



Our Students. Their Moment.

Teacher Supply and Demand Reports

November 2013

Board of Regents Meeting



National Trends: Teacher Shortage Areas

- **Current high-need fields (in schools that serve low-income students) are:**
 - **Bilingual Education and English Language Acquisition**
 - **Foreign Language**
 - **Mathematics**
 - **Reading Specialist**
 - **Science**
 - **Special Education**

U.S. Department of Education, Office of Postsecondary Education (2013, March). Teacher Shortage Area Nationwide Listing 1990-1991 through 2013-2014.

New York State: Teacher Shortage Areas

	2010-2011	2011-2012	2012-2013	2013-2014
Bilingual Education	X	X	X	X
Chemistry (Grades 7-12)	X	X		
CTE	X	X	X	X
Earth Science (Grades 5-9 and 7-12)	X	X	X	X
ESOL	X	X		
Languages other than English	X	X	X	X
Library and School Media Specialist	X			
Physics (Grades 7-12)	X	X	X	X
Special Education (Grades 5-9 and 7-12)	X	X	X	
Special Education – Bilingual	X	X	X	X
Students with Disabilities – Science Certification (Grades 5-9 and 7-12)				X
Technology Education Classroom Teacher				X

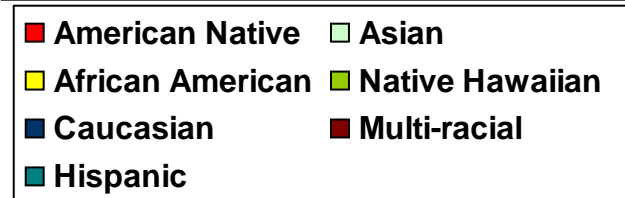
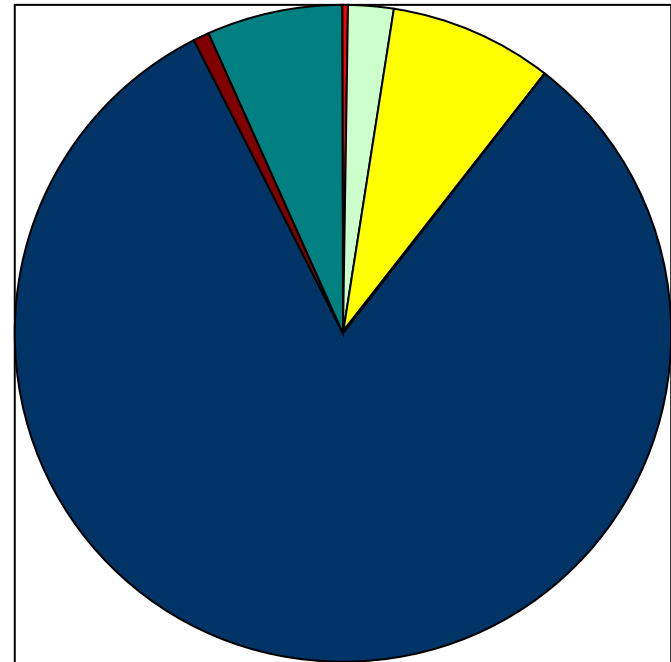
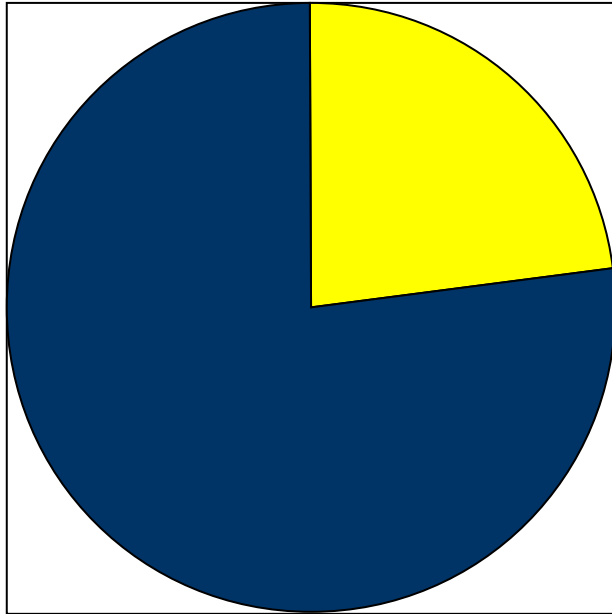
U.S. Department of Education, Office of Postsecondary Education (2013, March). Teacher Shortage Area Nationwide Listing 1990-1991 through 2013-2014.

New York City: Teacher Shortage Areas

	2010-2011	2011-2012	2012-2013	2013-2014
Arts (Dance, Music, Theater, Visual Arts)	X	X	X	
Biology/Life Sciences (Grades 5-9 or 7-12)	X	X		
Chemistry			X	
CTE Business and Marketing	X	X		
English (Grades 5-9 or 7-12)	X	X		
Health Education	X	X		
Languages other than English			X	
Library Media Specialist		X		
Mathematics (Grades 5-9 or 7-12)	X	X		

U.S. Department of Education, Office of Postsecondary Education (2013, March). Teacher Shortage Area Nationwide Listing 1990-1991 through 2013-2014.

