for the 1.00 percent and 2.00 percent provisions above will expire, and COLAs will be paid equal to the Consumer Price Index-U as reported by the Bureau of Labor Statistics within the U.S. Department of Labor each year as part of the determination of annual COLA to recipients of federal old age, survivors, and disability insurance.

Table 5: Contribution Rates. Pursuant to Minnesota Statute § 423A.02, SPPS contributed an additional \$800,000 to the Fund in FY 2014. The state also contributed \$10,664,607 to the fund in FY 2014, pursuant to Minnesota Statutes §§ 354A.12 and 423A.02. Plan contribution rates in the table are for FY 2015 and are scheduled to change through FY 2017 as follows: Coordinated Plan contributions: employee rates for 2016 and 2017—7.5 percent; employer rates for 2016—10.09 percent, for 2017—10.34 percent; Basic Plan contributions: employee rates for 2016—13.39 percent, for 2017—13.64 percent; employer rates: for 2016 and 2017—10 percent.

Table 6: Calculation of Benefits. The final average salary is the highest five of the last 10 years of service. Benefits for Basic Plan members are calculated under both Tiers 1 and 2 and members receive whichever is higher. For service after July 1, 2015, the multiplier increases to 1.9 percent.

Mississippi

Mississippi/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. PERS covers all Mississippi public employees, public education employees, other public employees whose employers have elected to participate, elected members of the state Legislature, and the judiciary. Participants include 64,064 public school employees, 6,222 community college employees, and 18,309 state university employees.

Table 3: Eligibility for Retirement. Employees hired before July 1, 2007, are eligible to retire after age 60 with four years of membership service or with 25 years of service at any age. Those hired on or after July 1, 2007, but before July 1, 2011, are eligible to retire after age 60 with eight years of membership service or with 25 years of service at any age. Vested members can purchase up to five years of qualified out-of-state service and up to two years of qualified professional leave for any 10-year period of state service.

Appendix 1: Notes to Plans (Continued)

Employees hired on or after July 1, 2011, are eligible to retire at age 60 with eight years of membership service or with 30 years of service at any age. Vested members can purchase up to five years of qualified out-of-state service and up to two years of qualified professional leave for any 10-year period of state service.

Table 4: Post-Retirement Considerations. The COLA is 3-percent simple interest to age 55, plus 3 percent compounded interest thereafter for members in Tiers 1-3. The COLA is 3-percent simple interest to age 60, plus 3 percent compounded interest thereafter for Tier 4 members. Retirees and beneficiaries make a one-time decision to receive the COLA in 12 monthly installments or as a yearly lump sum.

Table 6: Calculation of Benefits. The final average salary period is the four highest state fiscal years of earned compensation; the four highest calendar years of earned compensation; a combination of four state fiscal and calendar years that do not overlap; or the final 48 months of earned compensation. Annual salary increases or bonuses above 8 percent received during the final 24 months before retirement are excluded from benefit calculations unless the state Legislature or personnel board authorized the increase, or the increase was the result of a change in position held or services rendered and was not based on a promise or agreement to retire.

Table 7: Actuarial Method and Funding. The 2012 PERS funding policy set a goal of reaching an 80-percent minimum funded ratio in 2042 with a declining amortization period.

Table 8: Retirement Plan Governance. The state treasurer is an ex officio member by virtue of the office.

Missouri

Missouri/MOSERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. In general, full-time state employees hired before July 2000 who were not covered by another state retirement plan were eligible for the Missouri State Employees' Plan (MSEP), now a closed plan. Full-time state employees hired after July 2000 were covered by the MSEP 2000. Full-time state employees hired for the first time on or after January 2011 are covered by a plan called MSEP 2011. MSEP 2011 provides for a benefit formula calculation identical to MSEP 2000, with modified vesting and retirement eligibility requirements, in addition to the reinstatement of required employee contributions of 4 percent of pay for employees under the MSEP 2011.

Table 3: Eligibility for Retirement. MSEP: The minimum age for the Rule of 80 is 48. Members may be eligible to purchase credit for military service and prior public employment in Missouri. MSEP 2011: The minimum age for the Rule of 90 is 55. MSEP 2011 participants may purchase qualifying public-sector service at full actuarial cost.

Table 4: Post-Retirement Considerations. Members may deduct some or all of their benefits from their adjusted gross income for Missouri tax purposes. Individuals age 62 or older with an adjusted gross income under \$85,000 if single—under \$100,000 if married and filing jointly—are eligible for the maximum deduction. Social Security recipients can deduct their entire benefit, provided adjusted gross income is below a certain level. Individuals receiving a pension from a public plan, including MOSERS, can deduct up to the maximum Social Security benefit for that tax year. Individuals who receive Social Security and MOSERS benefits first deduct their Social Security benefit, then their MOSERS benefit until they reach the maximum.

Table 6: Calculation of Benefits. MSEP 2000: Under the Rule of 80, an additional temporary benefit is payable until age 62 (0.8 percent x FAS x years). MSEP 2011: Under the Rule of 90, an additional temporary benefit is payable until age 62 (0.8 percent x FAS x years).

Table 7: Actuarial Method and Funding. The asset valuation method includes corridor limits.

Missouri/PEERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. In August 2005, the name of the system for noncertificated school personnel changed from the Non-Teacher School Employee Retirement System (NTSERS) to the Public Education Employee Retirement System (PEERS). PEERS covers noncertificated school employees in public schools, community colleges, and junior colleges who have elected to join the system. ESPs in Kansas City and St. Louis are covered by the retirement system in their respective cities.

Table 3: Eligibility for Retirement. Members under age 55 with at least 25 years but fewer than 30 years of credit, who do not qualify for the Rule of 80, may retire early under the 25-and-out rule and receive a smaller pension. The factor used to calculate the benefit is based on years of service credit. For example, a 50-year-old member with 25 years of service is

Appendix 1: Notes to Plans (Continued)

eligible for a 1.51-percent factor; this factor is multiplied by the final average monthly salary and total years of credit to calculate the lifetime monthly benefit.

Members may be eligible to purchase credit for military service and public or private school service inside or outside Missouri. Within five years of becoming eligible to retire, members may purchase up to five-tenths of a year of supplemental credit not associated with a period of employment.

Table 4: Post-Retirement Considerations. Members may deduct some or all of their benefits from their adjusted gross income for Missouri tax purposes. Individuals age 62 or older with an adjusted gross income under \$85,000 if single—under \$100,000 if married and filing jointly—are eligible for the maximum deduction.

After a six-year phase-in period, Social Security recipients can deduct their entire benefit, provided adjusted gross income is below a certain level. Individuals receiving a pension from a public plan, including PEERS, can deduct up to the maximum Social Security benefit for that tax year; the federal government adjusts the figure for inflation every year. Individuals who receive Social Security and PEERS benefits first deduct their Social Security benefit, then their PEERS benefit, until they reach the maximum.

Table 6: Calculation of Benefits. Members under age 62 who have at least 30 years of credit or qualify for the Rule of 80 get an 0.8 percent (0.8 percent x FAS x years) temporary benefit. It is paid in addition to the normal benefit until the member reaches the minimum Social Security age (currently 62), at which point it stops.

Any increase in compensation in excess of 20 percent from one year to the next in the final average salary period is disregarded in the benefit formula.

Table 7: Actuarial Method and Funding. By law, unfunded actuarial accrued liabilities for changes in benefits or the contribution rate structure must be amortized over a 20-year period.

Table 8: Retirement Plan Governance. PEERS and PSRS work in partnership and have a single board of trustees, which has fiduciary, administrative, and fiscal responsibility for both systems. See Appendix 2 for details.

Missouri/PSRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. PSRS does not cover the teachers in Kansas City and St. Louis.

Table 3: Eligibility for Retirement. Members under age 55 with at least 25 years of credit but fewer than 30 years, who do not qualify for the Rule of 80, may retire early under the 25-and-out rule and receive a smaller pension. The factor used to calculate the benefit ranges from 2.2 to 2.4 percent, based on years of service credit. For example, a 50-year-old member with 25 years of service is eligible for a 2.2-percent factor; this factor is multiplied by the final average monthly salary and total years of credit to calculate the lifetime monthly benefit.

Members may be eligible to purchase credit for military service and public or private school service inside or outside Missouri. Members within five years of becoming eligible to retire may purchase up to five-tenths of a year of supplemental credit not associated with a period of employment.

Table 4: Post-Retirement Considerations. The law provides guidance, based upon the CPI-U, to the pension board regarding the size of the COLA that is granted annually. If the change in CPI-U is less than 0 percent, no increase can be given. If it is more than 5 percent, the board is required to give a 5-percent increase. Under funding policies adopted by the board in August 2011, a 2-percent COLA will be given whenever the change in CPI-U for the previous year is between 0 percent and 5 percent.

Members may deduct some or all of their benefits from their adjusted gross income for Missouri tax purposes. Individuals age 62 or older with an adjusted gross income under \$85,000 if single—or under \$100,000 if married and filing jointly—qualify for the maximum deduction. After a six-year phase-in period, Social Security recipients can deduct their entire benefit, per adjusted gross-income-level restrictions. Individuals receiving a retirement benefit from a public plan, including PSRS, can deduct up to the maximum Social Security benefit available for that tax year; the federal government adjusts the figure for inflation every year at the federal level. Individuals who receive both Social Security and PSRS benefits first deduct their Social Security benefit, then their PSRS benefit, until they reach the maximum.

Table 6: Calculation of Benefits. Any increase in compensation in excess of 20 percent from one year to the next in the final average salary period is disregarded.

Table 7: Actuarial Method and Funding. The method for amortizing the unfunded actuarial accrued liability was changed from a rolling 30-year method to the closed 30-year method described above effective June 30, 2011.

Table 8: Retirement Plan Governance. PEERS and PSRS work in partnership and have a single board of trustees, which has fiduciary, administrative, and fiscal responsibility for both systems. See Appendix 2 for details.

Appendix 1: Notes to Plans (Continued)

Missouri/Kansas City/PSRS

Table 3: Eligibility for Retirement. The plan benefit provisions in the table apply to Plan B and Plan C. Plan A covered employees hired prior to January 1, 1962. All members with Plan A benefits have terminated or retired. Plan B applies to anyone who retires on or after June 30, 1999, and was hired prior to January 1, 2014. Plan C applies to members hired on or after January 1, 2014. In addition to purchasing out-of-state service, a person who is within five years of becoming eligible to retire may purchase up to five-tenths of a year of service to achieve the minimum service requirement.

Table 4: Post-Retirement Considerations. The board's policy is to make an annual determination, depending upon investment returns, as to whether or not the system can provide a COLA. The system's actuary must certify that the funded ratio will be at least 100 percent after adjusting for the effect of the proposed increase. If an upward adjustment is permissible, the amount will be the lesser of 3 percent or the percentage increase in the CPI for the preceding year.

Legislation enacted in 2007 authorized an income tax deduction to be phased in for benefits from three sources: Social Security, Social Security disability, and a public pension plan for individuals age 62 and older.

Table 6: Calculation of Benefits. For Plan B participants whose years of creditable service exceed 34.25 years on August 28, 1993, shall have a maximum greater than 60 percent and be equal to 1.75 percent times the participant's years of creditable service on August 28, 1993.

Missouri/St. Louis/PSRS

Table 3: Eligibility for Retirement. The early retirement reduction is 0.5556 percent for each month before the normal retirement date. In addition to out-of-state service, members within five years of becoming eligible for retirement may purchase up to five-tenths of a year of credited service to be eligible for early pension benefits.

Table 4: Post-Retirement Considerations. Members may deduct some or all of their benefits from their adjusted gross income for Missouri tax purposes. Individuals age 62 or older with an adjusted gross income under \$85,000 if single—or under \$100,000 if married and filing jointly—meet the requirements for the maximum deduction. Individuals who receive both Social Security and PSRS benefits first deduct their Social Security benefit, then their PSRS benefit, until they reach the maximum.

Table 5: Contribution Rates. The annual actuarial valuation of PSRS determines the required employee contribution. Employer contributions are equal to the actuarially required contribution less the portion that members contribute. The employer contribution rate for 2014 is 16.5 percent and 15.87 percent for 2015.

Table 7: Actuarial Method and Funding. The actuarial report did not include information about inflation assumptions.

The actuarial value of assets is determined using the assumed yield method of valuing assets, with a 20-percent adjustment to market value. Under the assumed yield-asset-valuation method, the prior year's actuarial value is increased at the assumed rate of return with appropriate adjustments for contributions and disbursements to produce an expected actuarial value of assets at the end of the year. The expected actuarial value is compared to the market value of assets, and 20 percent of the difference is added to the expected actuarial value. The Expense and Contingency Reserve is excluded from the calculation to produce the actuarial value of assets.

The unfunded actuarial accrued liability was originally determined and frozen as of January 1, 1981. On the basis of several changes in actuarial assumptions, the board of trustees acted to re-determine the unfunded accrued actuarial liability as of January 1, 2006, to be amortized over a period of 30 years.

Montana

Montana/PERS-DBRP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The DB plan covers state, local government, university system, and school district employees.

New hires have 12 months to make an irrevocable choice to join the optional DC plan or stay in the DB plan. New university hires have a third option: to join the Montana University System Retirement Programs (MUS-RP). A portion of the employer's contribution for members who choose to join the DC plan or MUS-RP is used to help fund the DB plan. Participants in the DC plan have a choice of investment options.

Table 3: Eligibility for Retirement. The early retirement reduction factor depends upon the number of years before age 60 or 30 years of service: For the first 60 months under age 60 or 25 years of service at the time of retirement, benefits

Appendix 1: Notes to Plans (Continued)

are reduced 0.5 percent per month; for each additional month under age 60 or 25 years of service, they are reduced 0.3 percent.

Members can purchase credit for out-of-state service for each five-year period of membership service and one additional year of credit, limited to five additional years of service. Such service is not membership service and cannot make a member eligible to retire or to purchase other types of service; it is used to calculate retirement benefits.

Table 4: Post-Retirement Considerations. Up to \$3,600 is tax exempt for a retired member with an adjusted gross income below \$30,000.

Table 5: Contribution Rates. For local governments, the state pays a 0.1 percentage point of the employer contribution; for school districts, the state pays a 0.37 percentage point of the employer contribution.

Montana/PERS-DCRP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The optional DC plan includes state, local government, and certain university and school district employees. New hires are initially members of the DB plan; they have 12 months to make an irrevocable choice to join the optional DC plan or stay in the DB plan. New university hires have a third option: to join the university system's Optional Retirement Program (ORP).

A portion of the employer's contribution for members who choose to join the DC plan or ORP is used to help fund the DB plan. Participants in the DC plan have a choice of investment options.

Table 3: Eligibility for Retirement. DC plan members can withdraw the money in their account when service terminates. The DC plan has immediate vesting for the member's contribution and any investment earnings, and five-year vesting for the employer's contribution and any investment earnings. DC members forfeit all employer contributions and any earnings on those contributions if they terminate covered employment or die with fewer than five years of membership service. Forfeited employer contributions and earnings are used to pay administrative expenses.

Table 4: Post-Retirement Considerations. Up to \$3,600 is tax exempt for a retired member with an adjusted gross income below \$30,000.

Table 8: Retirement Plan Governance. See Appendix 2 for details.

Montana/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Montana Teachers' Retirement System (TRS) covers teachers, teachers' aides, and professional staff of public elementary and secondary schools, community colleges and universities, including university faculty who were members prior to July 1, 1993, and College of Technology staff who were members prior to July 1, 1995.

Table 3: Eligibility for Retirement. The early retirement reduction factor depends upon how many years retirement occurs before age 60 or 30 years of service: For the first 60 months under age 60 or 25 years of service at the time of retirement, benefits are reduced 0.5 percent per month; for each additional month under age 60 or 25 years of service, they are reduced 0.3 percent.

Members with five or more years of creditable service in TRS can purchase service credit for out-of-state teaching.

Table 4: Post-Retirement Considerations. Individuals who have been receiving benefits for 36 months or more receive the Guaranteed Annual Benefit Adjustment (GABA). Tier 1 members of TRS (hired prior to July 1, 2013) receive a 1.50 percent GABA on January 1 of each year. The GABA for all eligible Tier 2 benefit recipients is set in the autumn of each year by the TRS Board and is based on both the annual actuarial valuations and the current funding status of the retirement system. The minimum GABA provided is 0.5 percent and the maximum is 1.5 percent.

Up to \$3,600 is tax exempt for a retired member with an adjusted gross income below \$30,000.

Table 5: Contribution Rates. Tier 1 employee contributions include a 1-percent supplemental contribution until the system is 90 percent funded and amortizes in 15 years or less. Employer contributions include a 1.1-percent supplemental contribution rate for FY 2014 until the system is 90-percent funded and amortizes in 15 years or less. The Tier 2 employer contribution rate includes a 1.1-percent supplemental contribution until the system is 90-percent funded and amortizes in 15 years or less.

Nebraska

Nebraska/SERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data is for the School Employees' Retirement Plan (SERS), one of five plans administered by Nebraska Public Employees' Retirement Systems. A separate system, the Omaha School Employees' Retirement System (OSERS), covers Omaha teachers and ESPs.

The Nebraska Investment Council establishes investment strategies for all state funds, including SERS, and guidelines for specific portfolios. The council has five voting members plus the state treasurer and the Public Employees' Retirement Systems' executive director.

Table 3: Eligibility for Retirement. Members may retire at any age if they have 35 or more years of service. Benefits will be actuarially reduced if they do not meet the Rule of 85.

Members can purchase credit for out-of-state/Omaha public school (forfeited) service for a period of service equal to their service in Nebraska, up to a maximum of 10 years. In addition, active members with at least five years of service (10 years if hired on or after July 1, 2014) who sign a written agreement to retire within 12 months can purchase a minimum of one month and a maximum of five additional years of service credit.

Table 4: Post-Retirement Considerations. If inflation erodes the value of a Tier 1 retiree's (members participating before July 1, 2013) benefit below 75 percent of the purchasing power of the original retirement benefit, the COLA shall be the CPI-W rate for that year; this increase is not capped at 2.5 percent. Tier 2 retirees (members joining the plan on or after July 1, 2013) do not have the 75-percent purchasing power provision.

Table 5: Contribution Rates. School districts contribute at a rate equal to 101 percent of the members' rate. In addition, the state contributes 2.0 percent of compensation of all system members.

Table 6: Calculation of Benefits. Effective July 1, 2013, increases in compensation for plan members will be capped at 8 percent per year when calculating retirement benefits. No exceptions increasing the 8 percent cap are allowed. Tier 2 consists of members joining the plan on or after July 1, 2013.

Table 8: Retirement Plan Governance. The state investment officer is also a member of the PERB in a non-voting, ex-officio capacity.

Nebraska/Omaha/OSERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The board of trustees, subject to approval of the board of education, invests all funds not required for current payments, supervises the financial affairs of the system, and recommends changes in accord with the plan's actuarial requirements.

Table 3: Eligibility for Retirement. If an employee begins receiving an annuity before attaining age 62 or satisfying the Rule of 85, the annuity is reduced by 0.25 percent for each month under age 62. Benefits are reduced by a maximum of 3 percent if the member has 84 points, by a maximum of 6 percent if the member has 83 points, and by a maximum of 9 percent if the member has 82 points.

At the time of initial employment by Omaha Public Schools, members can purchase up to 10 years of credit for previous service in another public school system or educational service unit. The number of years of "buy-in" service cannot exceed the number of years of Omaha Public Schools service. In addition, a full-time member who has completed five or more years of Omaha Public Schools service can purchase up to five years of additional service any time before he or she retires; the member does not need to have any previous non-Omaha Public Schools employment be eligible for this purchase.

Table 4: Post-Retirement Considerations. If the CPI rises by more than 1.5 percent and the board of trustees determines that a supplemental COLA is prudent and actuarially permissible, a supplemental COLA may be paid.

On October 3 of each year, each member who has been receiving a retirement benefit for at least 10 years as of September 1 will receive a medical COLA. The current amount is \$10 per month for each year retired (a maximum of \$250 per month), prorated for fewer than 20 years of service.

Table 5: Contribution Rates. The school district contribution rate is 101 percent of the member contribution rate or more, if necessary to maintain the solvency of the system. In addition, the state contributes 2.0 percent of compensation of all system members.

Table 7: Actuarial Method and Funding. Actuarial assets are valued at expected value (assumed 8% growth) at the valuation date plus or minus 25 percent of the difference between the market value and expected value. A corridor is used so that the actuarial value of assets cannot be greater than 20 percent above or below the market value of assets.

Appendix 1: Notes to Plans (Continued)

Table 8: Retirement Plan Governance. All board of trustees' members are appointed by the board of education. The board of trustees is composed of the superintendent of schools, three board of education members, three active employees, one retiree, and two business community members.

Nevada

Nevada/PERS

Table 3: Eligibility for Retirement. Members with five years of credited service may purchase up to five years of additional service credit.

Table 4: Post-Retirement Considerations. For members hired before January 1, 2010: There's no COLA during the first three years of retirement; up to 2 percent after three years of retirement; up to 3 percent after six years of retirement; up to 3.5 percent after nine years of retirement; up to 4 percent after 12 years of retirement; and up to 5 percent after 14 years of retirement and thereafter. If this benefit outpaces inflation after retirement, the increase may be capped by a rolling three-year average of the CPI. Post-retirement benefit increases for members who entered the system on or after January 1, 2010, are capped at 4 percent in year 13 and each year thereafter.

Table 5: Contribution Rates. New employees of the state of Nevada—as well as public employers who did not elect the employer-pay contribution plan prior to July 1, 1983—can choose either the Employee/Employer Contribution Plan (EECP), in which the employer matches employee contributions, or the Employer Pay Contribution Plan (EPC). The EPC Plan relies on the employer making a contribution made up of half employer funds and half of pretax funds deducted from the employees' paychecks. Most teachers and employees of large government agencies participate in the EPC Plan. The contribution rates for the EPC Plan will increase to 14.0 percent and for the EECP to 14.50 percent effective July 1, 2015 through June 30, 2017.

Table 6: Calculation of Benefits. Active members whose effective date of membership is before July 1, 1985, can receive up to 90 percent of their final average salary. Individuals who became members after June 30, 1985, can receive up to 75 percent of their final average salary.

Table 7: Actuarial Method and Funding. The actuarial value of assets is further limited to not less than 70 percent or greater than 130 percent of the market value of assets.

New Hampshire

New Hampshire/NHRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. NHRS covers full-time classified state employees, public school teachers and administrators, permanent police officers, and permanent firefighters. Full-time employees of political subdivisions (including county, municipal, or school district employees such as ESPs) are covered if the local governing body elects to participate.

The system has two membership groups. Employees and teachers are classified as "Group I." Active members include 17,986 teachers, and annuitants include 10,965 teachers. With the exception of one public high school, all Group I members participate in Social Security. Group II members do not participate in Social Security. Police and Fire are classified as "Group II."

Table 3: Eligibility for Retirement. Significant plan changes enacted by the New Hampshire Legislature in 2011 essentially created three tiers: Tier 1—members vested prior to January 1, 2012; Tier 2—members in service prior to July 1, 2011, but not vested prior to January 1, 2012; and Tier 3—members hired on or after July 1, 2011. For members hired prior to July 1, 2011, the Rule of 70 is available only if the member has at least 20 years of service.

For members who retire before age 60, benefits are reduced by 6.67 percent per year with less than 20 years of service, by 5 percent per year with 20 to 25 years of service, by 4 percent per year with 25 to 30 years of service, by 3 percent per year with 30 to 35 years of service, and by 1.5 percent per year with 35 or more years of service. For members hired after July 1, 2011, eligibility for early retirement is age 60 with a minimum 30 years of service. There is a reduction of 0.25 percent for every month prior to age 65 (i.e., 3% per year).

Appendix 1: Notes to Plans (Continued)

Table 4: Post-Retirement Considerations. No compounded COLA has been granted since 2010. No supplemental payment of any kind has been granted since 2012. The COLA history since 1997 is available at: <https://www.nhrs.org/retirees/plan-details/colas>.

State income tax is limited to dividends and interest income only.

Table 5: Contribution Rates. The 2016-2017 employer rates are 15.67 percent for teachers and 11.17 percent for all other employees.

Table 6: Calculation of Benefits. Contributing members in service prior to July 1, 2011, qualify for a service retirement pension at age 60, with no minimum service credit required. From ages 60 to 64, benefits are calculated by multiplying the final average salary (three or five of the highest paid years) by years of creditable service, and then by a unit credit rate of 1.67 percent. Pensions are reduced for all Group I members at age 65, when the applied unit credit rate changes to 1.51 percent. Members hired after July 1, 2011, are eligible to retire at age 65 with no minimum service and a unit credit of 1.51 percent. Group I members vested prior to January 1, 2012, use 3H for FAS. For those Group I members not vested prior to January 1, 2012, the FAS is 5H.

The maximum benefit limit for members hired before July 1, 2009, is 100 percent of earnable compensation and the maximum benefit limit for members hired after that date, and not vested by January 1, 2012, is the lesser of 85 percent of the average final compensation (i.e., three or five of the highest paid years?) or \$120,000 per year.

Table 7: Actuarial Method and Funding. Data are for all groups. Differences between actual and assumed investment income are phased in over a closed five-year period. Funding value was limited to a 20-percent corridor around market value.

Table 8: Retirement Plan Governance. NHRS is administered by a 13-member board of trustees that includes one employee member, one teacher member, one firefighter member, one police officer member, four employer representatives, four public members, and the state treasurer. All trustees with the exception of the state treasurer, who serves ex officio, are nominated by the governor for two-year terms and must be confirmed by a vote of the executive council. Any newly appointed or reappointed trustee must have familiarity with or experience in finance or business management. The governor is responsible for designating one of the public trustees to serve as chair of the board.

