The Tradeoff Between Teacher Wages and Layoffs to Meet Budget Cuts

Marguerite Roza
July 30, 2009

Facing huge budget gaps, are school district officials forced to lay off teachers? It’s true that teacher salaries make up the largest slice of the district budget pie, but salary costs can be cut without layoffs. Rather than handing out pink slips, some districts have explored rolling back salaries.

Teacher salary expenditures are made up of the number of teachers, days worked, and salary levels. Setting aside the option of furloughs, in a cash-strapped district, higher wages mean more layoffs. Reduced wages can save jobs (and thus maintain class sizes and stabilize districts’ instructional programs).

This tradeoff between numbers of teachers and salary levels is evident in the Los Angeles Unified School District, where at the time of writing, the school board had decided to lay off 5,400 of its teachers and support personnel. As Education Week reported: “Superintendent Cortines hoped to gain concessions on furloughs, salary reductions, and freezes on raises in an attempt to reduce the number of necessary layoffs, but he was unable to do so.”

In a few locales, the tradeoff has played out differently where teachers have surrendered planned salary increases to protect teaching positions. Here, as elsewhere, the notion is that wage modifications may enable a district to reduce the need for layoffs.

---

1 An estimated 60%-80% of the more than $500 billion per year spent operating the nation’s public schools goes directly to paying and supporting school employees. Much of the money is directed to basic teacher salary costs. See Marguerite Roza, Frozen Assets: Rethinking Teacher Contracts Could Free Billions for School Reform (Education Sector Reports, January 2007).


The problem for many locales, however, is that wages are often decided many years in advance, via collective bargaining agreements. In contrast, decisions about how to close budget gaps get made just ahead of the affected school year as revenue projections are finalized. Sometimes in closing gaps, district leaders treat salary decisions made years ago as immovable (which they are not) and focus only on furloughs and layoffs.

Any decisions about teacher pay and employment are sensitive. Teachers worry about reductions in their earnings; the most-junior teachers fear losing their jobs; parents and continuing teachers may be concerned about rising class sizes.

This Rapid Response brief demonstrates the effect on wages, layoffs, and class sizes of a range of policy options available to districts forced to cut salary expenditures.

**Sizing up salary policies in the current fiscal climate**

Some 93 percent of districts structure teacher salaries according to a salary schedule. While the details of those schedules differ, the vast majority reward teachers for longevity (years taught) and education attainment (degrees or credits earned). Each year a teacher moves along to a new “step” on the salary schedule (for longevity and, if relevant, for additional credits earned) such that the average teacher’s salary increases about 3.16 percent per year via step changes alone.

In addition, the salary schedule typically gets an across-the-board increase from year to year, often as part of multi-year labor contracts (i.e., for a cost of-living adjustment (COLA)). Not surprisingly, average yearly changes to salary schedules have roughly followed the Consumer Price Index (CPI), bringing teachers an additional salary boost that has, from 1997 to 2007, averaged 2.87 percent per year. These across-the-board changes to the schedule come in addition to the average 3.16 percent step change, such that a typical teacher continuing from one year to the next receives an average raise of 6.03 percent each year (2.87 percent schedule change plus the 3.16 percent average step change).

---


5 Much has been written about the shortcomings of such compensation systems, and indeed, some districts are now considering a range of modifications to these traditional salary schedules. That said, for those districts seeking immediate action to close budget gaps, it may be realistic to consider the schedule at hand, as changes in the structure of teacher compensation are further down the road.


7 Less frequently, districts tinker with individual cells to boost starting salaries, or stem transfers.


9 Note that while the average continuing teacher’s salary rises in this example by 6.03%, the district average salary may not rise by 6.03%, as some senior teacher salaries are replaced by newer junior teacher salaries.
Current conditions, however, put this relationship in unchartered waters. The most recent 12-month consumer price index, the measure of inflation, (through June 2009) was negative, falling by 1.4 percent — the steepest decline in over five decades.  

So, what does a district do if facing deep budget cuts and a now-negative CPI, even after implementing a hiring freeze? In some sectors, we might expect a salary freeze, or even wage cuts. For example, in December 2008, Federal Express announced 5 percent pay cuts for its workers, and the elimination of 2009 merit-based increases. In February 2009, Hewlett Packard (HP) followed suit with pay cuts for its workers as a way to avoid thousands of layoffs. In defending this action, HP’s CEO said that he didn’t “believe a major workforce reduction is the best thing for HP at this time.”