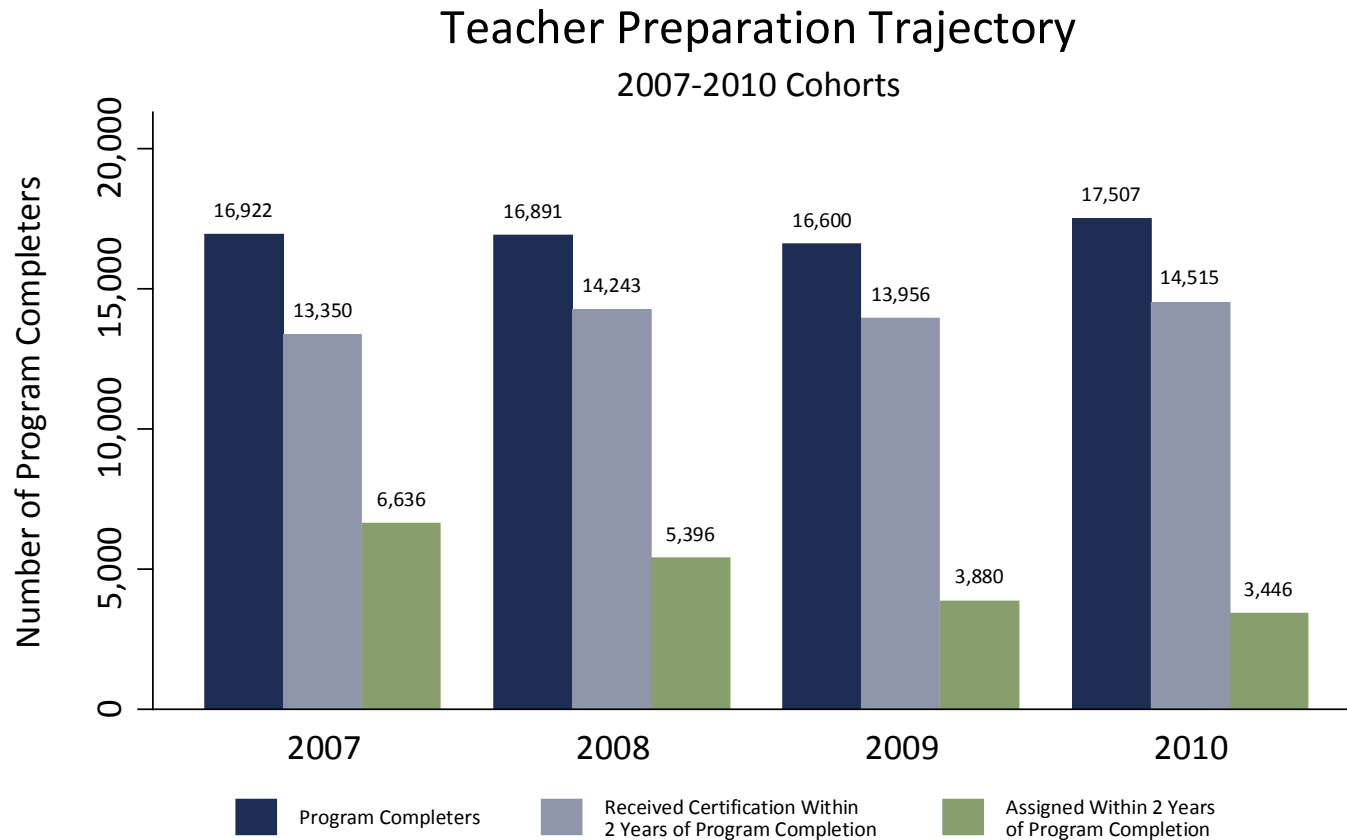
Demographics of Current Teachers in New York State



Our Shared Work: Teacher Supply and Demand

All data analytics in this section and some in the College-going section were completed by the Strategic Data Project from Harvard University using source data from New York State Education Department

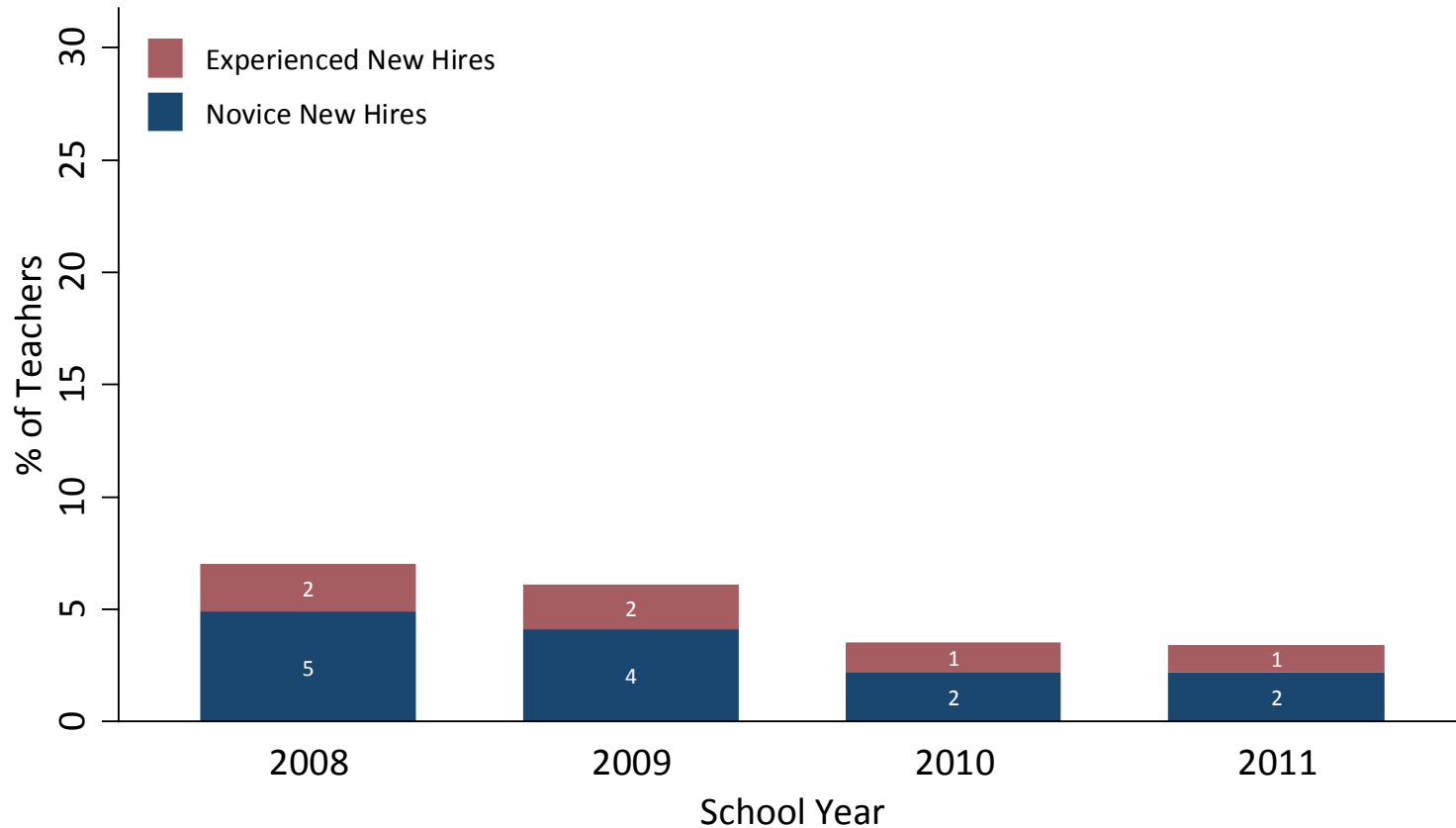
The number of new teacher candidates hired by NY public and charter schools fell sharply from 2007 to 2010