New Jersey

New Jersey/PERS

Table 3: Eligibility for Retirement. Early retirement reductions vary by tier. For Tier 1 members (enrolled before July 1, 2007) who retire before age 55, the allowance is reduced 3 percent per year for each year under age 55. For Tier 2 members (eligible for enrollment on or after July 1, 2007, and before November 2, 2008) who retire before age 60, the allowance is reduced 1 percent per year for each year under age 60 through age 55, and 3 percent per year for each year under age 55. For Tier 3 members (eligible for enrollment on or after November 2, 2008, and on or before May 21, 2010) or Tier 4 members (eligible for enrollment after May 21, 2010, and before June 28, 2011) who retire before age 62, the allowance is reduced 1 percent per year for each year under age 62 through age 55, and 3 percent per year under age 55. For Tier 5 members (eligible for enrollment on or after June 28, 2011) who retire before age 65 with at least 30 years of service, the allowance is reduced 3 percent per year for each year under age 65.

Table 4: Post-Retirement Considerations. Chapter 78, P.L. 2011, the Pension and Health Benefit Reform Law, suspend COLAs for all members. COLAs provided before the effective date of the law (June 28, 2011) are not reduced.

Table 5: Contribution Rates. The 8.22-percent employer contribution rate shown in the table represents the rate actually paid in FY 2014, which was less than the actuarially determined rate of 15.7 percent of pay. Since 2008, cumulative actual contributions have been equal to 51 percent of the actuarially determined contributions.

The employee contribution rate increased to 6.5 percent of base salary effective with the first payroll to be paid on or after October 1, 2011. Subsequent increases will then be phased in over 7 years (each July 1) to bring the total pension contribution rate to 7.5 percent of base salary as of July 1, 2018. Prior to the enactment of Chapter 78, P.L. 2011, the member contribution rate for PERS members was 5.5 percent of base salary.

The employee contribution rate for Tier 1 members is applied to the full pensionable salary (up to the "federal pensionable maximum"). The PERS contribution rate for Tiers 2, 3, 4, and 5 members is applied to the pensionable salary up to the annual maximum wage for Social Security deductions (\$118,500 for 2014). Members in Tiers 2-5 earning salaries in excess

Appendix 1: Notes to Plans (Continued)

of the annual compensation limit will be enrolled in the Defined Contribution Retirement Program (DCRP) in addition to PERS. A contribution of 5.5 percent of the salary in excess of the limit (plus 3% from the employer) will be forwarded to a DCRP account.

Table 6: Calculation of Benefits. Veterans with 20 to 34 years of service credit who meet PERS requirements can receive a veteran's pension equal to 54.5 percent of compensation during the highest-paid year of service; veterans with 35 years or more years of service credit who retire at age 55 or older can receive 55 percent of compensation during the highest-paid year. Veterans receive a service pension if it provides a higher benefit. The maximum wage base for Social Security is the ceiling for calculating benefits for members hired on or after July 1, 2007.

Table 7: Actuarial Method and Funding. The amortization method is level dollar, using an open 30-year period.

New Jersey/TPAF

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The plan is open to employees of boards of education and the state who must be certified or credentialed as a condition of employment.

Table 3: Eligibility for Retirement. Early retirement reductions vary by tier. For Tier 1 members (enrolled before July 1, 2007) who retire before age 55, the allowance is reduced 3 percent per year for each year under age 55. For Tier 2 members (eligible for enrollment on or after July 1, 2007, and before November 2, 2008) who retire before age 60, the allowance is reduced 1 percent per year for each year under age 60 through age 55, and 3 percent per year for each year under age 55. For Tier 3 members (eligible for enrollment on or after November 2, 2008, and on or before May 21, 2010) or Tier 4 members (eligible for enrollment after May 21, 2010, and before June 28, 2011) who retire before age 62, the allowance is reduced 1 percent per year for each year under age 62 through age 55, and 3 percent per year under age 55. For Tier 5 members (eligible for enrollment on or after June 28, 2011) who retire before age 65 with at least 30 years of service, the allowance is reduced 3 percent per year for each year under age 65.

Veterans who continue in employment covered by TPAF until they are at least age 60 with at least 20 years of service credit, or at least age 55 with at least 25 years of service credit, or at least age 55 with 35 or more years of service credit are covered by special provisions.

Members can purchase up to 10 years of credit for employment in a state, county, municipality, school district, or public agency outside New Jersey that would have been covered in New Jersey, provided they are not receiving—or eligible to receive—benefits from the out-of-state pension fund. Veterans may be eligible to purchase an additional five years of credit for military service rendered during periods of war for an aggregate of 15 years of service outside New Jersey (out-of-state, military, and U.S. government service).

Table 4: Post-Retirement Considerations. Chapter 78, P.L. 2011, the Pension and Health Benefit Reform Law, suspended COLAs for all members. COLAs provided before the effective date of the law (June 28, 2011) are not reduced.

Table 5: Contribution Rates. The 3.91-percent employer contribution rate shown in the table represents the contribution rate actually paid in FY 2014, which was less than the actuarially determined rate of 21.5 percent of pay. Since 2008, cumulative actual employer contributions have been equal to 16 percent of the actuarially determined contributions.

The TPAF employee contribution rate increased to 6.5 percent of base salary effective with the first payroll to be paid on or after October 1, 2011. Subsequent increases will then be phased in over seven years (each July 1) to bring the total pension contribution rate to 7.5 percent of base salary as of July 1, 2018.

The employee contribution rate for Tier 1 members is applied to the full pensionable salary (up to the “federal pensionable maximum”). The TPAF contribution rate for Tiers 2, 3, 4, and 5 members is applied to the pensionable salary up to the annual maximum wage for Social Security deductions (\$118,500 for 2014). Members in Tiers 2-5 earning salaries in excess of the annual compensation limit will be enrolled in the Defined Contribution Retirement Program (DCRP) in addition to the TPAF. A contribution of 5.5 percent of the salary in excess of the limit (plus 3% from the employer) will be forwarded to a DCRP account.

Table 6: Calculation of Benefits. Veterans who continue in employment covered by TPAF until at least age 60 who have at least 20 years of service, or at least age 55 with at least 25 years of service credit, are entitled to an annual benefit equal to 54.5 percent of the salary on which pension contributions were made in any consecutive 12-month period (to provide the largest possible benefit). Veterans who are at least age 55 with 35 or more years of service credit are entitled to an annual allowance based on years of service, divided by 55, and then multiplied by the salary in the 12-month period of membership (to provide the largest possible benefit). Veterans receive a service pension if it provides a higher benefit. The maximum wage base for Social Security is the ceiling for calculating benefits for members hired on or after July 1, 2007.

Table 7: Actuarial Method and Funding. The amortization method is level dollar, using an open 30-year period.

New Mexico

New Mexico/ERB

Table 3: Eligibility for Retirement. Tier 1 members are those individuals whose ERB membership began before July 1, 2010, and did not withdraw all of their contributions. Tier 2 members are those individuals first employed by an ERB employer on or after July 1, 2010, but prior to July 1, 2013, or were employed before July 1, 2010, terminated employment, and subsequently withdrew all contributions. Tier 3 members are those individuals whose ERB membership began on or after July 1, 2013, or those employed before July 1, 2013, terminated employment, and subsequently withdrew all contributions and returned to work for an ERB employer on or after July 1, 2013.

Members may purchase up to five years of allowed credit for service outside the system, including work in an out-of-state public school or an accredited private school.

Table 4: Post-Retirement Considerations. If the CPI rises by less than 2 percent, that will be the COLA. The COLA is reduced when the fund is less than 100-percent funded. In general, the COLA begins at age 65 if hired before July 1, 2013, and at age 67 if hired on or after July 1, 2013.

New Mexico has a \$10,000 tax exemption for individuals 62 or older who file singly—\$16,000 for those who file jointly—that is phased out as adjusted gross income grows.

Table 5: Contribution Rates. Employee contributions vary based upon salary levels. Members whose annual salary is less than \$20,000 contribute 7.9 percent; members whose annual salary is \$20,000 or more contribute 10.7 percent.

New York

New York/ERS

Table 3: Eligibility for Retirement. Members are in Tier 1 if they joined before July 1, 1973; in Tier 2 if they joined between July 1, 1973, and July 26, 1976; in Tier 3 if they joined between July 27, 1976, and August 31, 1983; in Tier 4 if they joined between September 1, 1983, and December 31, 2009; in Tier 5 if they joined between January 1, 2010, and March 31, 2012; and in Tier 6 if they joined on or after April 1, 2012.

Effective July 17, 1998, the amount of service required for vesting for Tiers 1, 2, 3, and 4 members who were in active status is five years. Prior to this date, vesting was 10 years of service credit. Tiers 5 and 6 members need 10 years of service credit to vest. All members can purchase service credit for public employment in the state of New York or work for an employer who later joined the system.

Table 4: Post-Retirement Considerations. The COLA is based on the first \$18,000 of the member's single life annuity, even if the member chooses a different benefit option. To begin receiving COLA payments, you must be age 62 or older and retired for five or more years, or age 55 or older and retired for 10 or more years, or a disability retiree for five years, or a beneficiary receiving the accidental death benefit for five or more years on behalf of a deceased retirement system member. The spouse of a deceased retiree receiving a lifetime benefit (under an option elected by the retiree at retirement) is entitled to one-half the COLA amount that would have been paid to the retiree when the retiree would have met the eligibility criteria. (Requirements differ for uniformed employees.)

Table 5: Contribution Rates. Tiers 1 and 2 members only contribute if they are members of a contributory plan or for service before April 1, 1960. Since October 1, 2000, Tiers 3 and 4 members contribute 3 percent of their gross earnings until they have 10 years of membership or credited service, whichever occurs first. After that, they do not contribute. Tier 5 members contribute 3 percent of their gross earnings for their entire career. Tier 6 members are required to contribute a specific percentage of their gross earnings for all years of public service after their date of membership. The percentages range from 3 percent for wages up to \$45,000 to 6 percent for wages over \$100,000. The employer contribution rate is actuarially determined and is for FY 2014-15.

Table 6: Calculation of Benefits. For Tiers 1, 2, 3, 4, and 5 members, the final average salary (FAS) is the average of the wages earned during the three highest consecutive years of service. In addition, the salary used to determine benefits is subject to certain limits. For Tier 1 members, wages in any 12-month period cannot exceed earnings in the previous 12-month period by more than 20 percent. For Tier 2 members, earnings in any year cannot exceed the average of the previous two years by more than 20 percent. For members in Tiers 3, 4, and 5, earnings cannot exceed the average of the previous two years by more than 10 percent. For Tier 6 members, the FAS calculation is the average of the wages earned during the five highest consecutive years of service. For members in Tier 6, if the earnings in any year included in the FAS period exceed

Appendix 1: Notes to Plans (Continued)

the average of the previous four years of earnings by more than 10 percent, the amount in excess of 10 percent is excluded from the computation. For all tiers, the amount above the limit is not included when calculating benefits. For members in Tier 5, annual overtime pay in excess of \$16,883 for calendar year 2014 cannot be used in the FAS calculation. The overtime pay limitation will increase 3 percent annually. For members in Tier 6, reportable payments for overtime cannot exceed \$15,261 for FY 2013-14.

Table 7: Actuarial Method and Funding. This plan uses the aggregate actuarial cost method, which does not separately amortize unfunded actuarial liabilities; therefore, the unfunded actuarial accrued liability is not calculated and the amortization period is not relevant. The funded ratio is based on the entry-age-normal method.

Most of the assets of the ERS, PFRS, and Group Life Insurance Plan (GLIP) are pooled in the Common Retirement Fund for investment purposes. The actuarial asset values for bonds and mortgages are amortized values. Short-term investments are valued at market value. Normally, all other investments (stocks, commingled funds, real estate, business investments, etc.) use a five-year moving average of market values method assuming a 7-percent rate of appreciation.

Table 8: Retirement Plan Governance. The state comptroller is the administrator of the New York State and Local Retirement System and is the sole trustee of the Common Retirement Fund.

New York/STRS

Table 3: Eligibility for Retirement. Pension legislation enacted in 1973, 1976, 1983, 2009, and 2012 established distinct classes of membership tiers. Members are in Tier 1 if they joined before July 1, 1973; in Tier 2 if they joined between July 1, 1973, and July 26, 1976; in Tier 3 if they joined between July 27, 1976, and August 31, 1983; in Tier 4 if they joined between September 1, 1983, and December 31, 2009; in Tier 5 if they joined between January 1, 2010, and March 31, 2012; and in Tier 6 if they joined on or after April 1, 2012.

Tier 1 members with fewer than 20 years of service receive reduced benefits (5% for every year less than 20 years of NYS service, not to exceed 50 percent); the minimum age at which they can retire is 55 with fewer than five years of credited service, if two years are credited since age 53.

Members who retire before age 62 with fewer than 30 years of service credit receive benefits reduced by up to 27 percent in Tier 2, by up to 30 percent in Tier 3, and up to 27 percent in Tier 4. Tier 5 members who retire before age 62 with fewer than 30 years of service credit, or at ages 55-56, regardless of service credit receive benefits reduced by up to 38.33 percent. Tier 6 members who retire before age 63 receive benefits reduced by up to 52 percent. Benefits of Tier 3 members are reduced further at age 62—by 50 percent of the Social Security benefits they accrued during public employment in New York State.

Tier 1 members are eligible for a maximum of 10 years of credit for out-of-state public school teaching. Tier 2 members can only receive credit for out-of-state teaching if it was credited under a previous Tier 1 membership.

Table 4: Post-Retirement Considerations. Most retirees must be 62 and retired for at least five years to be eligible for the COLA.

Table 5: Contribution Rates. Rates in the table apply to the 2014-2015 school year. Tiers 3 and 4 members contribute 3 percent of their gross salary until they have 10 years of membership or 10 years of credited service. After that, they do not contribute. Tier 5 members contribute 3.5 percent of their gross salary throughout their working career. Tier 6 members contribute at a variable rate between 3 percent and 6 percent based on annual earnings.

Table 6: Calculation of Benefits. Termination pay, retirement bonuses, pay for unused sick leave or accumulated vacation, and salary increases above certain limits are not included when calculating the three highest consecutive years. Members who joined the system before June 17, 1971, can use a five-year period not subject to these limitations if the result is a higher final average salary; Tier 3 members automatically receive Tiers 3 or 4 benefits, whichever is higher. Tier 4 usually results in a higher benefit for several reasons: at age 62, Tier 3 benefits are reduced by 50 percent of the member's Social Security benefit; Tier 4 benefits are reduced less than Tier 3 benefits for retirement before age 62 with less than 30 years of service; and the maximum pension factor is limited to 60 percent in Tier 3 and unlimited in Tier 4.

Table 7: Actuarial Method and Funding. This plan uses the aggregate actuarial cost method, which does not separately amortize unfunded actuarial liabilities. Therefore, the unfunded actuarial accrued liability is not calculated and the amortization period is not relevant. The salary growth assumption is a table of percentages based on member age and gender.

Appendix 1: Notes to Plans (Continued)

New York/New York City/BERS

Table 3: Eligibility for Retirement. Members are in Tier 1 if they joined before July 1, 1973; in Tier 2 if they joined between July 1, 1973, and July 26, 1976; in Tier 3 if they joined between July 27, 1976, and August 31, 1983; in Tier 4 if they joined on or after September 1, 1983, but on or before March 30, 2012; in Tier 6 if they joined on or after April 1, 2012.

Two benefit-enhancement programs are not available to members of Tiers 2, 3, and 4 and represented by the United Federation of Teachers union (UFT): the 55/25 plan and the 57/5 plan. Under these plans, members make additional contributions (1.85% for non-physically taxing positions and 3.83% for physically taxing positions) to retire earlier with higher benefits.

Early retirement age/service reductions are for the coordinated plan, which covers members who joined on or after July 27, 1976.

Members can purchase credit only for service rendered before they joined the system.

Table 4: Post-Retirement Considerations. The COLA is based on the first \$18,000 of the maximum benefit amount. To receive a COLA, the member must be at least 62 and retired for at least five years or at least 55 and retired for at least 10 years.

Table 5: Contribution Rates. Tiers 1 and 2 members contribute from 2.83 to 13.45 percent based on their age when they joined the plan. Some Tier 4 members contribute 3 percent for 10 years. Others are required to contribute 3 percent for 27 years. Participants in the early retirement program are required to make additional member contributions based on the plan requirements.

Tier 6 employee contribution rates are based on annual wages: \$45,000 or less—3 percent; greater than \$45,000 up to \$55,000—3.5 percent; greater than \$55,000 up to \$75,000—4.5 percent; greater than \$75,000 up to \$100,000—5.75 percent; over \$100,000—6 percent.

Table 6: Calculation of Benefits. For Tier 4 members, annual earnings during the final average period that are more than 10-percent higher than the average for the previous two years are excluded when calculating the three highest years; rules vary for other tiers. Tier 4 members who joined after July 26, 1976, but before September 1, 1983, may elect benefits under Tier 3 if they are higher.

New York/New York City/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The system also oversees assets in the Tax-Deferred Annuity (TDA), a 403(b) plan to which only members contribute.

Table 3: Eligibility for Retirement. Members are in Tier 1 if they joined before July 1, 1973. For Tier 1 members, the age/service requirements for unreduced benefits are 55/25 or deferred payability (less than 25 years of such service but more than 20, payment of benefits is deferred until the later of [a] the time you would have completed 25 years had you remained in active service and [b] age 55.) Tier 1 members with 30 or more years of service credit can be under age 55.

Members are in Tier 2 if they joined between July 1, 1973, and July 26, 1976. Tier 2 members are eligible for retirement at 55/30, 62/25, or 62/5. Members who joined between July 27, 1976, and August 31, 1983, were originally in Tier 3 but became members of Tier 4 unless they opted to remain in Tier 3.

Members are in Tier 4 if they joined on or after September 1, 1983, and before April 1, 2012. Members who joined between July 27, 1976, and August 31, 1983, were originally in Tier 3 but became members of Tier 4 unless they opted to remain in Tier 3.

Eligibility for early retirement varies with the member's tier, age, and years of service. Legislation passed in February 2008 created an age-55 retirement program for current members and age-57 retirement program for Tier 4 members hired after that February 2008. An additional 1.85-percent member contribution was added for all future pay.

Members who joined TRS after March 31, 2012, generally belong to Tier 6. Members must render 10 years to be vested. Normal retirement age is 63. Members are required to contribute 3 to 6 percent depending on base salary, and retirement prior to age 63 is discounted 6.5 percent per year.

For members in all tiers, prior or military service can be purchased. Outside service can be transferred from other qualifying New York City or New York state retirement systems. Contributions, not reserves, are transferred.

Table 4: Post-Retirement Considerations. The COLA is based on the fixed retirement allowance under the maximum payment option or \$18,000, whichever is less. Tiers 1, 2, 3, 4, and 6 members are eligible for the COLA if they are at least 62 and have been retired for at least five years, or at least 55 and have been retired for at least 10 years.

Appendix 1: Notes to Plans (Continued)

Table 5: Contribution Rates. The contribution rate for members who joined before July 27, 1976, is based on age and prior service. Tier 1 originally required contributions for a 20 year-minimum based on age and service. Members who join after that date with fewer than 10 years contribute 3 percent until they have 10 years of membership or service credit, whichever comes first. After that, they no longer contribute.

Members joining after February 27, 2008, are automatically enrolled in an age-55 retirement minimum and 27 credited years of service retirement program ("55/27 retirement program"). These members are required to make additional plan contributions of 1.85 percent of salary until they have accumulated 27 years of credited service. Under Chapter 18 of the Laws of 2012, members who join on and after April 1, 2012, are automatically enrolled in Tier 6. These members are required to make contributions ranging from 3.0 percent (based on a salary of \$45,000 and less) to 6.0 percent (based on a salary above \$100,000) until separation from service or retirement. Employers' contribution rates for FY 2014 are 37.65 percent across all tiers.

Table 6: Calculation of Benefits. Tier 4 members may receive an annuity based on monthly supplemental contributions the Department of Education makes for eligible employees who reach the maximum of their salary schedule.

The retirement payment plans available to Tier 1 members fall under three categories: Plan A, Plan B, and the 30-Year Demand Plan (which provides Plan A benefits). Plan A membership requires 55/25. Plan B membership requires A/55. The 30-Year Demand Plan requires 30 years of service. The benefit calculation for Plan A is as follows: 50 percent of the FAS for the first 20 years of qualifying service; 1.2 percent of the FAS for each additional year of total service credit rendered before July 1, 1970; and 1.7 percent of your FAS for each additional year of total service credit not covered above. The retirement allowance benefits for Tier 1 members in Plan B would be calculated as follows: 1.2 percent of FAS for each year of service credit rendered prior to July 1, 1970, plus 1.53 percent of FAS for each year of credited service rendered after June 30, 1970, plus an amount based on the balance of the Annuity Savings Fund (ASF) and the Increased-Take-Home-Pay (ITHP) accounts.

The retirement payment plans available to Tier 2 members fall under two categories: Plan C and Plan D. Plan C membership requires 62/25 or 55/30. Plan D membership requires 5/62. The benefit calculation for Plan C is as follows: 50 percent of the FAS for the first 20 years of qualifying service; and 1.7 percent of the FAS for each additional year of total service credit. The retirement allowance benefits for Tier 2 members in Plan D would be calculated as follows: 1.2 percent of FAS for each year of service credit rendered prior to July 1, 1970, plus 1.53 percent of FAS for each year of credited service rendered after June 30, 1970, plus an amount based on the balance of ASF and ITHP accounts.

Table 7: Actuarial Method and Funding. The Net Position over pension liability is 71.4 percent. The valuation date is the last day of the fiscal year. Actuarial Asset Valuation (AAV) Method: Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize Fiscal Year 2011 investment performance. Remaining amortization period: Initial Unfunded-20 years (closed); 2010 ERI- 4 years (closed); 2011 Actuarial Loss- 14 years (closed); 2012 Actuarial Loss-15 years (closed).

North Carolina

North Carolina/TSERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Net assets are total actuarial assets.

Table 3: Eligibility for Retirement. Benefits are reduced by 3 percent per year for retirement between the ages of 60 and 64 and by 5 percent per year for retirement between the ages of 50 and 59.

Table 4: Post-Retirement Considerations. For North Carolina residents with five or more years of service credit as of August 12, 1989, TSERS retirement benefits are not subject to North Carolina income tax.

Table 5: Contribution Rates. The employer contribution rate in the table is for FY 2014-15.

North Dakota

North Dakota/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. An optional, voluntary DC plan was established effective January 1, 2000, for state employees in positions not classified by the central personnel division of the state of North Dakota. The DC plan has 286 participants.

Appendix 1: Notes to Plans (Continued)

Table 3: Eligibility for Retirement. Members may purchase up to five years of service credit. DC plan vesting is as follows: A participating member is immediately 100-percent vested in the member's contributions; upon completion of two years of service, 50-percent vested in employer contributions, 75 percent after three years, and 100 percent after four years of service. Members may elect to receive their account balance in a lump sum, lump-sum direct rollover, or periodic distribution.

Table 5: Contribution Rates. The state pays employee contributions for all full-time members except supreme court and district court judges, for whom the state pays 4 percent of the 5-percent contribution. The rate in the table is for full-time employees. Part-time employees pay 14.12 percent, with no employer contribution.

Table 7: Actuarial Method and Funding. The funded ratio is the plan fiduciary net position as a percentage of the total pension liability and not the actuarial calculated funded ratio. The 71.69 figure is not unfunded actuarial accrued liability (UAAL) as a percentage of covered employee payroll but rather plan net pension liability (asset) as a percentage of covered employee payroll.

Table 8: Retirement Plan Governance. The NDPERS Board consists of seven members. The chairman is appointed by the governor; one member is appointed by the attorney general's staff; one member is the ND state health officer's appointee; three members are elected by the active membership of the NDPERS system; and one member is elected by retired public employees.

North Dakota/TFFR

Table 3: Eligibility for Retirement. Grandfathering provisions apply to those reaching age 55 years with three years of service or age-plus-service of at least 65 on June 30, 2013.

Table 5: Contribution Rates. Employee and employer contribution rates will reset to 7.75 percent once TFFR reaches a 100-percent funded ratio.

Table 7: Actuarial Method and Funding. The amortization period is 30-year closed.

Ohio

Ohio/PERS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. New members have three choices: a traditional DB plan, a member-directed DC plan, or a combined plan with features of both. Participants in the DC and the combined plans allocate their contributions among various investment options managed by the plan.

Table 3: Eligibility for Retirement. OPERS developed a transition plan with three transition groups to ease members into new pension regulations created by a law that went into effect on January 7, 2013. Group A is for members who are eligible to retire under the current eligibility requirements on or before January 7, 2018. Group B is for members who have 20 years of service credit on January 7, 2013, or are eligible to retire under the current eligibility requirements after January 7, 2018, but on or before January 7, 2023. Group C is for members who are eligible to retire under the current eligibility requirements after January 7, 2023, or became a member on or after January 7, 2013.

Table 4: Post-Retirement Considerations. Current retirees receive an automatic 3-percent COLA, not compounded. Group A, B, and C members will receive an allowance equal to a percentage change in the CPI, up to 3 percent, not compounded.

Ohio allows an income-dependent tax credit of up to \$200; individuals who are 65 or older are allowed a \$50 tax credit per return.

Table 5: Contribution Rates. A portion of each employer's contribution to OPERS is set aside for funding post-retirement health care benefits.

Table 6: Calculation of Benefits. Group A and Group B have similar calculations of benefits.

Ohio/PERS-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. New members have three choices: a traditional DB plan, a member-directed DC plan, or a combined plan with features of both. Participants in the DC and the combined plans allocate their contributions among various investment options managed by the plan.

Table 3: Eligibility for Retirement. Members can purchase contributing months for military service that interrupted public service or leaves of absence lasting less than a year. Employer contributions vest based on contributing months of

Appendix 1: Notes to Plans (Continued)

service. The amount of contributing months of service determines the percentage of employer contributions the member is entitled to at retirement or separation.

Table 5: Contribution Rates. A portion of each employer's contribution to OPERS is set aside for funding a retiree medical account. The account is managed by OPERS and earns interest.

