

APRIL 2013

# Misfit Structures & Lost Opportunities:

## *The urgent case for restructuring teacher compensation and career paths*

*One out of a series of three ERS publications on teacher compensation, this paper explores how to rethink compensation and career paths to attract and retain the most effective teachers.*

### Introduction

Teaching effectiveness is the most important in-school factor for improving student achievement.<sup>1</sup> We need to attract, retain, develop, and motivate the most effective teaching force possible—but how to best accomplish this? Many argue that teacher salaries should be elevated to compete with other professions that attract and retain strong talent. This seems straightforward, but in the words of H.L. Mencken, “For every complex problem there is an answer that is clear, simple...and wrong.”

In this instance, **raising salaries is not the wrong answer, it’s just woefully incomplete. The right solutions will be more complex.** First, compensation is just one piece of the puzzle in attracting, retaining, developing, and motivating the high-potential and highly effective teachers we need. Study after study shows working conditions trump or equal increased compensation when teachers consider what’s most important to job satisfaction.<sup>2</sup> Second, simply raising compensation without changing how it’s structured perpetuates a system that is not supported by research and includes incentives that impede creation of an effective teaching force.

Last—but certainly not least—teacher compensation comprises 40–55 percent of district budgets, so no serious effort to leverage education spending can occur without analyzing how all budget items impact the bottom line: student performance.

This paper addresses two primary factors that drive the urgency for redesigning teacher compensation and career paths. First, a **misfit** exists between the current compensation structure and the goal of using pay as one of several mechanisms to attract, retain, develop, and leverage the kind of teaching force we need to achieve the student-performance outcomes that as a nation, we expect. Only 23 percent of our teachers come from the top third of college graduates; just 14 percent in high-poverty schools.<sup>3</sup> Exacerbating this problem, research has found that high-achieving teachers in high-poverty schools are more likely to leave than their lower-performing peers<sup>4</sup>, and that a competitive compensation structure is needed to change this reality. Second, the dominant teacher compensation structure in most U.S. school systems invests significant taxpayer dollars in ways that have minimal, if any, impact on student

**Acknowledgements:** Many individuals across ERS were instrumental in the writing and analysis of this paper. Regis Anne Shields was lead author and analyst. Providing significant contribution were the following members of the ERS team: Karen Hawley Miles, Chris Lewis, Anna Sommers, Genevieve Green, and David Bloom. We also want to thank the ERS partner districts whose data are included here as a result of our partnership efforts to transform school systems. Members of the Aspen Urban Superintendents and CFO networks provided valuable feedback. And we are grateful to the Bill & Melinda Gates Foundation for providing funding for this report. ERS is solely responsible for the ideas presented in the paper and for any errors.

achievement. This investment represents a **lost opportunity**, because these dollars could be more productively used.

This paper details these two urgent reasons for reform, focusing specifically on salary compensation. It explains why the current structure doesn't allocate resources to attract and keep those who contribute the most and quantifies the dollars that could be reallocated to pay for things like teacher leadership roles, collaborative time for teachers, and extended student time. We conclude with a summary of principles that can guide efforts to redesign compensation and address the challenges identified here. More details on alternative compensation design can be found in our series of memos "Strategic Design of Teacher Compensation."

The present compensation structure has persisted since the early 20th century.<sup>5</sup> Changing it will take experimentation, time, and careful design. Restructuring compensation requires the political will to change legislation, policies, contracts, and stakeholder perception. To this end, considerable momentum exists right now for improving teaching effectiveness, and the education community is devoting significant time, energy, and resources to improving teacher evaluations, hiring, and professional-growth opportunities. If compensation redesign is not a part of this mix, other reforms will fail to achieve our student-outcome objectives.

## Misfit Structures of Current Teacher Salary Schedules

This paper focuses specifically on the salary portion of compensation and does not delve deeply into benefits.<sup>6</sup> The main structural components listed below look similar for the majority of districts that compensate teachers through a step-and-lane salary structure.

Salary components:

- **Starting Salary** – starting salary for individuals with a bachelor's degree in their first year of teaching.

- **Longevity Increases** – automatic, permanent increases over starting salary earned through years of experience, called "steps."
- **Education Credits** – permanent increases in salary based on educational attainment or coursework, called "lanes."
- **Performance** – pay related directly to a teacher's performance; currently, this type of pay is generally in the form of bonuses.
- **District Incentives** – premium pay, generally in the form of an annual stipend, to attract teachers to harder-to-staff positions; currently, these include incentives for working in turnaround or high-poverty schools, as well as for subject matter or specialties that are difficult to fill, such as mathematics or special education.
- **Responsibility** – annual pay for extra responsibility, often in the form of stipends or additional pay as a set percent of a defined base salary; currently, districts pay stipends for a wide range of responsibilities, from teacher-leadership positions to athletic coaching to supply-closet monitor.

Benefit components:

- **Health and Welfare** – medical plans, life insurance, disability insurance, weight-management programs, etc.
- **Paid Time** – vacation, holidays, sick leave, bereavement, leaves of absence, maternity/paternity leave.
- **Retirement** – health and welfare benefits available after retirement, pension, accumulated sick and vacation pay.

While the components of salary look similar, the details of how districts structure their steps and lanes vary in ways that make big differences for spending levels and incentives. **Figure 1** (page 3) shows that for a set of districts analyzed in 2010, the number of steps ranged from as few as nine steps in Boston to as many as 35 in Rochester.

As with longevity increments, districts take different approaches to educational increases. **Figure 2** (page 3) shows that districts have different numbers of increments or lanes connected to adding course credits. Seattle and Boston each have nine lane categories from B.A. to Ph.D. In contrast, Rochester, with two lanes, rewards only the attainment of a master’s degree by awarding a two-step bump in experience. The specific configuration of steps and lanes will impact the magnitude of a district’s lost opportunity and its ability to attract, retain, and motivate effective teachers, as we will discuss.

