Comparison of the Value of State Employee Benefits

Total value of State employee benefits in NC is roughly comparable to value in other states and exceeds value of benefits at large private employers at current interest rates.

Executive Summary

Employee benefits such as retirement income (pensions), retiree medical insurance, and active employee medical insurance are significant components of total compensation for State employees in NC. The total value of these benefits is similar to the average value of benefits offered by other states. However, the mix of benefits is somewhat different. NC provides significant subsidies for retiree medical insurance and little or no subsidy for dependent (spouse and child) medical insurance, as compared to other states.

The total value of benefits for State employees in NC is currently greater than the average value of benefits offered by large private employers in the US. NC offers pension benefits that are somewhat more generous, particularly when measured at current low interest rates. Similar to other states, large private employers provide a very different mix of retiree and dependent medical insurance subsidies than the State provides to its employees.

This brief only discusses the value of benefits. Any comparison of total compensation relative to other states and the private sector would also need to consider the relative levels of wage compensation.

General Background

Throughout this brief, we will use the term "State employees" to refer to employees who are eligible for a general set of benefits established in State statute and administered by the State. These benefits include the Teachers' and State Employees' Retirement System (TSERS), the State Health Plan (SHP), and several other programs. Over 95% of the employees in these programs are employed by State agencies, the University of North Carolina System, local community colleges, or local education agencies (LEAs).[1]

For each type of benefit, this brief compares to both other states and large private employers. It does not compare to small private employers because the State and the majority of individual community colleges and LEAs would be considered large employers. However, many North Carolinians work for small employers and thus it may be useful to note the general disparity in benefit value between large and small employers. Based on data from the U.S. Bureau of Labor Statistics[2], Retirement and Savings and Insurance benefits make up 9.0% of total compensation at private employers with less than 50 employees, but 15.7% of total compensation at private employers with 500 or more employees. Many small employers do not offer health or retirement benefits, while many large employers, particularly those that hire college graduates, would be unable to compete in the labor market without offering such benefits.

This brief focuses on benefit value, but in designing benefit programs the General Assembly should consider other factors as well. For example, it should consider:

- How benefits support its goals for attraction, retention, and orderly transition of the State's workforce.
- How risks are divided between the State and employees.
- How efficiently the benefit programs are administered and communicated
- How effectively they meet the needs of State Employees.
- How the benefits incent employees to work more productively and better manage health and personal finances.

This brief focuses on average benefit values across other employers and across individual employees. Underlying these averages is enormous variation in benefits from one employer to another and in the value of benefits to one employee compared to another. For example, an employee who does not expect to work with the State until retirement may place no value on retirement and retiree medical benefits. Likewise, an employee without dependents may not be concerned by the high dependent premiums in the SHP.

This brief primarily compares benefits available to employees newly hired in 2015, although it also mentions benefits available to grandfathered sets of existing employees where relevant.

Retirement Income (Pension) Benefits

Most permanent full-time State employees participate in TSERS, which had 310,370 active members as of December 31, 2013. UNC employees who are either exempt from the State Human Resources Act or hired on or after January 1, 2013 have a one-time choice to instead participate in the Optional Retirement Program (ORP), a defined contribution (DC) plan. Legislators and judicial officers also participate in separate plans.

TSERS is a defined benefit (DB) plan providing lifetime post-retirement income in the form of a monthly benefit payment. The benefit payment for a retiree who elects the Maximum Benefit and retires at an unreduced retirement age is based on the following formula:

1.82% x Service x Highest Four Year Average Pay

Most employees are eligible for unreduced retirement at the earliest of:

- Age 65 with 5 year of service,
- Age 60 with 25 years of service, or
- Any age with 30 years of service

TSERS retirees are eligible for "ad hoc" cost-of-living adjustments (COLAs), meaning they are granted at the discretion of the General Assembly rather than happening automatically. While expected future COLAs are part of the benefit value, there is significant uncertainty in those expectations. This brief will assume that the small COLAs of recent years will continue.[3]

Employees contribute 6% of pay to cover a portion of the cost of the TSERS benefit and this contribution must be subtracted from the total value of the benefit in estimating the value of what the State provides.

The value of the TSERS benefit can be approximated by the normal cost in the actuarial valuation. The December 31, 2013 valuation shows a normal cost of 5.19% of pay. Based on an average salary in that valuation of $43,844, this equates to roughly $2,276 per year. However, this normal cost does not reflect the economic nature of the benefit promise and thus we have adjusted it to 22.9% of pay, or $10,040 per year, as discussed in the Appendix.