Table 6: Calculation of Benefits. Participants may select one of several distribution options for payment of the vested balance of their account. Options include the purchase of a monthly annuity from OPERS, which includes joint and survivor options, partial lump-sum payments of a specific monthly amount, or a combination of these options.

Ohio/PERS-Combined plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. New members have three choices: a traditional DB plan, a member-directed DC plan, or a combined plan with features of both. Participants in the DC and the combined plans allocate their contributions among various investment options managed by the plan.

Table 3: Eligibility for Retirement. OPERS developed a transition plan with three transition groups to ease members into new pension regulations created by a law that went into effect on January 7, 2013. Group A is for members who are eligible to retire under the current eligibility requirements on or before January 7, 2018. Group B is for members who have 20 years of service credit on January 7, 2013, or are eligible to retire under the current eligibility requirements after January 7, 2018, but on or before January 7, 2023. Group C is for members who are eligible to retire under the current eligibility requirements after January 7, 2023, or became a member on or after January 7, 2013.

Table 4: Post-Retirement Considerations. Current retirees receive an automatic 3-percent COLA, not compounded. Group A, B, and C members will receive an allowance equal to a percentage change in the CPI, up to 3 percent, not compounded.

Ohio allows an income-dependent tax credit of up to \$200; individuals who are 65 or older are allowed a \$50 tax credit per return.

Table 5: Contribution Rates. A portion of each employer's contribution to OPERS is set aside for funding post-retirement health care benefits.

Table 6: Calculation of Benefits. Group A and Group B have similar calculations of benefits.

Table 7: Actuarial Method and Funding. Data is for the DB component of the plan.

Ohio/SERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Ohio Legislature has approved a DC plan as an alternative to the DB plan, but it has not yet been implemented by the system.

Table 3: Eligibility for Retirement. The following age/service criteria apply to a member who retires before August 1, 2017: 60/5; 55/25; A/30.

Table 4: Post-Retirement Considerations. Ohio allows an income-dependent tax credit of up to \$200; individuals who are 65 or older are allowed a \$25 tax credit per return.

Table 5: Contribution Rates. The Ohio Legislature provides for an employer contribution surcharge as an additional source of funding for health care. The employer surcharge cap is applied at 2 percent of each employer's payroll and at 1.5 percent of total payroll statewide.

Table 6: Calculation of Benefits. Covered earnings that average less than \$3,909 per year will be credited with \$86 per year of service credit regardless of the 2.2-percent factor.

Table 7: Actuarial Method and Funding. The figure in the table is net pension liability as a percentage of covered employee payroll as calculated under GASB 68.

Ohio/STRS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. New employees choose their retirement plan from among three options. Existing DB plan members with fewer than five years of service were given a one-time opportunity to switch to the DC plan or the combined plan.

Total net assets include DB plan assets and the assets of the DB component of the combined plan.

Table 3: Eligibility for Retirement. Benefits are reduced for early retirement based on the number of years below age 65 or 30 years of service; the maximum reduction is 25 percent.

Members can purchase up to five years of service credit for teaching in a public school, college or university in another state, or in a U.S. territory or possession. Purchased service can count toward retirement eligibility and enhance final ben-

Appendix 1: Notes to Plans (Continued)

enefit payments.

Table 4: Post-Retirement Considerations. The automatic COLA is based on the original benefit. According to the system, “The Retirement Board considers a lump-sum supplemental payment each year when the board determines that funds are available. Payment is based on the number of years of service credit and the number of years as a benefit recipient.” Ohio allows an income-dependent tax credit of up to \$200; individuals who are 65 or older are allowed a \$25 tax credit per return.

Table 5: Contribution Rates. Employee contribution rates are 12 percent for the fiscal year ended June 30, 2015. Employee contribution rates will increase to 13 percent for the fiscal year ending June 30, 2016, and 14 percent for the fiscal year ending June 30, 2017. The maximum member rate will be 14 percent.

Table 6: Calculation of Benefits. Data in the table are for the DB plan with 30 years of service; for more than 30 years of service, benefits increase by 0.1 percent for each year of service, starting at 2.5 percent for the 31st year (for example, the 32nd year would be 2.6 percent x FAS x year 32).

An alternative money-purchase optional benefit is paid if the annuitized value of accumulated contributions produces a larger monthly benefit than the formula: \$86 x years x percentage ranging from 75 percent (age 58 with 25 years of service) to 100 percent (age 65 with 30 or more years of service).

Ohio/STRS-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. New employees have a choice of plans. DB plan members with fewer than five years of service were given a one-time opportunity to switch to the DC plan or the combined plan.

Participants in the DC plan allocate both member and employer contributions among various investment options managed by STRS Ohio. Total net assets shown in the table include total balances for members of the DC plan and members of the combined plan. For the purposes of calculating average assets per participant, we have excluded the data for this plan from Chart 2 because the DC asset figures are comingled.

Table 3: Eligibility for Retirement. Participants who withdraw their account receive only their contributions, plus or minus investment returns, if they have been members for less than one year. After being members for a year or more, they receive their contributions and their employer’s contributions, plus or minus all investment returns.

Table 4: Post-Retirement Considerations. The DC plan has no COLA. An income-dependent tax credit of as much as \$200 is allowed, and tax filers 65 or older are allowed a \$25 tax credit per return.

Table 5: Contribution Rates. Employee contribution rates are 13 percent effective July 1, 2015, and 14 percent effective July 1, 2016.

Table 6: Calculation of Benefits. The amount available at retirement is based on the value of the member’s account at that point.

Ohio/STRS-Combined plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. New employees have a choice of plans. Members with fewer than five years of service in the DB plan were given a one-time opportunity to switch to the DC or the combined plan.

Assets for the DB portion of the combined plan are included in the asset total for the DB plan. Assets for the DC portion of the combined plan are included in the DC plan’s asset total.

Table 3: Eligibility for Retirement. Members are eligible to receive regular monthly payments (a lifetime annuity) from their DC account at age 50, and DB plan payments at age 60 with five years of service.

A member may retire before age 60 with five years of service and receive the actuarial equivalent present value of the DB formula. At age 50 and after, a member who elects to withdraw the full value of the DC account can receive a lump sum, or leave the formula benefit on account for a benefit payable at age 60.

Member contributions and earnings are 100-percent vested at all times.

Table 4: Post-Retirement Considerations. The combined plan does not have a COLA, but a 3-percent simple COLA (based on the original benefit) is provided for disability and survivor benefits. An income-dependent tax credit of as much as \$200 is allowed, and tax filers 65 or older are allowed a \$25 tax credit per return.

Table 5: Contribution Rates. Employee contribution rates are 12 percent for the fiscal year ended on June 30, 2015, with 11 percent directed to the DC plan and 1 percent to the DB plan. Employee contribution rates increase to 13 percent for fiscal year ending June 30, 2016, as 11.5 percent will fund the DC plan and 1.5 percent will be applied to the DB plan.

Appendix 1: Notes to Plans (Continued)

Effective July 1, 2016, 12 percent will fund the DC plan and 2 percent will be applied to the DB plan. The employer contribution rate of 14 percent is to the DB plan only. Employer contributions are used to provide a reduced service retirement benefit, along with disability and survivor protections.

Table 6: Calculation of Benefits. The combined plan is a DB plan with some DC features: a DB account based on an employer contribution, which yields a service benefit of 1 percent of final average salary per year, and a DC account based on the employee's contribution, which yields a benefit that reflects the value of the account at retirement.

Oklahoma

Oklahoma/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Established by legislation, the system began operation on July 1, 1943. The system provides retirement allowances and other benefits to public education employees in the common schools, career technology centers, colleges and universities, and other local and state educational agencies of the state of Oklahoma. In addition to the DB plan, employees may also participate in a DC 403(b) Tax Sheltered Annuity plan.

Table 3: Eligibility for Retirement. The Rule of 80 applies to those who joined the system before July 1, 1992. For those who joined after June 30, 1992, the Rule of 90 applies. Members can purchase service credit for up to five years of out-of-state teaching.

Table 4: Post-Retirement Considerations. Post-retirement employment is permissible after 60 calendar days after a retiree's last day of pre-retirement public education employment.

Table 5: Contribution Rates. The rate for four-year colleges and universities is 8.55 percent.

Table 6: Calculation of Benefits. Members who joined before July 1, 1992, use the three highest years; those who joined after June 30, 1992, use the five highest consecutive years. The Education Employees Service Incentive Plan allows members who work beyond normal retirement age to move pre-1995 service to a higher salary; TRS members employed by four-year universities are not eligible. The maximum final average salary for service performed prior to July 1, 1995, is \$40,000.

Table 8: Retirement Plan Governance. As a result of the passage of HB 2740 (2014), a statewide organization representing retired educators can now appoint one non-voting trustee to the board of the Oklahoma Teachers Retirement System (OTRS). As there is the possibility that more than one statewide organization representing retired educators exists, OTRS shall employ an annual process to determine which organization has the ability to make this non-voting trustee appointment.

Oregon

Oregon/PERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Oregon PERS is a DB plan with an Individual Account Program (IAP) component, which is similar to a DC plan. The DB benefit has three tiers with different eligibility requirements, vesting schedules, and formulas for calculating benefits. Members hired prior to January 1, 1996, are in Tier 1; members hired between January 1, 1996, and August 28, 2003, are in Tier 2; and members hired on or after August 29, 2003, are in the Oregon Public Service Retirement Plan (OPSRP).

Since January 1, 2004, the DB benefit has been funded entirely by employers. The IAP is funded by member contributions and invested in the same portfolio as DB contributions; members have various payout options.

Net assets are the total assets of the DB plan and the individual account program.

Table 4: Post-Retirement Considerations. If the CPI rises more than 2 percent, the difference is banked for Tiers 1 and 2 members and used in years when the CPI is less than 2 percent. Benefits accrued before September 29, 1991, are adjusted by 9.8901 percent. Benefits for service on or after September 29, 1991, are not adjusted.

Senate Bill 822 (2013) and Senate Bill 861 (2013 Special Session) reduced the annual COLA to be applied to benefit payments. Previously, the COLA was capped at 2 percent annually and tied to changes in the Portland Consumer Price Index. These bills reduced the maximum COLA to, eventually, 1.25 percent on the first \$60,000 of benefits annually and 0.15 percent for amounts over \$60,000. Additionally, SB 861 provided an annual supplementary payment to benefit recipients

Appendix 1: Notes to Plans (Continued)

over six years, starting in 2014. On April 30, 2015, the Oregon Supreme Court declared these COLA reductions unconstitutional. As a result, members who have earned benefits both prior to the effective dates of the bills as well as after the effective dates will receive a blended COLA based on the COLA structure in effect when the benefits were earned. While the court specifically did not provide guidance on how to blend the different COLAs, it did reference a service time ratio method as an example of how a blended COLA could be derived.

Table 5: Contribution Rates. The Tier 1/Tier 2 employer contribution rates differ for each rate pool and each independent employer. The employer rates in the table are effective July 1, 2015 through June 30, 2017. The board implements new employer contribution rates July 1 of each odd-numbered year based on the valuation of the previous odd-numbered year. Member contributions made after 2003 are credited to the member's IAP account.

Table 6: Calculation of Benefits. The formula that produces the highest benefit is used to calculate Tiers 1 and 2 benefits. The formula, plus annuity, for members who made contributions prior to August 21, 1981, is as follows: 1 percent x years x FAS, plus a monthly benefit based on the member's account. The money match is based on the member's account balance. All three methods provide a lifetime pension or annuity. Alternative payment options are available. The Benefit Equalization Fund is a qualified governmental excess benefit arrangement that meets the requirements of IRC 415(m). A single formula is used to calculate the OPSRP defined benefit.

Table 7: Actuarial Method and Funding. Assets are valued at fair market value and not smoothed. Rate stability is attained through the employment of a rate collar that limits rate changes to the greater of 20 percent of the current rate or three percentage points. When funded status is less than 60 percent or above 140 percent, the size of the rate collar is twice the size of the "single collar" that applies when funded status is between 70 percent and 130 percent. The rate collar provides a graded schedule between the single and double rate collars if the funded status, excluding side accounts, is between 60 percent and 70 percent or 130 percent and 140 percent.

Pennsylvania

Pennsylvania/PSERS

Table 4: Post-Retirement Considerations. The Legislature determines COLAs.

Table 5: Contribution Rates. Members in Class T-C and T-D who were hired after July 22, 1983, pay the higher of the two rates shown. Members of Class T-E and T-F have base contribution rates of 7.5 percent and 10.3 percent, respectively, with a shared risk provision that allows the contribution rate to increase up to an additional 2 percent of pay. Any increase or decrease is limited to 0.5 percent of pay within the specified range every three years starting July 1, 2015.

Pennsylvania/SERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Class A includes employees hired before July 1, 2001, who remained in Class A instead of electing Class AA. Class AA includes employees hired after June 30, 2001, and those hired before July 1, 2001, who elected Class AA by December 31, 2001. Figures for active members, annuitants, and net assets are for all classes.

Table 3: Eligibility for Retirement. Class A1/A2 members are regular state employees, employees of state-owned educational institutions, and the Pennsylvania State University (unless such employees joined another retirement system). Class A2 employees comprise most of the SERS membership. For A1/A2 members the benefit is actuarially reduced for early retirement, but averages 3 to 6 percent for each year below normal retirement age.

Members can purchase credit for out-of-state public school service, among other things.

Class A3 was created by Act 2010-120 for new employees who became SERS members on or after January 1, 2011 (effective for legislators December 1, 2010). The benefit is actuarially reduced for early retirement, but averages 3 to 6 percent for each year below normal retirement age. The cost for the purchase of non-state service is based on the actuarial value of the purchased benefit. Members may elect Class A4 membership, which has different contribution and multiplier rates, within 45 days of joining SERS.

Table 4: Post-Retirement Considerations. The Legislature determines COLAs. A COLA was last granted to annuitants in 2003 and averaged 6.99 percent.

Table 5: Contribution Rates. There is a separate employer contribution rate for each class of service in the system. The rates in the table are for FY 2015-16.

Table 6: Calculation of Benefits. Both the Class A1 and Class A2 formulas use a 2-percent accrual rate, but the class multiplier is 1 for Class A1 members and 1.25 for Class A2 members such that the Class A2 accrual rate is effectively 2.5

Appendix 1: Notes to Plans (Continued)

percent.

Retirees with 41 or more years of service receive a long-service supplement that increases the standard single life annuity by 2 percent per year for years 41 through 45.

The Class A-3 formula uses 2 percent and the class multiplier is 1. If a member elects A-4 membership within days of joining SERS, he or she contributes 9.3 percent for a 1.25 multiplier (i.e., a 2.5% accrual rate). The end results are as listed. Retirees with 41 or more years of service receive a long-service supplement that increases the standard single life annuity by 2 percent per year for years 41 through 45.

Table 7: Actuarial Method and Funding. The actuarial method is a variation of entry age normal, basing the normal cost on benefits and contributions for new employees rather than those of current employees from their date of entry. Salary growth ranges from 4.3 to 11.05 percent, and averages 6.1 percent. The remaining amortization period is 25 to 30 years.

Rhode Island

Rhode Island/ERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Rhode Island Retirement Security Act of 2011 (RIRSA) was implemented on July 1, 2012. This law made numerous changes to retirement benefits for public employee and retiree groups. Several of these employee and retiree groups challenged these changes in court. A settlement agreement was reached with almost all of the parties and legislation to enact the settlement terms was passed as part of the FY 2016 state budget.

Table 3: Eligibility for Retirement. RIRSA normal retirement ages are as follows: (1) Members with less than five years of contributory service as of June 30, 2012, and members hired on or after that date are eligible for retirement on or after their Social Security normal retirement age; (2) members who had at least five years of contributory service as of June 30, 2012, will be eligible for retirement at an individually determined age. (This age is the result of interpolating between the member's Article 7 retirement date and the retirement age applicable to members hired after June 30, 2012, in [1] above. The interpolation is based on service as of June 30, 2012, divided by projected service at the member's Article 7 retirement date; the minimum retirement age is 59); (3) members with 10 or more years of contributory service on June 30, 2012, may choose to retire at their Article 7 retirement date if they continue to work and contribute until that date. If this option is elected, the retirement benefit will be calculated using the benefits accrued as of June 30, 2012, i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction; (4) a member who is within five years of reaching their retirement eligibility date, described in this section, and has 20 or more years per the 2015 settlement, the following additional normal retirement ages were added: 65/30; 64/31; 63/32; and 62/33.

Members can purchase up to five years of credit for out-of-state public or private school teaching, but purchased time does not count for retirement eligibility.

Table 4: Post-Retirement Considerations. Per the 2015 settlement, RIRSA was amended to provide the following COLAs: (1) The prior COLA formula is suspended for all state employees, teachers, BHDDH nurses, correctional officers, judges and state police until the aggregate funding level of their plans exceeds 80 percent; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The first interim COLA may begin January 1, 2017; (2) the COLA will be determined based on the plan's investment re-turns and will range from zero to 4.0 percent; (3) the COLA will be limited to the first \$30,000 of the member's annual pension benefit and will be indexed annually. A one-time COLA of 2 percent will be paid and added to the base following the settlement if the member retired before July 1, 2012, based on the first \$25,000 in benefits.

Table 5: Contribution Rates. Teachers pay 3.75 percent to the DB plan. Employers pay 22.76 percent to the DB plan for teachers. Teachers pay 7 percent toward a DC plan if their employer does not participate in Social Security and 5 percent if their employer does participate in Social Security.

Employers contribute 3 percent to the DC plan if an employee is not covered by Social Security and 1 percent if the employee participates in Social Security. For employees with greater than 10 but fewer than 15 years of service on June 30, 2012, the employer will contribute an additional 0.25 percent to the DC plan. For employees with greater than 15 but less than 20 years of service on June 30, 2012, the employer will contribute an additional 0.50 percent to the DC plan.

For teachers, the state contributes 40 percent of the employer contribution rate and the city, town, or other local

Appendix 1: Notes to Plans (Continued)

employer contributes the remaining 60 percent. This basic 40-60 split is further adjusted, since the state bears the cost of repaying certain amounts taken from the trust in the early 1990s. Approximately 50 percent of teachers participate in Social Security.

Table 7: Actuarial Method and Funding. Figures in the table are for the teachers' portion of the plan, as the state employees' fund is calculated separately.

Funding data does not include the impact of the 2015 settlement.

Table 8: Retirement Plan Governance. The system is administered by the state of Rhode Island Retirement Board. The board has five members who are either active employees or officials of employees' unions. See Appendix 2 for details.

Rhode Island/MERS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Rhode Island Retirement Security Act of 2011 (RIRSA) was implemented on July 1, 2012, making numerous changes to retirement benefits for public employee and retiree groups. Several of these employee and retiree groups challenged these changes in court. A settlement agreement was reached with almost all of the parties, and legislation to enact the settlement terms was passed as part of the FY 2016 state budget.

The MERS system is a voluntary multi-employer agent plan. The state of Rhode Island acts as administrative agent, but assumes no funding responsibility. A municipality may have multiple units covering specific groups of employees (for example, police, fire, general employees), with separate actuarial valuations performed for each participating entity. ESPs are covered if their municipal units so elect.

General employees include participating ESPs. Active members include 5,813 general employees and 1,450 public safety employees. Annuitants include 4,418 general employees and 711 public safety employees. Only 12 of the 36 school districts in the state participate in Social Security; three of the largest districts (Providence, Pawtucket, and Warwick) do participate.

Table 3: Eligibility for Retirement. RIRSA normal retirement ages are as follows: (1) Members with less than five years of contributory service as of June 30, 2012, and members hired on or after that date are eligible for retirement on or after their Social Security normal retirement age; (2) members who had at least five years of contributory service as of June 30, 2012, will be eligible for retirement at an individually determined age. (This age is the result of interpolating between the member's Article 7 retirement date and the retirement age applicable to members hired after June 30, 2012, in [1] above. The interpolation is based on service as of June 30, 2012, divided by projected service at the member's Article 7 retirement date; the minimum retirement age is 59); (3) members with 10 or more years of contributory service on June 30, 2012, may choose to retire at their Article 7 retirement date if they continue to work and contribute until that date. If this option is elected, the retirement benefit will be calculated using the benefits you have accrued as of June 30, 2012, (i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction); (4) a member who is within five years of reaching their retirement eligibility date, described in this section, and has 20 or more years per the 2015 settlement, the following additional normal retirement ages were added: 65/30; 64/31; 63/32; and 62/33.

Members can purchase service credit for time with municipalities that are not part of MERS, but purchased time does not count for retirement eligibility.

Table 4: Post-Retirement Considerations. Per the 2015 settlement, RIRSA was amended to provide the following COLAs: (1) the prior COLA formula will be suspended for all state employees, teachers, BHDDH nurses, correctional officers, judges and state police until the aggregate funding level of their plans exceeds 80 percent; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The first interim COLA may begin January 1, 2017; (2) the COLA will be determined based on the plan's investment re-turns and will range from zero to 4.0 percent; (3) the COLA will be limited to the first \$30,000 of the member's annual pension benefit and will be indexed annually. A one-time COLA of 2 percent will be paid and added to the base following the settlement if the employee retired before July 1, 2012, based on the first \$25,000 in benefits.

Table 5: Contribution Rates. Employees pay 1 percent to the DB plan if they have no COLA benefit and 2 percent if they have a COLA benefit. Employees pay 7 percent toward a DC plan if their employer does not participate in Social Security and 5 percent if their employer does participate in Social Security.

Employers' DB contribution rates vary by employer with an average rate of 12.06 percent for fiscal year ending on June 30, 2017. Employers contribute 3 percent to the DC plan if an employee is not covered by Social Security and 1 percent if

Appendix 1: Notes to Plans (Continued)

the employee participates in Social Security. For employees with greater than 10 but fewer than 15 years of service at June 30, 2012, the employer will contribute an additional 0.25 percent to the DC plan. For employees with greater than 15 but less than 20 years of service at June 30, 2012, the employer will contribute an additional 0.50 percent to the DC plan.

Table 7: Actuarial Method and Funding. Projected salary increases in the table are for general employees.

Table 8: Retirement Plan Governance. The MERS system has the same board as the ERS system.

South Carolina

South Carolina/SCRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data are from the South Carolina Retirement System, the largest of the retirement plans administered by the South Carolina Public Employee Benefit Authority (PEBA). The plan covers general employees and teachers.

State, K-12 public school, and higher education employees hired after June 30, 2003, choose between the traditional DB plan and an optional DC plan, called the Optional Retirement Plan (ORP). ORP programs are not considered part of the system for financial statement purposes.

The Retirement System Investment Commission, as a fiduciary for the SCRS, invests and manages all assets of the SCRS. The commission is comprised of seven financial experts, including the state treasurer, the executive director of PEBA, and a nonvoting retired member. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers authorized by SCRS.

Table 3: Eligibility for Retirement. SCRS Class I membership has been phased out and there are no longer any active SCRS Class I members.

For Class II participants whose membership began before January 1, 2001, five of the 25 years must be combined creditable service, while for participants whose membership began after December 31, 2000, five of the 25 years must be earned service (service for which regular contributions were made to the system). For retirees under age 65, but 60 or older, benefits are reduced 5 percent for each year under age 65; from age 55 to 60, the reduction is 4 percent for each year of service credit less than 28.

Any employee with a date of membership in SCRS after June 30, 2012, is designated a Class III member.

DC plan members are immediately vested in employee and employer contributions, and investment earnings.

Members can purchase credit for various types of previous public employment and paid K-12 classroom teaching in a public, private, or sectarian school if credit was not received for that service in another DB pension plan. Active contributing members who have five years of earned service credit may purchase up to five years of non-qualified service.

Table 4: Post-Retirement Considerations. For beneficiaries under age 65, \$3,000 can be excluded for state taxes; for beneficiaries age 65 or over, \$10,000 can be excluded.

Table 5: Contribution Rates. Effective July 1, 2012, employer and employee contribution rates are set by state statute. If those rates do not maintain a 30-year-or-less amortization period, then the rates must be raised in order to maintain an amortization period of 30 years or less. The employee contribution rate must remain 2.9 percent of earnable compensation less than the employer contribution rate. The employer contributes the same amount for employees who elect to participate in SCRS and ORP. For both SCRS and ORP, employers with Incidental Death Benefit coverage also contribute 0.15 percent.

Table 6: Calculation of Benefits. Members can convert Class I service to Class 2 service by paying 2.5 percent of current earnable compensation or the average of the 12 highest consecutive quarters of earnable compensation, whichever is greater. Class II members may also receive service credit for up to 90 days unused sick leave at retirement, and 45 days of unused annual leave may be factored into their final average salary at retirement. Class III members do not have unused sick leave or annual leave factored into their benefit at retirement.

Table 7: Actuarial Method and Funding. The data in the table are from pages 26 and 27 of the SCRS Actuarial Valuation Report as of July 1, 2014.

Table 8: Retirement Plan Governance. Effective July 1, 2012, the state created the South Carolina Public Employee Benefit Authority (PEBA), which governs the SC Retirement Systems. The board is comprised of 11 members, four who must be members of the retirement systems and seven that cannot be members. These seven “non-representative” members must hold certain qualifications to be appointed to the PEBA Board.

South Dakota

South Dakota/SDRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Members, when eligible for retirement, can receive a monthly payment under the DB plan or, under the portable retirement option, withdraw accumulated contributions (employee contributions and up to 100% of employer contributions, plus interest).

Table 3: Eligibility for Retirement. Members can purchase credit for other public employment or up to five years of prior employment with a non-profit entity, provided they are not eligible to receive a retirement benefit from that employment.

Table 5: Contribution Rates. The employee contribution rate in the table is for Class A general members. Employers contribute at the same rate as employees except that effective July 1, 2002, they also contribute 6.2 percent of Class A members' calendar year compensation above the maximum taxable amount for Social Security.