The relative amount districts invest in longevity versus credits looks similar but not exactly the same, with the bulk of an individual teacher’s career increases over starting salary determined by longevity increases and education credits. **Figure 3** (page 4) quantifies the components of increases in salary for a typical teacher, as compared to a top-performing teacher who assumes leadership responsibilities and earns the most degrees possible for a set of typical urban districts. On average, 80 percent of an individual teacher’s salary increase accrues from adding experience and education, and only 10 percent from

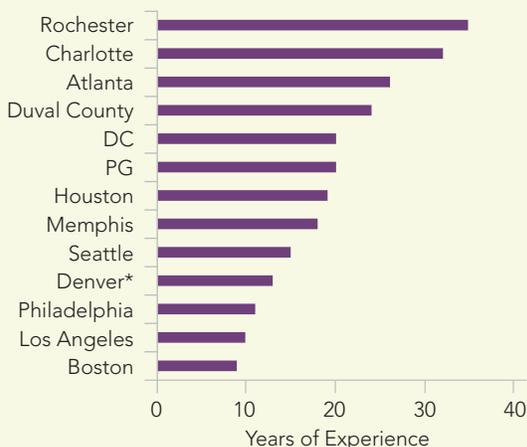
responsibility and performance. For the average teacher who is proficient and takes on no additional responsibilities, almost 100 percent of salary increases over the course of her career are obtained from education and experience.

Denver is the only district represented below that does not pay teachers through the typical step-and-lane structure. The remaining districts weigh education credits and experience differently. These differences are determined by how many steps or lanes a district has and the extent to which salary rises with each increase, which we explore in more detail below.

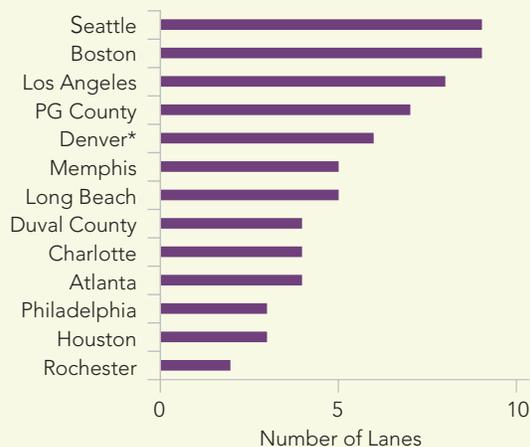
### The Lost Opportunities

**Lost opportunities** arise when districts invest valuable resources in ways that have less impact on student achievement than other possibilities or do not align with strategic priorities. The step-and-lane salary structure creates significant **lost opportunity** because research shows weak links between student performance and teacher experience after three to five years, and no evidence that additional course credits improve teaching practice, except for a slight impact on high school math and science.<sup>7</sup>

**FIGURE 1:  
CAREER INCREMENTS**

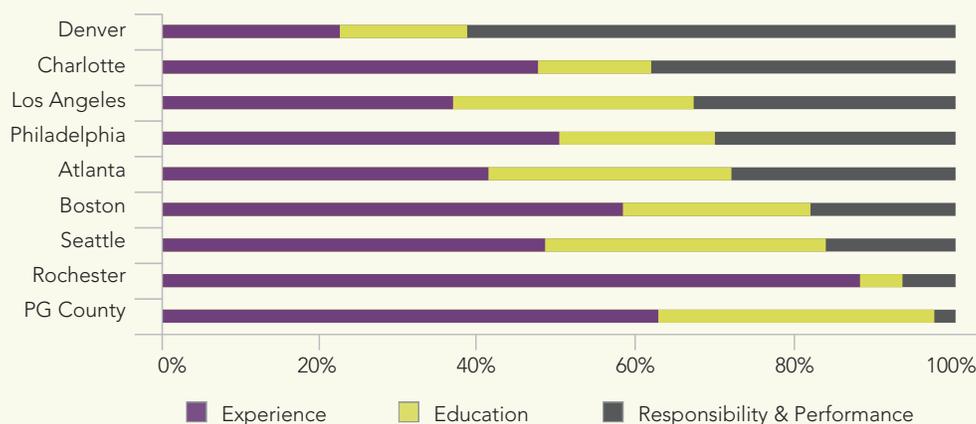


**FIGURE 2:  
SALARY INCREMENTS FOR EDUCATION CREDITS**



Source: Most recent published salary schedule at <http://www.nciq.org/tr3/>. \*Denver data represents teachers not on new Procomp teacher compensation system

**FIGURE 3: BREAKDOWN OF SALARY INCREASE FOR A 30-YEAR EXPERIENCED TEACHER**



Source: Most recent published salary schedule at <http://www.nciq.org/tr3/>. \*Denver data represents teachers not on new Procomp teacher compensation system

This **lost opportunity** is enormous. Raegen Miller and Marguerite Roza estimate that the nation spent \$14 billion to pay for the attainment of teaching master’s degrees for the 2007–2008 school year.<sup>8</sup> An examination of annual expenditures by district for teacher experience and educational attainment underscores the **lost opportunity** at a local level. **Figure 4** (page 5) shows a breakdown of spending from three typical districts analyzed with regard to starting salary, longevity, higher pay for course credits, and benefits. In District A, with a relatively senior teaching force, 42 percent of total spending on teacher compensation goes toward base or starting salary. Approximately one quarter pays for years of teaching experience or longevity, and benefits are the next largest component at 24 percent.<sup>9</sup> Seven percent goes toward higher salaries for education credits. The story is similar in District B and C, except these districts have low increments for educational attainment and more junior workforces, so less pay goes to longevity and education. An astonishingly small percentage of total spending pays teachers for assuming greater responsibility (including for district incentives) or for better student results. Differences in investment

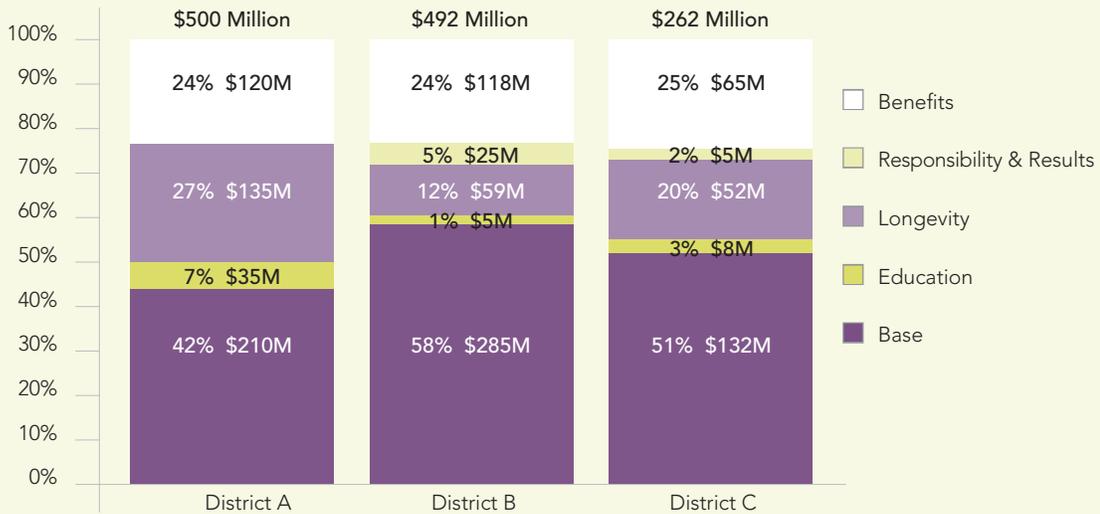
for experience and lanes across districts at any one point in time depend both on the specific structure of the steps and lanes, as described above—i.e., what districts choose to prioritize—and the demographics of the teacher population at the moment of measurement.

