

# School Finance 105

## Cost Adjustments for Other Factors

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*In the debate around Governor Brown's proposed "Local Control Funding Formula" (LCFF), a number of issues have been raised that school finance researchers (and policymakers in other states) have been discussing for years. This 'School Finance' series highlights what we know – and what we don't know – about some of these issues. Much of what is covered in these posts (including additional sources and full citations) can be found in [School Funding Formulas: What Works and What Doesn't? Lessons for California](#), a 2007 report done for the Senate Office of Research.*

As discussed in my [last post](#), Brown's proposal includes weights for student poverty and English Learners. It also retains a small number of categorical programs but all other funding streams are folded into the core formula. Even if the LCFF is ultimately adopted in something like its current form, one question that will likely continue to be debated is whether other cost factors should also be explicitly included/funded. Almost all states provide additional, differential funding for at least a few programs, either through weights or adjustments to the base formula or through separate categorical streams. However, there is a great deal of variation in what other factors are included. In general, the options fall into three areas: student needs, demographics and resource costs.

**STUDENT NEEDS**

As discussed in the [last post](#), it is fairly well established that additional resources are needed to compensate for certain student characteristics, particularly disabilities, poverty and limited English skills. Not surprisingly, these are the most common categories of student need that states include in their school funding formulas.

**GRADE LEVEL**

Many states set different foundation levels for districts serving different grade levels (elementary, middle or high school) or for different grade spans (elementary, high school or unified). Although secondary students have traditionally been considered more costly than elementary students, more states in recent years have also given additional weight to the earliest grades (i.e., kindergarten through third grade). Brown's proposal adjusts for grade level in two ways: there are increasing base amounts for K-3 (\$6342), 4-6 (\$6437), 7-8 (\$6628) and 9-12 (7680), plus there are additional weights for students in K-3 (11.2%) and high school (2.8%). The K-3 weight will eventually be dependent on districts maintaining K-3 class sizes of 24 or less.

It is worth noting that although there is some research on differences in costs across grade levels, there is no strong consensus for which grade levels need more resources than others. State policies are equally varied: [In 2005](#), there were five states that gave the highest weight to high school students, five that had higher weights for high school and middle grades, five that had higher

weights for K-3 and 7-12, and two that reduced funding as students aged (i.e., kindergarten had highest weight and high school had smallest).

There is a growing research base supporting the idea that it is worthwhile to invest more in the early grades; for example, by reducing class size. However, much of the research on class size has focused on the lower grades so we do not know if additional resources for early grades are necessarily more cost-effective than additional resources for later grades. In New York, middle school students receive the highest weight because it is in these grades that student performance begins to weaken. For high school grades, a case could be made for higher weights because more teachers are needed to cover a multi-period structure, because material costs are higher, and because additional resources are needed to ensure students pass the exit exam. In other words, arguments have been made that high school, elementary or middle grades each would benefit from higher resources but there is no work that compares the relative effectiveness of investment for different levels.

## SCHOOL/DISTRICT SIZE

Some states also include adjustments for school size, district size, or both; most commonly seen is additional funding for very small districts, though the definition of 'small' varies across states. For example, Oregon gives supplemental funding to districts with fewer than 8500 weighted students and high schools with less than 350 students (for four grades) or 267 students (for three grades), while Texas adjusts for any district with less than 1600 in average daily attendance (Texas also has an adjustment for mid-sized districts which are those with ADA between 1600 and 5000). Brown's LCFF addresses the needs of very small schools by funding them outside the formula, allocating a block grant amount instead.

## THE RESEARCH ON SCHOOL SIZE IS MIXED

[Andrews, Duncombe and Yinger \(2002\)](#) synthesize much of this research and conclude that the optimal size for elementary schools is 300-500 students; 600-900 students for high schools. They also conclude that costs are higher in very small districts (fewer than 500 students).

## TEACHER LABOR COSTS

A number of states account for differences across districts in the cost of attracting and retaining teachers. These teacher cost adjustments take one of three forms: cost of living adjustments (Colorado, Nevada, Ohio), 'comparable wage cost' adjustments (Florida, Texas), or adjustments for teacher characteristics (Arizona, Oregon, Utah, New Mexico). **Cost of living adjustments** are often based on housing costs, though they may also be calculated using a larger basket of goods. **'Comparable wage' adjustments** account for variation in both cost of living and area amenities; they are calculated by measuring the variation in non-teacher wages across localities. For example, if non-teacher workers in San Diego are paid, on average, 10% more than non-teacher workers in Bakersfield, then the comparable wage index would suggest San Diego Unified receive 10% more revenue for teacher salaries. Adjustments for **teacher characteristics** try to compensate districts that have more experienced or educated teachers, as this leads to higher-than-average salary costs. For example, New Mexico computes a 'training and experience index' that is based on five experience categories and five education categories. Districts with more teachers in higher categories have higher index values and receive more revenue per pupil.

The case for teacher cost adjustments comes from a large literature on teacher mobility and attrition. When salaries are not high enough to compensate for high costs of living or lack of area amenities, teacher turnover is higher and recruitment is more difficult. Although there is no existing research that directly examines whether states with adjustments for geographic variation in teacher costs have fewer problems with teacher attrition than states that do not have these adjustments, most costing out studies acknowledge these different salary needs in determining adequate levels of funding for different districts. Also, economic theory favors the use of a comparable wage index, rather than a cost of living index. Because workers value certain amenities, and seek

to avoid 'disamenities', cost of living measures will tend to overestimate the wage differential needed to actually attract and retain teachers in high-cost of living locations and underestimate it in low-cost of living locations. It should also be noted that research has found very little connection between teacher education or experience (beyond the first few years) and student outcomes. Thus, policies that compensate districts for having more experienced or educated teachers may create perverse incentives, for example, encouraging districts to hire teachers with Masters degrees but who are not necessarily contributing to higher student performance.

## OTHER RESOURCE COSTS

Brown's proposal keeps transportation as a separate program and future funding levels will be based on existing allocations. Maintaining a separate transportation program is not necessarily problematic; virtually every state provides funding for district transportation as a categorical stream outside the base formula. But maintaining current allocations (which, like much in the current system, are based more on history than current district needs) simply perpetuates irrational variation across districts. The allocations for transportation should be set using the same, rational approach as the rest of the new system. In many states, transportation is calculated on a reimbursement basis or a formula based on estimated miles.

In some states, separate funding is also allotted for population sparsity. For example, Nebraska groups districts into very sparse, sparse and standard categories based on the number of students per square mile in the county where the high school is located, students per square mile in the high school system, and distance between high school attendance centers. The foundation amount is adjusted for each category, in addition to a separately-calculated transportation allowance.

## SPECIAL PROGRAMS/POPULATIONS

California has traditionally funded programs for special populations through categorical streams. Some of the categorical streams that would be rolled into Brown's LCFF include gifted and talented education, career and technical education and foster programs. If the state were to decide that these services must be provided by all districts, then equity requires that they provide additional funding. As discussed [last week](#), additional funding could be distributed through categorical funds, or through the foundation formula (e.g., by increasing the base or establishing add-on weights) if accompanied by standards that are enforced through the accountability system. Alternatively, legislators could decide that decisions about these services should be left up to individual districts.

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