

Teacher Talent Pool: Avoiding a Potential Crisis

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Research Center at ETS*

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Who we are

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- **Gary Sykes, Ph.D.**
 - Principal Research Scientist in Understanding Teaching Quality Center
 - Research focuses on policy related to teaching, teacher preparation, and assessment of teaching
 - Former professor at Michigan State University

Today's Session

- We will offer an interactive session encouraging discussion of the issues involved in generating, hiring, and retaining teacher talent
- Participants will leave with a better understanding of
 - The complexities involved in finding and keeping teacher talent
 - Some possible strategies for improving the talent pool, recruiting teachers who are highly-qualified, and retaining teachers who are most effective

MORE TEACHERS, OR DIFFERENT TEACHERS?

Discussion: Does Pennsylvania have a teacher shortage?

- What are the indicators of a shortage?
- What information is needed to determine whether certain subjects, grades, and specialties are experiencing shortages?
- What information is needed to determine whether certain schools and districts are experiencing shortages?
- Who should be involved in determining the extent and nature of the shortage?

What some other states have found

- Teacher preparation programs are preparing sufficient numbers of teachers BUT
 - There are far more general elementary teachers being prepared than are needed
 - Too many high school and middle school subject-specific teachers are being prepared
 - Not enough specialized teachers are being prepared (special education, ELL specialists)
 - Teachers prefer to teach in certain districts, and in particular schools within districts, and may choose not to teach rather than move/commute

National shortage?

- “I am skeptical that there is a national shortage,” [teacher supply/distribution expert Dan Goldhaber] said. “It’s clear that some school systems have a hard time recruiting teachers. But it’s also the case that over the last couple decades, we’ve produced two to three times as many elementary education teachers as there are available slots every year.” (Cavazos, 2015)

Some shortages are real: Special Ed

- Hale (2015) lists stats compiled by the National Coalition on Personnel Shortages in Special Education and Related Services
 - 12.3% of special education teachers leave the profession. Nearly double the rate of general education teachers.
 - 82% of special educators across the nation report there are not enough professionals to meet the needs of students with disabilities
 - *51% of all school districts and 90% of high-poverty schools report having difficulty recruiting highly qualified special education teachers*

Teacher supply factors: Overview

- Recruitment (attraction to teaching profession)
 - Salaries, working conditions may play a role
- Preparation (alternative, traditional routes)
 - Not preparing enough teachers in subjects where they are needed (math, science)
 - Not preparing teachers for grades where they are needed (middle and high school)
 - Not preparing enough specialized teachers (ELL, special ed)
- Hiring (district & school level)
 - Certified teachers exist but there is a mismatch between them and available jobs.
- Retention (in school, district, profession)
 - Transfers, family needs, quit profession



PREDICTING SHORTAGES

Discussion: Can we predict shortages?

- What do they already know about educator supply and demand, distribution, and specific shortage areas?
- What are their perceptions of the nature of the problem?
- What would a useful educator shortage predictor model entail for them? (*e.g., data produced? Usable report formats? Important timelines for data availability?*)

Teacher retention stats

From NCES study (Gray & Taie, 2015)

- During their second year (in 2008–09), 74% of beginning teachers taught in the same school as the previous year (stayers), 16% taught in a different school (movers), and 10 % were not teaching
- During their fifth year (in 2011–12), 70% of beginning teachers taught in the same school as the previous year (stayers), 10% taught in a different school (movers), 3% had returned to teaching after not teaching the previous year (returners), and 17 % were not teaching.

Predicting shortages, creating a coalition to address them

- Use state and local data to develop evidence about where teachers are most needed now and in the future (shortage prediction model) and in what subjects, grades, specialties
- Identification of schools and districts with predicted shortages and support to improve teacher recruitment and retention
- Involving teacher prep programs in developing strategies to prepare more teachers in shortage areas
- Cost estimates for addressing shortages so that state government understands what resources are needed



WHERE DO TEACHERS WANT TO TEACH?

Teacher preferences

- Research shows that teachers who transfer generally move to schools with fewer poor, minority, and/or low-performing students (Lankford et al., 2002; Hanushek et al., 2004)

Incentives for teaching farther from home

- “In general, urban schools must have salaries, working conditions, or student populations that are more attractive than those of the surrounding suburban districts to induce sufficiently qualified candidates whose hometowns are in suburban regions to take jobs farther from home and in a different type of region” (Boyd et al., 2005, p. 127)

Math & science teacher turnover (Ingersoll & May, 2012)

- Used data from national Schools & Staffing Survey and saw large school-to-school differences in math/science turnover
- High-poverty, high-minority, and urban public are highest turnover
- Math & science teachers move schools as follows:
 - from poor to not-poor schools
 - from high-minority to low-minority schools
 - from urban to suburban schools
- Key school-based reasons for turnover
 - Degree of individual classroom autonomy (strong for math)
 - Salary (strongest for science)



WHERE CAN WE FIND MORE TEACHERS?

