Analysis of Teacher Retirement System Issues

Augenblick, Palaich and Associates

A Paper Commissioned by the
National Center on Education and the Economy for the
***New* Commission on the Skills of the American Workforce**

February 2007

NCEE
National Center On
EDUCATION
And The Economy
®

ANALYSIS OF TEACHER RETIREMENT SYSTEMS ISSUES

Augenblick, Palaich And Associates

Responses to Larry Mishel's Teacher Retirement System Questions
February 2007

Teacher Retirement Systems Today

Comparing teacher retirement systems across states is not an easy task. The structure of teacher retirement systems varies from state to state. Questions like the following illustrate the critical variations. Do teachers participate in the social security program? Are teacher retirement systems adequately funded to meet their future obligations? What is the typical employee contribution? What is the typical employer/state contribution? What is the average percentage of final salary offered to retirees? What are the rules that qualify a teacher for that percentage? How portable are the pension benefits?

To create an estimate of what would the difference be between what is currently contributed and what is proposed in the NCEE report when the recommendations of NCEE report might be fully implemented, APA needed to develop a method for generating the comparisons. The method APA developed focused on employee and employer/state contributions as the basis for comparison. Using data from the NEA,[1] the average employee contribution was weighted by the average teacher salary of the state as well as the state's population. The weighted average was 6.10 percent, even though three states offer (or had offered) retirement plans that do not require employee contributions. This weighted average documented that in 2003, teachers make the 6 percent contribution recommended by the NCEE Commission.

Using the same data source and method, the average employer/state contribution weighted by the average state teacher salary and the state's population was 8.28 percent. Combining these two contribution figures with a national average teacher salary of $46,000 in 2002-03 and 2,999,526 teachers nationwide, approximately $19.8 billion were contributed to teacher retirement systems that year. In addition, most, though not all, teachers participated in the federal social security program, with appropriate additional contributions from both the employee and employer. Social security contributions, from the employees and the employer, are not taken into consideration in the APA method for creating a cost comparison of what is currently contributed to teacher retirement and what is proposed in the NCEE report.

In the analysis of the average employer/state contribution, it is clear that the reported annual contributed amount is not necessarily comparable across states. To create more of

---

[1] Source: *Characteristics of Large Public Pension Plans*, National Education Association, Washington, DC: November 2004.

an “apples to apples” comparison, controls were needed to address the following concerns.

- Is the retirement plan offered in addition to social security benefits?
- Is the amount contributed appropriate to make these systems actuarially sound?
- Are the benefits offered to retirees similar?
- Do the selected states represent the underlying retirement investment philosophy represented by the geographic regions of the country?

Our first concern was whether state participation in the federal social security program bias the state’s interest in funding its teacher retirement program? For starters, 10 states in NEA survey did not offer their teachers the option to participate in the federal social security program. From a review of the data in the NEA survey, it appears that this position tends to increase the percentage contributed by the employer/state.

Second, independent of cause, the under-funding of teacher retirement systems is a concern in many states. Several states, like Montana, have made recent multi-million dollar additional contributions to their retirement systems to bring them closer to being actuarially sound. While these periodic large state investments are critical to the soundness of the individual state retirement program, they clearly raise questions about whether the reported percentages of salaries contributed by employers/state reported in the NEA study actually cover the actuarial cost of those programs. APA does not believe that these programs are in financial danger, only that the reported percent contribution by employers/state is likely to be low.

Finally, across all states the actual retirement benefit, what a retired teacher actually receives, varies significantly. For example, the average percentage of final salary that is offered to retirees across all states is 55 percent, with the percentage in an individual state ranging from 71 percent to 36 percent. In addition, the formulas that determine the number of years needed before a teacher can retire vary from state to state. To address the above concerns in our calculations, APA developed a process for selecting states (described below) that controlled for these concerns.

Finally, there are benefits to moving from a defined benefit to a defined contribution or cash balance retirement plan, and there are costs. The benefits include the following:

- States/employers and individual teachers are always current in their contributions to the plan;
- The accumulated funds belong to the teacher rather than to the system;
- The teacher’s retirement contributions are portable if he or she changes jobs;
- Those who leave the teaching profession early do not subsidize those who stay in the classroom until retirement;
- It is likely that the individual teacher when he or she retire will have more retirement income and certainly they will “own” the accumulated value of their contributions; and
- These programs are likely to be less costly to administer.