### A Closer Look: The Lost Opportunity of Experience Steps

A deeper exploration of step increases shows that this already unproductive investment creates a perpetual sustainability challenge for districts. If the cost of step increases grows faster than available revenues, this squeezes out maintenance of or increased investment in more productive strategies. This is particularly true when the district has limited or no control of both sides of the equation—costs and revenues—as happens when salary and benefit provisions are codified in union contracts or state law.

The step portion of the compensation structure typically rewards teachers with an automatic salary increase for each year of employment, regardless of performance or contribution, capped at a maximum number of years. Districts sometimes calculate these increases as a flat amount per year, but most often as

**FIGURE 4: TOTAL COMPENSATION SPENDING BY TYPE**



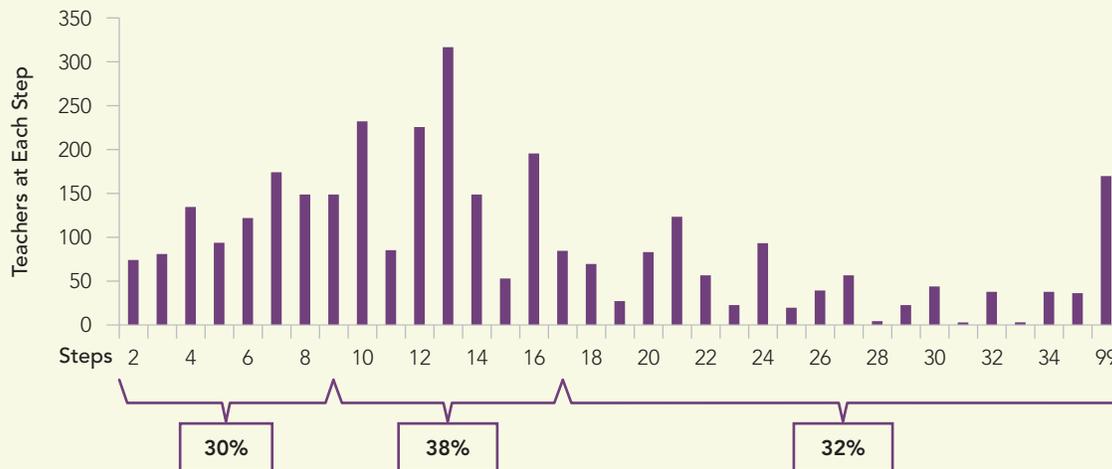
a percent of current salary. Calculating the increase as a percentage compounds the earning power that comes with experience, because the more years of experience, the higher the annual automatic raise. The size of the increase typically ranges from two to three percent of teacher salaries. If the annual compensation cost of teachers leaving the system through retirement or for other reasons equals the annual compensation cost of teachers entering the system to replace them, the total cost remains neutral. But if the size of the teaching force remains constant or declines with enrollment or cutbacks, and few teachers leave the system, the entire cost of the system becomes more expensive as teachers move up a step on the salary schedule. In this case, lower salary levels of entering novice teachers do not offset the total step increases of the remaining teachers. This is especially true for districts like Rochester and Charlotte that have a structure with steady step increases over an extended period of time, as shown in **Figure 1** (page 3), compared to systems with a shorter step span, where the majority of teachers have already reached the maximum step.

Tough economic times increase the squeeze for districts because experienced teachers tend to grow

as a percent of the workforce, both because they are less inclined to leave for other jobs and because teaching forces remain stable or are being downsized.<sup>10</sup> For example, in the 2009–2010 school year, Rochester City School District was facing a budget deficit. At the time, Rochester’s salary schedule had 35 experience steps and a teacher distribution such that 32 percent of teachers fell within steps 18–99; see **Figure 5** (page 6). Because there were fewer than usual retirements and resignations, the district had fewer vacancies, and as the entire workforce increased an automatic step, compensation costs increased. If the dynamics had remained unchanged for five years, we estimated compensation costs would have grown to \$40–50 million.

In situations like this, districts have several options, some more attractive than others. They can maintain total compensation costs by cutting spending in other areas. Depending on the budget situation and efficiency levels in nonessential services, this may result in cuts to services and programs or closing of schools. Districts can also freeze salaries or build in furlough days, or they can reduce the size of the teaching force through early-retirement incentives or layoffs. While layoffs sometimes allow for right-sizing the teaching

FIGURE 5: RCSD TEACHER FTE GROUPED BY YEARS OF EXPERIENCE



force, last-in, first-out provisions that dictate the least-senior teachers be laid off first may result in deeper cuts to workforce size than desired and a reduction in overall teacher effectiveness.

It is important to distinguish cost-of-living adjustments (COLA) from steps. Steps increase salary for an additional year of experience. Cost-of-living adjustments come on top of these increases and are meant to reflect differences in the buying power of salaries from year to year so that wages keep pace with prices. Many private and public organizations use COLA adjustments. However, the specific way that districts tend to implement COLAs makes them indistinguishable from an automatic annual step—layered on top of the actual step increase. In many districts, these cost-of-living adjustments are negotiated as future annual increments not necessarily linked to the changes in actual cost of living in the relevant geographic area. Since teacher-union contracts are generally of three to four years’ duration, districts risk raising salaries without receiving commensurate increases in state and/or local revenues. These prenegotiated increases can greatly impact district budgets. To continue making COLA increases when revenues are flat or down puts significant pressure on the budget and forces the tradeoffs described above.