Table 6: Calculation of Benefits. A law passed in 2008 increased the multiplier in the benefits formula from 1.625 percent to 1.7 percent for service before July 1, 2008. The law also increased benefits of retired members.

Table 7: Actuarial Method and Funding. According to the plan's annual report, "Effective with the year ended June 30, 1995, the actuarial costs defined under the entry age normal method were modified to freeze unfunded liabilities and recognize plan gains and losses directly in the normal cost by amortizing them over the assumed future payroll of the membership." The actuarial value of assets must be between 80 percent and 120 percent of the market value of assets.

Tennessee

Tennessee/CRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. TCRS administers the State Employees, Teachers, and Higher Education Employees' Pension Plan (SETHEEPP) and the Political Subdivisions Pension Plan (PSPP), which has 482 participating employers and covers ESPs. Assets are commingled for investment purposes, but each plan uses its own assets to pay benefits to members. Figures in the tables for active members and annuitants are for both plans.

Table 3: Eligibility for Retirement. Benefits for members under age 55 with 25 years of service are reduced to the actuarial equivalent of the benefit payable at age 55. Members who joined before July 1, 1979, are vested after four years. Members who joined after June 30, 1979, vest after five years. Vested members can purchase credit for out-of-state service as a public school teacher or full-time state employee. Purchased service cannot exceed creditable service earned in Tennessee, and is counted only for purposes of determining eligibility and not for calculating benefits.

Table 4: Post-Retirement Considerations. In addition to the annual automatic COLA, the Legislature has granted occasional additional ad-hoc increases to retirees. Local governments may elect not to provide COLAs or to provide non-compounding COLAs rather than the compounded COLAs paid to state employees and teachers. State income tax applies only to dividend and interest income.

Table 5: Contribution Rates. The plan is noncontributory for most state and higher education employees. Teachers and contributing employees of political subdivisions contribute 5 percent of gross salary. Participating political subdivisions may choose contributory or noncontributory retirement for their employees. The rates for political subdivisions are based on the biennial actuarial valuation. Each employer is responsible for the pension costs of its employees; costs are not shared among state political subdivisions.

Table 6: Calculation of Benefits. After the formula is applied, the benefit is increased by 5 percent for teachers, state employees, and employees of participating political subdivisions who have authorized the 5-percent benefit improvement.

Table 7: Actuarial Method and Funding. An actuarial valuation is performed every two years. The funded ratio in the table is for the state employees, higher education, and teachers' groups. The amortization period varies among political subdivisions participating in CRS and is a maximum of 30 years.

Tennessee/CRS-Hybrid plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Hybrid Pension Plan applies to state employees, higher education employees, and public school teachers hired on or after July 1, 2014, and who have not

Appendix 1: Notes to Plans (Continued)

maintained membership in the TCRS Legacy Plan based on previous service as a state employee, higher education employee, or teacher prior to July 1, 2014.

TCRS administers the State Employees, Teachers, and Higher Education Employees Pension Plan (SETHEEPP) and the Political Subdivisions Pension Plan (PSPP), which has 482 participating employers and covers ESPs. The plan's DB portions of assets are commingled for investment purposes, but each plan uses its own assets to pay benefits to members. Figures in the table for active members and annuitants are for both plans.

Table 4: Post-Retirement Considerations. The amount of the increase will be 1 percent if the increase in the CPI is between 0.5 and 1 percent. If the increase in the CPI is 1 percent or more in any year, retired members will receive an amount equal to the increase in the CPI, but not to exceed 3 percent. COLAs are compounded each year.

Table 5: Contribution Rates. Employees contribute 5 percent to the DB plan and 2 percent to the DC plan, by default. Employees can opt-out of contributing to the DC plan.

Employers contribute 4 percent to the DB plan and 5 percent to the DC plan. The employer contribution to the DC plan may be decreased as part of the cost controls for the DB component. The employer makes a contribution to the DC component of the plan on behalf of each member of the Hybrid Plan, regardless of whether the member makes any employee contribution.

Table 6: Calculation of Benefits. Benefits limited to \$82,850 as of July 1, 2014, with the dollar cap indexed to CPI.

Texas

Texas/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Teacher Retirement System of Texas has six tiers:

Tier 1—If the member meets the 2005 eligibility requirements to be grandfathered and current TRS membership began prior to September 1, 2007. A member is grandfathered if, on or before August 31, 2005: (1) the member was at least age 50; (2) the member's age and years of service credit totaled at least 70; or (3) the member had at least 25 years of service credit.

Tier 2—If the member does not meet the 2005 eligibility requirements to be grandfathered but current TRS membership began prior to September 1, 2007.

Tier 3—If the member does not meet the 2005 eligibility requirements to be grandfathered and current TRS membership began on or after September 1, 2007, but prior to September 1, 2014.

Tier 4—If the member meets the 2005 eligibility requirements to be grandfathered but current TRS membership began on or after September 1, 2007, but prior to September 1, 2014.

Tier 5—If the member does not meet the 2005 eligibility requirements to be grandfathered and any of the following applies: (1) a member did not have at least five years of service credit on August 31, 2014; (2) a member's current membership in TRS began on or after September 1, 2014; or (3) a member had at least five years of service credit on August 31, 2014, but terminated membership in TRS by withdrawing accumulated contributions and resumed membership in TRS after August 31, 2014.

Tier 6—If the member meets the 2005 eligibility requirements to be grandfathered and any of the following applies: (1) the member did not have at least five years of service credit on August 31, 2014; (2) a member's current membership in TRS began on or after September 1, 2014; or (3) a member had at least five years of service credit on August 31, 2014, but terminated membership in TRS by withdrawing accumulated contributions and resumed membership in TRS after August 31, 2014.

Table 3: Eligibility for Retirement. If a member applies for early-age service retirement, their annuity will be calculated according to the standard annuity benefit formula in effect when they retire, but the annuity amount will be actuarially reduced for early age to reflect that they will receive retirement benefits earlier than if they waited to reach normal-age eligibility. The actuarial reduction varies according to the membership tier.

Tiers 1 and 2: If a member is between age 55 and 64 and has between five and 19 years of service credit, but does not meet the Rule of 80, the early-age reduction to a member's standard annuity may be as great as 53 percent, depending on age at retirement. If a member is between age 55 and 59 and has between 20 and 24 years of service credit, but does not meet the Rule of 80, the early-age reduction to the standard annuity may be as great as 10 percent, depending on age at retirement. If a member has at least 30 years of service credit but does not meet the Rule of 80, the standard annuity will be reduced by 2 percent for every year age is below the age of 50.

Appendix 1: Notes to Plans (Continued)

Tiers 3 and 4: If a member is between age 55 and 64, and has at least five years of service credit, but does not meet the Rule of 80, the early-age reduction to a member's standard annuity may be as great as 53 percent, depending on age at retirement. If a member has at least 30 years of service credit, does not meet the Rule of 80, and is less than age 60, the member's standard annuity will be reduced by 5 percent for every year the member's age is below the age of 60. If a member meets the Rule of 80 with at least five years of service credit but is less than age 60, the member's standard annuity will be reduced by 5 percent for every year the member's age is below the age of 60.

Tiers 5 and 6: If a member is between age 55 and 64, has at least five years of service credit, but does not meet the Rule of 80, the early-age reduction to a member's standard annuity may be as great as 53 percent, depending on the member's age at retirement. If a member has at least 30 years of service credit, does not meet the Rule of 80, and is less than age 60, the member's standard annuity will be reduced by 5 percent for every year the member's age is below the age of 62. If a member meets the Rule of 80 with at least five years of service credit but is less than age 62, the member's standard annuity will be reduced by 5 percent for every year the member's age is below the age of 62.

Members can purchase service credit for out-of-state teaching or experience as a career or technology teacher, among other things. Generally, one year of out-of-state service can be purchased for each year of TRS membership, up to a maximum of 15 years.

Table 5: Contribution Rates. The employee contribution rate is 6.7 percent in FY 2015 and is set to increase to 7.2 percent in FY 2016 and to 7.7 percent in FY 2017.

Table 8: Retirement Plan Governance. The Teacher Retirement System of Texas (TRS) is governed by a nine-member board of trustees. The trustees are appointed by the governor and serve staggered six-year terms that expire on August 31 of odd-numbered years. The trustees are appointed in several different ways. Three are direct appointments by the governor, two appointments come from a list prepared by the state board of education, two more appointments come from three public school district active-member candidates who have been nominated by employees of public school districts, one appointment is from three higher education active-member candidates nominated by employees of institutions of higher education, and the final appointment is from three retired-member candidates who are nominated by TRS retirees. The state Legislature confirms trustees appointed by the governor.

Utah

Utah/URS-Tier 1

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Data in the table are for the public employees' noncontributory retirement system. New employees hired on or after July 1, 2011, are in Tier 2 and choose between a DC plan and a hybrid plan (primary DB with DC features).

Table 3: Eligibility for Retirement. For members who retire between the ages of 60 and 64, benefits are reduced 3 percent per year for each year under age 65. For members who retire before age 60, the full actuarial deduction is taken.

Members with four or more years of eligible service credit with the plan can purchase credit for past out-of-state educational or public service, among other things. Members with five years of URS service credit can also purchase up to five years of future service credit. Members age 65 or older must have at least 25 years of eligible service to purchase future service credit.

Table 4: Post-Retirement Considerations. Post-retirement COLAs are non-compounding and are based on the original benefit. Adjustments are limited to the actual annual CPI increase; unused CPI increases may be carried forward to future years.

Each taxpayer 65 and older as of December 31, 2014, may be entitled to a tax credit of up to \$450; a taxpayer under 65 and born on or before December 31, 1952, may be entitled to a tax credit equal to the lesser of \$288 or 6 percent of the retirement income. Both credits are reduced by \$0.25 for each dollar by which income exceeds \$32,000 (married filing jointly or head of household), \$16,000 (married filing separately), or \$25,000 (single).

Table 6: Calculation of Benefits. Yearly salary increases are limited to 10 percent plus a COLA based on the CPI.

Table 7: Actuarial Method and Funding. The funded ratio of the Public Employees' Non Contributory Retirement System is 84.10 percent. The actuarial value of assets cannot exceed 125 percent of the market value, or be less than 75 percent of the market value.

Appendix 1: Notes to Plans (Continued)

Utah/URS-Tier 2-Hybrid plan

Table 4: Post-Retirement Considerations. Post-retirement COLAs are non-compounding and are based on the original benefit

Table 5: Contribution Rates. The employer contribution for Tier 2 employees is 10 percent. Tier 2 employees who select the hybrid plan will have the DB component funded by the employer contribution and any excess between the 10-percent contribution and the cost of the DB plan will go into the employee's DC account. If the cost of the DB plan exceeds 10 percent of salary, the employee will be required to contribute the difference to fund the DB plan and no employer funds will go into the employee's DC account.

Utah/URS-Tier 2 DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Total net assets reported in the table include assets for all members with DC accounts, including those choosing the DC-only option.

Vermont

Vermont/MERS-DB plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Vermont MERS has four groups of DB plans: Group A, Group B, Group C, and Group D. A member is in a particular group based on individual election or collective bargaining agreement. As of July 1, 2014, there were 2,626 active members and 954 annuitants in Group A, 3,176 active members and 1,127 annuitants in Group B, 724 active members and 256 annuitants in Group C, and 138 active members and 22 annuitants in Group D. Only ESPs of participating local governments are covered. Some employees have a choice between the DB plan and a DC plan.

The Vermont Pension Investment Council oversees the investments of the retirement systems for municipal and state employees, and teachers. See Appendix 2 for further details.

Table 7: Actuarial Method and Funding. According to the actuarial valuation, the expected annual inflation rate is 3 to 3.25 percent per year. For the assumed interest rate there is a select-and-ultimate interest rate set beginning in Year 1 at 6.25 percent, Year 2 at 6.75 percent, Year 3 at 7.0 percent, Year 4 at 7.5 percent, Year 5 at 7.75 percent, Years 6-8 at 8.25 percent, Years 9-15 at 8.5 percent, Year 16 at 8.75 percent, Years 17 and later at 9.0 percent. The interest rate set is restarted every year.

Vermont/MERS-DC plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. MERS introduced an optional DC plan on July 1, 2000; municipalities choose whether to offer it. Currently 70 municipalities offer the DC option. Employees of municipalities that offer the DC plan can enroll in it or the DB plan.

Table 3: Eligibility for Retirement. Participants become vested in employer contributions after 12 months of service.

Vermont/STRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The system has three groups. Group A covers public school teachers employed within the state of Vermont prior to July 1, 1981, and elected to remain a Group A member. Group C1 includes public school teachers employed in Vermont on or after July 1, 1990, and were within five years of normal retirement on June 30, 2010. Group C2 includes public school teachers employed in Vermont on or after July 1, 1990, and were under age 57 and had less than 25 years of service credit on June 30, 2010. A member hired before July 1, 1990, and a Group B member in service on July 1, 1990, is now a Group C1 or C2 member.

The Vermont Pension Investment Council oversees the investments of the retirement systems for municipal and state employees, and teachers. See Appendix 2 for further details.

Table 3: Eligibility for Retirement. Teachers hired on or after July 1, 2005, must have at least five years of service. Members can purchase credit for service as a municipal employee, teaching in another state, and teaching in a public or private school in Vermont that was not part of the system, among other things. With at least 25 years of service, members can also purchase up to five years of air time, which counts toward retirement eligibility but is not actual time worked.

Table 5: Contribution Rates. Group A members' contributions end after 25 years of service. Employer contributions shown in the table are the actuarially determined contributions beginning on July 1, 2014.

Appendix 1: Notes to Plans (Continued)

Table 6: Calculation of Benefits. The final average salary period includes unused annual leave, sick leave, and bonus/incentive payments for Group A, but not Groups C1 and C2.

Table 7: Actuarial Method and Funding. According to the actuarial valuation: “The separately stated assumptions for investment return, salary increases, and cost-of-living adjustments are consistent with an expected annual inflation rate of 3.00 percent to 3.25 percent per year.” With regard to the asset valuation method, the system report explains: “The amount of the assets for valuation purposes equals the preliminary asset value plus 20 percent of the difference between the market and preliminary asset values. The preliminary asset value is equal to the previous year’s asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses and expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20 percent of the market value.”

For the assumed interest rate there is a select-and-ultimate interest rate set beginning in Year 1 at 6.25 percent, Year 2 at 6.75 percent, Year 3 at 7.0 percent, Year 4 at 7.5 percent, Year 5 at 7.75 percent, Years 6-8 at 8.25 percent, Years 9-15 at 8.5 percent, Year 16 at 8.75 percent, Years 17 and later at 9.0 percent. The interest rate set is restarted every year.

Virginia

Virginia/VRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. In addition to the traditional DB plan, the VRS Board of Trustees oversees the Virginia Supplemental Retirement Plan (VSRP), an employer-paid DC plan authorized in 2004 for middle school teachers and turnaround specialists employed by local school boards, who deal with low-performing schools. VSRP is an additional benefit public school boards may offer to eligible employees; it does not replace the traditional DB plan. Participants in VSRP have the same investment options as participants in Virginia’s optional retirement plan for political appointees.

Table 3: Eligibility for Retirement. Members are in VRS Plan 1 if the membership date is before July 1, 2010, and the member was vested as of January 1, 2013. Members are in VRS Plan 2 if the membership date is from July 1, 2010, to December 31, 2013, or the membership date is before July 1, 2010, and the member was not vested as of January 1, 2013.

For 55/5 early retirement, benefits are reduced by 6 percent per year for the first five years and by 4.8 percent per year for the next five years; for 50/10 early retirement, benefits are further reduced by 7.2 percent per year for each year under age 55.

Table 4: Post-Retirement Considerations. Retirement benefits are generally subject to state income taxes, except the portion of benefits based on after-tax contributions to the plan.

Table 5: Contribution Rates. The employer rate in the table is for the teachers’ portion of VRS. Employer contributions for state employers are 8.76 percent of covered payroll. Each political subdivision’s contribution rate ranged from 0 percent to 39.52 percent of covered payroll.

Virginia/VRS-Hybrid plan

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The plan applies to most members whose membership date is on or after January 1, 2014, and to VRS Plan 1 and VRS Plan 2 members who were eligible to opt into the plan during the special election window in 2014.

Total net assets are only for the DC portion of the hybrid plan. The assets of the DB portion are included in the VRS asset pool of \$70.49 billion. The number of active members and annuitants are pooled and reported with the DB plan numbers (341,499 and 177,126, respectively).

Table 3: Eligibility for Retirement. For DC vesting, members are immediately vested in their own contributions and earnings on those contributions; after two years, terminating members may withdraw 50 percent of employer contributions with earnings; after three years, members may withdraw 75 percent of employer contributions with earnings; after four or more years, members may withdraw 100 percent of employer contributions with earnings.

Table 5: Contribution Rates. Employees contribute 4 percent of pay to the DB plan and a mandatory 1 percent to the DC plan. Employees can increase their DC contributions up to 5 percent of pay. Employers pay an actuarially determined rate to the DB plan and a mandatory 1 percent of pay to the DC plan, as well as partial matching of additional employee contributions up to a maximum of 2.5 percent of pay. Employer contributions to the VRS cost-sharing pool for teachers represented 11.66 percent of covered payroll.

Appendix 1: Notes to Plans (Continued)

Virginia/Fairfax/ERFC

Table 3: Eligibility for Retirement. For members who joined after July 1, 1988, and before July 1, 2001 (i.e., members in the “Legacy Plan”): After 25 years of service, benefits are actuarially reduced for retirement under age 55; for members with five to 24 years of service, benefits are actuarially reduced for retirement under age 65. For payment periods before the age at which the member becomes eligible for full Social Security benefits, an additional temporary benefit is payable. For members who joined after July 1, 2001 (i.e., members in the “2001 Plan”): A member may retire any time after reaching the service retirement date, which is either age 60 with five years of service or any age with 30 years of service.

Table 4: Post-Retirement Considerations. On each March 31, most pensions are increased by 3 percent. These increases are compounded each year. Pensions of members who retired in the immediately preceding calendar year are increased by 1.489 percent (half of a year’s increase).

Washington

Washington/PERS-Plan 1

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Plan 1 covers ESPs and employees who became PERS members before October 1, 1977.

Table 3: Eligibility for Retirement. PERS Plan 1 members can receive credit for military service while actively serving in the military, if such credit makes them eligible to retire. Plan 1 members who already meet the requirements for retirement may purchase up to 60 months of additional service credit in whole-month increments to increase their monthly retirement benefit. Purchased service cannot be used to qualify for retirement.

Table 4: Post-Retirement Considerations. Legislation passed in 2007 repealed PERS Plan 1 gain sharing after January 2008 and instituted a one-time permanent COLA increase of 5 cents per year of service, effective July 2009.

A PERS Plan 1 member can, when applying for retirement, elect to receive an optional COLA, which is not more than 3 percent per year as measured by the CPI and takes effect in July after the member has been retired for one full year. To offset the cost of this COLA, the member’s benefit is reduced.

PERS Plan 1 has a minimum monthly benefit, but any adjustments made at the time of retirement, including survivor option choice, early retirement, or annuity withdrawal, reduce that amount.

Table 5: Contribution Rates. The 2009 Washington State Legislature passed a law that delayed until 2015 the implementation of the PERS Plan 1 contribution rate floor that was supposed to take effect in 2009-2011.

Table 7: Actuarial Method and Funding. The 2009 Washington state Legislature enacted a new funding method for PERS Plan 1. It is based on a variation of the entry-age-normal (EAN) cost method. The asset valuation method is an eight-year smoothed fair value. PERS Plan 1 amortizes the unfunded actuarial accrued liability (UAAL) over a 10-year rolling period using all PERS, SERS, and PSERS payroll, including projected system growth. PERS Plan 1 has a contribution rate ceiling effective 2009-2015. After 2015, PERS Plan 1 has a minimum UAAL rate of 5.25 percent.

Washington/PERS, SERS, and TRS

Table 8: Retirement Plan Governance. The Department of Retirement Systems (DRS) is a part of the state of Washington’s primary government. Its director is appointed by the governor of the state. PERS Plan 1 is administered by DRS.

Washington/PERS-Plan 2

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. HESPs are members of Plan 2 if first hired in an eligible position with a covered employer (includes higher education public institutions) on or after October 1, 1977. New HESPs hired after March 1, 2002, must choose Plan 2 or Plan 3.

For accounting purposes, Plan 2/3 accounts for the DB of Plan 2 members and the DB portion of benefits for Plan 3 members; Plan 3 accounts for the DC portion of benefits for Plan 3 members. The accounting-related figures in the tables, including but not limited to total net assets, contribution rates, and actuarial assumptions, are combined for the DB components of Plan 2 and Plan 3; the figures for the combined Plan 2/3 are listed in the Plan 2 row of Table 2, although in the system’s financial documents they are listed separately under a heading called Plan 2/3. The accounting-related figures in Table 2’s row for Plan 3 represent findings for the DC portion of the plan.

Appendix 1: Notes to Plans (Continued)

Table 3: Eligibility for Retirement. PERS Plan 2 members with 30 years of service who have reached age 55 can choose between a 3 percent reduction and the 2008 Early Retirement Factor (ERF). The 2008 ERF provides a smaller benefit reduction, including no reduction at 62, but imposes stricter return-to-work rules. The early retirement rules are different for members who are first hired into eligible positions on or after May 1, 2013. At age 55 with 30 years of service credit, the benefit is reduced by 5 percent for each year (prorated monthly) before age 65.

PERS Plan 2 members who already meet the criteria for retirement may purchase up to 60 months additional service credit in whole month increments in order to increase their monthly retirement benefit. The purchased service cannot be used to qualify for retirement.

Table 5: Contribution Rates. The 2009 Legislature passed a law that delayed, until the 2011-2013 biennium, the implementation of the PERS Plan 2/3 contribution rate floor (80% of entry-age-normal cost rate) that was supposed to take effect in 2009-2011.

Table 7: Actuarial Method and Funding. The data in the table is the same as that furnished for the PERS Plan 2/3 and PERS Plan 3 since the valuation is based on the combined DB components of PERS Plan 2 and Plan 3. In calculating the funded ratio, PERS Plan 2/3 uses the aggregate actuarial cost method, which does not separately amortize unfunded actuarial liabilities. The asset valuation method is an eight-year graded smoothed fair value. The amortization period is open.

Washington/PERS-Plan 3

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Plan 3 is a DB plan with a DC component. Employer contributions finance the DB component and member contributions finance the DC component. Eligible HESPs must choose to become either Plan 2 or Plan 3 members within 90 days of beginning employment. Plan choice is irrevocable. To become a Plan 3 member, HESPs also could have transferred to PERS Plan 3 from Plan 2. Participants can choose between two investment programs for the DC component of Plan 3: the Washington State Investment Board Investment Program or the Self-Directed Investment Program.

For accounting purposes, Plan 2/3 accounts for the defined benefits of Plan 2 members and the DB portion of benefits for Plan 3 members; Plan 3 accounts for the DC portion of benefits for Plan 3 members. The accounting-related figures in the tables, including but not limited to total net assets, contribution rates, and actuarial assumptions, are combined for the DB components of Plan 2 and Plan 3; the figures for the combined Plan 2/3 are listed in the Plan 2 row of Table 2, although in the system's financial documents they are listed separately under a heading called Plan 2/3. The accounting-related figures in Table 2's row for Plan 3 represent findings for the DC portion of the plan.

Table 3: Eligibility for Retirement. Unreduced retirement (DB portion) is also available for PERS Plan 3 members who reach age 65 and have five service credit years earned in PERS Plan 2 prior to June 1, 2003, or have five service credit years, with 12 months of that service after age 44. A PERS Plan 3 member with 30 years of service who has reached age 55 can choose between the 3-percent reduction and the 2008 Early Reduction Factor (ERF). The 2008 ERF provides a smaller benefit reduction, including no reduction at age 62, but imposes stricter return-to-work rules. The early retirement rules are different for members who are first hired into eligible positions on or after May 1, 2013. At age 55 with 30 years of service credit, the benefit is reduced by five percent for each year (prorated monthly) before age 65.

The vesting period varies: Plan 3 members are vested in the DB portion of their plan after 10 years of service or after five years if 12 months of that service was earned after age 44, or after five years earned in PERS Plan 2 by June 1, 2003. PERS Plan 3 members are immediately vested in the DC portion of their plan.

Plan 3 members who already meet the requirements for retirement may purchase up to 60 months additional service credit in whole-month increments in order to increase their monthly retirement benefit. The purchased service credit cannot be used to qualify for retirement.

Table 4: Post-Retirement Considerations. The COLA applies only to the DB portion of the plan. The Legislature repealed gain sharing effective in 2008 and replaced it, in part, with improved early retirement reduction factors for Plan 2 and Plan 3 members with at least 30 years of service.

Table 5: Contribution Rates. Plan 3 is a DB plan with a DC component. Plan 3 members do not contribute to the DB portion of the plan, but contributions to the DC portion of the plan are mandatory. There are currently six contribution rate options members can choose from, ranging from 5 percent to 15 percent. Only the members' contributions are deposited in their DC accounts. The employer contribution rate for PERS Plan 3 is the same as the PERS Plan 2 rate.

Table 6: Calculation of Benefits. PERS Plan 3 members can withdraw the accumulation or balance in their DC accounts upon separation of all PERS-covered employment in a variety of ways, including installments, lump sum, or rollovers.

Appendix 1: Notes to Plans (Continued)

Table 7: Actuarial Method and Funding. The data in the table is the same as that furnished for the PERS Plan 2/3 and PERS Plan 3 since the valuation is based on the combined DB components of PERS Plan 2 and Plan 3.

Washington/SERS-Plan 2

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The plan covers ESPs who joined on or after October 1, 1977, and before September 1, 2000. Note that there is no SERS Plan 1. Only ESPs participate in the SERS Plan 2, as opposed to PERS Plan 1, which includes ESPs and other types of employees.