Sample includes teacher preparation program completers of New York State institutions of higher education who were not employed as teachers in NYS public or charter schools prior to program completion. Program completers who received Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

The likelihood of attaining employment varied based on experience

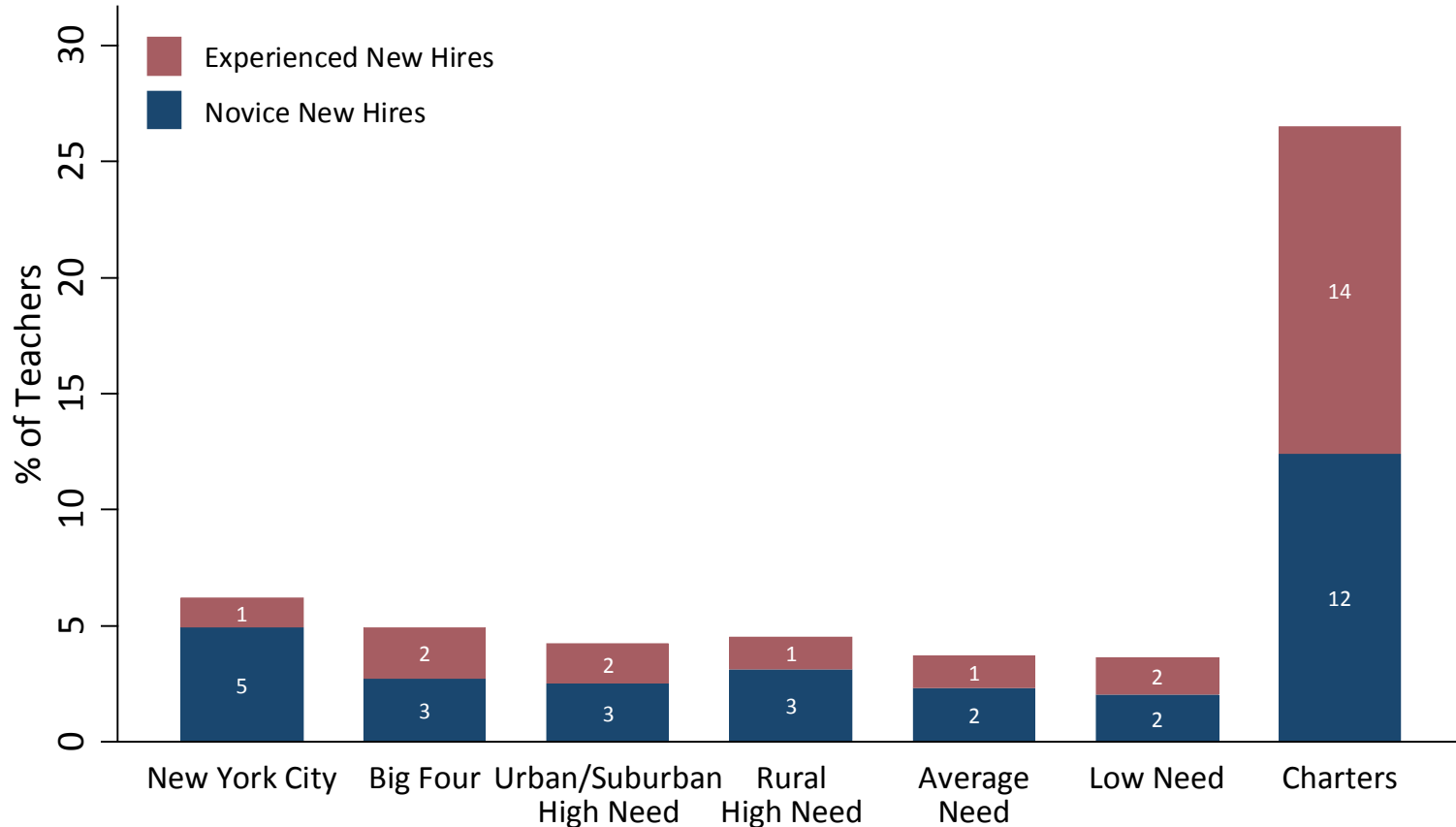
Newly Hired Teachers
by School Year



Sample includes teachers with teacher job codes in New York State public and charter schools in the 2007-08 to 2010-11 school years, with 898,168 teacher years and 268,454 unique teachers. Novice teachers were in their first teaching year in NYS public and charter schools and reported having zero experience. Data source: New York State Education Department records.