### A Closer Look: The Lost Opportunity of Educational Attainment Lanes

Although districts don’t invest as much in paying for education credits as they do in steps, the total spending still represents a significant **lost opportunity** for districts, ranging from \$7 million to \$35 million or one to seven percent in the districts in **Figure 4** (page 5). Like steps, lane increases are permanent: once earned, they raise salary for the rest of a teacher’s career. Unlike steps, salary increases associated with educational attainment do not happen automatically. They require affirmative and voluntary action on the part of the teacher. Teachers must meet the educational attainment threshold set by the district to receive an increase. This threshold often begins with a master’s degree and then is achieved in increments of course credits or hours, until the maximum of a Ph.D.

The size of the **lost opportunity** over time for a district varies based on whether and when teachers choose to pursue additional educational credits. The teachers’ contract in Prince George’s County district for years 2007–2008 illustrates this point. Prince George’s salary steps reach maximum at 20 years of experience, and the schedule has five lane increments between B.A. and Ph.D. Within each lane, teachers

automatically receive an annual step increase of 2.9 percent over their current salary. While the annual raise for a B.A.+30, for example, starts at \$1,344 between years two and three, it reaches \$2,199 between years 19 and 20 due to the cumulative effect of 2.9 percent over a higher base each year.

Figure 6 illustrates the added financial impact in Prince George’s County of lane changes on teacher salary driven by educational attainment. Over the course of a 10-year career, teachers with a master’s degree earn \$47,000 more in salary than those with a bachelor’s. Over a 20-year career, this differential nearly quadruples: Teachers with a master’s degree earn \$175,000 more than teachers with a bachelor’s. The financial rewards multiply further for teachers who earn higher degrees. A Ph.D. translates into \$308,000 of additional lifetime income versus a B.A. What makes this difference in investment an even greater **lost opportunity** is that all teachers have primarily the same responsibilities: A teacher with a master’s degree earns \$175,000 more over his career than a teacher with a bachelor’s degree for the identical job. In many states, this additional cost is imposed on districts by states, which require master’s degrees as a condition of teacher certification.

Districts control the total investment in lanes by magnitude of lane increases combined with managing distribution of teachers across lanes. Districts could tighten the link between education credits and results and manage total amount spent by adding controls on what courses qualify

for increases in salary, screening for subject-matter relevance, number of credits/hours required per increase, and minimum proficiency levels for credits earned. The less rigorous the threshold, the less control a district has over investment in lanes, and in all likelihood, the lower the connection between lanes and teacher effectiveness.

Since increases associated with educational attainment are permanent, the quicker teachers earn them, the greater the annual and long-term investment for districts. For example, the Boston Public Schools’ teacher salary schedule for the 2008–2009 school year<sup>11</sup> had eight lanes beyond B.A. (B.A.+15, M.A., M.A.+15, M.A.+30, M.A.+45, M.A.+60, M.A.+75, and Ph.D.). After the first nine years of annual step increases, this is the primary means for a Boston teacher to increase her salary. This schedule incentivizes Boston teachers to accumulate course credits as quickly as possible, and the vast majority do: In 2008–2009, over 22 percent of teachers in their ninth year or were in lane M.A.+75.<sup>12</sup> As we can see in Figure 4 (page 5), in that year, District A invested \$35 million in education credits, or seven percent of total spending on compensation, the highest percentage of all districts shown.

The opportunity to leverage each educational credit decreases over time. Not only does a teacher continue to earn his original base amount, but his base amount grows with every annual step increase. For example, a teacher with a master’s degree has earned enough professional development credits to

**FIGURE 6: SHORT- AND LONG-TERM IMPACT OF STEP AND LANE INCREASES IN PRINCE GEORGE’S COUNTY**

Lane attained by year 20	Maximum salary increase from base	Total salary earned over 10 years	Total salary earned over 20 years
B.A. only	\$15K or 34 percent	\$484K	\$1,064K
M.A.	\$37K or 85 percent	\$531K	\$1,239K
Ph.D.	\$46K or 105 percent	\$588K	\$1,372K

**FIGURE 7: GOALS AND PRINCIPLES OF A TEACHER COMPENSATION SYSTEM**

THE WHY A teacher compensation system should support the district’s efforts to...	THE WHAT To accomplish this goal, the compensation system must ensure that...
COMPENSATION GOAL	COMPENSATION PRINCIPLE
<b>Attract</b> a high-potential teaching force.	The value proposition for new employees is clear, competitive, and differentiated based on needed knowledge and skills, and is carefully reviewed and improved on an ongoing basis.
<b>Retain</b> a high-performing teaching force and encourage low performers to leave the system.	Effective performers have predictable and greater career and compensation opportunities, while ineffective performers are not given automatic pay increases over time.
<b>Leverage</b> the highest performers for continuous improvement in district-wide student learning.	Strong performers based on clear criteria are given opportunities for expanded responsibilities and reach to contribute to student and teacher learning, while efforts are made to minimize the reach of the lowest performers.
Strategically <b>align</b> the teaching force in support of district priorities and performance goals.	The value proposition should reward behaviors that are aligned with district priorities. This includes incentives to attract educators to more challenging assignments or harder-to-staff subject areas as well as toward greater professional collaboration and innovation.
Compensate a high-performing teaching force in a <b>fiscally sustainable</b> way.	The value proposition is flexibly structured to reflect changing short- and long-term economic realities and emphasizes important nonmonetary factors.

move from the lane M.A. to the lane M.A.+30. For that lane increase, he will earn a raise of \$2,448. If there are 20 steps in the salary schedule, and each step is equivalent to a 2.9 percent salary increase, then in 15th year after the lane was originally attained, the annual amount received for the lane is \$3,759, or 53 percent greater than the original amount. In this scenario, over the course of 15 years, this teacher will have earned an additional \$48,956 in real dollars for his lane increase.

