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A Review of Research

The Changing Face of the Teaching Force

By Richard Ingersoll and Lisa Merrill

How has the elementary and secondary teaching force changed in recent decades? Have the kinds of individuals going into teaching changed? And, if so, how?

To answer these questions we recently embarked on an exploratory research project to try to discover what kinds of changes have, or have not, occurred over the past several decades in the teaching force. We were surprised by what we found, in part because some of the most dramatic trends appear to be little noticed by researchers, policymakers, and the public.

To conduct our study, we analyzed data from the largest and most comprehensive

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on the cover:
Lily Composition #3, Anne Froehling,
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The Changing Face of the Teaching Force

Continued from page 1

By Richard Ingersoll and Lisa Merrill

source of information on teachers available—the Schools and Staffing Survey (SASS) and its supplement, the Teacher Follow-up Survey (TFS).^{*} Conducted by the National Center for Education Statistics, the SASS administers survey questionnaires to a random sample of about 50,000 educators representing all types of teachers, schools, and districts and all 50 U.S. states. Unlike most large-scale surveys in the field, SASS focuses on teachers rather than students.

Six cycles of SASS have been administered over a 20-year period—1987-88, 1990-91, 1993-94, 1999-2000, 2003-04, and 2007-08. We decided to take advantage of the depth and duration of these data to explore our questions about the demographic status of the teaching profession. Below, we summarize four of the most intriguing trends we found.

For each of the trends two large questions immediately arise: First of all, why? What are the reasons for, and sources of, the trend? Second, so what? What are the implications, and consequences, of the trend? There are numerous possible answers to each of these questions and we have been able to test and rule in, or out, a number of them. But our goal has not been to get closure on either set of questions—that would require far more extensive analyses than we have yet done. Our objective this far has been largely descriptive and suggestive, rather than explanatory or evaluative. In short, at this point we ask more questions than we are able to answer. Hopefully, in time, further research can rectify that.

Trend 1: Ballooning

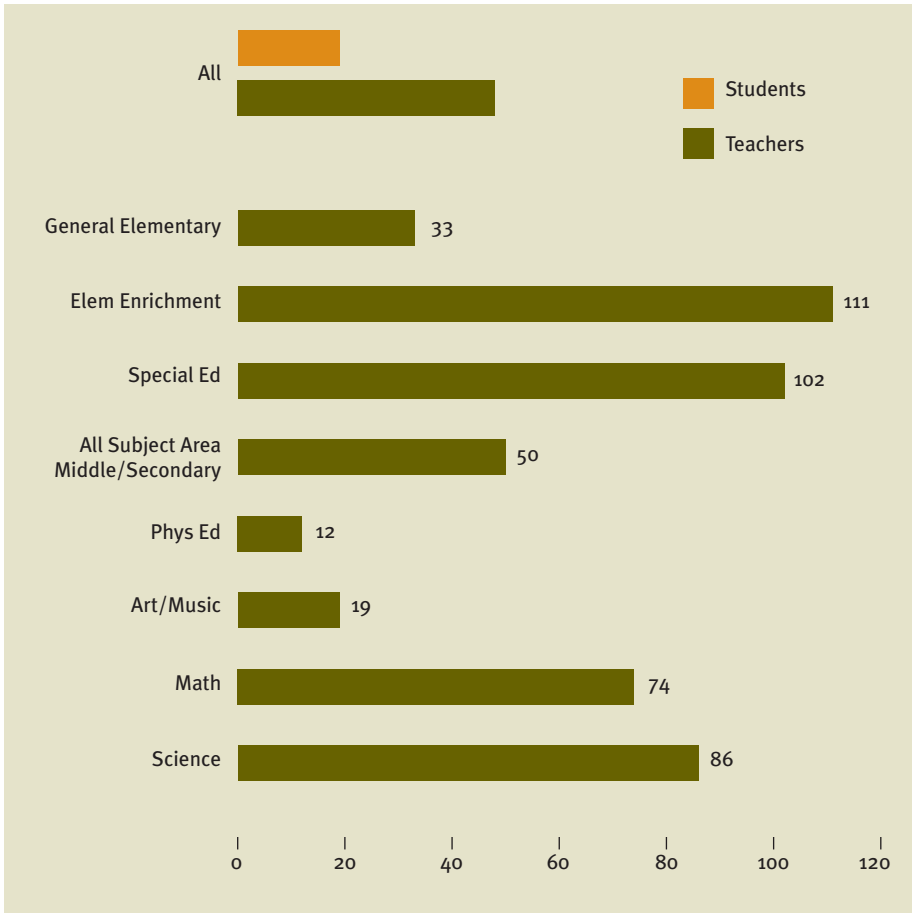
The Census Bureau indicates that K-12 teaching has long been one of the largest occupational groups in the nation (if not the largest), and it is growing even larger. Data from the U.S. Department of Education show the numbers of both students and teachers grew throughout the 20th century. But the rate of growth for both groups began to soar in the late 1940s with the post-World War II baby boom. By 1970, student enrollments peaked and then declined until the mid 1980s. At the same time, the numbers of teachers similarly peaked and then leveled off. By the mid 1980s, student enrollments again began to grow—the baby boomlet—continuing to the present. During this period, the teaching force has also been increasing. The rate of these increases has not matched those of the baby boom years—with one large difference. The rate of increase for teachers has far outpaced the rate of increase for students—the numbers of teachers are going up far faster than are the numbers of students.

^{*} This summary draws from an earlier article, “Who’s Teaching Our Children?”, which appeared in *Educational Leadership*, 67. Support for our research came from a grant to the National Commission on Teaching and America’s Future from the Gates Foundation and from a grant from the Teacher Professional Continuum Program of the National Science Foundation. Henry May and David Perda provided valuable assistance with the data analyses.

Over the past 20 years total, K-12 student enrollment (public, private, and charter schools combined) went up by 19 percent. In comparison, during the same period the teaching force increased at over 2.5 times that rate—by 48 percent. (See Figure 1.)

Why is this?