Career Switchers

- “As schools and districts seek to recruit teachers, individuals in non-teaching professions are an appealing possible pool... data from New York City [is used] to assess the relative effectiveness and retention of career-switchers. It provides some evidence that these teachers are no more effective than other new teachers...[and] little difference in overall transfer or leave rates between teachers with prior experience and other teachers” (Boyd et al, 2011, p. 1229)

Appeal to sense of social mission

- “I teach because, for me, it's the most effective and most enjoyable way to change the world.” (Aguilar, 2013 in Edutopia)
- Aspiring teachers want to “work with young people and make a difference” (from British teacher union survey)
- Teach for America, Teacher Corps, many other programs attract teachers by appealing to their desire to impact young people



DOES MONEY MATTER?

Yes, money matters

From NCES study (Gray & Taie, 2015)

- The percentage of beginning teachers who continued to teach after the first year *varied by first-year salary level*.
- 97% of beginning teachers whose first-year base salary was \$40,000 or more were teaching in 2008–09, whereas 87% of those with a first-year salary less than \$40,000 were teaching in 2008–09
- 89% of beginning teachers whose first-year base salary was \$40,000 or more were teaching in 2011–12, whereas 80% of those with a first-year salary less than \$40,000 were teaching in 2011–12.

Money matters in hard-to-staff areas: Sass & Feng (2015)

- Statewide program designed to increase the supply of teachers in “hard-to-staff” areas.
 - Program elements: Loan forgiveness for certification in designated shortage areas, tuition reimbursement for teachers who became certified and taught in designated shortage areas; single year bonuses to high school teachers who were certified and taught in a designated subject area.
 - All elements had a positive effect on attrition, and shortage areas were filled with qualified (certified) teachers

Teacher Salary: Pennsylvania (Highest)

- Average teacher salary in Pennsylvania in 2013-14: \$57,197
- Top 4 highest-paying districts in 2013-14 SY (non-specialized, non-charter)

School District	Average Salary 2013-14
Lower Merion SD	\$93,087
Council Rock SD	\$91,553
Upper Merion Area SD	\$88,437
Centennial SD	\$87,881

Teacher Salary: Pennsylvania (Lowest)

- Average teacher salary in Pennsylvania in 2013-14: \$57,197
- Top 4 lowest-paying districts in 2013-14 SY (non-specialized, non-charter)

School District	Average Salary 2013-14
Turkey Foot Valley Area SD	\$35,565
Salisbury-Elk Lick SD	\$39,981
Conemaugh Valley SD	\$41,141
Forbes Road SD	\$41,617

Lowest Average Teacher Salary in a PA School District

- Turkeyfoot Valley Area School District
 - Median Household Income: \$38,901
 - Aspiration is to become a model rural school in Pennsylvania.
 - Small Appalachian school district.
 - Population of approximately 3,000 residents
 - Relies on tourism and recreation from the Youghiogheny River Lake as its primary industry.
 - Comprised of one building housing the elementary, secondary and administrative offices.
 - About 333 students are currently enrolled in grades K-12.

Highest Average Teacher Salary in a PA School District

- Lower Merion School District
 - Median Household Income: \$121,036
 - “Rich tradition of achievement, innovation and community partnership”
 - “Longstanding reputation as one of the finest school districts in the United States”
 - Located in Philly’s historic Main Line suburbs
 - Six elementary schools, two middle schools, two high schools
 - 8,200 students
 - About 62,000 residents

Discussion: What can we learn about teacher supply from looking at salary information?

- What are some of the reasons for the differences in salary across school districts?
- What are some characteristics of lower-paying and higher-paying districts?
- How can the less-affluent districts compete?

DO TEACHER SUPPLY AND DISTRIBUTION IMPACT TEACHER EFFECTIVENESS?

Match between teachers & schools (Jackson, 2010)

- Investigated the contribution of “match between teachers and schools” to student achievement
- Showed that teacher effectiveness is higher *after* a move to a different school
- 25% of what is typically considered to be a teacher effect may actually be a teacher-school (match) effect

Are those who leave more effective?