### Other Lost Opportunities

While this paper focuses specifically on teacher salaries, district budgets contain many other **lost**

**opportunities.** We focus here on teacher compensation reform because it comprises the largest single expenditure in a district budget, and because we know teaching effectiveness is the most important factor in student achievement. Compensation spending for all employees represents approximately 75 to 85 percent of the typical district budget<sup>13</sup>, and structures for other employees often include comparable step increases and are in desperate need of similar redesign. Compensation structures in some school districts do not reflect the relative importance, skill level, and challenges involved with different positions. For example, in a large mid-Atlantic urban district analyzed in 2009–2010,

**A CLOSER LOOK: ATTRACT A HIGH-POTENTIAL TEACHING FORCE**

<b>THE HOW:</b> <b>Compensation goals and principles are implemented through...</b>	Typical step-and-lane systems
A complete compensation package including salary, benefits and career roles that is clearly communicated and widely understood.	<b>Sometimes</b>
The potential for all effective teachers to earn a “living wage” (e.g., can make a down payment on a house in the local area) within their first seven to 10 years in the district.	<b>Sometimes</b>
A compensation structure for early-career teachers that is competitive with other professional opportunities, including those outside the teaching profession.	<b>Rarely</b>
A compensation structure that is differentiated for applicants with knowledge and skills that command higher salary levels in the marketplace (e.g., math and science).	<b>Rarely</b>
Processes that continuously ensure a value proposition that considers working conditions and career opportunities as well as compensation.	<b>Rarely</b>
Deliberate evaluation of value propositions based on data.	<b>Rarely</b>

32 percent of all secretaries and 12 percent of all custodians earned more than a third-year teacher with a master’s degree.<sup>14</sup>

**The Land of Misfit Structures**

To be an effective human resource tool, compensation systems must be designed in ways that further the employer’s objectives. In the case of school districts, compensation systems should be designed to **attract, retain, and leverage a high-performing teaching force that aligns with the district’s student-performance objectives**. When implemented decades ago, the undifferentiated step-and-lane schedule facilitated the professionalism of teaching by establishing a standardized, objective way to set salary levels that protected teachers from gender discrimination, inept administrators, and changing city finances and politics.<sup>15</sup> Rewarding experience and educational attainment through salary increases seemed a logical way to link compensation and potential contribution. Not only have the economic, social, and legal environments changed dramatically over the years, but sufficient

evidence now exists that the current salary structure no longer supports most districts’ objectives.

Yet school districts across the country continue to ratify salary schedules substantially similar to the step-and-lane structure. Other than a few notable exceptions, including Denver, Baltimore City, Harrison County, Colorado, and Washington, D.C., many districts undertaking compensation reform have only tweaked at the edges, leaving the step-and-lane structure essentially unchanged but adding on incentives and bonuses for contribution and performance. Even these new salary structures include vestiges of the step-and-lane structure. And almost all districts have only contemplated salary reform without thinking about the entire compensation package, including benefits and pensions, or looking at how salary and benefits fit into their human-resource management strategy.<sup>16</sup>

Compensation structures should reinforce district goals and reflect district values and priorities. Though differences will exist, compensation goals and principles will not likely differ significantly

across school systems, just as their high-level mission statements do not. However, successful compensation structures and the specific details of how they work should not all look the same. How compensation systems are structured might differ based on available revenues, legal context, community norms, teacher demographics and quality, and district priorities. Using the set of goals and principles in **Figure 7** (page 8), we will look at the misfit between current step-and-lane structures and these goals, and attempt to provide a framework by which to consider the specifics of state or district compensation reform.

In the following tables, we define a set of likely ways to accomplish the goals and principles outlined above, and rate the typical district step-and-lane salary structure with regard to how well it furthers the goal. A system's own self-assessment would likely differ from these, since salary levels vary, and as described above, so do the details of different step-and-lane structures, in important ways.

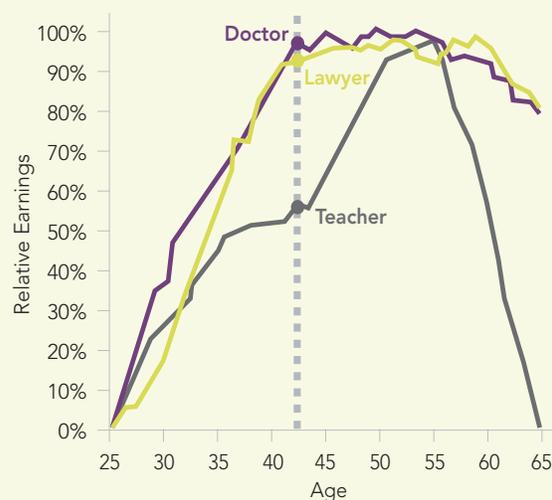
The annual salary of teachers in the United States (based on a shorter work year) tends to be lower than the annual salary of college graduates employed in other occupations. Salaries for American teachers with 15 years' experience are, on average, 60 percent or below of full-time earnings for 25- to 64-year-olds with tertiary education in the United States.<sup>17</sup> A recent report by McKinsey & Company, "Closing the Talent Gap: Attracting and Retaining Top-Third Graduates to Careers in Teaching," indicates that the most significant differences between teaching and the chosen careers of top-third college graduates are rooted in compensation. With regard to attracting and retaining top-third students, both starting salary and maximum potential salary have been identified as critical factors in compensation structures.<sup>18</sup>

There is considerable debate over how best to quantify current teacher salaries and benefits for the purpose of assessing competitiveness.<sup>19</sup> Without wading into the details of that debate, evidence suggests that school districts have a hard time

competing with other professions for top-quality candidates, given perceptions of salary levels. The McKinsey report shows that only 10 to 18 percent of top-third students say teaching offers a competitive starting salary, pays appropriately for the skills and effort they would bring, or offers a salary that would increase substantially over the next seven to 10 years. Only one in three believes teaching pays enough to support a family, and more than half think they could earn more as a garbage collector.<sup>20</sup>

The one-size-fits-all salary structure ignores labor-market dynamics, blind to the reality that individuals with different knowledge, skills, or performance generally command higher salaries and therefore require higher salaries to attract and retain in the teaching profession. This is particularly true in the areas of math and science, for which districts traditionally have had difficulty recruiting candidates.<sup>21</sup> An analysis by Dan Goldhaber<sup>22</sup> of salary alone shows that four years out of college, the gap in salary

**FIGURE 8: DISCREPANCY IN SALARY GROWTH FOR TEACHERS**



In most school districts, it takes teachers a decade longer to reach peak earnings than it does for other professionals.