Comparison to Other States

Most states still offer DB pensions with designs similar to that of TSERS. Only AK and MI offer exclusively DC plans (e.g. 401(k) plans) to a significant group of employees. In addition, those that do offer DC plans often make significant contributions to those plans.[4]

To compare the value of TSERS to the value of pension benefits offered by states that offer DB plans and whose employees participate in Social Security[5], we have compared the five major components of the benefit structure using a biennial study prepared by the Wisconsin Legislative Council.[6]:

- Mulitplier: The 1.82% multiplier is near the median, with roughly 40% of state retirement systems using higher multipliers, 40% using lower multipliers and 20% using roughly the same multiplier.
- Averaging Period: The median averaging period is 5 years, so TSERS with a 4 year averaging period is a little more generous than the median in this regard.
- Retirement Age: Roughly two-thirds of the other retirement systems require a minimum age or age plus service for unreduced retirement. A majority of other systems require an employee to be 65 to retire unreduced with only 5 or 10 years of service, just like TSERS. In total, the ability to retire at any age with 30 years of service makes TSERS slightly more generous than the median.
- Cost-of-Living Adjustment (COLA): A majority of state retirement systems offer automatic COLAs, either a fixed percent or tied to inflation. The future ad hoc COLAs in TSERS are likely to be lower than those in states with automatic COLAs.
- Employee Contribution: NC's 6% of pay employee contribution is at the median.

In total, TSERS is a little more valuable than the median state retirement system in averaging period and retirement age, but less valuable in COLAs. Overall, TSERS is roughly comparable in value to the median public retirement system.

The General Assembly's Program Evaluation Division reported in 2011 that TSERS plan features were "typical or less generous" compared to other states.[7] However, this study was completed just before many other states reduced pension benefits.[8] NC has kept pension benefits essentially constant since that time.[9] Many of those reductions only applied to new hires, so the conclusions of the 2011 report should continue to hold for most employees hired before 2011.

Comparison to Neighboring States

The most significant differences in pension benefits of neighboring states (VA, SC, TN, and GA) are as follows.

VA recently implemented a hybrid (combination) DB and DC plan for employees hired after 2013. The DB component has a 1% multiplier and unreduced retirement at age 67 or age plus service of 90, and employees contribute 4% of pay. The DC component has an employer match of up to 3.5% of pay. The economic value of this benefit is somewhat less than the economic value of TSERS at current low interest rates.

GA has a hybrid plan for state agency employees. The DB plan has a 1% multiplier and 1.25% employee contribution. The DC plan has up to a 3% employer match. This plan also has lower economic value than TSERS at current interest rates.

GA maintains a DB plan for teachers that is noticeably more valuable than TSERS. It uses a 2% multiplier, two year averaging period, and provides unreduced retirement at age 60 with 10 years of service or any age with 30 years. It also offers automatic COLAs tied to inflation, up to 3% per year.

TN also recently implemented a hybrid (combination) DB and DC plan for employees hired on or after July 1, 2014.[10] The DB component has a 1% multiplier and unreduced retirement at age 65 or age plus service of 90, and employees contribute 5% of pay. The DC component has an automatic employer contribution of 5% of pay. The economic value of this benefit is somewhat less than the economic value of TSERS at current low interest rates.

SC offers a DB plan that is roughly comparable in value to TSERS.[11]

Comparison to Large Private Employers

Many large private employers have shifted from DB plans to DC plans over the past two decades for new hires.[12] However, most large employers make employer contributions to their DC plans and thus they generally have a cost and value. The employer contribution can be in the form of a match that depends on the employee contribution, a nonmatching contribution that is fixed or depends on profits or other external factors, or a blend of the two types. A Vanguard survey[13] provides the following statistics for 2013:

- Percent of DC participants eligible for matching contributions: 95%
- Average promised (maximum) match: 4.1% of pay
- Percent of DC participants eligible for nonmatching contributions: 40%
- Average nonmatching contribution: 5.4% of pay

This implies a (95% x 4.1%) + (40% x 5.4%) = 6.1% average contribution if employees take advantage of the maximum match.

A Towers Watson study showed average employer contributions in 2013 of 6.2% of pay from Fortune 100 companies that only offer DC plans to new hires.[14]

For a DC plan, the employer contribution roughly approximates the economic value of the benefit, after adjusting for vesting periods and other minor factors. The surveys quoted above show an economic value that is roughly comparable to the TSERS normal cost of 5.19% of pay. However, as discussed in the Appendix, that normal cost significantly understates the economic value of the TSERS benefit at current low interest rates. Thus, the economic value of TSERS is greater than the economic value of the average large private employer's retirement income plan, although this gap will shrink if interest rates increase in the future.

