





TO: The Joint Committee on Higher Education and EMSC

FROM: Joseph P. Frey


SUBJECT: Transforming Teaching and Ensuring an Equitable Distribution of Qualified Teachers in New York State

DATE: November 10, 2009

STRATEGIC GOAL: Goals 1, 2 and 3

AUTHORIZATION(S):

SUMMARY

Issue for Discussion

What actions can the Board of Regents and the Department take to strengthen teaching in New York State and provide for an equitable distribution of qualified teachers?

Proposed Handling

The item is being presented to the Board of Regents for discussion.

Procedural History

The Board of Regents and the State Education Department have embarked on the next phase of education reform in New York State. Research indicates that the quality of teachers and school leaders is a key variable to explaining differences in student achievement. To that end, an important component of the State's education reform agenda is centered on strengthening the preparation of teachers and ensuring that all students in our State are taught by teachers who are highly effective in the subject areas in which they teach. This report describes a comprehensive set of strategies to strengthen teacher preparation, recruit effective teachers to high-need schools and subjects, and intensify efforts to support and retain our best teachers across the State.

Background Information

Recommendations for strengthening teaching and school leadership are a major component of the Board of Regents educational reform agenda, along with other key strategies also under development to transform struggling schools, create a comprehensive P-16 data system, and raise standards and strengthen assessments. Together these strategies are poised to improve student performance, close achievement gaps, and raise graduation rates for students across the State.

Statewide, just under three-quarters (73.6 percent) of the student cohort who entered high school in 2004 graduated in four years. Disaggregated, the data show that far fewer black and Hispanic students, English Language Learners, and students with disabilities are graduating from high school. For example, only 58.5 percent of black students and 56.6 percent of Hispanic students graduated. The success rates are even more discouraging for black and Hispanic males - fewer than half of the 2004 cohort (47 percent of black males and 46.4 percent of Hispanic males) received a Regents or local diploma after four years. Likewise, only 41.5 percent of students with disabilities and just over one-third of English Language Learners (35.7 percent) in the 2004 cohort graduated after four years. Central to closing these gaps and raising achievement and graduation rates is ensuring that students are taught by qualified and effective teachers.

New York State is making progress in ensuring that all students are taught by highly qualified teachers, as required by No Child Left Behind. However, in high poverty schools, unacceptably high percentages of teachers are still not highly qualified by No Child Left Behind standards (5.1 percent in elementary schools and 16.1 percent in middle and high schools). While the data indicate that, statewide, only five percent of the full-time equivalent teaching assignments are held by teachers without appropriate certification, in certain subjects and geographic locations, the percentage is significantly higher. For example, in New York City, there are large numbers of out-of-certification teachers in Bilingual Education (26 percent), Career and Technical Education (25 percent), Special Education middle/secondary (19 percent), the Sciences (18 percent), the Arts (13 percent), and English as a Second Language (12 percent). Many high-need districts also have percentages of teachers out of certification that exceed the statewide average. Also, while the statewide 2006-07 to 2007-08 teacher turnover rate was five percent, it was far higher in many regions and certificate areas.

To have long-term effect on student achievement, it is essential that teachers are prepared to the highest standards and enter the classroom with a knowledge base and skill set grounded in research-based practices and clinical experience. Developing a cadre of highly skilled teachers, however, is not by itself sufficient. Strengthening teacher preparation must be paired with intensified efforts to provide targeted support, professional development, and opportunities to enhance and improve skills as new teachers progress in their practice. In addition, we need to create new incentives to recruit skilled teachers into high-need schools and construct and foster school cultures that support teacher retention and encourage teachers to continuously reflect on and improve their practice throughout their professional careers. New strategies to recruit and prepare qualified individuals to teach in subject shortage areas will also be critical.

Recommendation

The report that follows presents five recommendations for strengthening teaching and ensuring an equitable distribution of teachers in our State's schools.