For accounting purposes, Plan 2/3 accounts for the defined benefits of Plan 2 members and the DB portion of benefits for Plan 3 members; Plan 3 accounts for the DC portion of benefits for Plan 3 members.

Table 3: Eligibility for Retirement. SERS Plan 2 members with 30 years of service who have reached age 55 can choose between a 3-percent reduction and the 2008 Early Retirement Factor (ERF). The 2008 ERF provides a smaller benefit reduction, including no reduction at 62, but imposes stricter return-to-work rules. The early retirement rules are different for members who are first hired into eligible positions on or after May 1, 2013. At age 55 with 30 years of service credit, the benefit is reduced by five percent for each year before age 65.

SERS Plan 2 members who are already eligible for retirement may purchase up to 60 months additional service credit in whole-month increments in order to increase their monthly retirement benefit. The purchased service cannot be used to qualify for retirement.

Table 5: Contribution Rates. The 2009 Legislature passed a law that delayed, until the 2011-2013 biennium, the implementation of the SERS Plan 2/3 contribution rate floor (80% of the entry-age-normal cost rate) that was supposed to take effect in 2009-2011.

Table 7: Actuarial Method and Funding. The data in the table is the same for SERS Plans 2 and 3 since the valuation is based on the combined DB components of SERS Plans 2 and 3. In calculating the funded ratio, SERS Plan 2/3 uses the aggregate actuarial cost method which does not separately amortize unfunded actuarial liabilities. The asset valuation method is an eight-year graded smoothed fair value. The amortization period is open.

Washington/SERS-Plan 3

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Plan 3 is a DB plan with a DC component. Employer contributions finance the DB component and member contributions finance the DC component. For accounting purposes, SERS Plan 2/3 accounts for the defined benefits of both SERS Plans 2 and 3. SERS Plan 3 accounts only for the DC benefits of Plan 3 members. The plan covers ESPs who joined on or after September 1, 2000. SERS Plan 2 members can transfer to Plan 3. Participants can choose between two investment programs for the DC component of the plan: the Washington State Investment Board Investment Program or the Self-Directed Investment Program.

Table 3: Eligibility for Retirement. Unreduced retirement is also available for those who reach age 65 and have five service credit years earned in PERS Plan 2 prior to September 1, 2000, or who have five service credit years, with 12 months of that service after age 44. A SERS Plan 3 member with 30 years of service who has reached age 55 can choose between a 3-percent reduction and the 2008 Early Retirement Factor (ERF). The 2008 ERF provides a smaller benefit reduction, including no reduction at 62, but imposes stricter return-to-work rules.

The early retirement rules are different for members who are first hired into eligible positions on or after May 1, 2013. At age 55 with 30 years of service credit, the benefit is reduced by 5 percent for each year (prorated monthly) before age 65.

SERS Plan 3 members are vested in the DB portion of their plan after 10 years of service; or after 5 years if 12 months of that service was earned after age 44; or after five years earned in PERS Plan 2 by September 1, 2000. SERS Plan 3 members are immediately vested in the DC portion of their plan.

SERS Plan 3 members who already meet the requirements for retirement may purchase up to 60 months additional service credit in whole-month increments in order to increase their monthly retirement benefit. The purchased service cannot be used to qualify for retirement.

Table 4: Post-Retirement Considerations. The COLA applies only to the DB portion of the plan. The Legislature repealed gain sharing effective in 2008 and replaced it, in part, with improved early retirement reduction factors for Plan 2 and Plan 3 members with at least 30 years of service.

Table 5: Contribution Rates. SERS Plan 3 is a DB plan with a DC component. Plan 3 members do not contribute to the DB portion of the plan. Contributions to the DC portion of the plan are mandatory. There are currently six contribution rate options members can choose from, ranging from 5 to 15 percent. Only the members' contributions are deposited in their DC accounts. The employer contribution rate for SERS Plan 3 is the same as the SERS Plan 2 rate.

Appendix 1: Notes to Plans (Continued)

Table 6: Calculation of Benefits. SERS Plan 3 members can withdraw the accumulation (balance) in their DC accounts upon separation from all SERS-covered employment. Withdrawal can be made in a variety of ways including installments, lump sum, or rollovers.

Table 7: Actuarial Method and Funding. The data in the table is the same for SERS Plans 2 and 3 since the valuation is based on the combined DB components of SERS Plans 2 and 3.

Washington/TRS-Plan 1

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Plan 1 covers all certificated public school employees who work in an instructional, administrative, or supervisory capacity who joined before October 1, 1977.

Table 3: Eligibility for Retirement. TRS Plan 1 members who are already eligible for retirement may purchase up to 60 months of additional service credit in whole-month increments in order to increase their monthly retirement benefit. The purchased service cannot be used to qualify for retirement.

Table 4: Post-Retirement Considerations. Legislation passed in 2007 repealed TRS Plan 1 gain sharing after January 2008 and instituted a one-time permanent COLA increase of 5 cents per year of service, effective July 2009. A TRS Plan 1 member can, when applying for retirement, elect to receive an optional COLA, which is not more than 3 percent per year as measured by the CPI and which takes effect in July after the member has been retired for one full year. To offset the cost of this COLA, the member's benefit is reduced. TRS Plan 1 has a minimum monthly benefit, but any adjustments made at the time of retirement, including survivor benefits or annuity withdrawals, reduce that amount.

Table 5: Contribution Rates. The 2009 Legislature passed a law that delayed until 2015 the implementation of the TRS Plan 1 contribution rate floor that was supposed to take effect in 2009-2011.

Table 7: Actuarial Method and Funding. The 2009 Washington state Legislature enacted a new funding method for TRS Plan 1. The new funding method is based upon a variation of the entry-age-normal cost method. The asset valuation method is an eight-year smoothed fair value. TRS Plan 1 amortizes the unfunded actuarial accrued liability (UAAL) over a 10-year rolling period using all TRS payroll, including projected system growth. Plan 1 has a contribution rate ceiling effective 2009-2015. After 2015, TRS Plan 1 has a minimum UAAL rate of 8 percent.

Washington/TRS-Plan 2

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. TRS Plan 2 covers all certificated public school employees who work in an instructional, administrative, or supervisory capacity who joined on or after October 1, 1977, and before July 1, 1996, unless they opted to transfer to TRS Plan 3. For accounting purposes, Plan 2/3 accounts for the defined benefits of Plan 2 members and the DB portion of benefits for Plan 3 members; Plan 3 accounts for the DC portion of benefits for Plan 3 members.

Table 3: Eligibility for Retirement. TRS Plan 2 members with 30 years of service who have reached age 55 can choose between a 3-percent reduction and the 2008 Early Retirement Factor (ERF). The 2008 ERF provides a smaller benefit reduction, including no reduction at 62, but imposes stricter return-to-work rules.

Plan 2 members who are already eligible for retirement may purchase up to 60 months additional service credit in whole-month increments in order to increase their monthly retirement benefit. The purchased service cannot be used to meet the requirements for retirement. An active TRS Plan 2 member who has at least two years of creditable service in TRS may make a one-time purchase of up to seven years of service credit for public education experience outside the Washington State Retirement System. The purchased service may be used to qualify for retirement.

Table 5: Contribution Rates. The 2009 Legislature passed a law that delayed, until the 2011-2013 biennium, the implementation of the TRS Plan 2/3 contribution rate floor (80% of the entry-age-normal cost rate) that was supposed to take effect in 2009-2011.

Table 7: Actuarial Method and Funding. The data in the table is the same for TRS Plans 2 and 3. The valuation is based on the combined DB components of TRS Plans 2 and 3. In calculating the funded ratio, TRS Plan 2/3 uses the aggregate actuarial cost method, which does not separately amortize unfunded actuarial liabilities. The asset valuation method is an eight-year smoothed fair value. The amortization period is open.

Appendix 1: Notes to Plans (Continued)

Washington/TRS-Plan 3

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. TRS Plan 3 is a DB plan with a DC component. Employer contributions finance the DB component, and member contributions finance the DC component. For accounting purposes, TRS Plan 2/3 accounts for the defined benefits of both TRS Plans 2 and 3. TRS Plan 3 accounts only for the DC benefits of Plan 3 members. Plan 3 covers all certificated public school employees who work in an instructional, administrative, or supervisory capacity and were hired on or after July 1, 1996, until June 30, 2007. TRS members who first are hired on or after July 1, 2007, have 90 days to choose between TRS Plan 2 and Plan 3. Individuals who do not choose either plan within 90 days are mandated into TRS Plan 3. Participants can choose between two investment programs for the DC component of the plan: the Washington State Investment Board Investment Program or the Self-Directed Investment Program.

Table 3: Eligibility for Retirement. Unreduced retirement is available for those who reach age 65 and have five service credit years earned in TRS Plan 2 by July 1, 1996. TRS Plan 3 members with 30 years of service who have reached age 55 can choose between a 3-percent reduction and the 2008 Early Retirement Factor (ERF). The 2008 ERF provides a smaller benefit reduction, including no reduction at 62, but imposes stricter return-to-work rules. The early retirement rules are different for members who are first hired into eligible positions on or after May 1, 2013. At age 55 with 30 years of service credit, the benefit is reduced by five percent for each year (prorated monthly) before age 65.

The vesting period varies: TRS Plan 3 participants vest in the DB portion of their plan after 10 years; or after five years with 12 service credit months earned after age 44; or with five service credit years earned in TRS Plan 2 prior to July 1, 1996, and transferred to Plan 3. Plan 3 members are immediately vested in the DC portion of their plan.

TRS Plan 3 members who already meet the criteria for retirement may purchase up to 60 months of additional service credit in whole-month increments in order to increase their monthly retirement benefit. The purchased service cannot be used to qualify for retirement. TRS Plan 3 active members with at least two years of TRS service may make a one-time purchase of up to seven years of service credit for public education experience outside the Washington State Retirement System. The service credit purchased may be used to qualify for retirement.

Table 4: Post-Retirement Considerations. The COLA applies only to the DB portion of the plan. The Legislature repealed gain sharing effective in 2008 and replaced it, in part, with improved early retirement reduction factors for Plan 2 and Plan 3 members with at least 30 years of service.

Table 5: Contribution Rates. TRS Plan 3 is a DB plan with a DC component. Plan 3 members do not contribute to the DB portion of the plan. Contributions to the DC portion of the plan are mandatory. There are currently six contribution rate options that members can choose from ranging from 5 percent to 15 percent. Only the members' contributions are deposited in their DC accounts.

The employer contribution rate for TRS Plan 3 is the same as the TRS Plan 2 rate.

Table 6: Calculation of Benefits. TRS Plan 3 members can withdraw the accumulation (balance) in their DC accounts upon separation from all TRS-covered employment. Withdrawal can be made in variety of ways including installments, lump sum, or rollovers.

Table 7: Actuarial Method and Funding. The data in the table is the same for TRS Plans 2 and 3. The valuation is based on the combined DB components of TRS Plans 2 and 3.

West Virginia

West Virginia/TRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Consolidated Public Retirement Board (CPRB) administers the various retirement plans of state and local employees.

The plan covers teachers and ESPs who joined before July 1, 1991, or were hired after July 1, 2005. Higher education faculty and service personnel were excluded from new membership as of July 1, 1991, but there are currently some members participating in the plan who were already employed as of that date. In 2008, more than 78 percent of the participants in the Teachers' Defined Contribution Plan elected to transfer their TDC account balance to TRS and become participants in TRS. A total of 15,152 TDCP members transferred to TRS. During the 2015 legislative session, legislation passed creating a second tier of retirement benefits for those who will be hired for the first time and first become a member of TRS on or after July 1, 2015 (Tier 2).

Table 3: Eligibility for Retirement. Credit can be purchased for the number of years of out-of-state public school teaching.

Appendix 1: Notes to Plans (Continued)

Table 5: Contribution Rates. Employers contribute 15 percent of gross salary for their TRS members hired prior to July 1, 1991, and 7.5 percent for covered employees hired for the first time after July 1, 2005, and for those TDCRS members who selected to transfer to TRS effective July 1, 2008. The other employers and county boards of education, utilizing funds made available through the state's School Aid Formula (SAF), contribute 7.5 percent of the gross salary of their TDCRS-covered employees. In addition, the state contributes a certain percentage of fire insurance premiums paid by state residents to assist in extinguishing the TRS unfunded liability within 40 years of June 30, 1994. Other statutorily required contributions of \$321,552,626 and \$309,498,154 were made through the state's SAF during the years ended June 30, 2014, and 2013, respectively. Certain additional contributions of approximately \$50,855,000 and \$28,061,000 were made during the years ended June 30, 2014, and 2013, respectively, representing extra appropriations to reduce the unfunded liability.

Table 8: Retirement Plan Governance. The Consolidated Public Retirement Board (CPRB) administers the various retirement plans of state and local employees.

West Virginia/TDCP

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. The Consolidated Public Retirement Board (CPRB) administers the various retirement plans of state and local employees. Participants direct the investment of their account by selecting from a list of plan mutual funds or long-term fixed investment options.

The plan covers teachers and ESPs who joined on or after July 1, 1991, and before July 1, 2005. Legislation passed in 2005 closed the TDCP to new enrollment. Newly employed teachers and ESPs enroll in the Teacher Retirement System (TRS), a DB plan that had been closed to new enrollment since 1991. Legislation to allow TDCP participants to transfer to the TRS DB plan was passed in March 2008. Those who chose to remain in the TDCP were allowed to do so. Higher education faculty and service personnel were excluded from new membership as of July 1, 1991, but there are currently some members participating in the plan who were already employed as of that date.

Table 3: Eligibility for Retirement. Members' contributions to the plan and any earnings they generate vest immediately. Employer contributions for each employee become one-third vested after six years, two-thirds vested after eight years, and completely vested after 12 years of service.

Table 8: Retirement Plan Governance. The Consolidated Public Retirement Board (CPRB) administers the various retirement plans of state and local employees.

Wisconsin

Wisconsin/WRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. Milwaukee teachers are covered by WRS; the Milwaukee Employees' Retirement System covers ESPs and other employees of the city of Milwaukee.

Table 3: Eligibility for Retirement. Employees hired before January 1, 1990, vested immediately. Employees hired on or after January 1, 1990, and terminated before April 24, 1998, vested with service in each of five calendar years. Employees hired on or after July 1, 2011, vest after five years of service.

Members may purchase service credit for other government service and for forfeited service for prior separation up to the number of years of participation in WRS at the time of purchase.

Table 4: Post-Retirement Considerations. Annuities are increased annually if the investment income credited to retired life fund exceeds 5 percent and other plan experiences are within projected ranges, and the resulting adjustment would be at least 0.5 percent. The core annuity can never be decreased below the original amount.

Retirement benefits are fully taxable except for any portion based on the participant's post-tax contributions. Exemptions exist for state and local pensions and federal civilian and military pensions, but only for those who retired before January 1, 1964, based on preserved old-law rights.

Table 5: Contribution Rates. The contribution rates shown in the table are for the 2016 calendar year.

Table 6: Calculation of Benefits. WRS provides a DB and a money-purchase benefit. The member receives the higher of the two benefits.

Wyoming

Wyoming/WRS

Table 1 and Table 2: Overview, Assets, Membership, and Social Security Coverage. WRS administers eight pension plans and a 457 deferred compensation plan. Teachers make up approximately half of the largest public employee plan.

Table 3: Eligibility for Retirement. Active vested members may make a one-time purchase of up to five years of credit that counts as service toward retirement eligibility. This purchase is not dependent upon having worked for another public employer.

Table 4: Post-Retirement Considerations. An ad-hoc COLA of up to 3 percent is possible. In order for a COLA to be granted from pension plan funds, state law requires the funded ratio of the plan to remain above 100 percent plus a margin after the COLA. In addition, the actuary must deem the award affordable. The board may then recommend a COLA from internal funds to the Legislature. The final determination for any COLA award would be made through legislation.

Table 5: Contribution Rates. Contribution rates vary by employer. In many cases the employer pays part or all of the employee contribution.

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Appendix 2: Retirement Board Membership

Table 8 summarizes the boards of trustees for the plans reviewed in the survey. Appendix 2 builds on Table 8 by giving details about the boards—showing the composition of the boards of trustees that oversee the plans reviewed in this survey. Boards usually include active and/or retired members, state officials, and members of the public. For example, the Teachers’ Retirement System of Alabama has a rich variety of board members that includes three teachers, two ESPs, a principal, and a superintendent. In other

cases, one or more board members must have a background in financial or investment issues—for example, the Oklahoma Teachers Retirement System. The chart below provides information about how each board member is selected, whether appointed or elected, and the length of his or her term of office. The information in Appendix 2 will be useful to NEA affiliates that work to elect or support the appointment of public fund trustees who will look after the interests of our members.