Active Health Benefits

While they are employed, State employees participate in the SHP under a Preferred Provider Organization (PPO) arrangement with a provider network that includes almost all providers in NC and covers almost all services that would typically be covered by a large employer health plan. There are three plan options with different employee premiums, wellness programs, and out-of-pocket amounts. The monthly employee premium for employee-only and family coverage in 2015, assuming completion of a modest set of wellness requirements, is as follows:

Plan	Employee-Only	Family
Traditional 70/30	$0	$563
Enhanced 80/20	$14	$680
Consumer Directed Health Plan	$0	$507

The value of all three plans is roughly between that of a Gold Plan (80% actuarial value) and a Platinum Plan (90% actuarial value) on the federal health insurance exchange.

Comparison to Other States

Other states generally offer health plans with broad provider networks and service coverage similar to the SHP.[15] However, there are three major differences:

1. **Employee premiums for employee-only coverage are lower in the SHP.** Based on a Pew Charitable Trusts report[16], the average employee premium for single coverage was 12% of the total premium, whereas in the SHP it is no more than 3%.
2. **Employee premiums for family coverage are much higher in the SHP.** According to the Pew report, the average employee premium for family coverage was 19% of the total, compared to 50% to 60% in the three SHP options.
3. **Out-of-pocket amounts are somewhat higher in the SHP.** From the same report, the average actuarial value of plans in other states was 92%, while it was only 82% for the SHP.

From the same report, the average total premium for all states was $959 per month, with employers paying 84% of that, or $806. This is $358 per month, or $4,296 per year, more than the $448 per month employer premium in the SHP. This difference is due in part to differences in provider pricing, but primarily reflects the low dependent subsidy in the SHP.

Comparison to Neighboring States

In the Pew Charitable Trusts' report, SC has an average employer premium of $452 per month, very similar to the SHP. Employer premiums in other neighboring states are much closer to the national average, $806.

Comparison to Large Private Employers

Large private employers appear to offer coverage that is fairly similar to, although perhaps slightly less generous than, coverage provided by other state governments. The differences between the SHP and large private employers mirror the differences between the SHP and other states:

1. **Employee premiums for employee-only coverage are lower in the SHP.** Employee premiums for employee-only coverage average 19% of the total for large firms. [17]
2. **Employee premiums for family coverage are much higher in the SHP.** Employee premiums for family coverage average 26% of the total for large firms.

Out-of-pocket requirements in private employer health plans appear to be comparable to those in the SHP, partly due to greater use of high-deductible health plans. [18]

In total, large private employers spend about $9,500 per employee per year on active health insurance.[19] This is roughly $4,000 per year more than the $5,376 ($448 x 12) employer premium in the SHP. Again, this difference is mostly due to subsidization of dependent coverage by large private employers.

Retiree Health Benefits

NC offers medical benefits to retired State employees through the SHP. In most cases, retirees pay very small premiums for their own coverage. These are the monthly retiree premiums in 2015 for retiree-only coverage[20]:

Plan	With 20 years of service	With 10 years of service
Traditional 70/30	$0	$224
Enhanced 80/20	$14	$238
Consumer Directed Health Plan	$0	$224
Medicare Advantage Base Plan	$0	$115
Medicare Advantage Enhanced Plan	$33	$148

These premiums apply to retirees hired on or after October 1, 2006. Almost all current retirees were hired prior to that date and pay the premiums shown in the "with 20 years of service column".[21]

The Traditional 70/30 Plan, Enhanced 80/20 Plan, and Consumer Directed Health Plan are the same as the corresponding plans for actives. The Medicare Advantage plans have an open network structure that allows retirees to obtain services with low co-pays from any provider that accepts Medicare. All plans include prescription drug coverage. The retiree medical benefits are available to essentially all retirees, whether they retire at an early or unreduced retirement age and regardless of whether they retire immediately upon separation from State employment.

The average value of the retiree medical benefit can be approximated by the Normal Cost from the actuarial valuation. The December 31, 2013 valuation shows a Normal Cost of 8.5% of pay. Based on an average salary of $43,844, this equates to roughly $3,727 per year.[22]

Comparison to Other States

Most other states offer some form of retiree medical benefits to their employees. In most of those states, the coverage features other than premiums (services covered, provider network, and out-of-pocket amounts) are the same or similar to those for active coverage and thus largely comparable to coverage under the SHP. However, most states require retirees to pay a substantial portion of the premium for their own coverage and thus the value of the retiree medical benefit is far smaller.