The impact of experience in hiring practices varied by district type

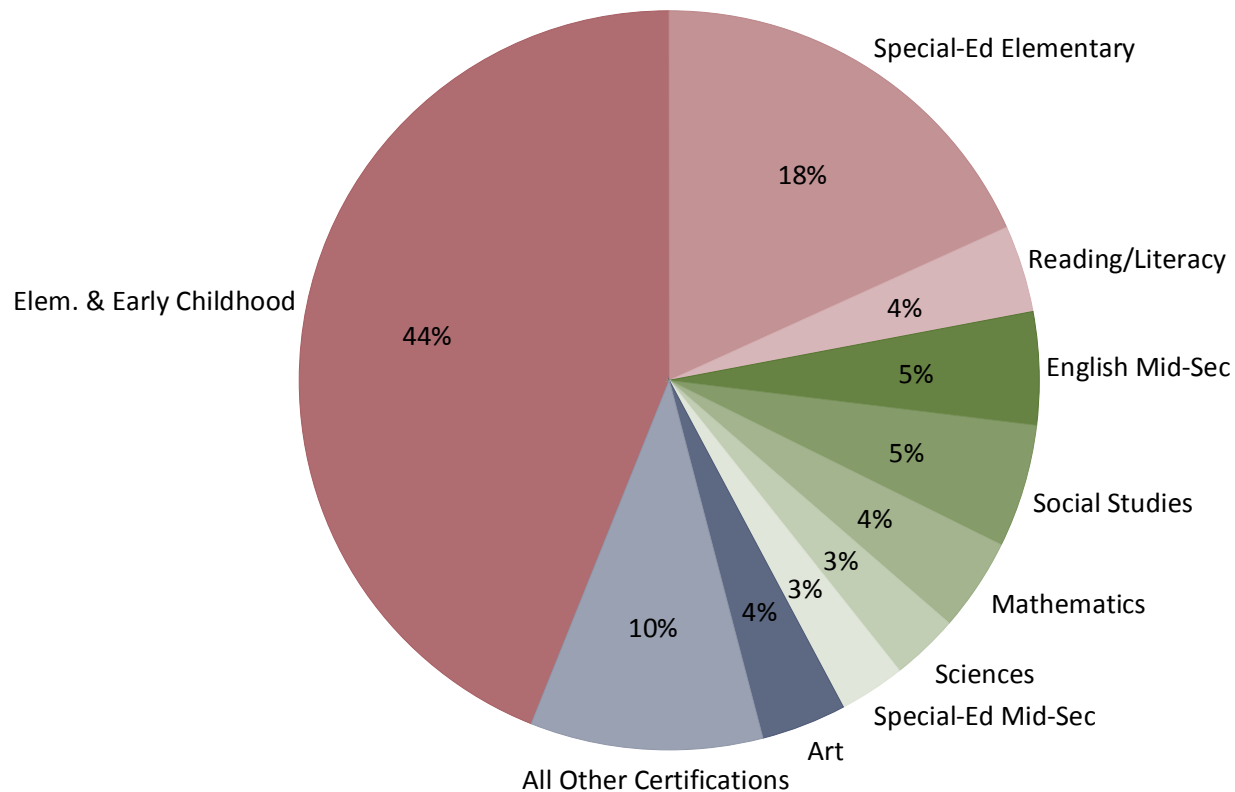
Newly Hired Teachers
by School Need Index



Sample includes teachers with teacher job codes in New York State public and charter schools in the 2007-08 to 2010-11 school years, with 869,428 teacher years and 260,281 unique teachers. Novice teachers were in their first teaching year in NYS public and charter schools and reported having zero experience. Data source: New York State Education Department records.