State/Fund	Total	Board Composition	Selection Method	Term ¹
Alabama/TRS	15	1) State Superintendent 2) State Treasurer 3) State Director of Finance 4-6) Active K-12 classroom teachers 7-8) ESPs 9-10) Retired members 11) City or county superintendent 12) Principal 13) Post-secondary education 14-15) Higher education	1-3) Serve by virtue of office 4-15) Elected by membership	3 years
Alaska/PERS and TRS	9	1) Commissioner of Administration 2) Commissioner of Revenue 3) Political subdivision finance officer 4-5) Public members 6-7) Two members of PERS 8-9) Two members of TRS	1-2) Serve by virtue of office 3-9) Governor appoints two PERS members (selected from list submitted by PERS bargaining units) and two TRS members (selected from a list of four nominees submitted by TRS bargaining units)	4 years ²
Arizona/ASRS	9	1-4) Public members who are not members of ASRS and have at least 10 years of substantial experience in investment, economics, or finance 5-9) ASRS members with at least 5 years of administrative management experience: 5) Educator 6) Employee of political subdivision 7) Retired member 8) Employee of the state 9) At-large (from any ASRS member group)	Appointed by governor	3 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Arkansas/ ATRS	15	1-4) Active members from each congressional district employed in positions requiring state teaching certification, but not an administrator's certificate, or employed by an ATRS-covered agency in a position between grades 17 to 23 5) Superintendent 6) Administrator 7) Member employed in a position not requiring state certification (ESP) 8) Active or retired member from a "minority racial ethnic group" 9-11) Retirees 12) State Bank Commissioner 13) Director of state Department of Education 14) State Treasurer 15) State Auditor	1-4) Elected by members employed in positions that require state certification, but not an administrator's certificate 5-6) Elected by members employed in positions requiring an administrator's certificate 7) Elected by members employed in positions not requiring state certification 8) Elected by active and retired members 9-11) Elected by retired members 12-15) Serve by virtue of office	6 years
California/ PERS	13	1-2) Representatives of all PERS members 3) Representative of active state members 4) Representative of active school members 5) Representative of active public agency members (local governments) 6) Representative of retirees 7) Elected official of a local government 8) Official of a life insurer 9) Public representative 10) State Treasurer 11) State Controller 12) Director of Department of Personnel Administration 13) Designee of state Personnel Board	1-2) Elected by all PERS members 3) Elected by active state members 4) Elected by active school members 5) Elected by active public agency members 6) Elected by retirees 7-8) Appointed by governor 9) Appointed jointly by the Assembly's speaker and the Senate's Rules Committee 10-13) Serve by virtue of office	4 years
California/ STRS	12	1) Superintendent of Public Instruction 2) Controller 3) Treasurer 4) Director of Finance 5-6) K-12 classroom teachers 7) Community college instructor 8) School board member or community college board member 9) Retired member 10-12) Public members	1-4) Serve by virtue of office 5-6) Elected by K-12 classroom teacher members 7) Elected by community college members 8-12) Appointed by governor	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
California/ UCRP	26	1) Governor 2) Lieutenant Governor 3) Speaker of the Assembly 4) Superintendent of Public Instruction 5) President of UC Alumni Association 6) Vice President of UC Alumni Association 7) President of UC 8-25) Public members 26) Student of UC	1-7) Serve by virtue of office 8-25) Appointed by governor 26) Appointed by UC regents	12 years, except student representative, who is appointed for 1 year
Colorado/ PERA	16	1) State Treasurer 2-4) State employees (one must be from higher education and at least one must not be from higher education) 5-8) School employees 9) Member of the municipal division 10) Member of the judicial division 11-12) Retirees 13-15) Individuals having significant experience and competence in investment management, finance, banking, economics, accounting, pension administration, or actuarial analysis 16) Member of Denver Public Schools Division (active or retired), nonvoting	1) Serves by virtue of office 2-4) Elected by state division members 5-8) Elected by school division members 9) Elected by municipal division members 10) Elected by judicial division members 11-12) Elected by retirees 13-15) Appointed by governor and confirmed by Senate 16) Elected by DPS division members	4 years
Connecticut/ CMERS	15	The 15-member Connecticut State Employees Retirement Commission administers CMERS. The commission consists of: 1-6) Employees from different bargaining units 7-12) Members of management 13-14) Actuaries 15) Neutral member who is an arbitrator and serves as the Commission Chair	1-6) Appointed by bargaining units 7-12) Appointed by governor 13) Nominated by management trustees; appointed by governor 14) Nominated by employee trustees; appointed by governor 15) Nominated by management and employee trustees; appointed by governor	3 years for all except the neutral member, who is appointed for 2 years
Connecticut/ TRS	14	1) Secretary of the Office of Policy and Management 2) State Treasurer 3) Commissioner of Education 4-7) Active teachers 8-9) Retired teachers 10-14) Public members	1-3) Serve by virtue of office 4-9) Elected by active and retired members 10-14) Appointed by governor	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Delaware/ SEPP	7	1) Secretary of Finance 2) Director of Office of Management and Budget 3) Individual who serves as Chair of the Board ³ 4-7) Others ³	1-2) Serve by virtue of office 3-7) Appointed by governor	4 years
District of Columbia/ DCPP ⁴	0			
District of Columbia/TRF	13	1) Member or officer of police force 2) Retired member or officer of police force 3) Member of Fire Department 4) Retired member of Fire Department 5) Teacher 6) Retired teacher 7-9) Individuals (public members) ⁵ 10-12) Individuals (public members) ⁵ 13) District's Chief Financial Officer	1) Elected by members and officers of police force 2) Elected by retired members and officers of police force 3) Elected by members of Fire Department 4) Elected by retired members of Fire Department 5) Elected by teachers 6) Elected by retired teachers 7-9) Appointed by council 10-12) Appointed by mayor 13) Serves by virtue of office	4 years
Florida/FRS	0 ⁶			
Georgia/ PSERS ⁷	9	1) State Auditor 2) Director of the Office of Treasury and Fiscal Services 3) Commissioner of Personnel Administration 4) Appointed member 5-6) Individuals who have at least 5 years of creditable service with an agency included in the retirement system 7) Individual with at least 10 years investment experience who is not a member of the retirement system or holds or is a candidate for public office during term of office as a trustee 8-9) Appointed members	1-3) Serve by virtue of office 4) Appointed by governor 5-7) Elected by other board members 8-9) Appointed by governor	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Georgia/TRS	10	1) State Auditor 2-3) Classroom teachers, not a Board of Regents of the University of Georgia (BRUGA) employee 4) Director of the Office of Treasury and Fiscal Services 5) School administrator, not a BRUGA employee 6) Active TRS member, not a BRUGA employee 7) Active TRS member who is a BRUGA employee 8) Individual (citizen of Georgia) 9) Retiree 10) Individual with investment experience, not a TRS member	1) Serves by virtue of office 2-3) Appointed by governor ⁸ 4) Serves by virtue of office 5-6) Appointed by governor 7) Appointed by BRUGA 8) Appointed by governor 9-10) Elected by TRS Board	3 years
Hawaii/ERS	8	1) State Director of Finance 2-3) ERS members who are general employees 4) ERS member who is a teacher 5) Retired ERS member 6) Non-ERS member who is an officer of a bank authorized to do business in the state or a person with similar experience 7-8) Non-ERS members	1) Serves by virtue of office 2-5) Elected by members and annuitants 6-8) Appointed by governor with advice and consent of Senate	6 years
Idaho/PERS	5	1-2) Active PERS members with at least 10 years of service 3-5) Citizens of Idaho who are not PERS members	All appointed by governor, subject to Senate confirmation	5 years
Illinois/IMRF	8	1-4) Executive trustees, each with at least 8 years of IMRF creditable service ⁹ 5-7) Employee trustees, each with at least 8 years of IMRF creditable service 8) Nonvoting annuitant trustee receiving an IMRF pension	1-4) Elected by participating units of government 5-7) Elected by participating IMRF members 8) Elected by IMRF annuitants	5 years
Illinois/SURS	11	1-4) Representatives of active SURS members 5-6) Representatives of retired SURS members 7-10) Individuals who may/may not be members 11) Chairperson of the Illinois Board of Higher Education	1-4) Elected by active SURS members 5-6) Elected by retired SURS members 7-11) Appointed by governor	6 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Illinois/TRS	13	1) Superintendent of Education 2-7) Non-TRS members ¹⁰ 8-11) Teachers 12-13) Annuitants	1) Serves by virtue of office 2-7) Appointed by governor 8-11) Elected by contributing members 12-13) Elected by annuitants	4 years
Illinois/ Chicago/ MEA&BF	5	1) City Comptroller 2) City Treasurer 3-5) Employees	1-2) Serve by virtue of office 3-5) Elected by membership	3 years
Illinois/ Chicago/CTPF	12	1-2) Board of Education members 3-8) Contributors who are not principals ¹¹ 9) Contributor who is a principal 10-12) Pensioners	1-2) Appointed by Board of Education 3-8) Elected by contributors who are not principals 9) Elected by principals 10-12) Elected by pensioners	Board of Education appointees have 2-year terms; all others have 3-year terms
Indiana/PERF and TRF ¹²	9	1) PERF member with at least 10 years of creditable service 2-3) TRF members with at least 10 years of creditable service 4) Active or retired member of the 1977 Fund 5) Individual experienced in economics, finance, or investments 6) Individual experienced in executive management or benefits administration 7) State Treasurer 8) Director of Budget Agency 9) State Auditor	1-6) Appointed by governor 7-9) Serve by virtue of office	4 years
Iowa/PERS ¹³	11	1) State Treasurer (voting) 2-4) Public members (voting) 5) Active IPERS member who is an employee of a school district, area education agency, or merged area (voting) 6) Active IPERS member who is not an employee of a school district, area education agency, or merged area (voting) 7) Retired member of IPERS (voting) 8-9) State Representatives (nonvoting) 10-11) State Senators (nonvoting)	1) Serves by virtue of office 2-7) Appointed by governor 8-11) Appointed by legislative leadership of the majority and minority parties in the Iowa House of Representatives and Iowa Senate	6 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Kansas/PERS	9	1-6) Appointed members ¹⁴ 7-8) Active or retired retirement system members 9) State Treasurer	1-4) Appointed by governor 5) Appointed by president of Senate 6) Appointed by the speaker of the House of Representatives 7-8) Elected by members and annuitants 9) Serves by virtue of office	4 years
Kentucky/ CERS	13 ¹⁵	1-3) CERS active or retired members 4-5) Kentucky Employees Retirement Systems (KERS) active or retired members 6) State Police Retirement System (SPRS) active or retired member 7-12) Governor's appointees; three of six appointees are selected from lists of nominees provided by Kentucky Association of Counties, Kentucky League of Cities, and Kentucky School Boards Association, so each organization has a representative 13) Secretary of the state Personnel Cabinet	1-3) Elected by active and retired members of CERS 4-5) Elected by active and retired members of KERS 6) Elected by active and retired members of SPRS 7-12) Appointed by governor 13) Serves by virtue of office	4 years
Kentucky/TRS	9	1) Chief of State School Officer 2) State Treasurer 3-6) Teachers 7) Retired teacher 8-9) Lay trustees (non-teachers)	1-2) Serve by virtue of office 3-9) Elected by active and retired membership	4 years
Louisiana/ SERS	12	1) President of the Louisiana School Bus Operators Association 2) Chairman of the Appropriations Committee of the House of Representatives 3) Chairman of the Retirement Committee of the Senate 4) Secretary of State 5) State Treasurer 6) Commissioner of Administration 7-10) Active members of retirement system, each serving a separate geographic area of the state, known as a district 11-12) Retirees	1-6) Serve by virtue of office 7-10) Elected by members of retirement system in their respective districts 11-12) Elected at large by retired members	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Louisiana/TRS	17	1) State Superintendent of Public Education 2) State Treasurer 3) Chairman of the Retirement Committee of the House of Representatives 4) Chairman of the Retirement Committee of the Senate 5) Division of Administration Commissioner 6) Trustee representing school food service employees 7) Trustee representing state college and university employees 8) Trustee from District 1 9) Trustee from District 2 10) Trustee from District 3 11) Trustee from District 4 12) Trustee from District 5 13) Trustee from District 6 14) Trustee from District 7 15) Trustee representing superintendents 16-17) Retired teachers	1-5) Serve by virtue of office 6) Elected by school food service employees 7) Elected by state college and university employees 8-14) Elected by employees in each district and are neither school food service employees nor state college and university employees. The legislature drew the district lines in 1993; the boundaries are in the statute. 15) Elected by superintendents 16-17) Elected by retirees	4 years
Maine/PERS	8	1) Treasurer or deputy treasurer 2) Teacher 3) State employee 4-5) Financial experts 6-7) Retirees 8) Local government employee	1) Serves by virtue of office 2) Elected by Maine Education Association 3) Elected by Maine State Employees Association 4-7) Appointed by governor ¹⁶ 8) Appointed by governing body of Maine Municipal Association	3 years
Maryland/ERPS and TRPS ¹⁷	15	1) State Comptroller 2) State Treasurer 3) Secretary of Department of Budget and Management 4) Teacher 5) Retired teacher 6) Member of ACPS, ERS, or other designated systems 7) Retiree from ACPS, ERS, or other designated systems 8) Member or retiree of State Police Retirement System (SPRS) 9) Representative of participating local governmental units 10-15) Public members	1-3) Serve by virtue of office 4-5) Elected by active and retired members of TCPS and TRS 6-7) Elected by active and retiree members of ACPS, ERS, and other designated systems 8) Elected by active and retiree members of SPRS 9-15) Appointed by governor	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Massachusetts/ SERS	5 ¹⁸	1) State Treasurer 2) Appointed member 3-4) Representatives of active and retired members 5) Appointed member	1) Serves by virtue of office 2) Appointed by treasurer 3-4) Elected by active and retired members 5) Appointed by other board members ¹⁹	3 years
Massachusetts/ TRS	7 ¹⁸	1) Commissioner of Education 2) State Treasurer or designee 3) State Auditor or designee 4) Retired public school teacher 5-6) Active or retired members 7) Public member	1-3) Serve by virtue of office 4) Appointed by governor 5-6) Elected by active and retired members 7) Appointed by other board members ²⁰	4 years
Massachusetts/ Boston/SBRS	5	1) City of Boston Auditor 2) Public member 3-4) Active or retired members 5) Public members, not employees, retirees, or officers of the city of Boston	1) Serves by virtue of office 2) Appointed by mayor 3-4) Elected by active and retired members 5) Elected by other four board members ²¹	3 years
Michigan/ MPERS	12 ²²	1-2) Teachers 3) Active or retired ESP 4) School system superintendent 5) School finance or operations management position, not a school system superintendent 6) Retired teacher 7) Retiree from school finance or operations management position 8) Administrator or trustee of community college that is a reporting unit 9-10) Public members 11) Member of a reporting unit's board of control 12) Superintendent of Public Instruction	1-11) Appointed by governor 12) Serves by virtue of office	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Minnesota/ GERP	11	1) Constitutional officer or appointed state official 2-3) Public members knowledgeable in pension matters 4-7) State employees not from a category specifically authorized to designate or elect a member of the board 8) Employee of the Metropolitan Council's transit operations or its successor organization 9) Member of the state patrol retirement plan 10) Employee covered by the correctional employees' plan 11) Retired employee	1-3) Appointed by governor 4-7) Elected by state employees covered by the system not from a category specifically authorized to elect or designate a member of the board 8) Designated by the executive committee of the labor organization that is the exclusive bargaining agent representing employees of the transit division 9) Elected by members of the state patrol retirement plan 10) Elected by members of the correctional employees' plan 11) Elected by disabled and retired employees of all plans administered by the system	4 years
Minnesota/ PERA	11	1) State Auditor 2) Public member knowledgeable about pension matters 3) School board representative 4) Annuitant 5) Counties' representative 6) Cities' representative 7) Police and fire representative 8) Retiree or disability retirement representative 9-11) Representatives of general membership	1) Serves by virtue of office 2-6) Appointed by governor 7-11) Elected by all active and retired retirement system members, including recipients of disability and survivor benefits	4 years
Minnesota/ TRA	8	1) Commissioner of Education 2) Commissioner of Finance 3) Minnesota School Boards Association representative 4) Retiree 5-8) Active members	1-3) Serve by virtue of office 4) Elected by retired members 5-8) Elected by active members	4 years
Minnesota/ St. Paul/ SPTRFA	10	1-9) Retirement system members ²³ 10) Board of Education representative	1-9) Elected by active and retired members 10) Appointed by Board of Education	3 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Mississippi/ PERS	10	<ol style="list-style-type: none"> 1) State Treasurer 2) PERS member 3-4) State employees (not higher education)²⁴ 5) County employee 6) Municipal employee 7) Higher education employee 8-9) Retirees 10) Public school or community college employee 	<ol style="list-style-type: none"> 1) Serves by virtue of office 2) Appointed by governor 3-4) Elected by state employees and highway patrol employees, but not higher education employees 5) Elected by county employees 6) Elected by municipal employees 7) Elected by higher education employees 8-9) Elected by retirees 10) Elected by public school and community college employees 	6 years for elected members, 4 years for member appointed by governor
Missouri/ MOSERS	11	<ol style="list-style-type: none"> 1) State Treasurer 2) Commissioner of Administration 3-4) Members of Senate 5-6) Members of House of Representatives 7-8) Public members 9) Retired member of system 10-11) Active members of system 	<ol style="list-style-type: none"> 1-2) Serve by virtue of office 3-4) Appointed by the president pro tem of the Senate 5-6) Appointed by the speaker of the House of Representatives 7-8) Appointed by governor 9) Elected by retired members 10-11) Elected by active members 	4 years for elected members; appointed members serve until they resign, are no longer members of the General Assembly, or are replaced
Missouri/ PEERS and PSRS	7	<ol style="list-style-type: none"> 1-3) PSRS members 4) PEERS member 5) Retired member of PEERS or PSRS 6-7) Public members who are residents of school districts in the retirement system, but are neither employees of such districts nor state employees nor elected state officials 	<ol style="list-style-type: none"> 1-4) Elected by PSRS and PEERS active and retired members 5-7) Appointed by governor 	4 years
Missouri/ Kansas City/ PSRS	12	<ol style="list-style-type: none"> 1-4) School board representatives 5-8) Active members 9) Superintendent of Schools 10-11) Retirees 12) Library board representative 	<ol style="list-style-type: none"> 1-4) Appointed by school board 5-8) Elected by active members 9) Serves by virtue of office 10-11) Elected by retirees 12) Appointed by Kansas City Public Library Board of Trustees 	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Missouri/ St. Louis/ PSRS	11	1-4) Board of Education representatives 5) Administrator 6-7) Teachers 8-9) Non-teachers (ESPs) 10) Retired teacher 11) Retired non-teacher (ESP)	1-4) Appointed by Board of Education 5-9) Elected by active members 10-11) Elected by retired members	4 years
Montana/ PERS	7	1-3) Active public employee members ²⁵ 4) Retired public employee member 5-6) Public members 7) Individual with experience in investment management, counseling, financial planning, or other similar experience	All appointed by governor	5 years
Montana/TRS	6	1-3) Active teachers who are members of the retirement system ²⁶ 4) Retired teacher who was a member of the retirement system at time of retirement 5-6) Public members	All appointed by governor	5 years
Nebraska/ SERS	9	All members must be Nebraska citizens. 1-2) Public members ²⁷ 3) Active or retired teacher who is member of school retirement system 4) Active or retired administrator who is member of school retirement system 5) Active or retired member of judges retirement system 6) Active or retired member of state patrol retirement system 7) Active member in county employees retirement system 8) Active member in state employees retirement system 9) State investment officer; a nonvoting member	1-8) Appointed by governor 9) Serves by virtue of office	5 years
Nebraska/ Omaha/ OSERS	10	1) Superintendent of Schools 2-5) Members of retirement system: two certificated (teachers), one classified (ESP), and one retiree 6-8) Board of Education representatives 9-10) Public members ²⁸	1) Serves by virtue of office 2-10) Appointed by Board of Education	Trustees appointed from the Board of Education and the membership have 1-year terms; public members have 3-year terms

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Nevada/PERS	7 ²⁹	1-3) Employees 4-5) Administrators 6) Manager of a department or division of the state or a political subdivision 7) Retiree	All appointed by governor ³⁰	4 years
New Hampshire/NHRS	13 ³¹	1) State Treasurer 2-3) Nonmembers with business experience 4-5) Employees 6-7) Teachers 8-9) Permanent police officers 10-11) Permanent firefighters 12) Member of state Senate Insurance Committee 13) Member of House of Representatives' Executive Departments and Administration	1) Serves by virtue of office 2-3) Appointed by governor and council 4-11) The New Hampshire state employees' association, the New Hampshire education association, the New Hampshire police association, and the New Hampshire state permanent firemen's association, and the New Hampshire Local Government Center each annually nominates from their respective members a panel of five persons, all of whom, except for the panel of the Local Government Center, shall be active members of the retirement system or one of the predecessor systems. The governor and council then appoint eight board members from these panels. 12) Appointed by Senate president 13) Appointed by the speaker of the House of Representatives	2 years except members of the Senate and House of Representatives who have 1-year terms
New Jersey/PERS	9	1-2) Private New Jersey citizens ³² 3) State Treasurer or Deputy State Treasurer 4-6) State employee representatives ³³ 7) County employee representative ³⁴ 8-9) Municipal employee representatives ³⁵	1-2) Appointed by governor 3) Serves by virtue of office 4-6) Elected by state employee members 7) Elected by county employee members 8-9) Elected by municipal employee members	3 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
New Jersey/ TPAF	7	1) State Treasurer or Deputy State Treasurer 2-3) Private New Jersey citizens ³⁶ 4-6) Active or retired members 7) Other ³⁷	1) Serves by virtue of office 2-3) Appointed by governor with the advice and consent of the Senate 4-6) Elected by membership or by delegates elected by the membership ³⁸ 7) Elected by other board members	3 years
New Mexico/ ERB	7	1) Secretary of NM Public Education Department 2) State Treasurer 3-4) Governor's appointees 5) NEA-New Mexico representative 6) New Mexico Association of University Professors representative 7) New Mexico Association of Educational Retirees representative	1-2) Serve by virtue of office 3-4) Appointed by governor 5-7) Elected by Association members	4 years
New York/ERS	1	1) State Comptroller	Serves by virtue of office	N/A
New York/ STRS	10	1) Current or former bank executive 2-3) Current or former members of school board experienced in the fields of finance and investment, and one of whom has experience as an insurance company executive 4-5) School administrators 6) State Comptroller or designee 7-9) Active members of retirement system 10) Retired teacher	1) Appointed by Board of Regents of the State University of New York 2-3) Appointed by the Board of Regents from recommendations by the New York State School Boards Association 4-5) Appointed by the Commissioner of Education 6) Serves by virtue of office 7-9) Elected by delegates at an annual meeting of active members 10) Elected by mail vote of all retired members	3 years
New York/ New York City/ BERS	16	1-2) Active members 3-7) Members of the Panel for Educational Policy (Board of Education) who are appointed by each of five boroughs (Bronx, Brooklyn, Manhattan, Queens, and Staten Island) 8-15) Members of the Panel for Educational Policy who are appointed by the mayor 16) New York City Schools Chancellor or designee	1-2) Elected by active membership 3-16) Serve by virtue of office	1-2) 4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
New York/ New York City/ TRS	7	<ol style="list-style-type: none"> 1) Comptroller of city of New York or designee 2) Chancellor of Department of Education or designee 3) Department of Education representative 4) Representative of mayor 5-7) TRS members 	<ol style="list-style-type: none"> 1-2) Serve by virtue of office 3-4) Appointed by mayor 5-7) Elected by membership³⁹ 	Elected members have 3-year terms
North Carolina/ TSERS	13	<ol style="list-style-type: none"> 1) State Treasurer 2) Superintendent of Public Instruction 3) Active teacher 4) Representative of higher education 5) Retired teacher 6) Retired state employee 7) Active state employee 8) State law enforcement officer 9) Member of the NC National Guard 10-11) People who are neither teachers nor state employees 12-13) Appointees of the General Assembly⁴⁰ 	<ol style="list-style-type: none"> 1-2) Serve by virtue of office 3-11) Appointed by governor 12-13) Appointed by General Assembly: one upon recommendation of the speaker of the House of Representatives; one upon recommendation of the president pro tem of the Senate 	4 years for most; active state employees and individuals who are neither teachers nor state employees: two serve for 2 years and one serves for 3 years; General Assembly appointees: 2 years
North Dakota/ PERS	7	<ol style="list-style-type: none"> 1) North Dakota citizen who is not a state or political subdivision employee and who, by experience, is familiar with money management 2) Attorney General's staff representative 3) State Health Officer 4-6) Active members 7) Retiree 	<ol style="list-style-type: none"> 1) Appointed by governor 2) Appointed by attorney general 3) Serves by virtue of office 4-6) Elected by active members 7) Elected by retirees 	5 years
North Dakota/ TFFR	7	<ol style="list-style-type: none"> 1) State Treasurer 2) Superintendent of Public Instruction 3) Active school administrator 4-5) Active members not classified as administrators 6-7) Retired members of the fund 	<ol style="list-style-type: none"> 1-2) Serve by virtue of office 3) Appointed by governor from a list of three nominees drawn up by the North Dakota council of educational leaders 4-5) Appointed by governor from a list of three nominees drawn up by the North Dakota education association 6-7) Appointed by governor from a list of three nominees drawn up by the North Dakota retired teachers association 	5 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Ohio/PERS	11	1) Designee of the State Treasurer 2) Director of Administrative Services 3-7) Active employee representatives (one each from state employees, county employees, municipal employees, university or college employees, and park district or other employees) 8-9) Retirees 10-11) Investment experts ⁴¹	1) Appointed by state treasurer 2) Serves by virtue of office 3-7) Elected by their respective group or groups 8-9) Elected by retirees 10) Appointed by governor 11) Jointly appointed by the speaker of the House of Representatives and the president of the Senate	4 years
Ohio/SERS	9	1-2) Investment experts ⁴¹ 3-6) Active members 7-8) Retired members 9) Investment designee of the State Treasurer	1) Appointed by governor 2) Jointly appointed by the speaker of the House of Representatives and president of Senate 3-6) Elected by active members of retirement system 7-8) Elected by retirees of retirement system 9) Appointed by state treasurer	4 years
Ohio/STRS	11	1) Superintendent of Public Instruction or designee ⁴² 2) Investment designee of the State Treasurer ⁴³ 3-4) Investment experts ⁴⁴ 5-9) Active teachers 10-11) Retirees	1) Serves by virtue of office or, if designee, appointed by the superintendent of public instruction 2) Appointed by state treasurer 3) Appointed by governor 4) Jointly appointed by the speaker of the House of Representatives and president of the Senate 5-9) Elected by active members of retirement system 10-11) Elected by retirees	4 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Oklahoma/TRS	13	1) State Superintendent of Public Instruction 2) Director of the state Department of Career and Technology Education or designee 3) Director of state Finance 4-7) Representatives of investment, finance, or other profession 8) Representative of higher education 9) Nonclassified optional personnel member of the system ⁴⁵ 10) Active teacher 11) Retired member of the system 12) Active teacher 13) Retired teacher	1-3) Serve by virtue of office 4-9) Appointed by governor 10-11) Appointed by the president of the Senate 12-13) Appointed by the speaker of the House of Representatives	Appointees serve 4 years
Oregon/PERS	5	All members of the Public Employees Retirement System Board must be at least 21 years of age, be U.S. citizens, and have been residents of the state for at least 2 years immediately preceding appointment to the board. 1) State employee in management position or a person in elective office in the governing body of a participating public employer, other than the state 2) Public employee 3-5) Individuals with experience in business management, pension management, or investing; may not be member or beneficiary of PERS	All appointed by governor	3 years
Pennsylvania/PSERS	15	1) Secretary of Education 2) State Treasurer 3) Executive Director of the Pennsylvania School Boards Association (PSBA) 4-5) Governor's appointees 6) Annuitant 7-9) Active members 10) ESP 11) PSBA representative 12-13) Two members of the House of Representatives, one from the majority party and one from the minority party 14-15) Two senators, one from the majority party and one from the minority party	1-3) Serve by virtue of office 4-5) Appointed by governor 6) Elected by annuitants 7-9) Elected by active members 10) Elected by ESPs 11) Elected by members of PSBA 12-13) Appointed by the speaker of the House of Representatives 14-15) Appointed by president pro tempore of the Senate	3 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Pennsylvania/ SERS	11	1) State Treasurer 2-3) Two senators, one from the majority party and one from the minority party 4-5) Two members of the House of Representatives, one from the majority party and one from the minority party 6-11) Six members appointed by the governor, one of whom must be an annuitant	1) Serves by virtue of office 2-3) Appointed by the president of the Senate 4-5) Appointed by the speaker of the House of Representatives 6-11) Appointed by the governor	Senators and representatives serve for the remainder of their terms (4 and 2 years, respectively); gubernatorial appointees serve 4-year terms
Rhode Island/ ERS and MERS	15	1) General Treasurer 2) Director of Administration or designee 3) Budget officer or designee 4) Fiscal Advisor to House Finance Committee or designee 5) President of League of Cities and Towns or designee 6-7) Active state employees or officials from state employees' union 8-9) Active teachers or officials from teachers' union 10) Active municipal employee (MERS member) or official from municipal employees' union 11) Retiree 12) Chair of House Finance Committee or designee 13) Chair of Senate Finance Committee or designee 14-15) Public members, one of whom shall be a chartered life underwriter competent in the area of pension benefits	1-5) Serve by virtue of office 6-7) Elected by state employees 8-9) Elected by active teachers 10) Elected by active municipal employees (MERS member) 11) Elected by retired members 12-13) Serve by virtue of office 14-15) Appointed by governor	4 years
South Carolina/ SCRS	11	South Carolina Retirement Systems are governed by the South Carolina Public Employee Benefit Authority, composed of: 1-3) Nonrepresentative members 4-5) One nonrepresentative member and one representative member who is either an active or retired member of SCPORS 6-7) One nonrepresentative member and one representative member who is a retired member of SCRS 8-9) One nonrepresentative member and one representative member who must be a state employee who is an active contributing member of SCRS 10-11) One nonrepresentative member and one a representative member who is an active contributing member of SCRS employed by a public school district	1-3) Appointed by the governor 4-5) Members appointed by the president Pro Tempore of the Senate 6-7) Members appointed by the chairman of the Senate Finance Committee 8-9) Members appointed by the speaker of the House of Representatives 10-11) Members appointed by the chairman of the House Ways and Means Committee	2 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
South Dakota/ SDRS	17	1-2) State employees 3-4) Teachers 5) Participating municipality member 6) Participating county member 7) Participating classified employee (ESP) member 8) Public safety employee 9) Judge 10) State official 11) Individual appointed by governor 12) County commissioner of a participating county 13) School district board member 14) Elected municipal official of a participating municipality 15) Retiree 16) Faculty or administrative member employed by the Board of Regents 17) Representative of the State Investment Council (SIC) who is a nonvoting member	1-2) Elected by state employees 3-4) Elected by teachers 5) Elected by municipal employees 6) Elected by county employees 7) Elected by classified employees (ESPs) 8) Elected by public safety employees 9) Elected by judges 10-11) Appointed by governor 12) Elected by county commissions 13) Elected by school boards 14) Elected by municipalities 15) Elected by retirees 16) Elected by employees of Board of Regents 17) Appointed by SIC	Governor's appointees serve at the governor's pleasure; SIC representative serves for 1 year; the rest serve 4-year terms
Tennessee/ CRS	20	1) State Treasurer 2) CRS Director 3) Chair of the Legislative Council on Pensions and Insurance (nonvoting) 4) Vice Chair of the Legislative Council on Pensions and Insurance (nonvoting) 5) Commissioner of Personnel 6) Secretary of State 7) Administrative Director of Courts 8) Commissioner of Finance and Administration 9) Comptroller of Treasury 10-11) State employees (at least one of whom is a general employee) 12-14) Teachers (one each to represent the eastern, middle, and western parts of Tennessee) 15) State or higher education retiree who is a member of the system 16-17) Vested members of the retirement system appointed by county groups 18) Vested member of the retirement system appointed by municipality organization 19) Retired teacher (nonvoting) 20) Public safety employee (alternating between a firefighter and a police officer)	1-9) Serve by virtue of office 10-11) Elected by state employees 12-14) Two teachers are appointed by Speaker of the Senate and one is appointed by Speaker of House of Representatives 15) Appointed by governor 16) Appointed by Tennessee County Services Association 17) Appointed by County Officials Association of Tennessee 18) Appointed by Tennessee Municipal League 19) Appointed by Speaker of House of Representatives 20) Appointed by governor	State employees, teachers, and public safety employee serve for 3 years; retiree and representatives of county and municipal groups serve for 2 years; retired teacher serves for 1 year

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Texas/TRS	9	1-3) Governor’s appointees 4-5) State Board of Education (SBOE) representatives 6-7) Active employees of school district 8) Higher education representative 9) Retiree	1-3) Appointed by governor 4-5) Appointed by governor from a list prepared by SBOE 6-7) Appointed by governor from three candidates (public school district active members) nominated for each position by employees of public school districts 8) Appointed by governor from three candidates (higher education active members) nominated by employees of institutions of higher education 9) Appointed by governor from three candidates (retired members) nominated by retired TRS members	6 years
Utah/URS ⁴⁶	7	1-4) Individuals with experience in investments or banking 5) School employee 6) Public employee 7) State Treasurer	1-4) Appointed by governor 5) Appointed by governor from at least three nominations submitted by the governing board of school employees’ association that represents a majority of school employees who are members of the system 6) Appointed by governor from at least three nominations submitted by the governing board of the public employee association that represents a majority of the public employees who are members of the system 7) Serves by virtue of office	4 years
Vermont/MERS ⁴⁷	5	1) State Treasurer 2) Governor’s representative 3-4) Employees of a municipality 5) Official of a municipality	1) Serves by virtue of office 2) Appointed by governor 3-5) Elected by retirement system members	3 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Vermont/ STRS ⁴⁷	6	1) State Treasurer 2) Commissioner of Department of Education 3) Commissioner of Banking, Insurance, Securities and Health Care Administration 4-5) Active members 6) Retired member	1-3) Serve by virtue of office 4-5) Elected by members of the retirement system 6) Elected by the Board of Directors, Vermont Retired Teachers Association	4 years
Virginia/VRS	9	1-2) Individuals with a minimum of 5 years of experience in the direct management, analysis, supervision, or investment of assets 3) Individual with at least 5 years of direct experience in the management and administration of employee benefit plans 4) Local government employee 5) Faculty member or employee of a state-supported institution of higher education 6-7) Individuals with a minimum of 5 years of experience in the direct management, analysis, supervision, or investment of assets 8) State employee 9) Teacher	1-5) Appointed by governor and confirmed by majority vote in each house of the General Assembly 6-9) Appointed by the Joint Rules Committee and confirmed by majority vote in each house of the General Assembly	5 years
Virginia/Fairfax/ ERFC	7	1-3) Representatives of the school board 4-6) Active employees in a county school and participants in the plan 7) An individual not affiliated with or employed by the county, school board, or any union or similar organization that represents teachers or other Fairfax County employees	1-3) Appointed by the school board 4-6) Elected by members of the system 7) Chosen by unanimous vote or consent of the other six trustees and approved by the school board	School board representatives serve 1 year; active employees serve 3 years
Washington/ PERS, SERS, and TRS	0 ⁴⁸			