In K–12 education, leaders are less likely to roll back or freeze actual wages, in part because they feel bound by the salary schedule. Those not operating under previously negotiated contracts might forego schedule changes, thereby freezing the schedule, but allowing teachers to continue to earn step changes. Freezing actual salaries, however, means either rolling back the schedule (by some negative percentage), or abandoning the schedule so that the step changes won’t apply—both actions that have little precedent in districts.

**Computing the impact of salary policies on layoffs and class size**

Using nationally representative data, this analysis illustrates the tradeoff between the impact of decisions to pursue a set of wage changes versus decisions to pursue layoffs, and their corresponding effect on class size.

The analysis assumes a school system must cut 5 percent from its teacher expenditures from one year to the next, after already accounting for savings from a hiring freeze and regular attrition. It also assumes that the salary schedule rewards the average continuing teacher with 3.16 percent in step changes (the national average), and a previously agreed upon 2 percent across-the-board increase to the schedule.

---


13 The assumption of 2% growth in salaries is less than the 2.87% average increase from 1997 to 2007 (AFT, 2007, ibid) and the most recent 3.1% increase from 2008 to 2009 (National Education Association, *Rankings & Estimates*, Highlights Table 1, Washington, DC: National Education Association, 2008, p. 66).
Specifically, this analysis models the implications of the following set of options:14

a) Proceed with both the modest planned increases to the schedule (2 percent) and step changes (averaging 3.16 percent per continuing teacher).

b) Forego the planned across-the-board raises, but honor increased pay due to step changes.

c) Freeze current wages so that continuing teachers earn the same dollar figure as in the previous year—thereby abandoning step changes.

d) Roll back the entire salary schedule by 5 percent but give teachers longevity step changes on the new schedule.

e) Roll back the entire salary schedule by an amount large enough to negate the need for layoffs.

To determine the effect on layoffs, the analysis assumes that layoffs are implemented using seniority-based agreements whereby those let go are the most-junior teachers. Using analysis from a 2009 Rapid Response brief on seniority-based layoffs, this analysis determines the percentage of layoffs needed to achieve the targeted reductions in salary expenditures,15 and the resulting change in pupil-teacher ratios (assuming layoffs will be applied proportionately across subjects and courses such that class size will rise by the same proportion).16

What the data tell us about the tradeoffs

The results demonstrate the real trade-off between layoffs and class size, on the one hand, and teacher wages on the other. As wages increase, teacher layoffs increase, and so, too, does average class size. Table 1 reports resulting tradeoffs for a district needing to reduce salary expenditures by 5 percent after taking into account a hiring freeze and attrition. In the first simulation, with a 2 percent across-the-board schedule increase, the potential impact on teacher layoffs is 14.3 percent of the workforce, or 143 layoffs per 1000 teachers, causing class sizes to rise by almost 17 percent. For an average class of 25 students, this would translate into roughly four additional students for a total of 29 students per class.

---

14 This set of options isn’t intended to be comprehensive. Options such as salary repayments (where teachers give back some dollar amount to the district), reduced stipends, or furloughs are not considered here directly, but do represent other ways to manage the tradeoff between wages and layoffs.

15 Marguerite Roza, “Seniority-Based Layoffs Will Exacerbate Job Loss in Public Education” (Seattle: Center on Reinventing Public Education, 2009).

16 Districts may choose to apply layoffs unevenly across subjects (cutting, for instance, music classes, etc.) such that class sizes wouldn’t be affected proportionately.
Table 1: Balancing Salary Changes and Layoffs to Meet a 5 percent Reduction in Teacher Salary Expenditures (after attrition)

<table>
<thead>
<tr>
<th>Options re: teacher salaries</th>
<th>For continuing teachers, average change in salary</th>
<th>Layoffs per 1000 teachers</th>
<th>Percentage increase in class size*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continue with &quot;modest&quot; increases to overall salary schedule (2% across-the-board increase in addition to an average 3.16% increase in step change)</td>
<td>5.16%</td>
<td>143</td>
<td>16.7%</td>
</tr>
<tr>
<td>2. Freeze current salary schedule (teachers still get the average 3.16% step change)</td>
<td>3.16%</td>
<td>119</td>
<td>13.5%</td>
</tr>
<tr>
<td>3. Freeze all current salaries (teachers are paid what they were paid last year, with no step changes)</td>
<td>0%</td>
<td>75</td>
<td>8.1%</td>
</tr>
<tr>
<td>4. Roll back salary schedule by 5% (but allow teachers to continue to earn step changes averaging 3.16%)</td>
<td>-1.84%</td>
<td>47</td>
<td>4.9%</td>
</tr>
<tr>
<td>5. Roll back salary schedule enough to avert layoffs while allowing for step changes (e.g., entire schedule would roll back by 8.16% = 5% plus 3.16% to allow for step changes)</td>
<td>-5%</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