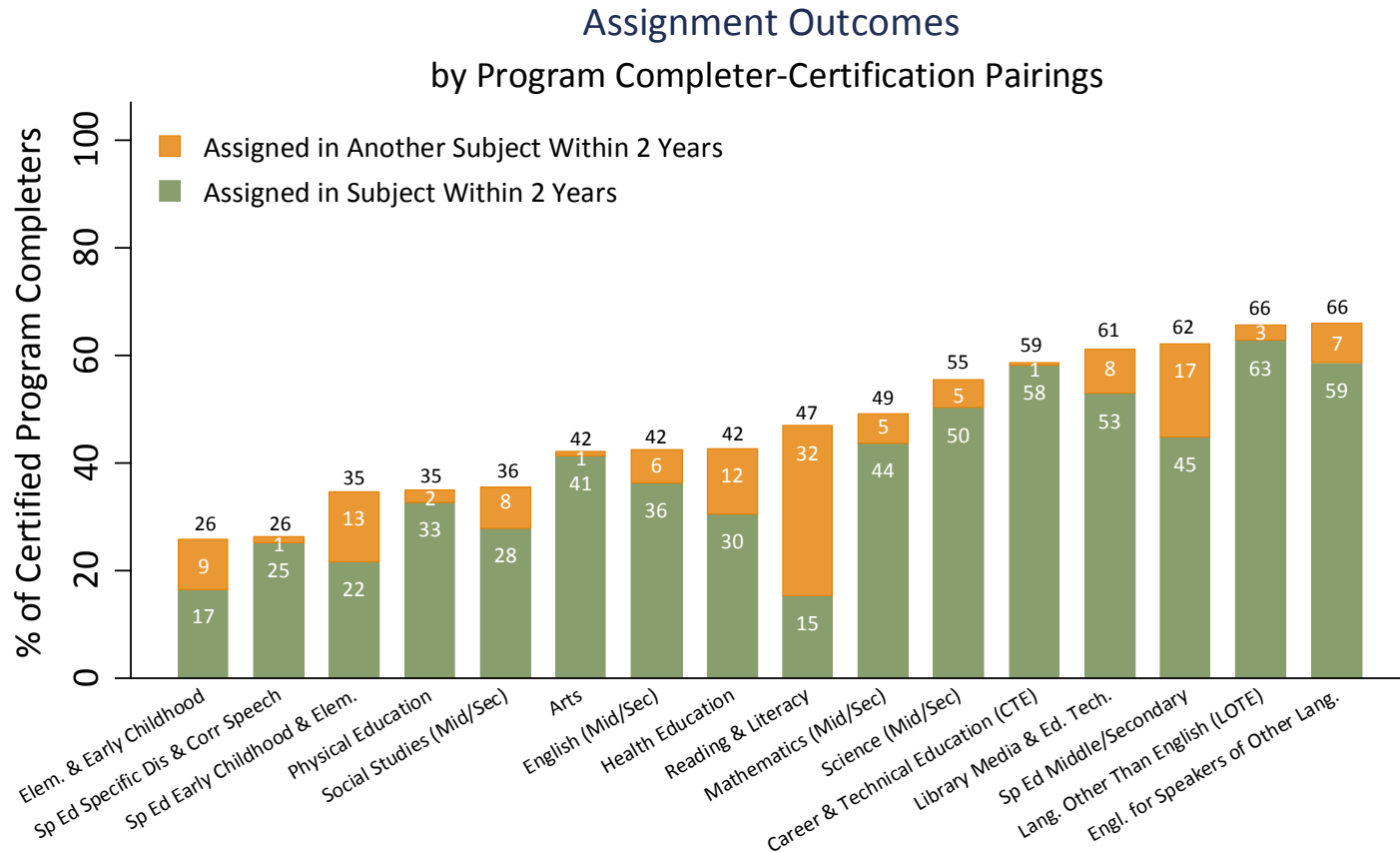
Nearly one-half of certificates granted to new teacher candidates were in elementary education

Initial Certifications Received by Program Completers
by Subject, 2007-10



Sample includes certifications received within two years of graduation by teacher preparation program completers from New York State institutions of higher education who were not employed as teachers in NYS public or charter schools prior to program completion, including 88,354 certificates and 57,428 individuals. Program completers who received Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

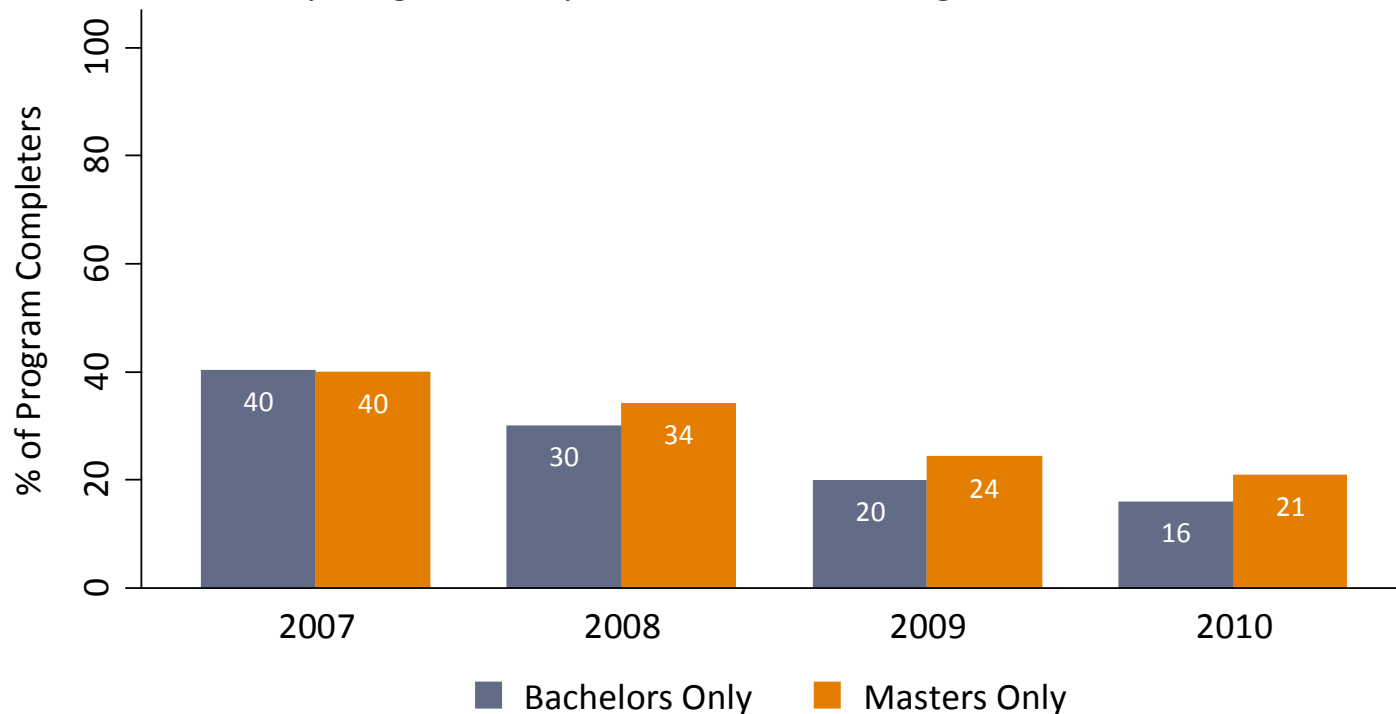
The likelihood of attaining employment varied dramatically by certification subject



