

# Reach

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## Shifting Pay Raises from Experienced to New Teachers Benefits Students

**VETERAN TEACHERS OFTEN** get the largest and most frequent raises, as districts frequently reward teachers for longevity and education with “back-loaded” salary schedules.

But Assistant Professor Katharine Strunk found that many districts are using “front-loaded” models, with salary increases early in teachers’ careers, and her analysis revealed that students appear to be achieving at higher levels in those districts.

The paper, which was published in *Educational Policy* by Strunk and co-author Jason Grissom of Vanderbilt University, provides compelling new data to the impassioned national debate about teacher pay policies.

Across all grades, when districts front-loaded their salary schedules, more students were at least proficient and fewer students failed...

Research has shown that teachers tend to improve most over their first three to five years on the job, and prospects for a salary bump early on can help draw new teachers into the profession, especially highly qualified candidates who have other career prospects.

Conversely, teachers do not become much more effective after year five, and after the five-year mark, teachers are much less likely to leave. Previous studies also show that advanced degrees have little impact on teacher effectiveness. Therefore, the authors argue that a salary schedule that rewards the early gains of new teachers would be a better use of districts’ limited funds than concentrating raises

among veteran teachers.

The authors’ analysis of reading and math proficiency in front- and back-loaded districts revealed that back-loading is negatively correlated with the proportion of students reaching the proficiency benchmark across elementary, middle and high school grades. Across all grades, when districts front-loaded their salary schedules, more students were at least proficient and fewer students failed the basic cut point.

Given the convincing evidence that salary bumps for new teachers are more beneficial to student achievement than salary bumps for longtime teachers, why were so many districts using a schedule that hurts them?

Strunk and Grissom tested the theory that the political clout of teachers’ unions was the reason for widespread back-loading in districts, and found that districts with more union representation had the highest salary rewards for experienced teachers and lowest for novice teachers.

“The political power of more experienced teachers, particularly as expressed through teachers’ associations and unions, may disrupt districts from being able to choose salary structures that best fit their needs,” Strunk said.

In their paper, Strunk and Grissom suggest that districts consider revisions to salary schedules, as individual merit pay proposals remain controversial and even if implemented would be only supplemental to district salary schedules.

However, given the political backlash anticipated if districts tried to shift salary schedules, Strunk and Grissom propose some alternatives that would produce the same results. Loan forgiveness programs can be used to repay new teachers’ student loans, or signing bonuses can be offered to new hires. The authors also propose that districts consider placing new teachers at higher levels on the salary schedule based on out-of-district experience, or providing retention bonuses during their first few years.

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MESSAGE

### From the Dean

Dear Colleagues,  
Research faculty at the USC Rossier School are deeply involved in projects which will have impact across the nation in K-12 schools and districts. This issue of REACH features the current work of Dr. Morgan Polikoff, Dr. Julie Marsh and Dr. Katharine Strunk around education reform issues, including accountability systems, data utilization, and teacher pay raises, that are central to today’s national dialogue.

Here in L.A., USC Hybrid High School, which Rossier opened in downtown Los Angeles in September, is a direct and tangible example of our commitment to exploring, evaluating and evolving new learning environments in urban education. This public charter school, with a first cohort of 128 9th graders, is reinventing traditional classes and learning, using a blended learning model integrating technology, personalized curricula, and greatly expanded school hours to meet the needs of students most likely to drop out of a traditional school.

Our commitment to Hybrid High School involves rigorous evaluation, which will be undertaken by Dr. Patricia Burch.

I welcome your comments about Rossier’s work in K-12 education reform.



**Karen Symms Gallagher, Ph.D.**  
*Emery Stoops and Joyce King Stoops Dean*

**USC**  
**Rossier**

School of Education

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Despite evidence that front-loading is most cost-effective to districts and beneficial to students, Strunk and Grissom note that districts may be unable to shift their schedules if unions oppose the reduction of veteran teacher raises in order to increase new teacher raises.

As a result, the authors project that districts may have to maintain the current schedule for experienced teachers, while boosting new teacher raises, which would mean higher overall compensation costs from already strapped budgets.

For studies cited in this article, go to: <http://www.uscrossier.org/news/links/>



**Katharine Strunk**  
USC Rossier Assistant Professor



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**Morgan Polikoff**  
USC Rossier Assistant Professor

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## Which Schools Fall to the Bottom?

Educators, policymakers and the public generally agree that there are problems with the current accountability measure, Adequate Yearly Progress (AYP).