The primary cost of moving to such a system is associated with how to pay off the obligations already incurred under the existing defined benefit plans. States will have to decide how to structure and pay for the transition since retirees benefits will no longer be subsidized by the cadre of younger teachers entering and moving through the teaching career. Neither a financial estimate of the added benefits to the individual teacher nor an estimate of the cost of the transition from a defined benefit to a defined contribution plan is addressed in the analysis offered in the Commission report.

Calculation Rationale and Description

As described in the report, the Commission was looking to establish a comparable benefits plan for teachers in this new system that would compare favorably relative to other mid-level professionals. This means that the following elements needed to be taken into consideration:

- A defined contribution structure; and
- A matching contribution to the defined contribution structure on the part of the employer.

For this last item the percentage discussed in the Commission report was 6 percent. The Commission did not care how these funds are spent, just that they were contributed to the retirement pool for teachers. For calculation purposes, APA assumed that the actual contributed amount was 10 percent (essentially what many colleges and universities offer to their teaching faculty who make the specified employee contribution). This means that for there to be a "savings" under the proposed strategy, the selected states would have to average more than a 10 percent contribution.

As noted above employer/state contributions are reported by the NEA,[2] but we needed a way to "control for" the following: social security participation; whether the pension contribution levels lead to an under-funding problem, and the variation in retiree benefits. For example, there is no use accepting an employer/state's contribution percentage as accurate when it is clear that the plan is systematically under-funded. "Pay as you go" controls were needed.

APA's Approach to Creating the Retirement Savings Estimate

The following steps describe the approach.

1. Consulted published reports on individual state teacher retirement systems and reports comparing teacher retirement systems across states.

[2] Source: Table 5, *Characteristics of Large Public Pension Plans*, National Education Association, Washington, DC: November 2004.

2. Selected the "AFL-CIO Update: Threats to Public Worker Pensions,"[3] as a source for sorting states into gross categories of teacher pension system health.
    a. We eliminated 15 states from consideration that were classified as either "two or three alarm" states because it is unclear whether the funds contributed in those states actually cover the future costs of the teacher retirement systems.
3. Again using the NEA teacher retirement system survey as our source, we eliminated an additional 6 states not offering teachers the option to participate in the federal social security program.
4. We eliminated an additional 5 states that were so large in population that their particular retirement funding effort would dominate the weighted averages (which are used in the calculations below);
5. From the remaining pool of 24 states,
    a. We selected states that were distributed across all regions of the country; and
    b. We selected states that offered similar retirement benefits as measured by the percent of final salary.
6. From the pool of 24, the following states were chosen – Arkansas, Idaho, Indiana, Maryland, Mississippi, Utah and West Virginia.
7. The percentages contributed by these employers/states to the teacher retirement pool were then weighted by the average teacher salary and the state's population to create a weighted average.
8. The resulting weighted average contribution from these employers/states to the teachers' retirement system for the selected states was 13.0 percent. This is 3 percent over the 10.0 percent operational definition that APA adopted and 7 percent above the figure recommended by the Commission (6 percent).

The 3 percent was applied to the new average salary of $55,208 found in the steady state of the recommended NCEE system, which generated $1,660 ($2,210 in the original published estimate). The revised $1,660 (rather than the original $2,210) is then multiplied by the total number of teachers in the system. The resulting figure is $4.98 billion worth of "savings" over current levels of existing contributions operating fifteen years from now.

APA believes that this estimate could easily be increased by an additional one percent by either selecting a different set of states from the final pool or by relaxing the APA operating assumption of a minimum of 10 percent from the employer/state. This additional one percent results in the $2,210 figure published in the NCEE Commission Report, puts into play an additional $1.5 billion, and makes the final "savings" estimate $6.7 billion.

[3] Source: *AFL-CIO Update: Threats to Public Worker Pensions*, AFL-CIO, Washington, DC: updated September, 2006. While it is clear that this summary article also defines "defined contribution plans" as an additional threat, the under funding of pension plans is identified in each of the states identified as receiving two or three alarms.

The assumptions needed to make this comparison are certainly open to thoughtful challenges. APA hopes this added documentation gives the reader enough information to understand what we did to create the estimate. Commentators can formulate their own judgments and, if need be, create their own alternative set of assumptions.