- Research suggests that those who leave (whether the school, the district, or the profession) tend to be *less effective* than those who stay in schools (Hanushek and Rivkin, 2010)
- The exception is first year teachers who leave—they tend to be *more effective* than those who stay

Less effective teacher more likely to leave (1)

- “Using data for New York City schools from 2000–2006, we find that teacher attrition rates are significantly higher in schools with lower student achievement. In addition, the first-year teachers that we identify as less effective in improving student test scores have higher attrition rates than do more effective teachers in both low-achieving and high-achieving schools.” (Boyd et al, 2007)

Less effective teacher more likely to leave (2)

- “On average, more effective teachers tend to stay in their initial schools and in teaching. But the lowest performing teachers, who are generally the most likely to transfer between schools, appear to “churn” within the system, and teacher mobility appears significantly affected by student demographics and achievement levels.” (Goldhaber et al., 2009)

Performance pay and retention

- Best evidence comes from a longitudinal study in which performance pay was implemented in 99 high poverty, high performing Texas public schools
- Following the first year of the program, teacher turnover was consistently lower in participating schools but this did not persist over subsequent years
- Receipt and size of bonus awards “had a strong impact on teacher turnover...with the probability of turnover falling as the size of the bonus award increased. And, when plans were designed to reward all teachers equally, failure to receive an actual award was an especially strong predictor of teacher turnover.” (Springer et al, 2009)

Recruitment strategies

- Provide incentives and policies to redistribute the teacher workforce
 - Make challenging schools more attractive
- Improve working conditions for teachers in urban and rural schools
 - Ask new teachers what they want/need
- Partner with institutions of higher education to better prepare teachers for urban and rural school settings
 - Create a feedback loop with IHEs



THE ROLE OF TEACHER PREPARATION PROGRAMS

CAEP* Recommended Standards

1. Content and Pedagogical Knowledge
2. Clinical Partnerships and Practice
3. Candidate Quality, Recruitment, and Selectivity
4. Program Impact
5. Provider Quality, Continuous Improvement, and Capacity

*Council for the Accreditation of Educator Preparation

CCSSO Program Approval Recommendation 6

- “States will...assure that educator preparation programs recruit candidates **based on supply and demand data**, have highly selective admissions and exit criteria...and produce quality candidates capable of positively impacting student achievement.” (p. v)

Discussion: Teacher Prep

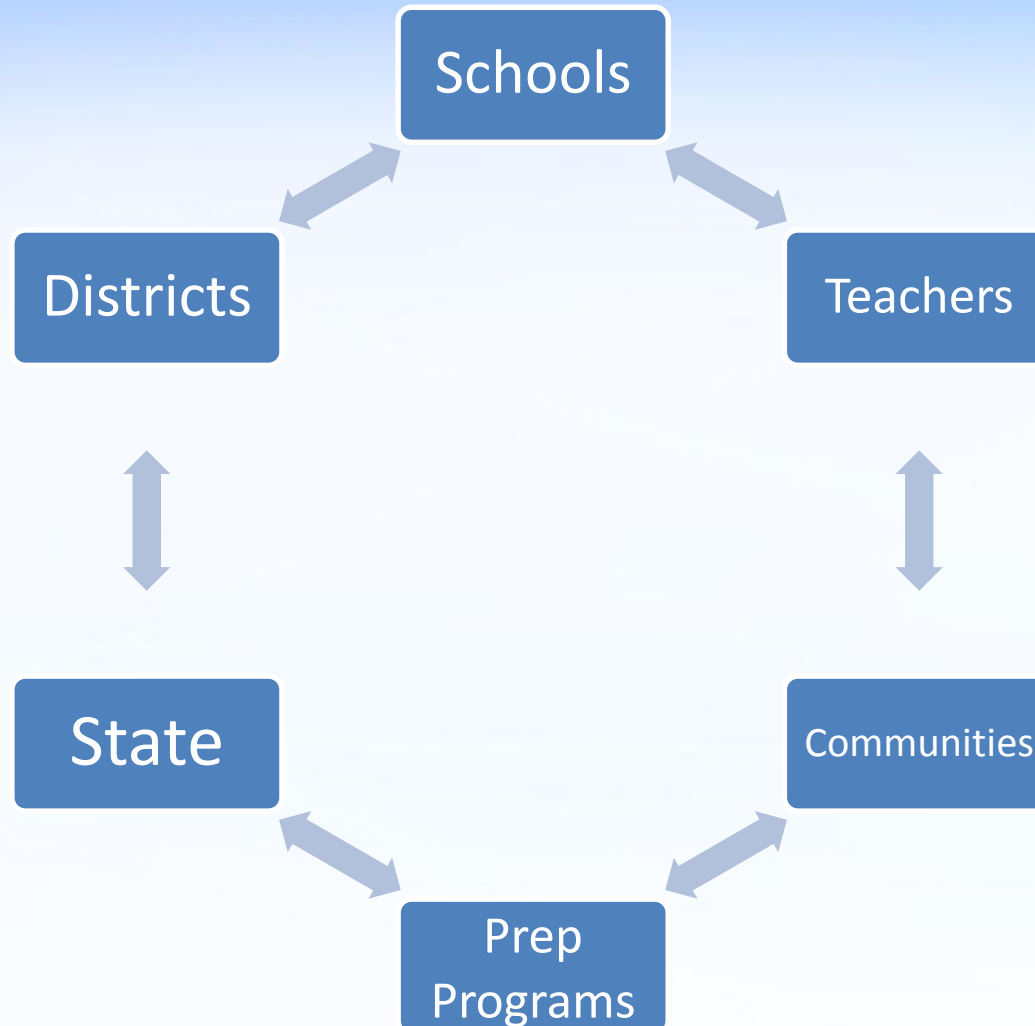
- How can schools and districts influence teacher preparation programs?
- What information (data) can you gather and share with teacher preparation programs that will improve the likelihood of more (and more qualified) applicants?