Source: Vigdor, Jaob. "Scrap the Sacrosanct Salary Schedule," *Education Next*, Fall 2008, Vol. 8, No. 4

## A CLOSER LOOK: RETAIN HIGHLY EFFECTIVE TEACHERS

THE HOW: Compensation goals and principles are implemented through...	Typical step-and-lane systems
Competitive compensation packages over the course of a teacher's career that keep pace with teachers' outside professional opportunities.	Rarely
Salary increases based on demonstrated teaching effectiveness, with no or below-market cost-of-living increases for underperforming teachers.	Rarely
Salary differentials for additional contribution that are large enough to recognize and reward effective and highly effective teaching.	Rarely
Ensuring performance thresholds that trigger increases are sufficiently rigorous to distinguish between levels of performance and considered fair and achievable by teachers.	Rarely
Valued nonmonetary recognition and rewards for high performers and contributors.	Sometimes
Flexible school roles and responsibilities that allow for differentiated career paths, workloads, and hours with prorated compensation.	Rarely
Mandatory unsatisfactory ratings.	Rarely

between teachers and nonteachers with technical (math and science) training is \$13,469, versus \$6,811 for nontechnical peers.<sup>23</sup> Salaries for high-aptitude employees with technical training grow much faster outside of teaching. Ten years out of college, the salary gap between teachers and nonteachers with a technical degree is \$27,890. For those without a technical degree, the salary gap is \$18,904.<sup>24</sup>

The lockstep nature of the salary schedule discourages young adults interested in a profession where they can increase their salary according to their own career goals, skills, and pace. **Figure 8** (page 10) illustrates the discrepancy in salary growth of teachers as compared to doctors and lawyers. This is particularly true in districts that have salary schedules with slow, incremental salary increases over many years. As we know, districts take different approaches to longevity, with Boston rewarding the first nine years, while Rochester steadily increases salaries every year over 35 years. Boston's faster-paced longevity increases

are more aligned with the research on teaching experience and with the pace of increases in other professions. While this faster-paced increase may be attractive to higher-quality candidates, competitiveness with other professions will still depend on actual salary levels as well as the entire compensation package, including benefits and pensions.

Most teacher compensation systems treat all teachers exactly the same way. Since there are few distinctions based on performance, subject area or contribution, teachers must either wait for the years to accumulate or take additional courses. The districts examined here have structures that enable salaries to grow by about 140–260 percent over an entire career—with only between 0 to 25 percent coming from responsibility and results as shown in **Figure 3** (page 4). This lack of differentiation means that talented teachers who have the skills and energy to compete for jobs outside of teaching that pay more and differentiate responsibilities sooner leave the profession. The reverse may

## A CLOSER LOOK: LEVERAGE THE HIGHEST PERFORMERS

THE HOW: Compensation goals and principles are implemented through...	Typical step-and-lane systems
Rewarding teachers who take on additional roles and responsibilities, such as serving as teacher leaders or increasing interaction with challenging students in order to leverage their expertise in support of increased teacher and team effectiveness and student performance.	Sometimes
Ensuring teachers eligible for all additional roles and responsibilities have the appropriate skills and knowledge for the position (i.e., not all high-performers qualify, and roles may not be limited to highest performers).	Sometimes
Ensuring reward levels for additional roles and responsibilities are based on the full cost (instruction-free periods) and impact of benefit expected.	Rarely

be true as well. The lack of salary and role definition provides financial incentives for lower-aptitude individuals to enter and stay in the profession.<sup>25</sup>

The districts we have studied use bonuses linked to student achievement on standardized test scores as the primary way of differentiating compensation for results. Most layer bonuses on top of the existing step-and-lane structure, and use bonus plans to reward individuals, teams, the entire school, or some combination of these. Current bonus plans rely primarily on state assessments as a metric.

Most bonus programs to date have yielded no evidence that they alter teaching practices<sup>26</sup> or have demonstrable effect on student performance.<sup>27</sup> While limited formal evidence exists on the best way to use performance bonuses in educator compensation, many bonus programs have attempted to incentivize teachers without meaningful changes in evaluation and supervision, professional development, or base-salary structure. The effectiveness of bonuses to incentivize performance remains in doubt, and research on motivation in the workplace suggests jobs that involve creativity and the exercise of judgment—such as teaching—require nuanced performance incentives.<sup>28</sup> Such jobs are ill-suited to “carrot-and-stick” approaches to motivation.

Districts across the country have implemented specialized roles for teachers, such as mentors, department heads, and to some extent team leaders. As we see from **Figure 4** (page 5), the range of annual spending on these specialized roles is minimal, from 0 to five percent of teacher compensation in the districts studied, and the structure of compensation varies across districts. Often, these opportunities have not been fully integrated into the district’s overall career-path approach or its strategies for delivering instruction and improving teaching effectiveness. Without integration, challenges that arise include:

- **Lack of Diversity of Roles** – In most districts, the only career path available to a teacher is the role of supporting other teachers. Few districts have structured roles that extend the student reach of high-performing teachers.
- **Lack of Authority and Accountability** – Districts do not place teachers in positions where they are truly able to influence and be accountable for student learning.
- **Nonselectivity** – New roles are allocated based on self-nomination or seniority, rather than on teaching expertise and competencies needed to be effective.

## A CLOSER LOOK: ALIGN TEACHER FORCE WITH DISTRICT PRIORITIES

THE HOW: Compensation goals and principles are implemented through...	Typical step-and-lane systems
Defining teacher performance to include behaviors and results aligned with district priorities.	Rarely
Offering more pay for difficult schools, difficult-to-staff subjects and specific district priorities such as dual certification.	Sometimes
Adopting processes that continuously adapt and refine the value proposition in keeping with district priorities.	Rarely
Eliminating rules that allow for seniority bumping or that prohibit principals from selecting staff that best meet their needs.	Rarely

- **Lack of Sustainability** – Not enough attention is given to how new roles can be economically sustained by reallocating resources as advancing teachers assume roles played by other teachers, specialists, or administrators. Often during budget crunches, the coaching role is one of the first to be cut.

Teachers who leave hard-to-staff schools are typically higher-qualified than those who remain. Teachers who are judged to be better have greater bargaining power and tend to move toward less-demanding settings. This results in less-effective educators working with the highest-need students.<sup>29</sup> Traditional step-and-lane salary schedules do not address these patterns of teacher sorting, reinforcing inequitable distribution of teachers.

Many districts align their workforce to priorities by providing incentives or stipends to attract high-performing teachers. Urban districts generally use this type of incentive to compensate teachers for moving to more challenging schools, such as high-poverty or turnaround schools.<sup>30</sup> Districts also use these incentives, rather than adjustments to base salary, as supplemental pay for teachers with skills and knowledge that demand more in the labor market, such as math and science, as well as hard-to-fill positions such as special education.