Figure 1: Percent Increase in Students and Teachers, by Field from 1987-88 to 2007-08



One explanation is that a reduction in teachers’ workloads—class sizes, hours teaching, or classes taught per day—has necessitated an increase in the numbers of teachers employed. The data indicate that the sizes of regular elementary classes did drop about 20 percent during this period, and accordingly the number of general elementary school teachers increased. Since elementary teachers comprise almost a third of the entire teaching force, their increase accounted for a portion of the ballooning—but not as much as one might expect.

In contrast, typical subject-area courses at the middle and high-school levels saw little change in class size from the 1980s to present. Moreover, during this period teachers at all school levels saw a slight increase in their workload, because there has been a slight increase in the average number of instructional hours worked per teacher, per week.

Another source of the ballooning is the growth of special education, probably

linked to changes in the Individuals with Disabilities Education Act—the main federal special education legislation. As shown in Figure 1, the number of teachers with majors in special education increased by 102 percent (compared to a 33 percent increase for general elementary education). The increase in special education teachers alone accounts for almost one fifth of the entire increase in the teaching force during that period. Because special education class sizes are about half of those typical in elementary and secondary schools, the growth in this area helps explain why growth in the teaching force is outpacing growth of students.

Yet another source of the ballooning is a dramatic increase in the number of teachers of elementary enrichment classes—up by 111 percent since 1990-91. These are instructors who teach one subject (predominantly art, music, and physical education) to most of the students in an elementary school.

With the ballooning of the teaching force have come large shifts at the middle and secondary levels. Overall, the number of typical subject-area teachers at the middle and high-school level has increased by a higher rate—50 percent—than for general elementary teachers. But we also found a large redistribution of these teachers across fields. Non-core-academic subjects (art, music, physical education) have seen far smaller increases than have special education and the core academic subjects, especially math and science. Although general elementary teachers outnumber math and science teachers by two and a half times, the latter two groups accounted for almost as much of the overall ballooning as did elementary teachers. Interestingly, the data also show that the fastest rate of increase in math and science teachers occurred during the 1990s, before the advent of the No Child Left Behind Act.

One major factor appears to be changes in secondary-school graduation requirements across the nation. The data show that for core subjects, especially math and science, graduation requirements increased during this period, resulting in increases in the number of math and science courses taken by students. The data show that students enrolled in math and science classes increased—by 69 percent and 60 percent, respectively. No doubt, this phenomenon has driven the large increase in the employment of teachers qualified in those subjects.

Another potential factor behind the ballooning may be ongoing increases in the number and range of programs and curricula offered by schools, especially at the secondary level. Educational historians have told us this pattern has been unfolding for a century, as schools are continually asked to take on more responsibilities that were once the province of parents, families, and communities.

What are the implications of this trend?

One sobering implication is the cost of an expanding teaching force—given that teacher salaries are the largest item in school-district budgets. How have school systems coped with such an increase in their largest budget item and who is paying for it? How much of the increase in special education staff has been covered by federal, state, or local funding? On the other hand, what are the implications of cutting

One sobering implication is the cost of an expanding teaching force—given that teacher salaries are the largest item in school district budgets.

non-core academic programs like art and physical education? Finally, the large increases in the employment of math and science teachers has implications for the ongoing policy concern over the math and science teacher shortage—an issue we have explored in depth elsewhere (see Ingersoll and Perda 2010a).

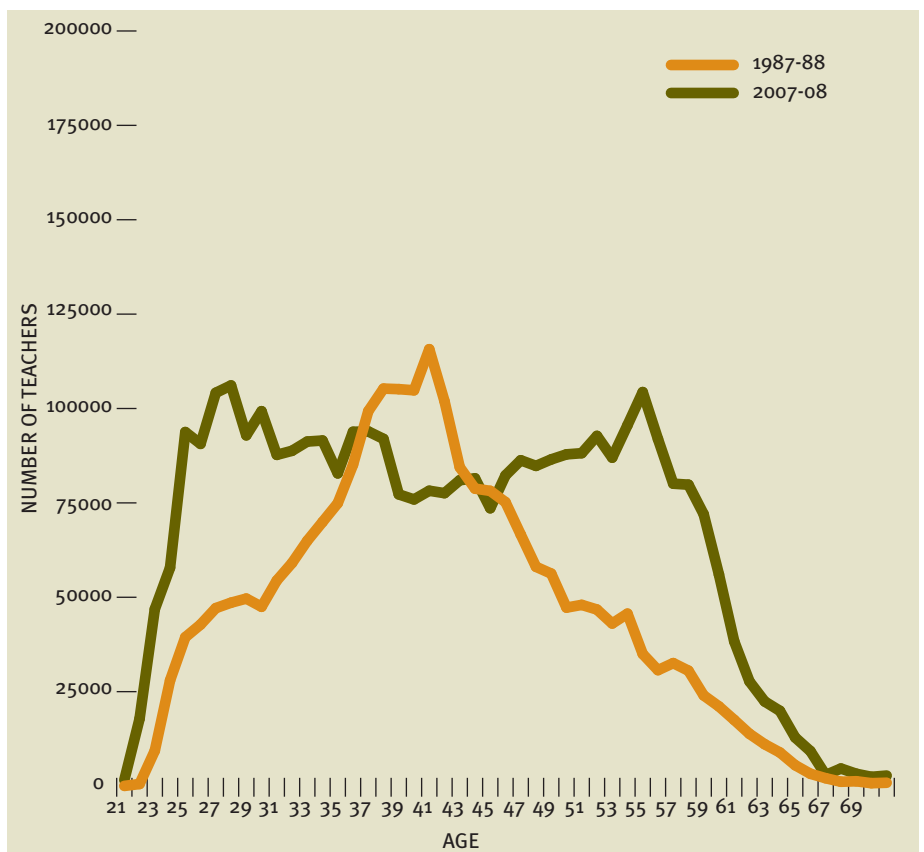
Trend 2: Graying

The teaching force has gotten older. We often hear about this trend—and it is true. The data show that the teaching force has been aging. As illustrated in Figure 2, our analyses of the data show that in 1987-88 the age distribution of teachers was shaped like a tall peak. The modal, or most common, age was 41. As these teachers have aged, this peak has moved. By 2007-08, the modal age of the teaching force was 55. The data also show the number of teachers 50 years or older increased, from about 527,000 in 1987-88 to 1.3 million in 2007-08.