As a rough measure of the relative benefit value, NC had a per capita unfunded liability of $3,036 in one comparison[23], the 7th highest among all states and much higher than the median of around $650.

Comparison to Neighboring States

In the ranking referenced above, SC had a per capita unfunded liability of $1,936, somewhat less than NC. SC offers retirees who were hired prior to 2008 the full employer subsidy if they retire with 10 years of service. The retiree-only premium is roughly $10 in one plan and $100 in the other.

In the same ranking, VA had a per capita unfunded liability of only $226. VA offers retired state employees[24] a $4 per month per year of service credit toward retiree medical premiums. For example, with 30 years of service the state would provide a credit of $120 per month and the retiree would have to pay the difference between the total premium and $120. Not only is this credit a small portion of the pre-Medicare premium, it is not expected to grow in the future.

The per capita unfunded liability for TN was $229 and for GA was $435.

Comparison to Large Private Employers

Prior to accounting changes that were issued in 1990, many large private employers offered subsidized retiree medical benefits. Today, only 25% offer retiree medical.[25] Of those that do offer retiree medical, over 40% require retirees to pay the full premium. Another 30% have capped the employer contribution at a fixed dollar amount.[26] Thus, the value of this benefit is substantially less among large private employers than for State employees.

Other Benefits

Most State employees participate in employer-provided short-term disability, long-term disability and life insurance benefits. Most are offered flexible benefit programs, either through NC Flex for State agencies, UNC, and some community colleges, or through local programs offered by community colleges and LEAs. In some cases, those flexible benefit programs may be partially subsidized by the employer. However, for State agencies, the value of these other benefits is only about 0.6% of pay and other states and large private employers offer benefits of roughly similar value, so this brief does not provide a more detailed comparison.

Many public employees and almost all private employees participate in the following legally required benefit programs: Social Security, Medicare, federal and state unemployment insurance, and workers' compensation. However, some public employees in some states do not participate in Social Security. The cost and therefore value of the benefits other than Social Security is the same or similar across most employers. This brief adjusts for the fact that some public employees do not participate in Social Security by limiting certain aspects of the comparison of pension benefits to those employees who do participate.

There are two common approaches to valuing paid time off, including vacation, holiday, and sick leave:

1. Calculate a value and include it in the total value of benefits.
2. Subtract leave hours from total scheduled hours in the calculation of hourly compensation, therefore reflecting leave in the value of cash compensation not the value of benefits.

This brief has taken the second approach.

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Appendix: Economic Value of Retirement Income (Pension) Benefits

The normal cost is an approximation of the value of benefits earned in the current year by active employees. In order to calculate the normal cost for TSERS, the system's actuary makes numerous assumptions about future events. One of the most important assumptions is about the rate of future investment returns, which is assumed to be 7.25% in the 2013 valuation. This assumed return is used to discount future pension benefits to a present value at the valuation date. This present value is then allocated to each year of service to calculate the normal cost. In recent years, public pension administrators, actuaries, and academics have had an extensive debate on several questions related to the assumed return:

1. What interest rate should be used in calculating the economic value of benefits?
2. What interest rate should be used in calculating the recommended employer contribution?
3. What interest rate should be used in preparing accounting statements?
4. How should plan assets be invested?

The first question is the only one relevant to this brief and on that question the arguments are very compelling that future TSERS benefit payments should be discounted at an interest rate equal or close to a risk-free rate. TSERS is a well-funded system sponsored by a AAA-rated state and thus the payments are essentially free of default risk.

The December 31, 2013 valuation shows the State's portion of the normal cost to be 5.19% of pay. The total normal cost is the State's portion plus the 6% of pay employee contribution, for a total of 11.19% of pay. As of the publication of this brief, long-term risk-free interest rates, as measured by yields on 30-year U.S. Treasury Bonds, were roughly 3%. Using a normal cost duration of 25 (provided by the system actuary), the State's portion of the normal cost would become roughly 22.9%[1] of pay measured using a risk-free rate.