There is limited evidence that this type of incentive has been successful in redistributing the teaching force. Many districts have not appropriately sized the incentive to have the intended impact. As we can see from **Figures 3** and **4**, these incentives are not a big expenditure for districts or a big portion of any one teacher's salary. The amount of pay required to attract excellent teachers to hard-to-staff schools and subject areas depends largely on the context of the incentive and what other forms of compensation are available. Some estimates range between 15 and 50 percent of base salary.<sup>31</sup> The organization Public Impact<sup>32</sup> concluded that although no specific formula exists to determine the ideal financial incentive, comparable hard-to-staff recruitment and retention pay for teachers constitutes between \$4,440 and \$11,100 above their base salary.<sup>33</sup> Determining the best amount and type of compensation, however, will require experimentation and readjustment.

In addition, many districts have not paired these incentives with changes to working conditions. Poor working conditions and inadequate pay contribute to turnover at hard-to-staff schools and deter candidates from applying for positions in the first place. Relative to other teachers, those employed at hard-to-staff schools report lower satisfaction with school leadership, personal empowerment, and opportunities

## A CLOSER LOOK: FISCAL SUSTAINABILITY

THE HOW: Compensation goals and principles are implemented through...	Typical step-and-lane systems
Modeling the short- and long-term projected revenues and costs for a sustainable plan.	Sometimes
Understanding the volatility of the compensation structure and establishing reserves to prepare for annual fluctuations.	Rarely
Minimizing or eliminating permanent increases in compensation that are automatic or not aligned with district priorities or student performance.	Sometimes
Eliminating automatic prenegotiated annual COLA adjustments.	Usually
A value proposition that is structured to maximize student learning for any given investment.	Rarely
Including cost-effective elements to leverage high-performing teachers' talents, such as by providing distance learning instructor incentives.	Rarely

for professional development.<sup>34</sup> They also report limited perceived opportunities for career advancement.<sup>35</sup> We know that compensation is not the sole factor in attracting and retaining high-performing teachers in hard-to-staff positions: Teachers' perceptions of their school administrators are the most important factor affecting whether or not they decide to stay at a school, trumping concerns about compensation.<sup>36</sup>

Many of the issues concerning the fiscal sustainability of the step-and-lane structure have been discussed above in the "The Lost Opportunities" section. One additional aspect is worth noting about the current structure as it impacts fiscal sustainability: constraint by teacher union contracts and state laws. The ability of districts to react to changes in revenues, best teaching practices, and demographic and economic change is limited by the inherent inflexibility of these two vehicles, as well as the specificity of the language and terms governing salary provisions. COLA provisions in union contracts are a perfect example. Union

contracts tend to be three to four years in length, and many COLA provisions are written as specific percentage increases rather than tied to the actual cost of living, putting a district in danger of having expenses increase when revenues don't rise as much.

## Conclusion

In conclusion, we reside in a land where most states and districts operate with a teacher compensation structure that meets few of the goals most organizations have for compensation. In other words, we have **misfit** structures. In addition, this structure creates **lost opportunities** because it ties up significant resources that could be used to attract and retain highly effective teachers. In this paper, we outline a set of goals, principles, and tactics that could help leaders prioritize areas for improvement and change practices. We have created a set of tools to help leaders to explore and refine these ideas further to fit their own context.

Compensation reform cannot take place in a vacuum. It must be part of a larger effort that

improves the teaching value proposition and integrates with a school system's overall strategy for ensuring high levels of student performance across all schools. A deep analysis of current compensation spending and strategy will certainly highlight dollars that can be distributed differently across the teaching force. But even after this restructuring, some districts will need to raise average teacher compensation to achieve their goals for teaching

effectiveness. To enable this, we will need strong action on two fronts. First, districts and schools will need to create new designs that leverage higher teacher expertise in more cost-effective ways and free other resources from less productive uses. Second, researchers and districts will need data that demonstrate how the higher spending leads to improved performance in order to make a public case for sustaining these investments.



Education Resource Strategies | 480 Pleasant Street, Suite C-200 | Watertown, MA 02472 | Phone: 617.607.8000

ERS is a nonprofit organization dedicated to helping urban school systems organize talent, time, and money to create great schools at scale. **For more information, see [ERStrategies.org](http://ERStrategies.org)**