1. **Performance-Based Assessments for Certification**– To strengthen teacher preparation, it is proposed that the Board of Regents consider approving recommendations to:
 - A. Implement a **performance-based assessment for initial certification**. In combination with more rigorous content exams, the performance-based assessment would require demonstration of the knowledge and skills research has demonstrated are linked to classroom effectiveness.
 - B. Begin development of a **performance-based assessment for professional certification** which would require demonstration of classroom effectiveness including value-added assessment data.
2. **Profiles of Certifying Institutions** –To strengthen teacher preparation, it is proposed that the Board of Regents consider approving a recommendation to begin development of a NYSED profile for each certifying institution, including data on student performance on both the performance-based assessment for initial certification and the performance-based assessment for professional certification (including value-added student assessment data).
3. **Pilot New Teacher Certification Model** –To strengthen teacher preparation and increase the supply of highly effective teachers in high-needs subjects in high-needs communities it is proposed that the Board of Regents consider approving a recommendation to develop a Request for Proposals process to select providers (including institutions of higher education, cultural institutions, research centers, non-profit organizations, and others) to pilot a clinically-based teacher certification model aligned with the new performance-based assessments. The Board of Regents would award Master's degrees to those students who complete registered pilot programs offered by non-collegiate institutions.
4. **Demonstration of Content Knowledge** –To strengthen teacher preparation and increase the supply of highly effective teachers in high-needs subjects, it is proposed that the Board of Regents consider a recommendation to approve an amended regulation allowing secondary-level certification applicants to demonstrate content-knowledge proficiency either through undergraduate/graduate course credits or a score of proficient or higher on acceptable rigorous examinations.
5. **Expand recruitment and retention of teachers in STEM** (science, technology, engineering, and mathematics) **disciplines in high need schools** - To strengthen teacher preparation and increase the supply of highly effective

teachers in high-needs subjects, it is proposed that the Board of Regents consider recommendations to:

- A. Create a new pathway to facilitate the transition to teaching for individuals with advanced degrees in STEM disciplines to teach in high need schools.
- B. Create a new five-year differential incentive to recruit and retain teachers to support the learning needs of students in STEM disciplines in the State's high need schools.

The proposed strategies have been informed by the work of the Board of Regents Workgroup on Strengthening Teaching in Urban Settings, the Higher Education Workgroup, and other State and national education leaders. With the Regents endorsement, these recommended strategies will serve as key components of New York's education reform agenda.

Transforming Teaching and Ensuring an Equitable Distribution of Qualified Teachers in New York State

The report that follows presents a series of recommendations for strengthening teaching and ensuring an equitable distribution of effective teachers in our State's schools. The design consists of five targeted strategies.

I. Performance-Based Assessments for Certification

To strengthen teacher preparation, it is proposed that the Board of Regents consider approving recommendations to:

- A. **Implement a performance-based assessment for initial certification.** In combination with more rigorous content exams, the performance-based assessment would require teacher candidates to demonstrate the knowledge and skills that research has shown to be linked to classroom effectiveness. It is proposed that candidates for the initial certificate complete the performance-based assessment through their teacher preparation programs. Institutions preparing teachers would be free to use existing research-based assessment models such as the one used by the Performance Assessment for California Teachers (PACT), for example, as they work with students in the classroom to develop teaching skills during the program.

We will also explore working to develop a performance assessment for New York State, in collaboration with partners including State and national education leaders that is grounded in research-based teacher standards and made available to teacher preparation programs. In developing an assessment for New York State, a number of existing models of performance-based assessments would be benchmarked and analyzed. The PACT assessments, for example, build on efforts of the National Board for Professional Teaching Standards and INTASC and focus on candidates' application of subject-specific pedagogical knowledge that research finds to be associated with successful teaching. PACT uses multiple sources of data to evaluate the effectiveness of teachers organized around four categories of teaching: Planning, Instruction, Assessment, and Reflection. Teacher candidates develop portfolios to demonstrate effective teaching that include:

- subject-specific knowledge and teaching skills
- planning and teaching learning segments
- a videotape and analysis of the candidate's instruction
- collection of student work and analysis of student learning
- the candidate's reflection on practice

Other performance assessment models also require teachers to demonstrate evidence of creating environments to support the learning needs of students, effective management, and use of technology through electronic portfolios. A number of effective models will be considered as we explore the development of a performance assessment for New York State.

In addition to the new performance assessment, **a more rigorous Content Specialty Test would be developed to assess new teachers' mastery of knowledge in the content area in which they will be teaching.** The new, more rigorous content specialty test would also include a subtest for the candidate to demonstrate his or her literacy and writing skills, which must be passed independently of the overall score. **In addition, the content specialty test for early childhood, childhood, and middle childhood education would include a separate subtest for Literacy/English Language Arts and a separate subtest for mathematics. Candidates would be required to pass each of these subtests.** Requiring candidates to independently pass each of the major subtests for the content specialty tests will provide more rigor in these assessments and better assure that candidates have the necessary knowledge and skills to help students meet New York State's Learning Standards in each subject area.