As a result, the data show the number of teacher retirements has also increased—from 35,000 in 1988 to 85,000 in 2008. Our analyses of the SASS data indicate that the average age of retirement for teachers is 59. This suggests that the number of teachers retiring will continue to increase until the 2011-12 school year, at which point it will probably be at an all-time high, and after which the number will probably begin to decline.

What are the implications of this trend?

Figure 2: Age of Public School Teachers, 1987-88 and 2007-08



One implication of aging, often noted, is its impact on the supply of teachers. Conventional wisdom has long held that retirements are a major factor behind teacher shortages. But often overlooked is that teacher retirements have always represented a small portion of all of those leaving teaching—less than one-third in recent years. When one looks at all departures of teachers from schools (both those moving between schools and those leaving the field altogether), retirement is only about 14 percent of the total. In our research, noted above, on the teacher shortage, we have found that pre-retirement turnover is a larger factor behind school staffing problems than is retirement.

Moreover, aging certainly has cost implications for school budgets and state pension systems given that veteran teachers earn higher salaries and more retirees require greater spending on pensions. But if retirees are replaced with new teachers, who earn lower salaries and who pay into state pension plans, these additional costs could be partially absorbed. As we will show below, not only have retirees been replaced with newcomers, the latter flow has become a flood.

Trend 3: Greening

Graying, however, is not the only age trend for teachers. Another, opposite, trend has emerged simultaneously. By 2008, the teacher age distribution, as shown in Figure 2, had become bi-modal—two-peaked. Besides having a large proportion of older teachers, schools have seen a simultaneous increase in the proportion of younger teachers. The latter is driven by the ballooning trend—the huge increase in new hires. Most of these are new hires are younger, but given another change—an increase in mid-career switching—we also see significant numbers of older, and relatively inexperienced, teachers. These many new hires have resulted in a third large trend: a dramatic increase in the portion of teachers who are beginners—a greening of the teaching force.

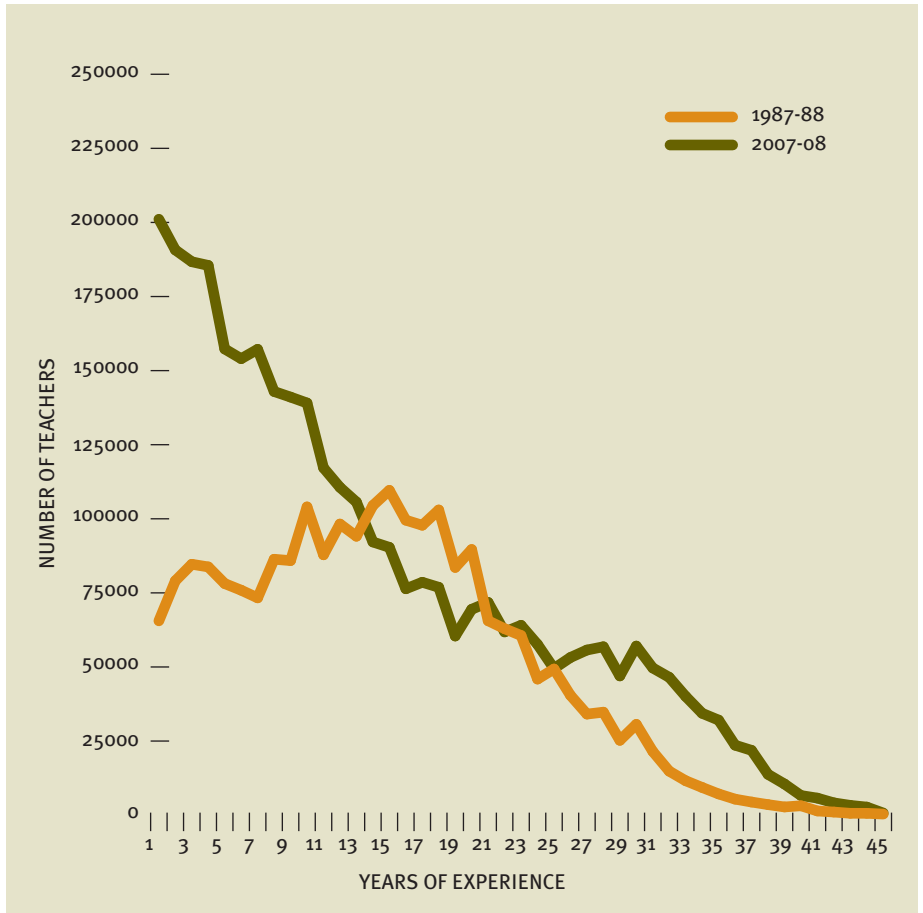
These many new hires have resulted in a third large trend: a dramatic increase in the portion of teachers who are beginners—a greening of the teaching force.

This greening is illustrated by the distribution of teachers by their years of experience. In 1987-88 the modal teacher had 15 years of teaching experience and the shape of the distribution was a single peak as shown in Figure 3. By 2007-08, as also shown in Figure 3, the modal teacher was not a gray-haired veteran; he or she was a beginner in the first year of teaching. In 1987-88, there were about 65,000 first-year teachers; by 2007-08, this number had grown to 200,000. By that year, a quarter of the teaching force had five years or less of experience.

What are the implications of this trend?

New teachers can be a source of fresh ideas and energy. On the one hand, for many schools and school systems, a scarcity of veterans will mean fewer teachers able to provide mentoring and leadership. On the other hand, as mentioned earlier, some of the costs associated with a ballooning teaching force might be ameliorated by an increasing portion of the teaching force at the low end of the pay scale and contributing to, but not withdrawing from, pension systems.