* Assumes percentage changes in total pupil/teacher ratio are applied proportionately to class sizes.

By “freezing the schedule” in the second simulation, the effects on layoffs and class sizes are mitigated somewhat. Teachers continue to receive their step increases, averaging 3.16 percent, creating the need to lay off 12 percent of teachers to achieve the targeted 5 percent reduction in teacher salary expenditures. Resulting class sizes would increase by 13.5 percent.

In the third simulation, where teachers’ salaries are frozen (with no step increases), reducing teacher expenditures would require a layoff of 7.5 percent and an increase in class size of just over 8 percent. It is worth noting that freezing teacher pay would be an unlikely move in the education sector, as teachers who amassed new credits or degrees in the past year would not receive the extra compensation promised when they undertook their coursework.

In the fourth simulation, fewer layoffs are needed, and this time the layoffs are the result of the need to shrink the teacher expenditures by 5 percent, not because of wage growth. While teachers would move forward on the schedule with step changes from experience and education, the schedule rollback means that the average salary would still decline by 1.84 percent (preserving relative differences in salaries for those with...
master’s degrees, etc.). Reaching the targeted reduction in teacher expenditures would require a layoff of 4.7 percent, resulting in a 5 percent increase in class size.

In the last simulation, layoffs and increases in class size are averted completely by wage concessions. In this analysis, the entire schedule would need to be rolled back by 8.16 percent in order to save 5 percent of teacher expenditures. Teachers would still move forward on the schedule with step changes, but with the schedule roll-back, the average salary would decline by 5 percent.

**Making the decision: layoffs or wage cuts?**

For decades, various stakeholder groups have campaigned both for higher teacher wages and reduced class sizes. In this new era of fiscal constraints, it is now clear that the two are at odds: increasing wages means class sizes will swell, and vice versa. No longer can stakeholder groups take the position of advocating for both. Similarly, no longer can district leaders afford to make decisions about wages separately as if they had no implications for layoffs. Addressing budget gaps responsibly may require reopening contracts so that all options are on the table.

A quick scan of some of the many education blogs suggests that there is no obvious preference among all stakeholders (even among teachers) for how these decisions should be made. While some voice support for wage cuts to protect jobs and class sizes, others argue for the opposite.

Yet, in the end, district leaders must make the best decision for their students, and thus would do well to not only take into account the perspective of different stakeholders, but also consider a host of other factors. Trends in CPI, local unemployment rates, and changes in district enrollment may all be relevant. In a locale where teachers are likely to react to wage cuts by taking available jobs elsewhere, wage cuts might not be the right answer. Similarly, in a district with declining enrollment, layoffs may be a strategic move as part of right-sizing the organization.

On the flip side, in a district with stable or increasing enrollment, rising local unemployment rates, and a declining CPI, the best calculus might yield a different decision. Wage cuts don’t pose the same risks to an organization when alternate jobs are scarce and a wage squeeze doesn’t lower real standard of living.

In any case, for many district leaders, the extent of the economic crisis means that more districts will be facing such decisions than at any time in recent history.

---

17 Policymakers seeking to avert layoffs altogether should compute the implied schedule rollback given their system’s actual budget cuts, and existing salary files.

The $CHOOLS IN CRISIS: MAKING ENDS MEET series of Rapid Response briefs is designed to bring relevant fiscal analyses to policymakers amidst the current economic crisis. For more information, please visit www.crpe.org

Marguerite Roza is a senior scholar at the Center on Reinventing Public Education, and a research associate professor at the University of Washington College of Education.

Funding for this work was provided by the Bill & Melinda Gates Foundation. We thank the foundation for its support, but acknowledge that the findings and conclusions contained here are those of the author alone and do not necessarily reflect the opinions of the foundation.