- B. **Begin development of a performance-based assessment for professional certification which would require demonstration of classroom effectiveness including consideration of value-added student assessment data.**

When a new teacher has earned an initial certificate and completed two years of teaching, it is proposed that the new teacher would complete a value-added assessment that focuses on the effectiveness of the teacher's skills during the first two years of teaching experience. This assessment is anticipated to be a portfolio of the teacher's work that would include some of the same elements as the first Assessment of Teaching Skills plus a value-added component based on a measurement of student learning.

Demonstrated teaching skills on this results-oriented assessment of teacher effectiveness would be the benchmark for teachers to earn professional certification. The time for completing a master's degree would be extended to six years from when the teacher earned initial certification to allow each teacher to complete an advanced degree more directly aligned to the teacher's individual goals for professional development.

The P-16 data system, which is now under development, will be fundamental to provide data on student learning needed to contribute to this assessment process.

Key dates for development of performance-based assessments for teacher certification	
<i>Performance-based Assessments to be eligible for Initial Certification</i>	
Develop performance assessment	July 2010 – December 2011
Assessment is required for candidates in collegiate programs to be eligible for initial	May 2013/September 2013

certification (May 2013) and for candidates with Transitional B certificates before they begin teaching (September 2013)	
Content Specialty Test review and redesign	
Redesign and field test the new CST	November 2009 – November 2011
New CST must be passed by all applicants for initial certification (May 2012) and all candidates with Transitional B certificates before they begin teaching (September 2012)	May 2012/September 2012
Performance-based Assessment for Professional Certification	
Value-added performance assessment put in place	Approximately two years following the implementation of the P-16 data system

II. Profiles of Certifying Institutions

To strengthen teacher preparation, it is proposed that the Board of Regents consider approving a recommendation to begin development of a NYSED profile for each certifying institution, including data on student performance on both the performance-based assessment for initial certification and the performance-based assessment for professional certification (including value-added assessment data). Other data proposed to be part of the profile include:

- o The performance of their students on the revised certification examinations;
- o The diversity of students enrolled in programs;
- o The percent of graduates certified in and employed in shortage subjects;
- o The percent of graduates employed in high-need schools;
- o The retention rate of graduates, especially those in high-need schools; and
- o The performance of their graduates on positively affecting student learning and achievement.

With the development of the P-16 data system, it will become possible to track program graduates in their employment as teachers and school leaders in the public schools of New York and connect the data on P-12 student performance to the institutions' graduates. These new data will further inform the Department and the public regarding effectiveness of programs and their graduates. The information will raise the level of accountability and provide the public with important and useful information.

Key dates for developing profiles of certifying institutions	
Profile enacted into regulations	December 2010 – to go into effect for the 2011-12 academic year
Adjust and revise system to include new data points	Following implementation of P-16 data system

III. Pilot New Teacher Certification Model

To strengthen teacher preparation and increase the supply of highly effective teachers in high-needs subjects in high-needs communities it is proposed that the Board of Regents consider approving a recommendation to develop a Request for Proposals process to select providers (potentially including institutions of higher education, cultural institutions, and non-profit organizations) to pilot a clinically-based teacher certification model aligned with the new performance-based assessments.

Through an RFP process, **financial resources would be provided to higher education institutions with teacher preparation programs, as well as cultural institutions, research centers, non-profit organizations and others, to design and implement rigorous clinically-based preparation programs to prepare teachers to be effective in high need schools.** The Department will seek federal funds to support this initiative.

Candidates in the pilot program will have completed a baccalaureate degree and will enter the program with a transitional B teaching certificate. After successfully completing the program and all teacher certification examinations, including the new performance-based assessment of teaching skills required for an initial certificate and the new value-added assessment, candidates would be awarded a professional certificate. It is proposed that the Board of Regents confer Master's degrees on those students who complete clinically based pilot programs offered by non-collegiate institutions (e.g., cultural institutions, research centers, non-profit organizations and others), consistent with Section 208 of Education Law which grants the Board of Regents the authority to award earned degrees.

All pilot programs will be carefully studied and assessed. Resulting data and lessons learned will help to frame recommendations for continuation of pilot programs, possible future expansion, and/or for bringing effective models to scale.