The exact methodology used to make this adjustment is certainly open to debate. The normal cost is calculated under the entry age normal funding method, while the economic nature of the benefit accrual is probably better measured by the traditional unit credit method. Duration adjustments over large interest rate changes are imprecise. The normal cost assumes no future COLAs, although the impact of assuming future COLAs would be small if the assumption is based on recent experience. For these and other reasons, 22.9% is an estimate of the general magnitude of the economic value, not a precise figure.

Interest rates are near historic lows and the economic value of the TSERS benefit would be very different at other points in time. Interestingly, from the early 1960s until the early 1990s, the asset return assumption was below the yield on long-term U.S. Treasury Bonds. Thus, the normal cost in the actuarial valuation overstated the economic value in that time period. As interest rates steadily declined from a peak of almost 15% in 1981, the value of a stream of future payments increased substantially. Likewise, the normal cost measured in the actuarial valuation is essentially unchanged from 1981 when it was 4.92% of pay, but the economic value is far higher today. Many economists and financial professionals believe that interest rates will increase as economic conditions return to normal and the Federal Reserve withdraws some of its recent extraordinary measures. If that does happen, then the economic value of the TSERS benefit will decline, perhaps significantly.

The 7.25% assumption used for TSERS is low relative to many other public pension systems. The median assumption in the 2013 Public Fund Survey (http://www.publicfundsurvey.org/publicfundsurvey/summaryoffindings.html) was between 7.5% and 8.0%. Since most other states have DB plans, their benefit values would change in much the same way to reflect current interest rates, leaving the relative value compared to TSERS roughly the same. However, the adjustment for interest rates is important for the comparison to large private employers because this brief values their pension benefits using average contribution rates to DC plans. Interest rates do not affect the calculation of average contribution rates to DC plans.

[1] $11.19\% \times (1 + 25/100)^{(7.25-3)} - 6\% = 22.9\%$

[1] Charter schools are allowed to participate in both TSERS and the SHP. A small set of local governments are allowed to participate in the SHP. A very small number of National Guard members, firefighters, and rescue squad workers participate in the SHP. In addition, many non-employees participate in TSERS and the SHP as dependents, retirees, and former employees.
[2] Employer Costs for Employee Compensation, December 10, 2014 release, Table 8.
[3] Since 2008, the General Assembly has granted COLAs twice, 1% COLAs in both 2012 and 2014. In contrast, during the 1980s and 1990s COLAs were roughly equal to inflation. However, interest rates were much higher then, which resulted in investment gains that could be used to cover the cost of those COLAs. Because interest rates remain low, this brief assumes future experience will be similar to recent experience, rather than the experience of the 1980s and 1990s.
[4] Ronald Snell for NCSL, "State Defined Contribution and Hybrid Retirement Plans", July, 2012, http://www.ncsl.org/research/fiscal-policy/state-defined-contribution-hybrid-retirement-plans.aspx. Since that time, OK has also passed a law to offer only a DC plan to new hires starting in November, 2015.
[5] Public employees in some states and even some public employees of some cities in NC do not participate in Social Security. Defined benefit plans offered by those states usually have higher multipliers to partially make up for the lack of Social Security, although they also have higher employee contributions, so we have excluded those states or employee groups within those states from our comparison of multipliers and employee contributions.
[6] Wisconsin Legislative Council, *2012 Comparative Study of Major Public Employee Retirement Systems*, December 2013, http://legis.wisconsin.gov/lc/publications/crs.asp
[7] NC General Assembly Program Evaluation Division, *Compared to Other States' Retirement Plans, TSERS is Well Funded and Its Plan Features Are Typical or Less Generous*, September, 2011, Report Number 2011-05, http://www.ncleg.net/PED/Reports/documents/SRS/SRS_Report.pdf.
[8] See http://www.ncsl.org/documents/standcomm/scbudg/Snell2012PensionWebinarSlides.pdf and http://www.ncsl.org/research/fiscal-policy/pensions.aspx
[9] SL 2011-232, passed shortly before the report was issued, increased the number of years of service required to receive a benefit (also called the vesting period) from 5 to 10. SL 2014-88 reversed that change.
[10] Employees hired prior to July 1, 2014 participate in a DB plan. That DB plan is roughly similar in value to TSERS for teachers, with a lower multiple offsetting higher COLAs. For state employees, that DB plan is more valuable than TSERS because state employees do not make employee contributions.
[11] SC also offers a DC choice, but most employees outside of higher education choose the DB plan. See NIRS and Milliman, "Decisions, Decisions", September 2011, http://www.nirsonline.org/storage/nirs/documents/Decisions%20Decisions/final_decisions_decisions_report.pdf.
[12] Towers Watson, "Retirement in Transition for the Fortune 500: 1998 to 2013", September 2014, http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2014/retirement-in-transition-for-the-fortune-500-1998-to-2013
[13] Vanguard, "How America Saves 2014", June 2014, https://institutional.vanguard.com/iam/pdf/HAS14.pdf
[14] TowersWatson, "Defined Contribution Plans of *Fortune* 100 Companies in 2013", http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2015/02/defined-contribution-plans-of-fortune-100-companies-in-2013
[15] For more detail on state employee health plans, see this NCSL page: http://www.ncsl.org/research/health/state-employee-health-benefits-ncsl.aspx and this presentation at the March 2014 SHP Board meeting: http://www.shpnc.org/library/pdf/board-materials/March-2014/14analysis-state-plans.pdf.
[16] The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, "State Employee Health Plan Spending", updated September 2014, http://www.pewtrusts.org/~/media/Assets/2014/08/StateEmployeeHealthCareReportSeptemberUpdate.pdf?la=en.
[17] Kaiser Family Foundation, "2014 Employer Health Benefits Survey", http://kaiserfamilyfoundation.files.wordpress.com/2014/09/8625-employer-health-benefits-2014-annual-survey3.pdf. Premium percentages are calculated from Exhibits 6.9 and 6.10 for Large Firms only.
[18] Towers Watson, "What Do PPACA Standards Mean for Employers' Health Plans?", October, 2012, http://www.towerswatson.com/en-US/Insights/Newsletters/Americas/insider/2012/what-do-ppaca-standards-mean-for-employers-health-plans
[19] Towers Watson / NBGH Employer Survey on Purchasing Value in Health Care, March 2014, http://www.towerswatson.com/en-US/Insights/IC-Types/Survey-Research-Results/2014/03/towers-watson-nbgh-employer-survey-on-purchasing-value-in-health-care, shows average employer costs of $9,560 per year. The Kaiser Family Foundation report "2014 Employer Health Benefits Survey", exhibits 6.9 and 6.10, showed employer contributions of $4,970 for single coverage and $12,742 for family coverage. Making reasonable assumptions about the coverage tier elected, these premiums line up with the Towers Watson / NBGH figure.
[20] Enhanced 80/20 Plan and Consumer Directed Health Plan are not available if Medicare-eligible and premium assumes completion of all wellness activities. Medicare Advantage Plans are not available to those who are not Medicare-eligible. The premium shown for the Traditional 70/30 Plan with 10 years of service is for retirees who are not yet Medicare-eligible, which is