Each subject category sample includes certificate-holding new teacher candidates who completed NYS teacher preparation programs in the subject in 2006-07 through 2009-10 and were not employed as NYS public or charter school teachers prior to program completion. Full sample includes 67,199 program completer-subject pairings. Program completers who received Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

Among recent program completers, candidates with masters degrees fared better than those with bachelors degrees

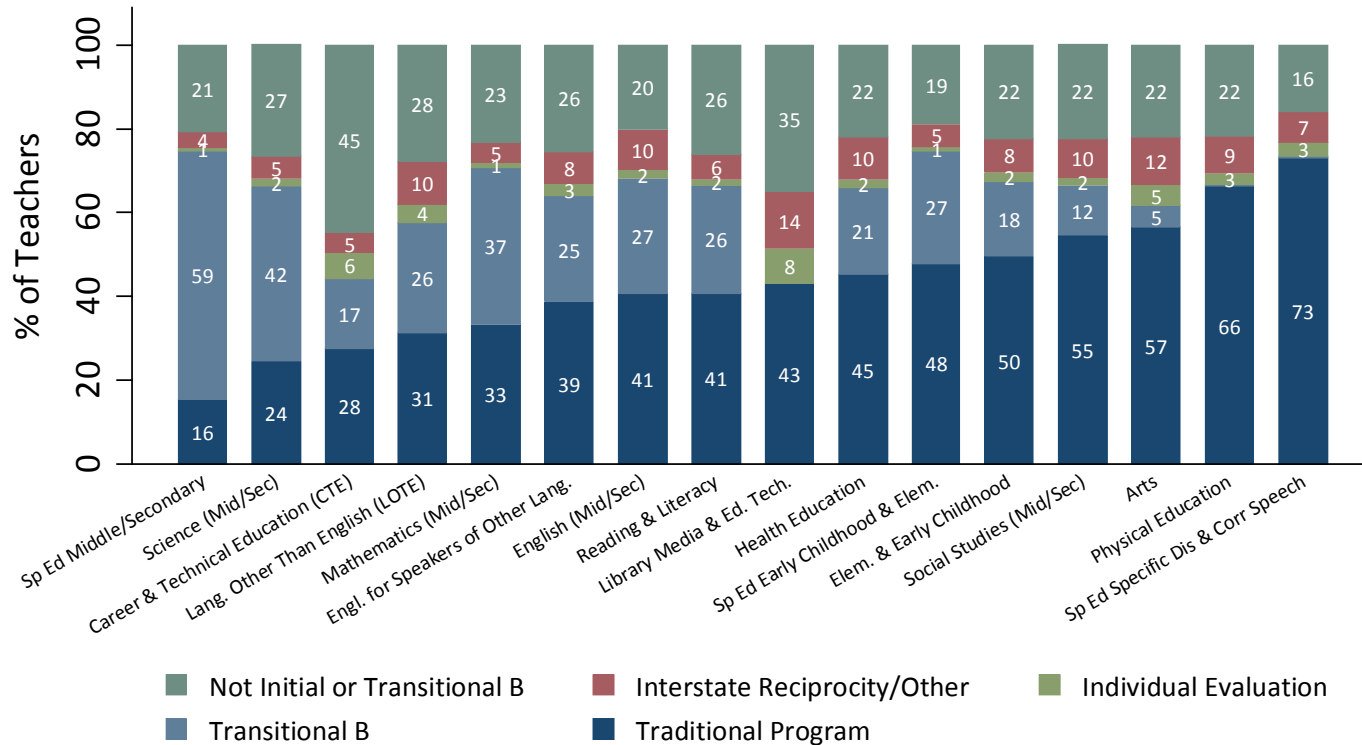
Program Completers Employed As Teachers Within 2 Years
by Program Completion Cohort and Degree Earned



Sample includes individuals who completed teacher preparation programs at New York State institutions of higher education in 2006-07 to 2009-10 and who were not employed as teachers in NYS public or charter schools prior to program completion. Sample includes 16,922 program completers from the 2007 cohort, 16,891 from the 2008 cohort, 16,600 from the 2009 cohort, and 17,507 from the 2010 cohort. Program completer from the Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