**UNDER AYP, FAR** too many schools are being labeled as “failing,” according to USC Rossier Assistant Professor Morgan Polikoff, often due to factors outside of the school’s control, such as focusing on schools’ achievement levels rather than growth and improvement over time. For instance, in California last year, 73 percent of Title I Schools failed AYP.

Additionally, under the current system, if one subgroup fails to exceed the proficiency target for Math and English, the entire school fails, so there is a bias against larger schools, diverse schools and schools with significant special education populations.

“It penalizes schools with kids from groups that have historically low achievement, as the proficiency rate measure is highly correlated with the percentage of kids in poverty,” said Polikoff.

One recent attempt at a fairer and more accurate system for identifying failing schools that need help is the Senate’s Harkin-Enzi revision to the Elementary and Secondary Education Act.

Polikoff and Andrew McEachin (PhD ‘12) decided to see how that proposal might look in action. They used California school data to calculate which schools would fall into the bottom 15 percent under the plan – the five percent with the lowest achievement level; five percent with the largest achievement gaps; and five percent with the lowest subgroup achievement.

Their findings, published in *Educational Researcher*, reveal that certain schools would be sanctioned disproportionately. They offer suggestions for policymakers to improve the way they identify the lowest-performing schools.

First, Polikoff and McEachin recommend that a system measures both achievement level and growth. The authors found that when schools were measured by achievement status only, middle schools serving poor and minority students fell to the bottom, and when schools were measured by growth only,

smaller schools with year-to-year fluctuations sank to the bottom. The authors urge policymakers to use a combination of the two for better accuracy and fairness.

They also suggest systems be designed to use individual student data rather than school average data in order to measure how much individual students are learning. And they urge policymakers to use three-year averages when looking at growth as one year of data can be unstable.

The authors also recommend that schools be held accountable by school level and by school size, as their analysis found middle and high schools are disproportionately represented over elementary schools when school levels are measured together, and more small schools fall to the bottom than larger ones when all sizes are measured together.

Finally, Polikoff and McEachin found that schools with large numbers of students with disabilities are overwhelmingly in the bottom when ranking lowest subgroup achievement, and they suggest that policymakers consider ranking subgroups by type – for instance, schools should be ranked by the performance of their Hispanic students separately from that of special education students.

Polikoff argues that, while the Harkin-Enzi proposal is unlikely to be passed into law, his findings have broad implications for states designing and implementing accountability systems under the waivers offered from the Department of Education. He said he encourages policymakers to conduct similar analyses with existing data to see how their systems would actually work.

“When you have reasonable goals based on something that is under the school’s control, you are going to get better performance,” Polikoff said. “Most people support the idea of accountability, so when designing these systems, let’s learn from the mistakes made and the available data to really identify schools that need support to improve.”

# Research Finds Teachers' Use of Data Both Promising and Worrisome

**IN HER ONGOING** Spencer Foundation-funded research on data-driven decision making, USC Rossier Associate Professor Julie Marsh was surprised by teachers' data use practices with students in some of the six middle schools she was studying.

The climate of accountability that has preoccupied every district, school, and teacher with student test scores was trickling down to the students themselves in the classroom.

"Teachers are using 'data binders,' 'data walls,' and 'data talks' with the kids, and almost a third of the examples we analyzed were performance-rather than mastery-focused, often putting kids in competition with one another," Marsh said. "We were struck by how many teachers thought it was motivational for their students to publicly examine data and see how they were achieving compared to other students or groups of students."

**“Most professional development for teachers focuses on the front end – how to interpret data. There is not as much in the back end – responding and acting on the data.”**

According to Marsh, theory and research suggest that the practice of using data with students, which has become increasingly formalized in the schools she studied, can be beneficial when focused on individual improvement, a recognition of effort, and student agency (mastery orientation), but detrimental to some students when focused on status, performance relative to peers, and public sharing (performance orientation).

In some cases, teachers are engaging in such activities with their students unconsciously. Marsh cited an example of a teacher who said she was embarrassed and deflated when a principal posted all of the teachers' class test scores on a wall in a faculty meeting. Yet the same teacher reported doing a similar thing with her own students' scores in the classroom.

"A lot of teachers may start out with classroom practices promoting a mastery orientation – they use data to help an individual set goals and measure growth over time, but external pressures may be pushing them in the opposite direction, often sending mixed messages to students," she said.