Figure 3: Years of Experience of Public School Teachers, 1987-88 and 2007-08



Trend 4: Becoming More Female

Along with nursing, teaching has been one of the traditional career options for women, but in the past four decades, many fields—medicine, law, business, the military—that had been largely reserved for men have opened up to women. With all these alternatives, how surprising is it to find that teaching has become even more female than ever? The proportion of teachers who are female has risen steadily, from 66 percent in 1980 to 76 percent in 2007-08.

This change in the occupation’s male-to-female ratio is not due to a decline in the number of men entering the field. The number of male teachers has risen by 26 percent since the late 1980s; at the same time, however, the number of women in teaching has grown at over twice that rate. This increase in the proportion of women is not spread evenly within schools. Elementary schools, long dominated by female teachers, have seen only slight increases. Rather, the increases have been concentrated on secondary schools, where male teachers dominated the classroom until the late 1970s.

What are the implications of this trend?

If the gender trend continues, teaching will become an occupation practiced largely by women, with more than 80 percent of all teachers being female by the year 2012. Many students will encounter few, if any, male teachers during their time in either elementary or secondary school. Given the importance of teachers as role models, and as surrogate parents, certainly some will see this trend as a problem.

Furthermore, given that women's work has traditionally been held in lower esteem (and been paid less) than male-dominated work, the feminization of the profession may have unfortunate implications for the stature and status of teaching as an occupation.

Conclusion

Has the elementary and secondary teaching force changed in recent years? The answer is most certainly yes—and in a number of ways. It is larger. It is both older and younger. It is more female. And for each of these trends large questions immediately arise. What are the reasons for, and sources of, the trend? Will its impact be positive or negative?

Despite this transformation of the teaching force and the serious nature of the questions that ensue, we found little discussion, or even awareness, of the matter—whether by researchers, by policymakers, or by the public.

But if these trends continue, the consequences will have serious implications for America's educational system. Teaching will become a very, very large occupation, dominated by those trained in core academic subjects and special education. Because of the

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large size of this occupation, teachers' salaries may likely decline in real dollars. As the field continues to balloon and the large older portion of the teaching force retires, teaching will be practiced predominantly by beginners and the young. But beginners, the largest group of the largest occupation, are also the least stable and, our analysis also shows, that instability has been increasing.

Perhaps there is an irony in all of this. Historians tell us that when the public school system, as we know it today, was invented a century ago, the teaching force was transformed into a very large mass occupation that was a relatively low-paying, temporary line of work, predominantly for young, inexperienced women, prior to their "real" career of child rearing (e.g., Tyack 1974; Lortie 1975). Perhaps the changes we have traced represent not an entirely new face, but a return to the old face of the American teaching force.

At the same time, we should beware of taking a deterministic view of history. The similarities between this latter-day transformation of the teaching force to its previous incarnation should not be considered conclusive evidence that the teaching force is incapable of change. The data also suggest an opportunity—teaching, the largest occupation in the nation, is being expanded, replaced, and re-made. Who will our teachers be?

It is up to us—researchers, educators, policymakers, parents—to attend closely to what the data are telling us and find the answers.

Penn GSE Professor Richard Ingersoll focuses his research on the sociology of education; Lisa Merrill is a doctoral student in Penn GSE's division of Policy, Measurement, and Evaluation.

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Also from Richard Ingersoll

In recent years, the hue and cry has gone out that the nation faces a shortage of mathematics and science teachers. But does the evidence bear up the claim? Drawing on nationally representative data from multiple sources, Richard Ingersoll and David Perda conducted an empirical analysis of the supply of teachers in those all-important fields.

While confirming that math and science are the most difficult for schools to staff, their findings revealed a complicated picture. The authors identify a number of sources supplying new teachers to the field, with those with subject-matter degrees and those in the reserve pool outpacing those with newly minted education degrees.

Those sources have been more than sufficient to meet increased demand (driven

by revised graduation requirements, student course selection, and teacher retirement). However, when teacher attrition—that is, teachers leaving the field *before* retirement—is factored in, the balance between supply and demand tightens. Compared to subjects like English, the system does not enjoy a surplus of supply relative to losses.

The result, the authors argue, is that the problems of staffing math and science classrooms tend to be concentrated in schools with high turnover rates.

“Is the Supply of Mathematics and Science Teachers Sufficient?” by Richard Ingersoll and David Perda appears in *American Educational Research Journal*, 20(3).

Research Notes

Penn GSE faculty and researchers explore the issues at the forefront of American education, engaging in high-impact research, innovation, and training in public education, as well as in literacy, psychology, social policy, and higher and adult education. The following pages present a sampling of their recent studies and findings.

VAL-ED: Assessing School Leadership

Research has consistently shown that principal quality matters for school success. However, evaluation of principals' performance has been uneven at best, rarely using psychometrically validated instruments. To remedy this, Andy Porter, Henry May, and a team of researchers developed the VAL-ED, an assessment of leadership in education.

VAL-ED measures principals' effectiveness at promoting both *core components* (conditions necessary for student success) and *key processes* (ways in which schools develop and maintain those conditions). Principals are evaluated by teachers, superintendents, and themselves to find areas of strength and weakness.

To develop the instrument, the team used an iterative process, first developing items for the instrument, then sorting them into categories, testing the items, and revising them. Two rounds of cognitive interviews allowed for significant improvements and revisions.

The results of a nine-school pilot test suggest that VAL-ED's items are well-constructed and easy to understand. Moreover, teachers and principals tended to agree in their assessments; for example, the principal who self-reported the lowest effectiveness rating also received the lowest effectiveness rating from the teachers in that school.

VAL-ED was built to be reliable, unbiased, accurate, and valid in a variety of settings. The authors consider it to be still a work in progress—albeit one with great potential—and plan further development and dissemination. Their hopes for the instrument are that it will also be used to measure progress over time in the development of leadership and even to predict outcomes.

“Developing a Psychometrically Sound Assessment of School Leadership” appears in *Educational Administration Quarterly*, 46(2).

Faculty Unions and Academic Governance

Of comparatively recent vintage, faculty unions feature prominently in American higher education, particularly in community colleges. When they entered the scene in the 1970s, many predicted the end of collegial shared governance. Although experience seems to suggest that these predictions were a tad overblown, little institution-level research has looked at how unionization has in fact affected academic governance.