higher than the premium for Medicare-eligible retirees in that plan. Dependent coverage is available, but retirees pay the full stated premium, so the value of dependent coverage is similar to the value of dependent coverage for retirees in other states.

[21] SL 2006-174 changed the premium for retirees hired on or after October 1, 2006.

[22] The interest rate used in this valuation is 4.25%. In addition, the benefit is not as free of risk as the pension benefit since out-of-pocket amounts, the plans offered, and various other provisions have been changed multiple times over the history of the plan. Thus, the normal cost does not appear to understate the economic value of the benefit due to the interest rate used. The normal cost does reflect a mix of employees hired before and after October 1, 2006, so somewhat overstates the cost for new hires. However, since the average retiree has over 20 years of service, this overstatement may not be substantial.

[23] Center for State & Local Government Excellence and National Association of State Retirement Administrators, "Spotlight on Retiree Health Care Benefits for State and Local Employees in 2013", June 2013, http://slge.org/wp-content/uploads/2013/06/OPEB-Spotlight-06176.pdf. Per capita unfunded actuarial accrued liability (UAAL) is in Table 1. Note that "per capita" means per resident, not per employee. Very few states have funded retiree medical to a significant degree, so the UAAL is essentially equal to the actuarial accrued liability (AAL) for most states and can be compared across states as a rough measure of the value of benefits. Unfortunately, we are not aware of a publication showing normal cost by state.

[24] Retired school personnel appear to be covered by the applicable retiree medical plan of their local school district, if one is offered.

[25] Kaiser Family Foundation, "2014 Employer Health Benefits Survey", Section 11, http://kaiserfamilyfoundation.files.wordpress.com/2014/09/8625-employer-health-benefits-2014-annual-survey3.pdf.

[26] Employee Benefit Research Institute, "Implications of Health Reform for Retiree Health Benefits", January 2010, http://ebri.org/publications/ib/index.cfm?fa=ibDisp&content_id=4433.