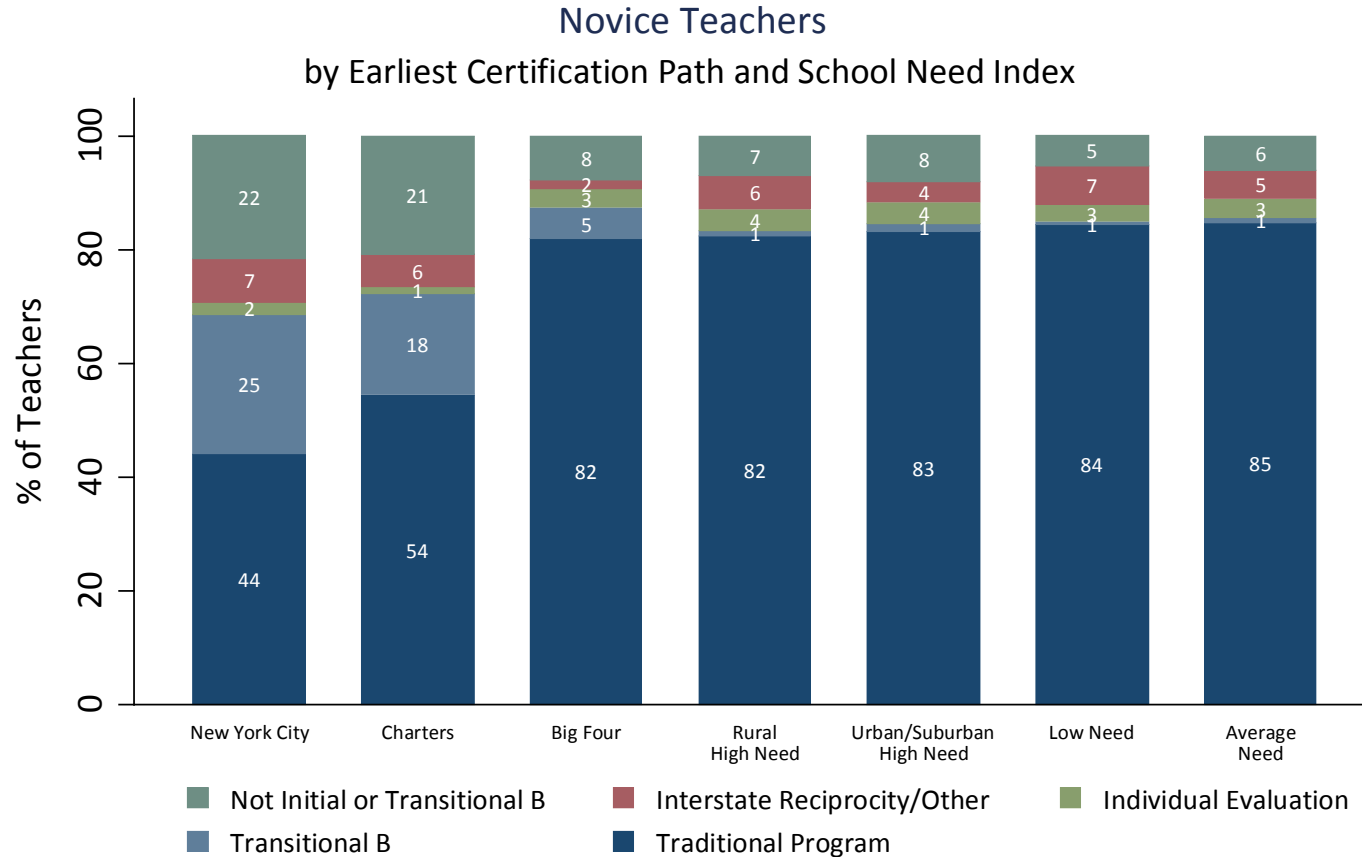
In New York City, alternative certification pathways are used to fill shortage subject area roles

Certification Paths for Novice Teachers in New York City
by Assignment Subjects



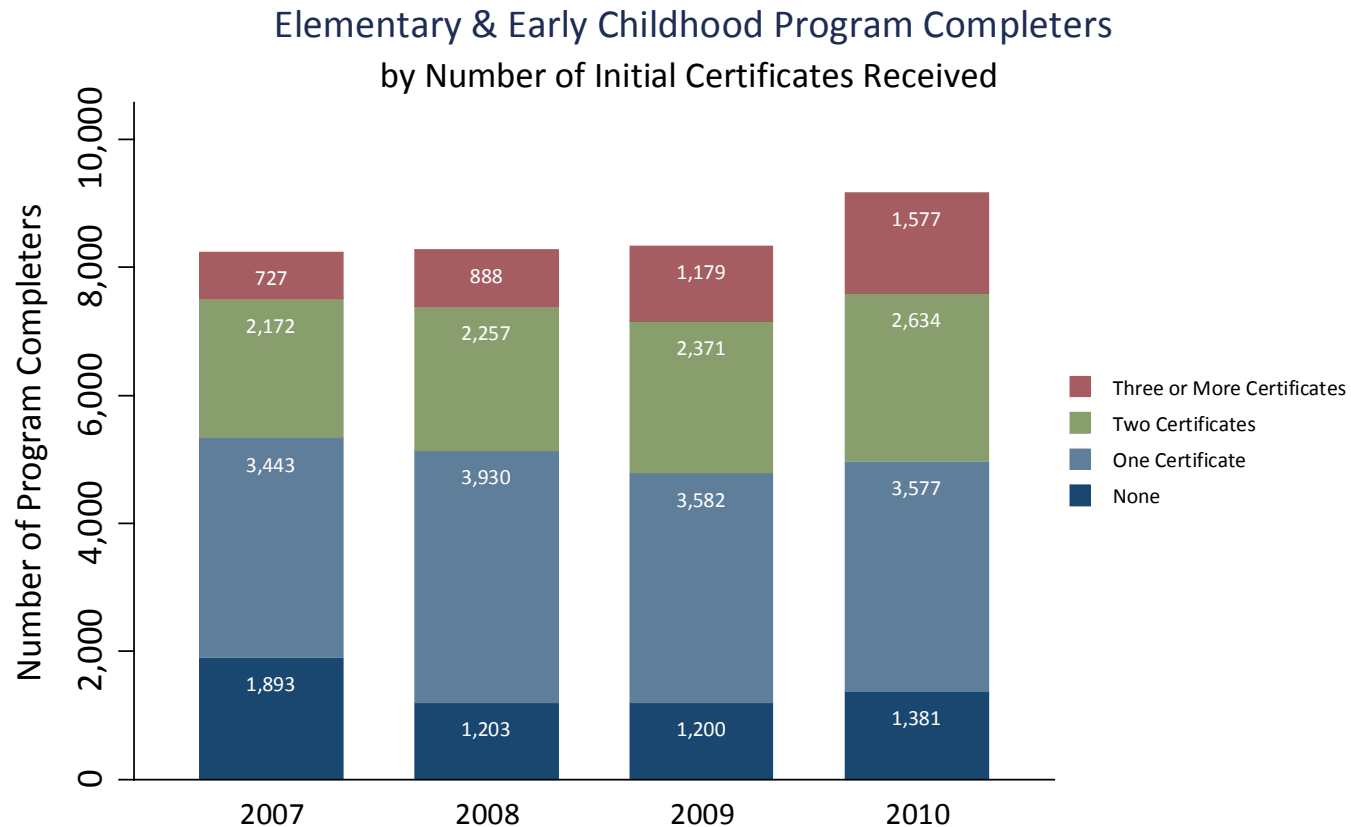
Sample includes novice teachers with teacher job codes in New York City public schools in the 2007-08 to 2010-11 school years. Novice teachers were in their first teaching year in NYS public and charter schools and reported having zero teaching experience. Full sample includes 15,740 teacher-assignment pairs. Certification path is based on first Initial or Transitional B certificates received before hire and after 2004. Data source: New York State Education Department records.