The findings were a byproduct of Marsh's broader research study that seeks to better understand how teachers use data to inform their own instruction; how they move from raw data, to information, to

knowledge, to action; and how they are supported in this process.

In today's high-stakes accountability climate, every decision is expected to be backed by data. Teachers have an abundance of data at their fingertips – from state, interim, and classroom assessments, to student work – which can be used to improve what they teach and how, but many do not know how to use these data to improve their decisions and adjust their practice.

Marsh's previous research had found a significant association between student achievement and reading coaches who spent time analyzing student data with teachers. Those findings piqued her interest in data-driven decision making, how teachers are supported in using data, and how it impacts student learning.

Her review of existing literature, recently published in *Teachers College Record*, found that data users often lack capacity to use data and want or lack support to help move from knowledge to action. The review also discovered only limited research on the activities that facilitate and build needed capacity for meaningful data use by teachers, which motivated her current study.

The Spencer Foundation supported research on three kinds of interventions: data coaches, literacy coaches, and data teams – to understand how they worked and their contributions to teacher knowledge and practice in middle school literacy instruction.

"Everyone you talk to will tell you they're data driven, but I've found that translates very differently across settings," Marsh said. "Most professional development for teachers focuses on the front end – how to interpret data. There is not as much in the back end – responding and acting on the data.

"If we're going to expect teachers to use data, it's best to find out how to support them to do so effectively."



**Julie Marsh**  
USC Rossier Associate Professor

73%

OF CA TITLE I  
SCHOOLS FAILED  
THE AYP LAST YEAR

35

STATES HAVE  
CREATED WAIVER  
SYSTEMS AS  
ALTERNATIVES TO  
THE AYP

First 3-5 years

TEACHERS TEND  
TO IMPROVE  
MOST

## Major Research Grants Awarded to Faculty

Between April and November 2012:

**Mary Helen Immordino-Yang** was awarded a National Science Foundation CAREER grant of **\$732,220** for her longitudinal, cross-cultural investigation of psychosocial and neurobiological aspects of emotion development in adolescents from three L.A.-area public schools.

**Adrianna Kezar** received a National Science Foundation award of **\$595,883** for her study of undergraduate STEM reform networks in order to understand how the networks can be most effectively designed to spread innovations among members and on the campuses where they are employed.

**Allen Munro** was awarded a **\$439,664** grant from the Naval Air Warfare Center Training Systems Division for his development of four research products that support innovative approaches to adaptive instruction in simulation-based training systems.

**Karen Symms Gallagher** received an **\$110,000** grant from the Bill & Melinda Gates Foundation, along with

co-PIs **John Pascarella, Paula Carbone, Eugenia Mora-Flores, and Marleen Pugach**, to assess the quality of feedback processes for online Master of Arts in Teaching graduates about their teaching practice.

**David Dwyer** received a **\$75,000** grant from the Ralph M. Parsons Foundation in support of USC Hybrid High School.

**Guilbert Hentschke** was awarded a Ralph M. Parsons Foundation grant for **\$50,000** in support of the USC School Performance Dashboard, an annual report that rates California charter schools across multiple measures of financial health and academic performance.

**William G. Tierney** was awarded **\$50,000** from the Angell Foundation in support of two USC Pullias Center for Higher Education outreach programs, SummerTIME and Increasing Access via Mentoring (IAM), designed to increase access to higher education for underserved students.

## EMERGING RESEARCH *at* ROSSIER

**Patricia Burch** and **Morgan Polikoff** are conducting research on blended learning and its effects at USC Hybrid High School, the new Los Angeles public charter school designed and developed by the Rossier School. The school's unique model is characterized by personalized learning plans, extended school hours, and digital curricula and tools, woven with comprehensive social, academic and emotional supports to meet the needs of students most likely to drop out of a traditional school.

Burch and Polikoff lead a mixed method team of Rossier graduate students in examining the implementation and impact of this teaching model, which has been largely unstudied to date. The research team will look at how blended learning is experienced by students and faculty, and its impact on student achievement.

The study will also lay the groundwork for instrumentation that can be adopted, transformed and improved in the hundreds of blended learning experiments being launched in charter schools and regular public K-12 schools around the U.S. and internationally.



Rossier researchers are studying how Hybrid High's blended learning model meets the individual needs of its students

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##### Center on Educational Governance

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##### Center for Enrollment Research, Policy, and Practice

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<http://www.usc.edu/programs/cerpp/index.html>

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##### Center for Outcomes Research and Evaluation

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