Key dates for proposed implementation of pilot teacher preparation programs	
RFP issued for pilot teacher preparation programs	June 2010
Pilot programs are developed by collegiate and non-collegiate institutions	September 2010 – June 2011
First cohort of students begin pilot programs	September 2011

IV. Demonstration of Content Knowledge

To strengthen teacher preparation and increase the supply of highly effective teachers in high-needs subjects, it is proposed that the Board of Regents consider a recommendation to approve an amended regulation allowing secondary-level certification applicants to demonstrate content-knowledge proficiency either through undergraduate/graduate course credits or a score of proficient or higher on acceptable rigorous examinations.

The State Education Department has a history of accepting proficiency exam results in lieu of collegiate study for certification purposes. For example, in the Individual Evaluation (also called transcript evaluation) pathway to certification, the Department permits candidates for teacher certification to use satisfactory completion of the College Level Proficiency Examinations (CLEP) and New York University proficiency examinations to be used in lieu of semester hour credit requirements for certification. Some higher education institutions accept proficiency examinations such as Advanced Placement (AP) exams and the CLEP exam in lieu of semester hours, in accordance with their academic policies. Also, in October 2008, to address persistent teacher shortages in languages other than English, the Board of Regents endorsed recommendations to allow teachers candidates who have an acceptable level of language proficiency and cross-cultural competency to take two rigorous, internationally recognized examinations developed and administered by the American Council on the Teaching of Foreign Languages (ACTFL) in lieu of up to 30 semester hours of the content hours required for certification, while keeping all other certification requirements the same.

Accordingly, at their discretion, teacher preparation institutions could grant credit for knowledge, gained through experience evaluated by program faculty as equivalent to program coursework. The focus should be on valid and rigorous assessments to demonstrate knowledge, skills and competencies, rather than seat time.

Teacher preparation programs could accept such evidence of proficiency/experiential equivalence in lieu of a portion of the coursework requirement so that only a small number of additional credits might be required. This would enable individuals with high levels of content proficiency to obtain Transitional B certificates and enter the classroom after an intensive summer program and with extensive mentoring and support during their first year of teaching, as required in Commissioner's Regulations. Acceptance of such equivalent evidence of competence could potentially be applicable in preparation programs provided by non-collegiate providers as well. Completion of the Content Specialty Test will still be required and would provide evidence of content knowledge aligned with the NYS Learning Standards to ensure appropriate knowledge of the content to be taught. Innovative programs like IBM's Transition to Teaching, where engineers and scientists are trained to be teachers in STEM disciplines, would clearly benefit from this approach.

Endorsement, by the Board of Regents, of the use of measures of competency could encourage programs to be more open to enrolling non-traditional students with extensive professional experience and training in the content area. These individuals could potentially only need pedagogical preparation that could be provided in non-

traditional ways as well. **It is recommended that the Regents endorse amending the regulations for teacher preparation programs to explicitly indicate rigorous assessments as acceptable for demonstrating content knowledge.**

V. Expand recruitment and retention of teachers in STEM (science, technology, engineering, and mathematics) disciplines in high need schools

Highly qualified, certified, and effective teachers are central to improving student achievement and closing performance gaps. New York State's public schools have made progress to ensure that all students are taught by appropriately certified and highly qualified teachers. However, data show that the percentage of students taught by teachers who meet the federal definition of highly qualified is lower in high poverty middle and secondary schools, in three of the State's large cities (New York, Syracuse, and Rochester), and in subjects including the STEM fields (science, technology, engineering and mathematics) and languages other than English, as well as special education, particularly for grades 5-12. More progress is needed to address remaining shortages in high-need subjects and high-need schools. In addition, for students in high-need schools to be successful, it is critical that the next generation of teachers entering these schools be provided with rigorous preparation specific to the needs of culturally and linguistically diverse students and students with disabilities.

To strengthen teacher preparation and increase the supply of highly effective teachers in high-needs subjects, it is proposed that the Board of Regents consider recommendations to:

A. Create a new pathway to facilitate the transition to teaching for individuals with advanced degrees in STEM disciplines to teach in high need high schools.

An important strategy for ensuring an equitable distribution of teachers is to facilitate the transition to teaching for individuals, such as college faculty and others, who have advanced knowledge in subject areas with teacher shortages.

It is proposed that a supplementary certificate be created to enable individuals with advanced degrees in STEM disciplines to teach in high need high schools (grades 9-12). The new supplementary certificate would be available to individuals with doctoral degrees in STEM disciplines and individuals with masters' degrees in STEM disciplines who also have or have had instructional appointments in colleges and universities recognized by the Board of Regents. **Depending upon the candidate's previous teaching experience**, additional coursework may be needed to ensure that the individual has the pedagogical skills necessary to meet the learning needs of students in high need schools. It is proposed that more accessible, high-quality pedagogical programs, including on-line offerings, be developed by both higher education institutions with teacher preparation programs and non-collegiate entities such as cultural institutions, public broadcasting, and others to aid the transition to teaching for program participants. Candidates with the

new supplementary certificate would be provided with appropriate mentoring support while they are teaching, similar to the approach in place for teachers with Transitional B certificates.