## End Notes

- 1 Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). "Teachers, Schools, and Academic Achievement," *Econometrica*, 73(2), 417-458.
- Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How large are teacher effects? *Educational Evaluation and Policy Analysis*, 26(3), 237-257.
- Sanders, W. L., & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement.
- 2 Hanushek, E. A., & Rivkin, S. G. (2007). Pay, working conditions, and teacher quality. *The Future of Children*, 17(1), 69-86.
- 3 Auguste, Byron, Paul Kihn, & Matt Miller. "Closing the Talent Gap: Attracting and Retaining Top-Third Graduates to Careers in Teaching. McKinsey & Company." Retrieved from [http://www.mckinseysociety.com/downloads/reports/Education/Closing\\_the\\_talent\\_gap.pdf](http://www.mckinseysociety.com/downloads/reports/Education/Closing_the_talent_gap.pdf).
- 4 Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). "Explaining the Short Careers of High-Achieving Teachers in Schools with Low-Performing Students," *American Economic Review*, 166-171.
- 5 Kelley, C., & Odden, A. (1995). Reinventing teacher compensation systems (Vol. 6). Consortium for Policy Research in Education.
- 6 Please see ERS publication on Value Proposition [http://erstrategies.org/resources/details/rethinking\\_the\\_value\\_proposition](http://erstrategies.org/resources/details/rethinking_the_value_proposition) for a full discussion of elements to consider when setting salaries and benefits.
- 7 Ozdemir, M. & Stevenson, W. (2010). "The Impact of Teacher's Advanced Degrees on Student Learning." Human Capital in Boston Public Schools: Rethinking How to Attract, Develop and Retain Effective Teachers. Washington, DC: National Council on Teaching Quality.
- 8 Raegen Miller, Marguerite Roza, "The Sheepskin Effect and Student Achievement: De-emphasizing the Role of Master's Degrees in Teacher Compensation," Center for American Progress (July 2012).
- 9 Does not include the expense attributable to time without pay, which is included in salary.
- 10 Tight labor markets may also mean less-skilled individuals have fewer options and thus greater incentive to stay in the system.
- 11 Boston Public Schools teacher salary scale, 2008-2009.
- 12 ERS analysis.
- 13 ERS benchmark database.
- 14 ERS analysis.
- 15 Odden, A., & Kelley, C. Paying teachers for what they know and do: New and smarter compensation strategies to improve schools. Thousand Oaks, CA: Corwin Press Inc.
- 16 Shields, R., & Lewis, C. (2013). Rethinking the value proposition to improve teaching effectiveness. Retrieved from [http://erstrategies.org/resources/details/rethinking\\_the\\_value\\_proposition](http://erstrategies.org/resources/details/rethinking_the_value_proposition).
- 17 Organisation for Economic Co-operation and Development, "Building a High-quality Teaching Profession: Lessons from Around the World," (2011). Retrieved from <http://www2.ed.gov/about/inits/ed/international/background.pdf>.
- 18 Byron Auguste, Paul Kihn, & Matt Miller, "Closing the Talent Gap: Attracting and Retaining Top-third graduates to Careers in Teaching," McKinsey & Company (September 2010). Retrieved from <http://mckinseysociety.com/closing-the-talent-gap/>.
- 19 Michael Podgursky & Lawrence Mishel, "Are Teachers Underpaid?" National Council on Teacher Quality (July 2005). [http://www.nctq.org/p/publications/docs/nctq\\_square\\_off\\_20071202080402.pdf](http://www.nctq.org/p/publications/docs/nctq_square_off_20071202080402.pdf).
- 20 Auguste, Kihn, & Miller, "Closing the Talent Gap."
- 21 Sylvia A. Allegretto, Sean P. Corcoran, & Lawrence Mishel, *The Teaching Penalty: Teacher Pay Losing Ground* (Washington, D.C.: Economic Policy Institute, 2008). [http://epi.3cdn.net/05447667bb274f359e\\_zam6br3st.pdf](http://epi.3cdn.net/05447667bb274f359e_zam6br3st.pdf).
- 22 Dan Goldhaber, "Teacher Pay Reforms: The Political Implications of Recent Research," Center for Education Data and Research (2009). Retrieved from [http://cedr.us/papers/working/CEDR%20WP%202010-4\\_Teacher%20Pay%20Reforms%20\(8-23-10\).pdf](http://cedr.us/papers/working/CEDR%20WP%202010-4_Teacher%20Pay%20Reforms%20(8-23-10).pdf).
- 23 Goldhaber, "Teacher Pay Reforms."
- 24 Goldhaber, "Teacher Pay Reforms."
- 25 Caroline Hoxby & Andrew Leigh, "Wage Distortion: Why America's Top Female College Graduates Aren't Teaching," *Education Next* (Spring 2005). Retrieved from [http://www.excellenceintheclassroom.com/files/Hoxby\\_Research.pdf](http://www.excellenceintheclassroom.com/files/Hoxby_Research.pdf).
- 26 Eberts, R., Hollenbeck, K., & Stone, J. (2002). "Teacher Performance Incentives and Student Outcomes." *Journal of Human Resources*, 913-927. Clotfelter, C. T., Glennie, E. J., Ladd, H. F., & Vigdor, J. L. (2008). "Teacher Bonuses and Teacher Retention in Low-Performing Schools Evidence from the North Carolina \$1,800 Teacher Bonus Program." *Public Finance Review*, 36(1), 63-87.
- 27 Springer, M. G., Ballou, D., Hamilton, L., Le, V. N., Lockwood, J. R., McCaffrey, D. F., ... & Stecher, B. M. (2011). Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching (POINT). Society for Research on Educational Effectiveness.
- Fryer, R. G. (2011). Teacher incentives and student achievement: Evidence from New York City public schools (No. w16850). National Bureau of Economic Research.
- 28 Daniel Pink, *Drive: The Surprising Truth About What Motivates Us* (New York: Riverhead Books, 2009).
- 29 Cassandra Guarino, Lucrecia Santiabañez, & Glenn Daley, "Teacher Recruitment and Retention: A Review of the Empirical Literature," *Review of Educational Research* 72, no.2 (2006).
- 30 Daniel P. Mayer, John E. Mullens, & Mary T. Moore, "Monitoring School Quality: An Indicators Report," National Center for Education Statistics (2000). Retrieved from <http://nces.ed.gov/pubs2001/2001030.pdf>.
- 31 Julie Kowal, Bryan C. Hassel, & Emily Ayscue Hassel, "Financial Incentives for Hard-To-Staff Positions: Cross-Sector Lessons for Public Education," Center for American Progress (2008). Retrieved from [http://www.americanprogress.org/issues/2008/11/pdf/hard\\_to\\_staff.pdf](http://www.americanprogress.org/issues/2008/11/pdf/hard_to_staff.pdf).
- 32 Public Impact is a nonprofit research and implementation group: <http://publicimpact.com/>
- 33 Jennifer Imazeki, "Teacher Salaries and Teacher Attrition," *Economics of Education Review* 24 (2005): 431-449.
- 34 Michael DeArmond & Dan Goldhaber, "A Leap of Faith: Redesigning Teacher Compensation," School Finance Redesign Project, Working Paper 25, Center on Reinventing Public Education (2008). Retrieved from [http://www.crpe.org/cs/crpe/view/csr\\_pubs/162](http://www.crpe.org/cs/crpe/view/csr_pubs/162).
- 35 Barnett Berry & Eric Hirsch, "Recruiting and Retaining Teachers For Hard-to-Staff Schools," National Governors Association Center for Best Practices (2005). Retrieved from <http://www.nga.org/files/live/sites/NGA/files/pdf/0510RECRUITINGTEACHERS.PDF>.
- 36 Donald Boyd et al., "The Influence of School Administrators on Teacher Retention Decisions," *American Educational Research Journal* 48, no.2 (2011): 303-333. Retrieved from <http://aer.sagepub.com/content/48/2/303.abstract>.

Eric A. Hanushek, John F. Kain, Daniel M. O'Brien, & Steven G. Rivkin, "The Market for Teacher Quality," National Bureau of Economic Research: Working Paper 11154 (2005). Retrieved from <http://edpro.stanford.edu/hanushek/admin/pages/uploads/w11154.pdf>.