EVERYONE AT THE TABLE: DEVELOPING STRATEGIES

Who is responsible?

<p>Teacher prep programs (IHEs, other) are preparing too many teachers in some areas, not enough in other areas</p>	<p>Teacher placement (IHEs, Districts, Teachers) fails to ensure that all students have qualified, effective teachers</p>	<p>Teacher satisfaction (Schools/Districts) is not given adequate consideration and lacks local context</p>
<p>Current: Accepting all teacher candidates who meet minimum requirements (“cash cow”)</p>	<p>Current: Directing teachers to local job openings, with little regard to person/job “fit” and preparation</p>	<p>Current: Attempting to provide acceptable salaries, support, and professional growth</p>
<p>NEEDED: Structuring teacher prep so that enough teachers are prepared for specific subjects and grades, and surplus teachers are counseled into other areas</p>	<p>NEEDED: Influencing teachers’ preferences about where they want to work with targeted incentives and/or appeal to teachers’ desire to “make a difference”</p>	<p>NEEDED: Focus on identifying widely-varying local preferences and conditions (class size, benefits, etc.) to target areas where the school or district may improve.</p>

Communication



“Elevating the profession” (from Teachstrong coalition)

- Identify, recruit diverse candidates with great potential to succeed
- Teacher prep rooted in classroom practice, professional knowledge
- Raise the bar for licensure
- Increase compensation to attract and reward teachers
- Provide support for new teachers (induction, residency programs)
- Ensure tenure is meaningful signal of professional accomplishment
- Provide more time, tools, and support for teachers to succeed, including through planning, collaboration, and development
- Design professional learning to better address student and teacher needs and to foster feedback and improvement
- Create career pathways that give teachers opportunities to lead and grow professionally

Partner with teacher preparation programs

- Work with universities to ensure their teachers are prepared to meet the challenges they will encounter in hard-to-staff schools
- Field experiences in high-needs schools should be extensive and high quality
- Consider a cohort placement model, bringing in teachers from one program

More possible strategies...

- Coalition of teacher prep programs, districts and schools to better understand and target local needs
- State department of ed working with coalition suggested above to develop a shortage predictor model
- Increase efficiency and timing of hiring practices (Lankford et al, 2002; Darling-Hammond, 2012)
- Targeted incentives (loan forgiveness) for teachers willing to teach in hard-to-staff schools
- Residency model and/or cohort model for teachers willing to teach in rural schools
- Collect and use data to drive strategy development and determine which ones work (Imazeki & Goe, 2009)

Provide incentives and policies to redistribute the teacher workforce

- Consider ways to promote the voluntary redistribution of the teacher workforce
 - Signing bonus? Differential pay?
 - Over time, not a one time incentive
- Provide scholarships and forgivable loans for teachers who teach in geographical shortage areas
- Combine pay incentives with cohort assignments
- Combine pay incentives with improved working conditions

Improving rural recruitment and retention

Recommendations for teacher preparation programs from Rural Teacher Residency Program (reported by Mader, 2015)

1. Give teacher candidates an opportunity to spend an entire school year observing and teaching with a mentor teacher in one rural community, rather than splitting the student teaching experience between multiple placements.
2. Teach candidates about the strengths of rural communities, rather than deficits to build a positive perception of rural areas.
3. Include rural schools and students when teaching candidates about underserved populations in education.
4. Form partnerships between teacher education programs and rural teachers and administrators and use those relationships to learn more about what those schools need from new teachers.

Discussion: Strategies

- You've seen a number of strategies recommended by your presenters and by many experts in the field of teacher supply.
- Which strategies do you think most likely to be implemented?
- Which strategies are least likely to be implemented?
- What's missing?

Resources

Draft Recommendations for the CAEP Board (from CAEP Commission on Standards and Performance Reporting)

http://caepnet.files.wordpress.com/2013/02/draft_standards3.pdf

National Center for Education Statistics research publications

<https://nces.ed.gov/pubsearch/getpubcats.asp?sid=003>

Our Responsibility, Our Promise: Transforming Educator Preparation and Entry into the Profession (CCSSO report)

http://www.ccsso.org/Documents/2012/Our%20Responsibility%20Our%20Promise_2012.pdf

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