In a recent qualitative study of the governance system at a large, urban community college, Matthew Hartley found that, although relations can indeed be contentious, positions are not static, but exist along a continuum. In some negotiations, posturing and acts of brinkmanship can put a serious strain on relations between the administration and the union. Other situations play out more like a chess match, with both sides maneuvering for advantage. Still other decisions are made in a spirit of mutual respect and collegiality.

Hartley identified a number of factors that mitigated conflict and promoted collegial decision-making—among them, drawing on personal ties between individuals, making collective sense of shared data before discussing possible resolutions, and establishing an institutional culture that values finding solutions rather than scoring political points.

“Reconcilable Differences: Conflict and Collegiality in a Unionized Community College Environment” appears in *Community College Journal of Research and Practice*, 34(4).

Also from Matthew Hartley

In examining the civic engagement movement in American higher education over the past three decades, Hartley focuses on the critically important (and frequently overlooked) role that leaders have played in advancing these efforts. The article describes how leaders of the movement attempted to build networks and points to the challenges of negotiating ideological tensions that inevitably emerged as the movement evolved. “Leading Grassroots Change in the Academy: Strategic and Ideological Adaptation in the Civic Engagement Movement” appears in *Journal of Change Management*, 9(3).

Measuring School-Level Mental Health Capacity

In the U.S. today, 70 percent of psychosocial services for children take place in the schools, but assessments of these programs have focused narrowly on individual outcomes rather than on institutional effectiveness. To fill that gap, Caroline Watts and colleagues have developed the School Mental Health Capacity Instrument (SMHCI), which assesses policies, systems, and activities as they relate to the levels of the public health pyramid: intervention, early recognition, and prevention. Administered to all pertinent school personnel, the SMHCI includes 27 items designed to assess the structures a school has in place to address student mental-health needs.

Piloted in 13 urban schools (nine elementary and four high schools), the instrument also underwent validity testing and the evaluations of six independent raters matched up with the SMHCI scores. “The SMHCI appears to provide a way to quantify this notion of mental health capacity,” the authors conclude. “Further results help locate where a school is along a continuum from reactive to proactive....”

“The School Mental Health Capacity Instrument: Development of an Assessment and Consultation Tool,” by Luba Falk Feigenberg, Caroline Watts, and John Buckner, appears in *School Mental Health*.

It Takes Two

In pair therapy, two youth work together toward reciprocal transformation. Facilitated by adults, the sessions help youth develop strategies for sharing experiences and resolving conflicts—skills they’ll need to sustain deep relationships.

Working from the assumption that negotiating differences provides the catalyst for change, the technique favors matching youth with substantially different personal styles. The two basic styles, Mike Nakkula explains, are “self-transforming” and “other-transforming”—defined respectively as focusing on changing oneself to avoid conflict and attempting to change others to meet one’s own needs.

An analysis of two-year pair therapy of two preadolescent boys, Alex and Jamie, gave Nakkula the chance to observe reciprocal transformation in action. From its “honeymoon phase,” the therapy proceeded through a cooling-down period characterized by co-existence rather than full engagement; reached a crisis when the self-transforming Alex directly challenged Jamie’s aggressive behavior, and resolved in a rebalancing of power and a deepening sensitivity to each other’s concerns.

Commenting on the “relational risk-taking” involved in the model, Nakkula observes that adults too often attempt to forestall risk-taking among young people—often to the detriment of growth promotion.

“Transforming Self-Control Through Peer Relationships” appears in *Reclaiming Youth at Risk*, 17(4).

Early Childhood Risks and Educational Outcomes

Two recent studies conducted by John Fantuzzo and colleagues looked at the impact of early childhood risks on the educational outcomes for diverse, low-income children.

The first study examined multiple maternal risks on the competencies of diverse, low-income preschoolers and found that a mother's education accounted for the most variance in children's cognitive outcomes while chronic maternal depression accounted for the most variance in their pro-social and problem behaviors. Further findings revealed that different combinations of maternal risks were associated with varying outcomes.

The second focused on an entire cohort of second-grade students in a large urban district to understand the timing and influence of the first experiences of maltreatment and homelessness on academic achievement and attendance. Significant among the patterns that emerged were the power of timing (the earlier the exposure, the worse the outcome) and the relative impact of these risks (maltreatment has a more pervasive impact than homelessness).

"A Multivariate Investigation of Maternal Risks and Their Relationship to Low-Income, Preschool Children's Competencies," by Marlo A. Perry and John W. Fantuzzo, appears in *Applied Developmental Science*, 14(1).

"Timing and Influence of Early Experiences of Child Maltreatment and Homelessness on Children's Educational Well-Being," by Staci Perlman and John Fantuzzo, appears in *Children and Youth Services Review*, 32(6).

Also from John Fantuzzo

The National Research Council has called for researchers to investigate the use of assessment measures in high-stakes evaluations of programs for young, low-income, minority populations. One of those assessments, the Child Behavior Checklist (CBCL), was originally developed to detect psychiatric syndromes as observed in a largely middle-class, largely Caucasian sample. To determine whether an assessment with that pedigree could be effective when applied to a non-clinical setting and a low-income, minority population, a Penn GSE team examined data from an evaluation of an early intervention that had used the CBCL to assess program impacts on the behavioral adjustment of low-income children. The Penn study found no support for the relevance of CBCL to this particular population; indeed, less than one third of the clinical behaviors included in the CBCL were prevalent in this community-based sample. "Measurement and Population Miss-Fits: A Case Study on the Importance of Using Appropriate Measures to Evaluate Early Childhood Interventions," by Whitney A. LeBoeuf, John Fantuzzo, and Michael L. Lopez, appears in *Applied Developmental Science*, 14(1).

The Principal Impact

Amidst calls for increasing levels of educational accountability, a team of Penn GSE researchers set out to explore the connections between principal leadership and peer influence on both teachers' instructional practice and student learning.