Key dates for proposed new program to facilitate the transition to teaching for individuals with advanced degrees in STEM	
Put in place new supplementary certificate	June 2010
RFP issued for pedagogical programs	June 2010
More accessible pedagogy programs, including on-line offerings, are developed by collegiate and non-collegiate institutions	September 2010 – June 2011
Candidates requiring pedagogical preparation begin programs	September 2011

B. Create a new five-year differential incentive to recruit and retain teachers to support the learning needs of students in STEM (science, technology, engineering, and mathematics) disciplines in the State’s high need schools.

This strategy would be targeted to those teachers who support the learning needs of students in STEM disciplines in the State’s high need middle and high schools. **It is proposed that eligible teachers be certified in one of the STEM disciplines or be teachers of English language learners or students with disabilities who are actively engaged in supporting the learning needs of students in STEM disciplines in high need schools.** Teachers would need a minimum of three years of outstanding teaching experience to be eligible for the differential demonstrated by a variety of measures including student outcomes. **Eligible teachers would receive a \$30,000 total bonus over the course of five years to support the learning needs of students in STEM disciplines and other designated subjects in the State’s high need middle and high schools. To facilitate teacher retention, bonuses will be awarded on a progressive scale;** for example, eligible teachers would receive an additional \$4,000 in year 1, an additional \$5,000 in year 2, up to an additional \$8,000 in the fifth and final year. The Department will seek federal funding to help initiate this program. To sustain the program beyond the initial investment and retain effective teachers, **the Regents and the Department would work with the Legislature to develop a strategy for embedding this initiative in the State Aid formula for the highest need schools.** It is estimated that this initiative could be made available to up to 500 teachers annually in approximately 300 high need schools.

Below is a chart that displays: 1) Funds expended per Teacher, 2) Number of Teachers participating per year, and 3) Total direct cost expenditures per year. Once the first cohort successfully reaches the fifth year the total direct cost expenditures per year will remain constant at \$15 million per year assuming the maximum cohort each year of 500 teachers.

**Create a new five-year differential incentive to
recruit and retain teachers to support the learning needs of students in
STEM and selected subjects**

500 teachers annually in approximately 300 high need schools

Funds Expended Per Teacher

	Year 1	Year 2	Year 3	Year 4	Year 5
Cohort 1	\$4,000	\$5,000	\$6,000	\$7,000	\$8,000
Cohort 2		\$4,000	\$5,000	\$6,000	\$7,000
Cohort 3			\$4,000	\$5,000	\$6,000
Cohort 4				\$4,000	\$5,000
Cohort 5					\$4,000
	\$4,000	\$9,000	\$15,000	\$22,000	\$30,000

Number of Teachers Participating Per Year

	Year 1	Year 2	Year 3	Year 4	Year 5
Cohort 1	500	500	500	500	500
Cohort 2		500	500	500	500
Cohort 3			500	500	500
Cohort 4				500	500
Cohort 5					500

Total Direct Cost Expenditures Per Year

	Year 1	Year 2	Year 3	Year 4	Year 5
Cohort 1	\$2,000,000	\$2,500,000	\$3,000,000	\$3,500,000	4,000,000
Cohort 2		\$2,000,000	\$2,500,000	\$3,000,000	\$3,500,000
Cohort 3			\$2,000,000	\$2,500,000	3,000,000
Cohort 4				\$2,000,000	2,500,000
Cohort 5					2,000,000
	\$2,000,000	\$4,500,000	\$7,500,000	\$11,000,000	\$15,000,000

Key dates for proposed implementation of five-year differential incentive to recruit and retain teachers to support the learning needs of students in STEM disciplines in high need schools	
Districts advertise incentive	April 2010
State Education Department awards incentive	June 30, 2010
Regents request inclusion of initiative in State Aid formula	October 2011

Next Steps

The proposed strategies are being recommended to the Board of Regents to strengthen teaching and provide for an equitable distribution of qualified teachers in New York State. With the Regents endorsement, these recommended strategies will serve as key components of New York’s education reform agenda.