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
West Virginia/ TRS and TDCP	15 ⁴⁹	<p>The Consolidated Public Retirement Board administers the retirement plans of state and local employees in West Virginia. Members include:</p> <ol style="list-style-type: none"> 1) Governor or designee 2) State Treasurer or designee 3) State Auditor or designee 4) Secretary of the Department of Administration or designee 5-8) West Virginia residents who are not members, retirees, or beneficiaries of any public retirement system 9) Member, annuitant, or retiree of the Public Employees Retirement System who is and has been a state employee 10) Member, annuitant, or retiree of the Public Employees Retirement System who is not and has not been a state employee 11) Member, annuitant, or retiree of the Teachers' Retirement System 12) Member, annuitant, or retiree of the West Virginia State Police Death, Disability, and Retirement Fund 13) Member, annuitant, or retiree of the Deputy Sheriff Death, Disability, and Retirement Fund 14) Member, annuitant, or retiree of the Teachers' Defined Contribution Retirement System 15) Member, annuitant, or retiree of the Emergency Medical Services Retirement System 	<p>1-4) Serve by virtue of office 5-15) Appointed by governor</p>	5 years

Appendix 2: Retirement Board Membership (Continued)

State/Fund	Total	Board Composition	Selection Method	Term ¹
Wisconsin/ WRS ⁵⁰	13	<p>1-4) Four members drawn from the ranks of Wisconsin Retirement Board members: at least one is an official of a political subdivision or member of the public who is neither a participant nor a beneficiary; at least one is a participating state employee or a member of the public who is not a participant; and at least one is a participating employee of a local or state employer</p> <p>5-8) Four members drawn from the ranks of Teachers Retirement Board members: at least one is a Milwaukee teacher elected by participating city teachers; at least one is a public school or technical college teacher elected to the board; at least one is a University of Wisconsin teacher; and at least one is a public school administrator or school board member</p> <p>9) Member of the public who is not a participant or beneficiary and who has at least 5 years of experience in actuarial analysis, administration of an employee benefit plan, or significant administrative responsibility with a major insurer</p> <p>10) An annuitant of the system</p> <p>11) A participant in the system who is a public school or technical college ESP</p> <p>12) Governor or governor's designee on the group insurance board</p> <p>13) Director of the Office of State Employment Relations or designee</p>	<p>1-4) Appointed by the Wisconsin Retirement Board</p> <p>5-8) Appointed by the Teachers Retirement Board</p> <p>9) Appointed by governor</p> <p>10) Elected by annuitants</p> <p>11) Elected by participating employees who are public school or technical college ESPs</p> <p>12-13) Either ex-officio or by appointment</p>	4 years
Wyoming/WRS	11	<p>1) State Treasurer</p> <p>2) Retired beneficiary of the retirement system</p> <p>3-4) Retirement system members not from the public school system, community colleges, or the University of Wyoming, one of whom participates in the Wyoming deferred compensation program</p> <p>5-6) Retirement system members from the public school system, community colleges, or the University of Wyoming</p> <p>7-11) Qualified electors from Wyoming who are known for their public spirit and business or professional ability, none of whom are members of WRS and at least one of whom has professional expertise in investments and finance</p> <p>Note: Not more than six trustees may be from the same political party.</p>	<p>1) Serves by virtue of office</p> <p>2-11) Appointed by governor with consent of the Senate</p>	6 years

Appendix 2: Endnotes

- 1 Length of term: Elected trustees are subject to specific board terms. The situation for other trustees is different. State officials are not usually subject to board term limits, but some have a separate limit defined by their offices. Some appointed members serve at the pleasure of the individual who chooses them although others are subject to specific board terms.
- 2 Alaska PERS and TRS: The Alaska Retirement Management Board replaced three boards: the Public Employees' Retirement Board and Teachers' Retirement Board were dissolved effective June 30, 2005, and the Alaska State Pension Investment Board was dissolved effective September 30, 2005.
- 3 Delaware SEPP: At least two of the appointed members must be affiliated with one of the major political parties and at least two with the other major political party.
- 4 District of Columbia DCP: The Office of Finance and Treasury and the Office of Compensation and Benefits of the Office of Personnel jointly manage the plan, using a third-party administrator for recordkeeping, administration, participant communication, investment management, and trustee services.
- 5 District of Columbia TRF: One of the appointees of the city council and two of the mayoral appointees must have professional work experience in banking, insurance, or the investment industry.
- 6 Florida FRS: No board for administration of benefits; the State Board of Administration, which invests FRS funds, is composed of three state officials: governor, chief financial officer, and attorney general.
- 7 Georgia PSERS: The Board of Trustees of the Employees' Retirement System of Georgia, plus two additional trustees appointed by the governor, administer PSERS. The administrative board is named the PSERS Board of Trustees.
- 8 Georgia TRS: In making appointments, the governor may consider, but is not limited to, nominees submitted by associations made up of Georgia TRS members.
- 9 Illinois IMRF: Each must be employed by an IMRF employer as a chief executive officer, chief finance officer, or other officer, executive, or department head.
- 10 Illinois TRS: Non-TRS members may not hold elected office.
- 11 Illinois/Chicago CTPF: Contributors who are not principals must have at least 10 years of service as teachers in Chicago public schools.
- 12 Indiana PERF and TRF: Prior to July 1, 2011, the retirement plans for Indiana public employees were administered by two separate boards of trustees: the Public Employees' Retirement Fund board (which also managed PAREF, 1977 Fund, LRS, JRS, EPCEP, and the nonretirement funds) and the Indiana State Teachers' Retirement Fund board. An administrative merger began in 2010 with the adoption of legislation requiring the two boards to name a common executive director. Despite the creation of the unified INPRS board, each retirement fund continues as a separate fund under the oversight of the combined board of trustees.
- 13 Iowa PERS: The Investment Board of IPERS was created by state law to establish policies and hire professional service contractors for IPERS' investment and actuarial programs. The Investment Board holds quarterly public meetings to review actuarial findings and investment performance. The board also adopts actuarial assumptions and investment policies. A Benefits Advisory Committee also exists; it includes a mixture of employee and employer membership organizations and a citizen representative, and provides input to the retirement system staff and the legislature on matters affecting benefits and services to members.
- 14 Kansas PERS: No more than two members of the four appointed by the governor may be from the same political party.
- 15 Kentucky CERS: CERS does not have its own board. Instead, the 13-member board of the Kentucky Retirement Systems administers CERS. Active and retired CERS members elect three members to this board.
- 16 Maine PERS: At least two of the governor's appointees must be qualified through training or experience in the field of investments, accounting, banking or insurance, or as actuaries; one must be selected from a list of three nominees submitted by the Maine retired teachers' association and one must be the recipient of a retirement allowance through MSRS and be selected from a list or lists of nominees submitted by retired state employees, retired participating local district employees, or a committee composed of representatives of these groups.
- 17 Maryland ERPS and TRPS: The Maryland State Retirement and Pension System (MSRPS) includes ERPS and TRPS, as well as other plans that cover state police, judges, law enforcement officers, correctional officers, and legislators. One board of trustees manages the system.
- 18 Massachusetts SERS and TRS: While SERS and TRS are separately administered, their assets are pooled for investment and overseen by the Pension Reserves Investment Management Board (the PRIM Board). A nine-member board of trustees governs the PRIM Board. The trustees include: 1) the governor, ex officio, or his or her designee; 2) the state treasurer, ex officio, or his or her designee who shall serve as chair of the PRIM Board; 3) a private citizen experienced in the field of financial management appointed by the state treasurer; 4) an employee or retiree, who is a member of the state TRS, elected by the members of such system for a term of three years; 5) an employee or retiree, who is a member of the state Retirement System, elected by the members of such system for a term of three years; 6) the elected member of the state Retirement Board; 7) one of the elected members from the Teachers' Retirement Board chosen by the members of the Teachers' Retirement Board; 8) a person who is not an employee or official of the Commonwealth appointed by the governor; and 9) a representative of a public safety union appointed by the governor. Appointed members serve for a term of four years.

Appendix 2: Endnotes (Continued)

- 19 Massachusetts SERS: If the other four members do not choose a fifth member within 30 days after the expiration of the term of the fifth member, the governor shall appoint a fifth member.
- 20 Massachusetts TRS: If a seventh member is not chosen by the other six board members within 30 days after the expiration of the term of the seventh member, the governor shall appoint a seventh member.
- 21 Massachusetts/Boston SBRS: If the other four members do not choose a fifth member within 30 days after the expiration of the term of the fifth member, the mayor shall appoint the fifth member.
- 22 Michigan MPSERS: One of the board members must be a member who is an employee of a school district of the first class (Detroit district) or a retiree who retired from a position as an employee of a school district of the first class. One of the retiree members of the board must be from the membership of the largest organization of retirees. One of the general public members must have experience in health insurance or actuarial science and one must have experience in institutional investments.
- 23 Minnesota/St. Paul SPTRFA: The nine elected trustees may be either active or retired members.
- 24 Mississippi PERS: Elected members must have at least 10 years of creditable service.
- 25 Montana PERS: At least one public employee member must be a member of the DC plan. Members cannot be employees of the same department.
- 26 Montana TRS: At least one of the three teacher positions must be filled by an active public school classroom teacher who holds a class 1, 2, or 4 certificate.
- 27 Nebraska SERS: The Nebraska School Employees Retirement System is part of an administrative entity called the Nebraska Public Employees Retirement Systems. The Public Employees Retirement Board was created in 1971 to administer Nebraska retirement plans for school employees, state employees, judges, and the state patrol. The board assumed administration of the retirement system for Nebraska county employees in 1973. Public members cannot be an employee of the state or any of its political subdivisions. They must have at least 10 years of experience in the management of a public or private organization or have at least five years of experience in the field of actuarial analysis or the administration of an employee benefit plan. Two of the eight appointed members must be active or retired members of the judges' retirement system and the state patrol retirement system.
- 28 Nebraska/Omaha OSERS: The public members are required to be business persons qualified in financial affairs who are not members of the retirement system.
- 29 Nevada PERS: All board members must have at least 10 years of service as employees of the state or a political subdivision. All must be active members except the retiree. None may be elected officers of the state or its political subdivisions.
- 30 Nevada PERS: Positions 1 through 3 must be filled from nominations by state and local government employees, including employees of the Nevada system of higher education and education staff of school districts. Positions 4 and 5 must be filled from nominations by administrators of schools, counties, and cities.
- 31 New Hampshire NHRS: In 2008, the legislature established a requirement that new or re-appointed trustees must have finance or business management experience and that two non-member trustees must have substantial experience in the field of institutional investment or finance.
- 32 New Jersey PERS: Must not be officers of the state or active or retired members of the system.
- 33 New Jersey PERS: May be active or retired state members.
- 34 New Jersey PERS: May be active or retired county member.
- 35 New Jersey PERS: May be active or retired municipal members.
- 36 New Jersey TPAF: Must not be officers of the state or active or retired members of the system.
- 37 New Jersey TPAF: Must not be an officer of the state or an active or retired teacher.
- 38 New Jersey TPAF: If the board determines that the election of trustees is to be made by delegates elected by the membership, it shall prescribe that those delegates shall be chosen from among active and retired members of the system.
- 39 New York/New York City TRS: The elected members may be either active or retired.
- 40 North Carolina TSERS: These appointees cannot be active or retired teachers, or state or local government employees.
- 41 Ohio PERS and SERS: Must be residents of the state, have direct experience in the management, analysis, supervision, or investment of assets; and, within the three years immediately preceding the appointment, not have been employed by a state retirement system or by any person, partnership, or corporation that has provided to one of the state retirement systems services of a financial or investment nature.
- 42 Ohio STRS: The designee of the superintendent of public instruction must not have been employed by any Ohio retirement system within three years immediately preceding appointment. The designee must have direct experience in the management, analysis, supervision, or investments of assets. The designee must also be an Ohio resident.
- 43 Ohio STRS: The designee of the state treasurer must meet the same qualifications as the designee of the superintendent of public instruction (see #42) and must not be currently employed by the state or one of its political subdivisions.

Appendix 2: Endnotes (Continued)

- 44 Ohio STRS: Same requirements as the designee of the superintendent of public instruction (see #42).
- 45 Oklahoma TRS: Nonclassified optional personnel include bus drivers, cooks, janitors, maintenance personnel not in a supervisory capacity, noncertified librarians, noncertified or nonregistered nurses, and clerical employees of the public schools, state colleges, universities, or any state department, board, board of regents, or board of trustees.
- 46 Utah URS: In addition to the Retirement Board, a 13-member Membership Council, which includes representatives of employee and employer membership organizations, provides input to the retirement board and system staff on matters affecting benefits and services to members. The Membership Council also submits nominations to the board for the position of executive director if that position is vacant.
- 47 Vermont MERS and STRS: The Vermont Pension Investment Council oversees the investments of the teachers' retirement system, the state employees' retirement system, and the municipal employees' retirement system. The council was reduced from 17 to six members in 2008: one member and one alternate, who may or may not be on the board of the state employees' retirement system, elected by the employee and retiree members of that board; one member and one alternate, who may or may not be trustees of the board of the teachers' retirement system, elected by the employee and retiree members of that board; one member and one alternate, who may or may not be trustees of the municipal employees' retirement board, elected by the municipal employee and municipal official members of that board; two members and one alternate appointed by the governor; and the state treasurer or designee.
- 48 Washington PERS, SERS, and TRS: The assets of PERS, SERS, and TRS are managed by the Washington State Investment Board (WSIB), which has 10 voting and five nonvoting members. The 10 voting members are the state treasurer (ex officio); the director of the Department of Retirement Systems (ex officio); the director of the Department of Labor and Industries (ex officio); five representatives of public employee pension systems (appointed by the governor); a legislator appointed by the speaker of the House of Representatives; and a legislator appointed by the president of the Senate. The five nonvoting members are chosen by the 10 voting members and should be "experienced and qualified in the field of investments."
- An advisory committee created in 1966 facilitates information sharing between the Department of Retirement Systems (DRS) and the associations and organizations that represent members of the plans it administers. Members are nominated by member or retiree organizations, appointed by the DRS director, and serve a minimum term of three years.
- The 10-member Employee Retirement Benefits Board makes recommendations to WSIB on investment and payment options for the DC plans. Chaired by the director of DRS, the board has two active and one retired members from PERS, TRS, and SERS; two individuals with experience in DC plan administration; and one deferred compensation program participant.
- 49 West Virginia TRS and TDCP: Representation of the municipal police officers and firefighters alternate after each term on the board. All appointees to the board must have recognized competence or significant experience in pension management or administration, actuarial analysis, institutional management, or accounting. One trustee must be an attorney and one trustee must be a certified public accountant.
- 50 Wisconsin WRS: In addition to the Employee Trust Funds (ETF) Board, other bodies help to oversee the retirement system, including the nine-person State of Wisconsin Investment Board (SWIB), which invests the assets of the WRS and other trust funds established by the state. Six of SWIB's trustees are appointed by the governor; one must be an educator participant in the Wisconsin Retirement System (appointed by the Teachers Retirement Board); one must be a non-educator participant in the WRS (appointed by the WRS board); and one must be the secretary of the Department of Administration (or the secretary's designee). Appointed board members serve six-year terms. The Teachers Retirement Board advises the ETF Board on retirement and other benefit matters involving public school, vocational, state, and university teachers; acts on administrative rules and authorizes or terminates teacher disability benefits; and hears disability benefit appeals. The Wisconsin statute that created the ETF Board contains several "either-or" provisions, such as that the number of representatives from a particular constituency group can vary from time to time. For example, the WRS board appoints four of its own board members to the ETF Board, but one, two, or three of them could be an active employee, depending on the WRS board's decision. The figures in this table indicate the minimum number who must be from a particular category. Note also, that two ETF Board members are appointed by the Teachers Retirement Board from among the board's elected trustees.

Appendix 3: Symbols and Sources Consulted

This appendix provides information on the plans reviewed, including the full name of each plan, the abbreviated name used in tables and other sections of this report, a statutory citation, the plan's web site, and the date its fiscal year ends. The term "et seq." (or, if spelled out, "et sequitur") means the sections that follow the section given. "Et seq." is used in this publication when the section numbers for a given retirement plan comprise a logical beginning and ending point. For retirement plans where the opposite is true, both the beginning and ending section numbers are provided.

Many systems provided electronic updates to NEA's data from the 2010 edition of *Characteristics*. For those systems that did not provide updates, the sources used for this report are too numerous to list for each system. Researchers sought and used, when available, Comprehensive Annual Financial Reports (CAFRs), state treasurers' reports, actuarial valuations, system audits, legislative or plan-related review commission documents, plan handbooks, plan newsletters, human resource departments' guidelines for electing trustees, state legislatures' and governors' web sites with information on legislative changes, state or local statutes, and publicly available communications between government officials and plan participants.

Alabama

Teachers' Retirement System of Alabama
Alabama/TRS
Alabama Code Chapter 25 §§ 16-25-1 et seq.
09/30/2014
www.rsa-al.gov/index.php/members/trs

Alaska

Alaska Public Employees' Retirement System
Alaska/PERS-DB plan
Alaska Statutes §§ 37.10.210 through 37.14.160 and 39.35.001 et seq.
06/30/2014
www.doa.alaska.gov/drb/pers

Alaska Public Employees' Retirement System-Defined Contribution Retirement Plan
Alaska/PERS-DC plan
Alaska Statutes §§ 37.10.210 through 37.14.160 and 39.35.001 et seq.
06/30/2014
www.doa.alaska.gov/drb/pers

Alaska Teachers' Retirement System
Alaska/TRS-DB plan
Alaska Statutes §§ 37.10.210 through 37.14.160 and 39.35.001 et seq.
06/30/2013
www.doa.alaska.gov/drb

Alaska, (continued)

Alaska Teachers' Retirement System-Defined Contribution Retirement Plan
Alaska/TRS-DC plan
Alaska Statutes §§ 14.25.01 et seq. and 14.25.320 et seq.
06/30/2013
doa.alaska.gov/drb/dcrp/index.html

Arizona

Arizona State Retirement System
Arizona/ASRS
Arizona Revised Statutes Title 38, Chapter 5, Articles 1, 2, and 21
06/30/2014
www.azasrs.gov

Arkansas

Arkansas Teacher Retirement System
Arkansas/ATRS
Arkansas Code §§ 24-7-101 et seq.
06/30/2014
www.artrs.gov

Appendix 3: Symbols and Sources Consulted (Continued)**California**

California Public Employees' Retirement System
California/PERS
California Government Code §§ Title 2, Division 1,
Chapter 2, Sections 550 through 599.515
06/30/2014
www.calpers.ca.gov

California State Teachers' Retirement System
California/STRS
California Education Code §§ 22000 through 28101
06/30/2014
www.calstrs.com

University of California Retirement Plan
California/UCRP
California Education Code §§ 22000 et seq.
06/30/2014
ucnet.universityofcalifornia.edu/compensation-and-benefits/retirement-benefits/index.ht

Colorado

Colorado Public Employees' Retirement Association
Colorado/PERA - DB plan
Colorado Revised Statutes §§ 24-51-101 et seq.
12/31/2014
www.copera.org

Colorado Public Employees' Retirement Association-
Defined Contribution Plan
Colorado/PERA - DC plan
Colorado Revised Statutes §§ 24-51-101 et seq.
12/31/2014
www.copera.org/members/pera-defined-contribution-dc-plan

Connecticut

Connecticut Municipal Employees' Retirement System
Connecticut/CMERS
Connecticut General Statutes Title 7, §§ 425 et seq.
06/30/2014
www.osc.ct.gov/rbsd/cmers/muniretire.htm

Connecticut, (continued)

Connecticut Teachers' Retirement System
Connecticut/TRS
Connecticut General Statutes Chapter 167a, §§ 10-
183b et seq.
06/30/2014
www.ct.gov/trb

Delaware

Delaware State Employees' Pension Plan
Delaware/SEPP
Delaware Code Title 29, §§ 5501 et seq.
06/30/2014
www.delawarepensions.com

District of Columbia

District of Columbia 401(a) Defined Contribution
Pension Plan
District of Columbia/DCPP
District of Columbia Code Title 1, Chapter 6,
Subchapter XXVI §§ 1.626.01 et seq.
09/30/2014
www.icmarc.org/dc.html

District of Columbia Teachers' Retirement Fund
District of Columbia/TRF
District of Columbia Code §§ 626.01 et seq.; §§ 1- 711
et seq.; and § 38-2021.01 et seq.
09/30/2014
dcrb.dc.gov

Florida

Florida Retirement System Pension Plan
Florida/FRS-DB plan
Florida Statutes §§ 121.011 et seq.
06/30/2014
www.dms.myflorida.com/human_resou ce_support/retirement

Florida Retirement System Investment Plan
Florida/FRS-DC plan
Florida Statutes §§ 121.011 et seq.
06/30/2014
www.myfrs.com/FRSPro_InvestPlan.htm

Appendix 3: Symbols and Sources Consulted (Continued)**Georgia**

Georgia Public School Employees Retirement System
Georgia/PSERS
Georgia Code §§ 47-4-1 et seq.
06/30/2014
www.ers.ga.gov/plans/psers/psersmain.html

Teachers Retirement System of Georgia
Georgia/TRS
Georgia Code §§ 47-3-20 et seq.
06/30/2014
www.trsga.com

Hawaii

Hawaii Employees' Retirement System
Hawaii/ERS
Hawaii Revised Statutes §§ 88-1 et seq.
06/30/2014
ers.ehawaii.gov

Idaho

Public Employee Retirement System of Idaho
Idaho/PERS
Idaho Code §§ 59-1301 et seq.
06/30/2014
www.persi.idaho.gov

Illinois

Illinois Municipal Retirement Fund
Illinois/IMRF
Illinois Compiled Statutes Chapter 40, Article 7-101 et seq.
12/31/2014
www.imrf.org

Illinois State Universities Retirement System
Illinois/SURS
Illinois Compiled Statutes Chapter 40, 5/Article 15-101 et seq.
06/30/2014
www.surs.org

Illinois, (continued)

Illinois Teachers' Retirement System
Illinois/TRS
Illinois Compiled Statutes Chapter 40, 5/Article 16-101 et seq.
06/30/2014
www.trs.illinois.gov

Municipal Employees' Annuity & Benefit Fund of Chicago
Illinois/Chicago/MEA&BF
Illinois Compiled Statutes Chapter 40, 5/ Article 8-101 et seq.
12/31/2014
www.meabf.org

Public School Teachers' Pension and Retirement Fund of Chicago
Illinois/Chicago/CTPF
Illinois Compiled Statutes Chapter 40, 5/Article 17
06/30/2014
www.ctpf.org

Indiana

Indiana Public Employees' Retirement Fund
Indiana/PERF
Indiana Code (IC) §§ 5-10.2 et seq., and §§ 5-10.5
06/30/2014
www.in.gov/inprs/publicemployees.htm

Indiana Public Employees' Retirement Fund Annuity Savings Account Only
Indiana/PERF-ASA Only
Indiana Code (IC) §§ 5-10.2 et seq. and §§ 5-10.3 et seq.
06/30/2014
www.in.gov/inprs/publicemployees.htm

Indiana State Teachers' Retirement Fund
Indiana/TRF
Indiana Code §§ 5-10.2-1 et seq.; §§ 5-10.4.1 et seq.; and §§ 5-10.3 et seq.
06/30/2014
www.in.gov/inprs/teachers.htm

Appendix 3: Symbols and Sources Consulted (Continued)**Iowa**

Iowa Public Employees' Retirement System
Iowa/PERS
Iowa Code Chapter 97B
06/30/2014
www.ipers.org

Kansas

Kansas Public Employees Retirement System
Kansas/PERS
Kansas Code §§ 74-4901 et seq.
06/30/2015
www.kpers.org

Kansas Public Employees Retirement System 3 Cash
Balance Plan
Kansas/PERS 3 (Cash Balance plan)
Kansas Code §§ 74-4901 et seq.
06/30/2015
www.kpers.org

Kentucky

Kentucky County Employees Retirement System
Kentucky/CERS
Kentucky Revised Statutes §§ 78.510 et seq.
06/30/2014
kyret.ky.gov

Kentucky County Employees Retirement System Hybrid
Cash Balance Plan
Kentucky/CERS Hybrid Cash Balance plan
Kentucky Revised Statutes §§ 78.510 et seq.
06/30/2014
kyret.ky.gov

Kentucky Teachers' Retirement System
Kentucky/TRS
Kentucky Revised Statutes §§ 161.220 et seq.
06/30/2014
ktrs.ky.gov

Louisiana

Louisiana School Employees' Retirement System
Louisiana/SERS
Louisiana Revised Statutes § 11:1001
06/30/2014
www.lasers.net

Louisiana, (continued)

Teachers' Retirement System of Louisiana
Louisiana/TRS
Louisiana Revised Statutes §§ 11:701 et seq.
06/30/2014
www.trsl.org

Maine

Maine Public Employees Retirement System
Maine/PERS
Maine Revised Statutes Title 5 §§ 17001 et seq.
06/30/2014
www.maineipers.org

Maryland

Maryland Employees' Retirement and Pension Systems
Maryland/ERPS
General Pension Statutes: State Personnel and Pensions
of Maryland Code Titles 20, 21, 22, and 29.
06/30/2014
sra.maryland.gov

Maryland Teachers' Retirement and Pension Systems
Maryland/TRPS
General Pension Statutes: State Personnel and Pensions
of Maryland Code Title 23
06/30/2014
sra.maryland.gov

Massachusetts

Massachusetts State Employees' Retirement System
Massachusetts/SERS
Massachusetts General Laws Chapter 32 §§ 1 through
105
06/30/2015
www.mass.gov/retirement