Principals can influence their schools in many ways: by focusing institutional mission and goals, by encouraging an environment of collaboration and trust, and by actively supporting teachers' instructional improvement. Similarly, teachers are often influenced by their peers—through formal and informal instructional advice networks, observations of others' teaching, and opportunities to collaborate.

For this study, the Penn team—Jonathan Supovitz, Philip Sirinides, and Henry May—used student achievement outcomes and data from two teacher surveys that measured changes in teachers' instructional practices and their perceptions of principal leadership. Their findings showed that principals have significant effects both on teachers' instructional practices and on teacher peer influence. Further, the peer influence of other educators was also found to be an important predictor of a teacher's change in instruction for both English language arts (ELA) and mathematics.

Principal leadership and peer influence on teaching reveal themselves differently depending on the subject matter. The impact of both was similar in ELA. But the impact of peer influence on mathematics was nearly twice that of principal leadership, leading the authors to speculate that in subjects where principals are less comfortable, teachers are encouraged to fill the void of support and assistance.

In finding that peer influence also had a strong impact on instructional practice, this study provides some of the first empirical evidence for claims made by advocates of teacher leadership. It also points to the critical importance of the principal. Past literature has suggested that a principal's main impact is on teachers who interact with students directly, but the authors' findings indicate that principal influence is much broader.

As for the impact on student learning, the authors found that, at least in ELA, principal leadership is significantly related to student performance. Although they spend little time in the classroom, principals can have a vast impact on student learning through fostering a school-wide climate of instructional collaboration.

“How Principals and Peers Influence Teaching and Learning” appears in *Educational Administration Quarterly*, 46(1).

Hampton Institute and Post-Brown Fundraising

In the wake of the *Brown v. Board* decision, many observers wondered about the long-term viability of Black colleges. Their enrollments threatened by the push toward integration, these institutions suffered as well from declining support from corporate and foundation funders. Such was the terrain when the Hampton Institute launched its largest fundraising campaign ever and, in a related move, withdrew from the United Negro College Fund (UNCF).

The campaign, which focused on racial uplift and future integration, was launched in 1964; the decision to leave the UNCF came four years later. Among the consequences for Hampton were the need to maintain strong corporate and foundation ties; to increase faculty, staff, and student annual fund participation; and to build alumni giving. For several years, the institution struggled to replace the UNCF funds but then prospered, today boasting an endowment of \$186 million, a balanced operating budget, and an alumni giving rate of 15%.

“Fundraising for Black Colleges during the 1960s and 1970s: The Case of Hampton Institute,” by Marybeth Gasman and Noah Drezner, appears in *Nonprofit and Voluntary Sector Quarterly*, 39(2).

Racial Differences and Educational Expectations

Key to predicting students’ educational attainment is understanding their educational expectations. Socio-economic status, school quality and curriculum, grades and test scores, interpersonal influences, and students’ perceptions of their own abilities—all are known to affect educational expectations. A growing body of evidence suggests that race, too, plays an important role in students’ expectations for themselves—and in their parents’ and teachers’ expectations as well.

In a recent quantitative study that drew on data from the National Education Longitudinal Survey, Shaun Harper and colleagues examined how high school students from various racial backgrounds cultivate and reformulate their educational expectations. Specifically, they looked at how various factors affect students’ expectations directly and indirectly and how these effects vary across groups.

Study results confirm that educational expectations do indeed vary across racial groups. They also found that different factors had different impacts on different groups. While the reasons for these differences are not always clear—why should fathers’ expectations have more impact on some groups than mothers’ expectations?—the authors suggest that schools can use their findings to adapt their practices to serve more students better.

“Racial Differences in the Formation of Postsecondary Educational Expectations: A Structural Model,” by Samuel Museus, Shaun Harper, and Andrew Nichols, appears in *Teachers College Record* 112(3).

How to Plan Ahead

When it comes to school reform, there's many a slip between program design and improved student achievement. One of the consistent findings of education research is the inconsistent quality of program implementation.

To determine whether we can predict which parts of a program will stick and which will slip, Penn GSE researchers conducted a three-year study of five school-improvement programs in 15 high schools. Finding substantial variation in how programs were being implemented, the researchers theorized that implementation is a process of iterative refraction—that is, reforms are adjusted repeatedly as they make their way through schools.

The theory further suggests a certain predictability in the implementation process. The researchers identified three key junctures where reform is especially vulnerable to modification—and suggest that designers and change agents pay particular attention to them as they develop and roll out new programs.

First is the design stage. To guard against refraction, designers can employ specific strategies: emphasize the “non-negotiables” in the reform; calibrate the level of school engagement required to the level of complexity; consult directly with schools and school personnel; and provide support for change.

Next comes the school level, where leaders—both formal and informal—can make or break a reform. Without the legitimizing support of officialdom, reforms often wither on the vine, and informal leaders—usually teachers without formal titles but with robust networks—wield a great deal of influence.

Finally, the central office plays a key role. Specific issues at the district level were the nature of its relationship with the high school, its human and fiscal capacity, and its ability to align its own operations and the reform's priorities.

“Planning Ahead: Make Program Implementation More Predictable,” by Elliot Weinbaum and Jonathan Supovitz, appears in *Phi Delta Kappan*, 91(7).

Interim Assessment and Instructional Change

For its fans, interim assessment holds out the promise of improved student learning through improved instruction. Skeptics wonder whether the optimism is unwarranted, resting largely on evidence about short-cycle formative assessments.

A recent study, conducted by Penn GSE researchers, explored whether teachers are indeed using data gleaned from interim assessments to make instructional change. Focusing on 45 elementary school teachers in two districts (Philadelphia and one of its suburbs), the study asked how these teachers gathered, analyzed, and acted on data about student learning. The researchers also considered factors like district policies, organizational norms, and individual educator capacity.

Study findings suggest that, while often useful for teachers, interim assessments aren't sufficient to improve instructional practice. Although they can—and do—help teachers decide what content to re-teach and to whom, they don't help develop a deep understanding of students' learning, a prerequisite to real instructional improvement.