Massachusetts Teachers' Retirement System
Massachusetts/TRS
Massachusetts General Laws Chapter 15 §§ 16 et seq.
and Chapter 32 §§ 1 through 28
06/30/2014
www.mass.gov/mtrs

Appendix 3: Symbols and Sources Consulted (Continued)**Massachusetts, (continued)**

State-Boston Retirement System
Massachusetts/Boston/SBRS
Massachusetts General Laws Chapter 32 §§ 1 et seq.
06/30/2015
www.cityofboston.gov/retirement

Michigan

Michigan Public School Employees' Retirement System
Defined Benefit Plan
Michigan/MPSERS-DB plan
Michigan Statutes Act 300 §§ 38.1301 et seq. and Act
314 §§ 38.1132 et seq.
09/30/2014
www.michigan.gov/orsschools

Michigan Public School Employees' Retirement System
Pension Plus Plan
Michigan/MPSERS-Pension Plus Plan
Michigan Public Act 75 of 2010
09/30/2014
www.mipensionplus.org/publicschools/yourplan.html

Michigan Public School Employees' Retirement System
Defined Contribution Plan
Michigan/MPSERS-DC plan
Michigan Public Act 300 of 2012
09/30/2014
stateofmi.voya.com/eportal/welcome.do

Minnesota

Minnesota General Employees Retirement Plan
Minnesota/GERP
Minnesota Statutes §§ 352.01 et seq.
06/30/2014
www.msrs.state.mn.us/general-plan

Public Employees Retirement Association of Minnesota
Minnesota/PERA
General Pension Statutes: Minnesota Statutes §§
356.001 et seq. and statutes specific to PERA:
Minnesota Statutes §§ 353.01 et seq.
06/30/2014
www.mnpera.org

Minnesota, (continued)

Minnesota Teachers Retirement Association
Minnesota/TRA
General Pension Statutes: Minnesota Statutes §§
356.001 et seq. and statutes specific to TRA: Minnesota
Statutes §§ 354.045 et seq.
06/30/2014
www.minnesotatra.org

St. Paul Teachers' Retirement Fund Association
Minnesota/St. Paul/SPTRFA
General Pension Statutes: Minnesota Statutes §§
356.001 et seq. and statutes specific to SPTRFA:
Minnesota Statutes §§ 354A.011 et seq.
06/30/2014
www.sptrfa.org

Mississippi

Public Employees' Retirement System of Mississippi
Mississippi/PERS
Mississippi Code §§ 25-11-101 et seq.
06/30/2014
www.pers.ms.gov

Missouri

Missouri State Employees' Retirement System
Missouri/MOSERS
Missouri Revised Statutes §§ 104.010, and 104.312
through 104.1215
06/30/2014
www.mosers.org

Public Education Employee Retirement System of
Missouri
Missouri/PEERS
Missouri Revised Statutes §§ 169.600 through 169.715
and 169.560 through 169.595
06/30/2014
www.psr-peers.org

Public School Retirement System of Missouri
Missouri/PSRS
Missouri Revised Statutes §§ 169.010 through 169.141
and §§ 169.560 through 169.565
06/30/2014
www.psr-peers.org

Appendix 3: Symbols and Sources Consulted (Continued)**Missouri, (continued)**

Public School Retirement System of Kansas City
Missouri/Kansas City/PSRS
Missouri Revised Statutes §§ 169.270 through 169.400
01/01/2014
www.kcpsrs.org

Public School Retirement System of the City of St.
Louis
Missouri/St. Louis/PSRS
Missouri Revised Statutes §§ 169.410 et seq.
12/31/2014
www.psrstl.org

Montana

Montana Public Employees' Retirement System-
Defined Benefit Retirement Plan
Montana/PERS-DBRP plan
Montana Code §§ 19-3-101 et seq.
06/30/2014
mpera.mt.gov/dbrp.shtml

Montana Public Employees' Retirement System-
Defined Contribution Retirement Plan
Montana/PERS-DCRP plan
Montana Code §§ 19-3-101 et seq.
06/30/2014
mpera.mt.gov/dcrp.shtml

Montana Teachers' Retirement System
Montana/TRS
Montana Code §§ 19-20-201 et seq.
06/30/2014
www.trs.mt.gov

Nebraska

Nebraska School Employees Retirement System
Nebraska/SERS
Nebraska Revised Statutes §§ 79-901 through 79-
977.03 and §§ 84-1501 through 84-1503
06/30/2014
www.npers.ne.gov

Nebraska, (continued)

Nebraska-Omaha School Employees' Retirement
System
Nebraska/Omaha/OSERS
Nebraska Revised Statutes §§ 79-978 through 7912
08/31/2015
www.osers.org

Nevada

Public Employees' Retirement System of Nevada
Nevada/PERS
Nevada Revised Statutes §§ 286.010 et seq.
06/30/2014
www.nvpers.org

New Hampshire

New Hampshire Retirement System
New Hampshire/NHRS
New Hampshire Revised Statutes §§ 100-A: 1 et seq.
06/30/2014
www.nhrs.org

New Jersey

New Jersey Public Employees' Retirement System
New Jersey/PERS
New Jersey Statutes Annotated §§ 43-15A-1 et seq.
06/30/2014
www.state.nj.us/treasury/pensions/pers1.shtml

New Jersey Teachers' Pension and Annuity Fund
New Jersey/TPAF
New Jersey Statutes Annotated §§ 18A:66.1 et seq.
06/30/2014
www.state.nj.us/treasury/pensions/tpaf1.shtml

New Mexico

New Mexico Educational Retirement Board
New Mexico/ERB
New Mexico Statutes §§ 22-11-1 et seq.
06/30/2014
www.nmerb.org

Appendix 3: Symbols and Sources Consulted (Continued)**New York**

New York State and Local Employees' Retirement System
New York/ERS
New York Code - Retirement and Social Security §§ 1 et seq.
03/31/2014
www.osc.state.ny.us/retire

New York State Teachers' Retirement System
New York/STRS plan
New York Education Code Article II §§ 501 et seq. and certain general provisions in the state retirement and Social Security Law also apply
06/30/2014
www.nystrs.org

Board of Education Retirement System of the City of New York
New York City/BERS plan
New York Education Code Title 2 §§ 52-2575 et seq. and certain general provisions in the retirement and Social Security Law also apply
06/30/2014
www.nycbers.org

Teachers' Retirement System of New York City
New York City/TRS plan
New York City Administrative Code §§ 13-501 et seq. and certain general provisions in the state retirement and Social Security Law also apply
06/30/2014
www.trsnyc.org

North Carolina

Teachers' and State Employees' Retirement System of North Carolina
North Carolina/TSERS
North Carolina General Statutes §§ 135-1 et seq.
06/30/2015
www.nctreasurer.com/ret/pages/default.aspx

North Dakota

North Dakota Public Employees Retirement System
North Dakota/PERS
North Dakota Century Code §§ 54-52-01 et seq.
06/30/2014
www.nd.gov/ndpers

North Dakota Teachers' Fund for Retirement
North Dakota/TFFR
North Dakota Century Code §§ 15-39.1-01 et seq.
06/30/2014
www.nd.gov/rio/TFFR/default.htm

Ohio

Ohio Public Employees Retirement System Traditional Pension Plan
Ohio/PERS-DB plan
Ohio Revised Code §§ 145.01 et seq. and Ohio Administrative Code
12/31/2014
www.opers.org

Ohio Public Employees Retirement System Member Directed Plan
Ohio/PERS-DC plan
Ohio Revised Code §§ 145.01 et seq. and Ohio Administrative Code
12/31/2014
www.opers.org

Ohio Public Employees Retirement System Combined plan
Ohio/PERS-Combined plan
Ohio Revised Code §§ 145.01 et seq. and Ohio Administrative Code
12/31/2014
www.opers.org

School Employees Retirement System of Ohio
Ohio/SERS
Ohio Revised Code §§ 3309.01 et seq.
06/30/2014
www.ohsers.org

Appendix 3: Symbols and Sources Consulted (Continued)**Ohio, (continued)**

State Teachers Retirement System of Ohio Defined Benefit Plan
Ohio/STRS-DB plan
Ohio Revised Code §§ 3307.01 et seq.
06/30/2014
www.strsoh.org

State Teachers Retirement System of Ohio Defined Contribution Plan
Ohio/STRS-DC plan
Ohio Revised Code §§ 3307.01 et seq.
06/30/2014
www.strsoh.org

State Teachers Retirement System of Ohio Combined plan
Ohio/STRS-Combined plan
Ohio Revised Code §§ 3307.01 et seq.
06/30/2014
www.strsoh.org

Oklahoma

Oklahoma Teachers Retirement System
Oklahoma/TRS
Oklahoma Statutes §§ 70-17-101 et seq.
06/30/2014
www.ok.gov/trs

Oregon

Oregon Public Employees Retirement System
Oregon/PERS
Oregon Revised Statutes §§ 238 and Chapter 238A
06/30/2015
oregon.gov/pers

Pennsylvania

Pennsylvania Public School Employees' Retirement System
Pennsylvania/PSERS
Pennsylvania Consolidated Statutes Title 22 §§ 8101 et seq.
06/30/2014
www.psers.state.pa.us

Pennsylvania, (continued)

Pennsylvania State Employees' Retirement System
Pennsylvania/SERS
Pennsylvania Consolidated Statute Title 71
12/31/2014
www.sers.pa.gov

Rhode Island

Employees' Retirement System of Rhode Island
Rhode Island/ERS
Rhode Island General Laws §§ 16-16 and §§ 36-10 et seq.
06/30/2014
content.ersri.org

Rhode Island Municipal Employees' Retirement System
Rhode Island/MERS
Rhode Island General Laws §§ 45-21-1 et seq.
06/30/2014
content.ersri.org

South Carolina

South Carolina Retirement Systems
South Carolina/SCRS
South Carolina Code of Laws §§ 9-1-10 et seq.
06/30/2014
www.retirement.sc.gov

South Dakota

South Dakota Retirement System
South Dakota/SDRS
South Dakota Codified Laws §§ 3-12-46 et seq.
06/30/2014
www.sdrs.sd.gov

Tennessee

Tennessee Consolidated Retirement System
Tennessee/CRS
Tennessee Code Title 8, Chapters 34-37 and 39
06/30/2014
www.treasury.tn.gov/tcrs

Appendix 3: Symbols and Sources Consulted (Continued)**Tennessee, (continued)**

Tennessee Consolidated Retirement System Hybrid Pension Plan
Tennessee/CRS-hybrid plan
Tennessee Code Title 8, Chapters 34-37 and 39
06/30/2014
www.treasury.tn.gov/tcrs

Texas

Teacher Retirement System of Texas
Texas/TRS
Texas Statutes Government Code §§ 821.001 et seq.
08/31/2014
www.trs.state.tx.us

Utah

Utah Retirement Systems Tier 1
Utah/URS-Tier 1
Utah Code §§ 49-11-01 through 49-13-701
12/31/2014
www.urs.org/pensiontier1/members

Utah Retirement Systems Tier 2 Hybrid Retirement System
Utah/URS-Tier 2-Hybrid plan
Utah Code §§ 49-11-01 through 49-13-701
06/30/2014
www.urs.org;newsroom.urs.org

Utah Retirement Systems Tier 2 Defined Contribution Plan
Utah/URS-Tier 2-DC plan
Utah Code §§ 49-11-01 through 49-13-701
12/31/2014
www.urs.org/pensiontier2dc/members

Vermont

Vermont Municipal Employees' Retirement System
Vermont/MERS-DB plan
Vermont Statutes Title 24, Chapter 125 §§ 5051 et seq. and §§ 5070 et seq.
06/30/2014
www.vermonttreasurer.gov/retirement/municipal-vmers

Vermont, (continued)

Vermont Municipal Employees' Retirement System-Defined Contribution Plan
Vermont/MERS-DC plan
Vermont Statutes Title 24, Chapter 125 §§ 5051 et seq. and §§ 5070 et seq.
06/30/2014
www.vermonttreasurer.gov/retirement/municipal-vmers

Vermont State Teachers' Retirement System
Vermont/STRS
Vermont Statutes Title 16, Chapter 55 §§ 1931 et seq.
06/30/2014
www.vermonttreasurer.gov/retirement/teachers-vstrs

Virginia

Virginia Retirement System
Virginia/VRS
Virginia Code §§ 51.1 et seq.
06/30/2014
www.varetire.org

Virginia Retirement System Hybrid Retirement plan
Virginia/VRS-Hybrid plan
Virginia Code §§ 51.1 et seq.
06/30/2014
www.varetire.org

The Educational Employees' Supplementary Retirement System of Fairfax County
Virginia/Fairfax/ERFC
Virginia Code §§ 51.1-800 et seq.
06/30/2015
www.fcps.edu/erfc

Washington

Washington Public Employees' Retirement System Plan 1
Washington/PERS-Plan 1
Revised Code of Washington §§ 41.40.005 through 41.40.127 and §§ 41.40.145 through 41.40.408
06/30/2014
www.drs.wa.gov/member/systems/pers

Appendix 3: Symbols and Sources Consulted (Continued)**Washington, (continued)**

Washington Public Employees' Retirement System Plan 2
Washington/PERS-Plan 2
Revised Code of Washington §§ 41.40.005 through 41.40.127 and §§ 41.40.610 through 41.40.770
06/30/2014
www.drs.wa.gov/member/systems/pers

Washington Public Employees' Retirement System Plan 3
Washington/PERS-Plan 3
Revised Code of Washington §§ 41.40.005 through 41.40.127; §§ 41.40.780 through 41.40.932; and §§ 41.34.010 through 41.34.900
06/30/2014
www.drs.wa.gov/member/systems/pers

Washington School Employees' Retirement System Plan 2
Washington/SERS-Plan 2
Revised Code of Washington §§ 41.35.005 through 41.35.599
06/30/2014
www.drs.wa.gov/member/systems/sers

Washington School Employees' Retirement System Plan 3
Washington/SERS-Plan 3
Revised Code of Washington §§ 41.35.001 through 41.35.399; §§ 41.35.600 through 41.35.901; and §§ 41.34.010 through 41.34.900
06/30/2014
www.drs.wa.gov/member/systems/sers

Washington Teachers' Retirement System Plan 1
Washington/TRS-Plan 1
Revised Code of Washington §§ 41.32.005 through 41.32.587
06/30/2014
www.drs.wa.gov/member/systems/trs

Washington, (continued)

Washington Teachers' Retirement System Plan 2
Washington/TRS-Plan 2
Revised Code of Washington §§ 41.32.005 through 41.32.067 and §§ 41.32.755 through 41.32.825
06/30/2014
www.drs.wa.gov/member/systems/trs

Washington Teachers' Retirement System Plan 3
Washington/TRS-Plan 3
Revised Code of Washington §§ 41.32.005 through 41.32.067; §§ 41.32.831 through 41.32.895; and §§ 41.34.010 through 41.34.900
06/30/2014
www.drs.wa.gov/member/systems/trs

West Virginia

West Virginia Teachers' Retirement System
West Virginia/TRS
West Virginia Code §§ 18-7A-1 et seq.
06/30/2014
www.wvretirement.com/trs.html

West Virginia Teachers' Defined Contribution Plan
West Virginia/TDCP
West Virginia Code §§ 18-7B-1 et seq.
06/30/2014
www.wvretirement.com/tdc.html

Wisconsin

Wisconsin Retirement System
Wisconsin/WRS
Wisconsin Statutes §§ 15.16 and 15.165; and §§ 40.01 through 40.74
12/31/2014
etf.wi.gov

Wyoming

Wyoming Retirement System
Wyoming/WRS plan
Wyoming Statutes §§ 9-3-401 et seq.
12/31/2014
retirement.state.wy.us

Appendix 4: Relevant Excerpts from 2015-2016 NEA Resolutions

D-24. Promote the Retention of Experienced Education Professionals

The National Education Association believes that experienced education professionals are valuable resources in the promotion of educational excellence. Experienced education professionals should be encouraged to remain in or return to the education profession through strategies consistent with NEA policies, including enhanced salaries, benefits, a supportive and respectful work environment, a reasonable workload, a secure pension, and retirement packages that reward extended years of service. (2001, 2015)

F-61. Retirement

The National Education Association believes that the retirement security of all pre-K through 12 members of retirement systems can be assured only by participation in a state or local retirement system with a guaranteed and adequate defined benefit retirement plan. Such plans must be funded in a manner that assures the long-term stability of the plan. For pre-K through 12 members of retirement systems, defined contribution provisions are appropriate only where they supplement adequate defined benefit provisions.

The Association also believes that pension funding should include the following principles:

- a. When actuarial liabilities exceed actuarial assets, the state and/or employer must make the necessary additional contributions to amortize the unfunded liability in no more than 30 years.
- b. When actuarial assets exceed actuarial liabilities, the state and/or employer should not reduce the rate of contributions below the normal cost of the plan.
- c. Employee contributions, if any, should be made on a pre-tax basis and be a percentage of total salary not to exceed the amount contributed by employers. The employer may pay part or all of the employee contribution.
- d. Credit for all wages and salary must be included in all retirement benefit calculations.

The Association further believes retirement benefits should, at a minimum, include:

- a. Full vesting in no more than 5 years
- b. An initial benefit constituting a replacement income of 50 percent of the single highest year's salary

from all sources after 20 years of creditable service and 75 percent after 30 years of creditable service; this benefit calculation equates to a basic benefit formula multiplier of 2.5 percent for all creditable years of service

- c. Benefits based upon unisex mortality tables
- d. Automatic pre-funded full cost-of-living pension increases for retirees and beneficiaries
- e. Normal retirement eligibility, including health benefits, with 25 creditable years of service or at age 55 if fully vested
- f. No provisions in core plans to reduce benefits because of the existence of any annuity or retirement benefit source including Social Security; supplemental retirement plans designed to provide a leveling benefit must assure a level lifetime replacement income that significantly augments existing benefits of all members over time

g. Benefits that comply with nondiscriminatory Internal Revenue Service rules and regulations

h. Joint survivor benefits should be equally available for spouses and domestic partners; joint survivor benefits for any other person should be available based upon IRS guidelines

i. Disability or death benefits that should be equally available for spouses, dependents, and domestic partners

j. Provisions that define a full year of creditable service based upon working 80 percent or more of the contract year or 80 percent or more of the hours constituting a full year; partial year credit should be earned on a pro-rated basis for any service less than the minimum required to obtain a full year of creditable service

k. Provisions for the option of allowing unused sick leave and other end-of-service payments to be used for retirement credit

l. Provisions permitting the purchase of service credit earned while a member of another retirement system including any other public school district, Department of Defense Education Activity (DoDEA) schools or while in the Peace Corps, Volunteers in Service to America (VISTA), or military service

m. Provisions permitting the purchase of service credit for sabbatical leaves, maternity/paternity/adoption leaves where credit is not automatically given, and any other approved leaves of absence; members affected by any forced leave provisions or

separation of service provisions that are unlawful under current law should be permitted to purchase service credit for those periods of leave or separations at any time prior to retirement at the lowest plan rate

n. Provisions for, upon termination of employment, the portability to other qualified pension plans of the full actuarial value of retirement credits earned

o. Disability retirement for a service-connected disability available to education employees from the first day of employment; nonservice-connected disability retirement shall be available for fully vested members; the benefit formula for disability retirement should yield benefits comparable to normal retirement benefits

p. Provisions for any tax-sheltered annuity and deferred compensation plans that have actuarial tables that do not discriminate on the basis of race, gender, or national origin

q. Provisions for health benefits for retirees, their spouses, domestic partners, and/or dependents that include a fully paid comprehensive health insurance plan regardless of Medicare eligibility; these benefits should be at least equal to those offered to full-time employees; those eligible for Medicare should be covered by a fully paid comprehensive Medicare supplement insurance benefit that, along with Medicare, equals the benefits provided to full-time employees.

The Association believes boards of trustees should:

a. Consist of active members who are all elected by and from their plan's active membership and retired members who are all elected by and from their plan's retired membership; the total number of active and retired member trustees should constitute a majority of the board

b. Administer the plan for the exclusive benefit of the beneficiaries of the system

c. Have the duty and authority to oversee the administration of both benefits and investments

d. Subject to their fiduciary responsibilities, have all the powers necessary to ensure their independence from the plan sponsor, including the power to obtain, by employment or contract, the services necessary to exercise the trustees' powers and perform the trustees' duties, including actuarial, auditing, custodial, investment, and legal services

e. Undertake periodic independent actuarial reviews and audits

f. Distribute an annual financial statement to all members

g. Use actuarial and investment policies with the highest level of fiscal integrity

h. Ensure that counseling, education, and services are available to all active and retired members

i. Recognize that, in their role as fiduciaries, they can identify and participate in appropriate educational programs and initiatives in order to acquire/maintain skills and expertise; these educational programs should be internally funded and managed exclusively by the board of trustees

j. Protect the systems' stability by opposing any actions that impair or jeopardize the guaranteed rights of plan participants' benefits.

The Association also believes that:

a. Contributions made by employees to the pension plan should be federal tax deferred and not subject to FICA taxes

b. Contributions made by employers to the pension plan should not be subject to FICA taxes

c. Benefits paid should not be subject to any state's income tax

d. Benefits paid should not be offset due to eligibility in multiple retirement programs

e. Contributions from both employees and employers should be remitted in a timely fashion in accordance with state statutes

f. Districts and charter schools should make biannual summary reports of retirement contribution remittances. (1969, 2009)

F-62. Investment of Retirement System Assets and Protection of Earned Benefits

The National Education Association believes that retirement system assets can be invested in any type of investment that plays an appropriate role in achieving risk and return objectives reasonably suited to the retirement program. In the investment and management of retirement systems assets, and in a manner consistent with their fiduciary responsibilities and all applicable federal, state, and local statutes, trustees should, among other circumstances, consider:

a. General economic conditions

b. The possible effect of inflation or deflation

c. The role that each investment or course of action plays within the overall portfolio of the retirement program

-
- d. The expected total return from income and appreciation of capital
 - e. Needs for liquidity, regularity of income, and preservation or appreciation of capital
 - f. The adequacy of funding for defined benefit plans based on reasonable actuarial factors
 - g. Protection of the long-term employment interests and opportunities of participants in the plan
 - h. Opposition to investments in corporations whose policies or expenditures of funds undermine child welfare and/or public education, when other investments provide equivalent benefits to retirement system members.

Boards of trustees charged with the authority to invest and manage the assets of public employee retirement systems should adopt a statement of investment objectives and policies for each retirement program that include:

- a. The desired rate of return on assets overall
- b. The desired rate of return and acceptable levels of risk for each asset class
- c. Asset allocation goals
- d. Guidelines for the delegation of authority
- e. Information on the types of reports to be used to evaluate performance.

The Association also believes that the boards of trustees of education employee retirement systems should make every effort, consistent with their fiduciary obligations, to participate in the decision-making process of corporations in which the systems hold stock by casting stockholder votes that benefit the interests of the participants and beneficiaries of the retirement systems, and those of the united education profession, and by electing to corporate boards members and/or representatives who support public education. The Association further believes that the boards of trustees of public employee retirement systems should coordinate their voting in companies in which they have a mutual interest.

The Association believes that the assets of retirement systems in which public education employees participate should be managed and invested for the sole and exclusive benefit of the participants and beneficiaries of those systems. Expenditures from a system trust fund should only be made for the benefit of trust beneficiaries and for the reasonable expenses of administering the system. All retirement benefits earned by education employees should, under the law, be payable to such employees. Existing retirement benefits should be maintained or

improved. No person participating in a retirement system should be required to accept any reduction in benefits below those in force at any time during the period of membership. The retirement benefits are earned, and therefore, inviolate.

The Association is aware of incursions on retirement system assets by state and municipal governments. Such incursions include misuse of assets, manipulation of pension assumptions, arbitrary and deleterious investment restrictions, failure to appropriate required funds to the system, and failure to place employee contributions in trust. These practices reduce the financial soundness of the system and jeopardize the security of education employee retirement benefits. Retirement systems can best be protected by the passage of state constitutional protections against any diminution of plan assets that is not in the sole interest of plan participants and beneficiaries or, absent such constitutional safeguards, by at least the passage of federal and/or state legislation that provides for protections against any diminution of plan assets that is not in the sole interest of plan participants and beneficiaries.

The Association also believes that a retirement system should be exempt from federal regulations when its plan is in compliance with standards prescribed by federal, state, and local statutes. (1976, 2011)

F-63. Social Security

The National Education Association believes that Social Security is a social contract between the U.S. government and its citizens that must never be breached. The Association also believes that Social Security benefits should be guaranteed for all participants regardless of age, gender, or marital status. To better ensure retirement security, Social Security benefits should not be integrated with other retirement benefits.

The Association further believes that Social Security is a critical social insurance program and therefore initiatives should be undertaken that ensure its long-term solvency. These measures should guarantee at least the current level of promised benefits that provide inflation-adjusted retirement benefits for retirees, family survivors of deceased workers, and disabled workers and their families.

The Association opposes—

- a. Any proposal to privatize Social Security

b. Provisions and regulations that deprive public employees of Social Security benefits

c. Mandatory coverage of public employees under Social Security for employee groups that have declined coverage.

d. The present practice of taking back earned benefits from Social Security permitted through the Government Pension Offset (GPO)/Windfall Elimination Provision (WEP) even if benefits are already being paid.

The Association supports the availability of voluntary Social Security coverage to eligible school employee groups, where initiated by those groups, in states and localities in which public employees are not covered by Social Security. (1977, 2015)

F-64. Medicare

The National Education Association believes that Medicare is a contract between the United States government and its citizens and that this commitment must not be breached. The Association also believes that benefits to recipients and payments to medical providers should be equitable and fair throughout the nation. The Association further believes that initiatives should be undertaken to ensure the long-term solvency of the Medicare system and to guarantee a level of health benefits that provides and ensures high quality, affordable, and comprehensive health care for all Medicare-eligible individuals. (1999, 2009)



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