Most assessments provided little actionable information on student's misunderstandings—a deficiency compounded by teacher uncertainty about just how to interpret data. As the researchers observe, “many teachers focused on procedural rather than conceptual sources of student errors on test items, diagnoses that appeared to inform their instructional planning during re-teaching.”

Based on these findings, the researchers recommend designing assessments specifically for instructional purposes; providing effective support for their use; and building teacher capacity on interpreting and applying data.

“Can Interim Assessments Be Used for Instructional Change?” by Margaret Goertz, Leslie Nabors Oláh, and Matthew Riggan, is a CPRE Policy Brief based on a CPRE Research Report, *From Testing to Teaching: The Use of Interim Assessments in Classroom Instruction*.

More on Interim Assessments

To learn more about how teachers use data from interim assessments to modify instruction, Leslie Nabors Oláh, Matthew Riggan, and Nancy Lawrence interviewed third- and fifth-grade teachers in five average- and above-average-performing Philadelphia schools. How were teachers benchmarking assessment results? What were their instructional responses? The teachers were found to use interim assessment results for insight into students' learning, but not into their grasp of concepts. Likewise, mirroring this tendency to downplay conceptual understanding, their instructional responses focused on procedural issues.

“Learning to Learn from Benchmark Assessment Data: How Teachers Analyze Results” appears in *Benchmarks for Success? Interim Assessments as a Strategy for Educational Improvement*, a special issue of the *Peabody Journal of Education*, edited by Leslie Nabors Oláh, Katrina Bulkley, and Suzanne Blanc.

Low-Income Students, Financial Aid, and College Choice

In the United States, the stratification of college choice by family income persists—even in light of the investment elite colleges and universities make in student aid. Low-income students are far more likely to enroll in one of the nation’s private for-profit or two-year colleges than in one of its most selective institutions, private or public.

A recent analysis from Penn GSE explored how institutional financial aid influences the college choices of this population. With a particular emphasis on schools that have eliminated the use of loans for low-income students, the study homed in on communicative strategies with a review of the websites of each no-loan school.

Among the colleges and universities with generous aid policies, the authors struggled to find information about aid packages. “One of the most striking findings from our review of institutional websites,” they write, “was how difficult it was for our team of five individuals with a high degree of knowledge of higher education to tell if an institution had a no-loan policy.”

Assuming that these institutions find the benefits of enrolling more low-income students to be worth the cost of expensive aid packages, the authors suggest several remedies: more effective and more targeted communication strategies (both for students and their school counselors); additional staff to provide support through the financial aid process; partnerships with pre-college programs; and post-enrollment support for students from lower socioeconomic backgrounds.

In addition, institutions might do well to consider the limits of no-loan policies and, rather, consider putting “a thumb on the scale” for this population—much as they do for other underrepresented minorities, children of alumni, and athletes.

“Showing Them the Money: The Role of Institutional Financial Aid Policies and Communication Strategies in Attracting Low-Income Students,” by Laura Perna, Valerie Lundy-Wagner, April Yee, Leykia Brill, and Teran Tadal, appears in *Recognizing Social Class and Serving Low-Income Students in Higher Education: Institutional Policies, Practices, and Culture*, edited by Adrianna Kezar.

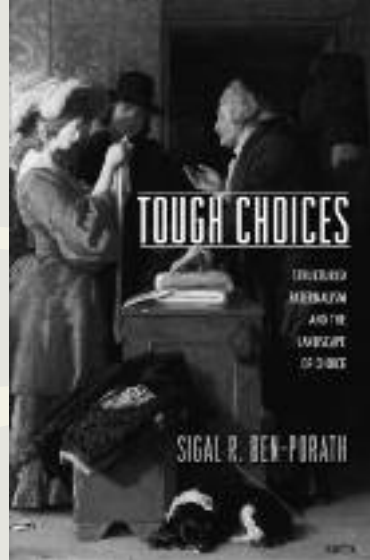
Also from Laura Perna

Using data from the Integrated Postsecondary Education Data Systems, Laura Perna et al. examined the status of equity for Hispanic students in public higher education institutions in Florida and Texas. Their analysis revealed substantial inequities across the board—in student enrollment, full-time faculty, and administrative and managerial staff. “The Status of Equity for Hispanics in Public Higher Education in Florida and Texas,” by Laura Perna, Chunyan Li, Erin Walsh, and Stephanie Raible, appears in *Journal of Hispanic Higher Education*, 9(2).

Sigal R. Ben-Porath
Tough Choices: Structured Paternalism and the Landscape of Choice.

Princeton University Press, 2010

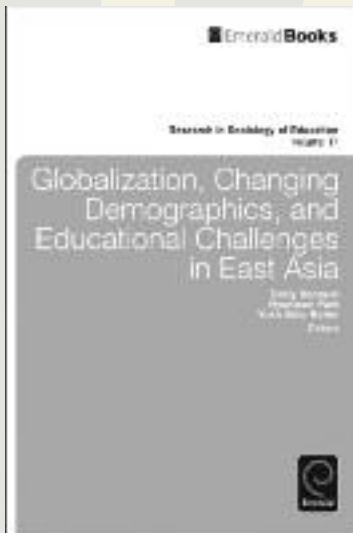
Grappling with the question of the balance between individual liberty and the collective good, *Tough Choices* draws on insights from behavioral economics, psychology, and educational theory to make a case for structured paternalism, which provides for equalization of opportunity while protecting the freedom of individuals to choose.



Richard Beach, Gerald Campano, Brian Edmiston, and Melissa Borgmann
Literacy Tools in the Classroom: Teaching Through Critical Inquiry, Grades 5-12

Teachers College Press, April 2010

How can literacy tools—narratives, spoken-word poetry, drama, digital communication, video—be used to encourage critical inquiry? This innovative resource provides adaptable lessons from diverse classrooms and connects to an active website for a growing professional community.

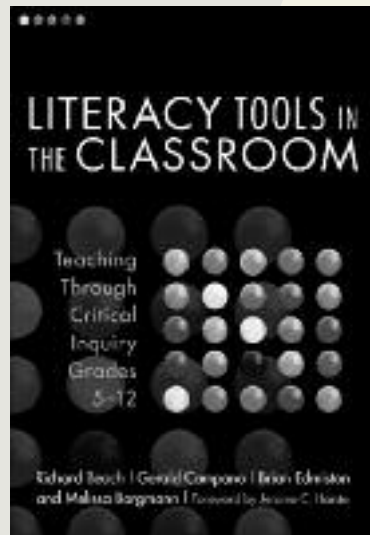


Emily Hannum, Hyunjoon Park, and Yuko Goto Butler (Eds.)

Globalization, Changing Demographics, and Educational Challenges in East Asia

Research in Sociology of Education, Vol. 17. Emerald Group Publishing, May 2010

From Japan's changing teacher work patterns, to educational stratification in China, to the impact of migration in Singapore—the diverse educational systems of East Asia are grappling with serious change. This volume investigates national responses to regional trends.





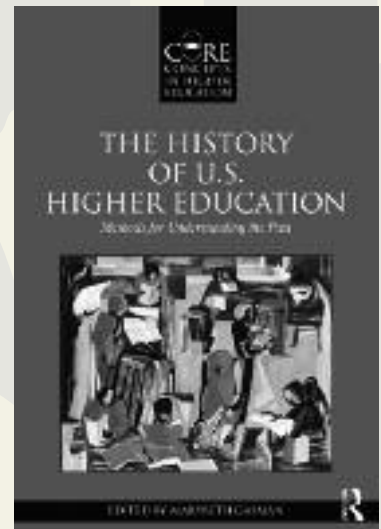
Rainer Silbereisen and Xinyin Chen (Eds.)
Social Change and Human Development: Concept and Results
Sage Publications, 2010

From the rapid upheaval in 1990s Europe to more gradual changes in East Asia, the social world influences individual development. In this volume, international experts explore socio-political and technological changes taking place around the world and explain their impact on development across the lifespan.



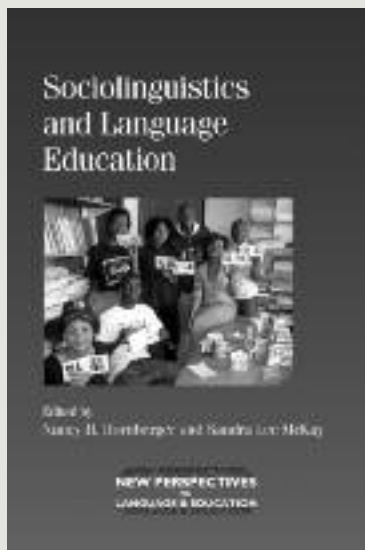
Marybeth Gasman (Ed.)
The History of U.S. Higher Education: Methods for Understanding the Past
Routledge, 2010

Critical methodological issues take center stage as Gasman explores topics often overlooked in the academy (race, class, gender, sexuality, etc.). Bringing together leading historians and those at the forefront of new research, the volume explains the processes and methodological approaches used in historical higher education research.



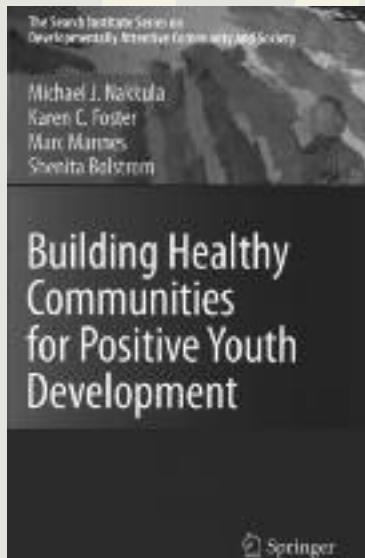
Marybeth Gasman, Valerie Lundy-Wagner, Tafaya Ransom, and Nelson Bowman III (Eds.)
Unearthing Promise and Potential: Our Nation's Historically Black Colleges and Universities
ASHE Higher Education Report, Volume 35 Number 5

This volume begins with an historical overview of HBCUs, then surveys research on a range of topics—desegregation and the post-Brown era; students (college choice, retention, graduation rates, gender, and student engagement); curriculum; leadership, faculty, and governance; fundraising; and the role of federal and state policy.



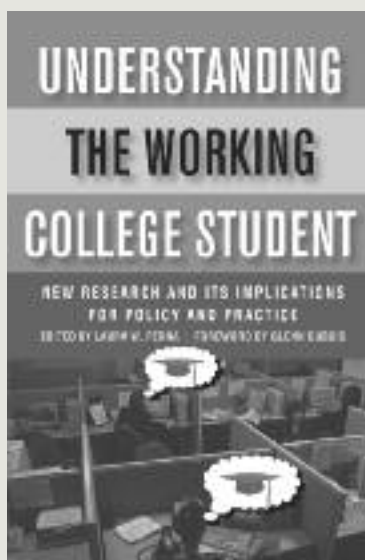
Nancy Hornberger and Sandra Lee McKay (Eds.)
Sociolinguistics and Language Education (New Perspectives on Language and Education)
Multilingual Matters, June 2010

This overview of sociolinguistics includes explorations of nationalism and popular culture, style and identity, critical language awareness, multimodal literacies, classroom discourse, and across-language education (from the teaching of English as an international language to Indigenous language revitalization).



Mike Nakkula, K.C. Foster, M. Mannes, and S. Bolstrom (Eds.)
Building Healthy Communities for Positive Youth Development
Springer, June 2010

An exploration of the visionary grassroots *Healthy Communities • Healthy Youth* project, this book traces how eight local initiatives applied its framework to youth development and offers a flexible blueprint for promoting the well-being of children and teens.



Laura W. Perna (Ed.)
Understanding the Working College Student: New Research and Its Implications for Policy and Practice
Stylus Publishing, 2010

Despite the fact that work is a fundamental part of life for nearly half of all undergraduates, little attention has been given to how work influences their college lives. Offering a comprehensive picture of working college students, this book tells us who they are and what we know about their experiences and challenges.

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