Outside NYC and Charter schools, alternative certification pathways are not utilized



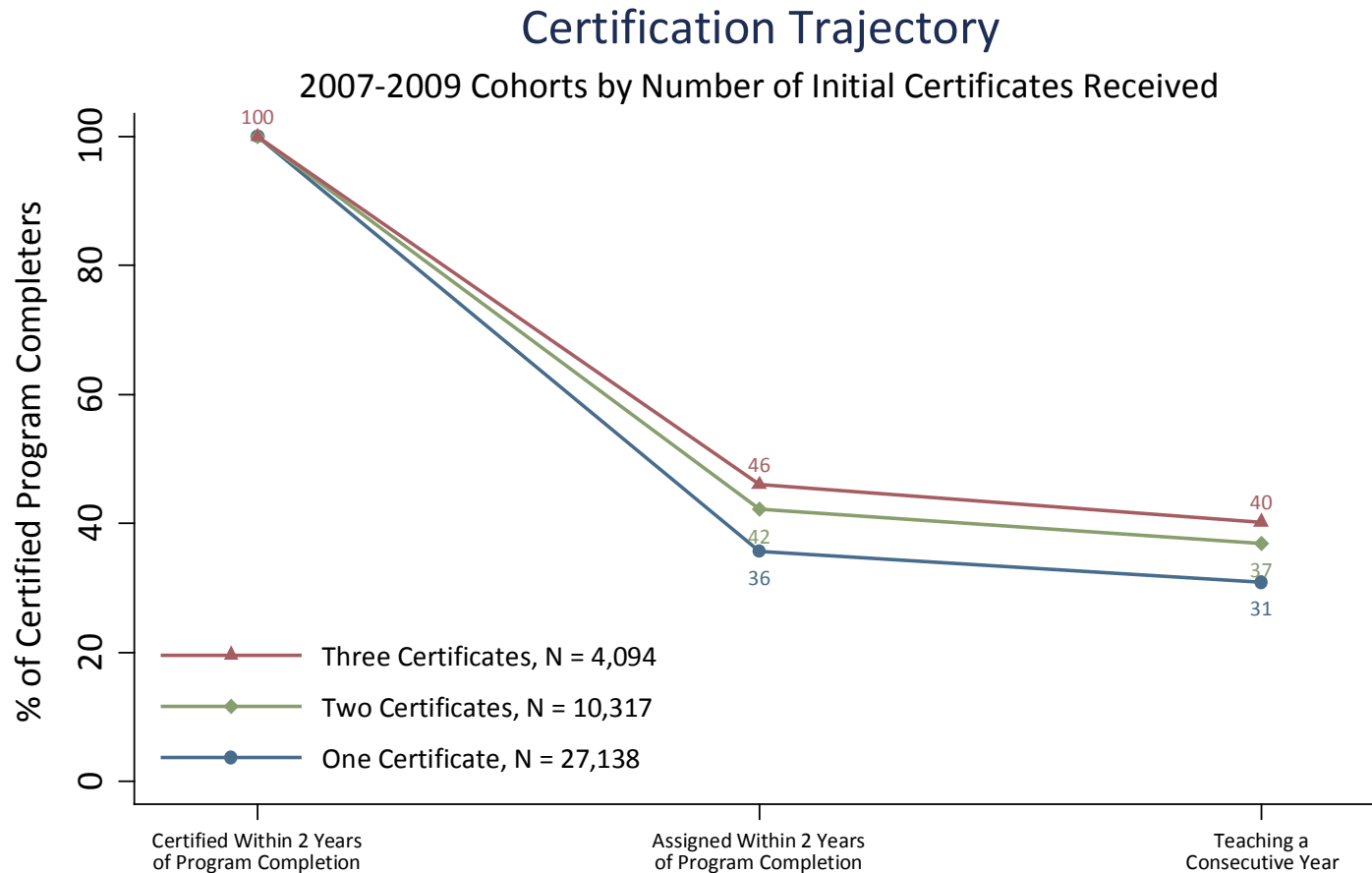
Sample includes 29,028 novice teachers with teacher job codes in New York State public and charter schools in the 2007-08 to 2010-11 school years. Novice teachers were in their first teaching year in NYS public and charter schools and reported having zero teaching experience. Certification path is based on first Initial or Transitional B certificates received before hire and after 2004. Data source: New York State Education Department records.

The number of elementary teacher candidates with multiple certifications has been increasing



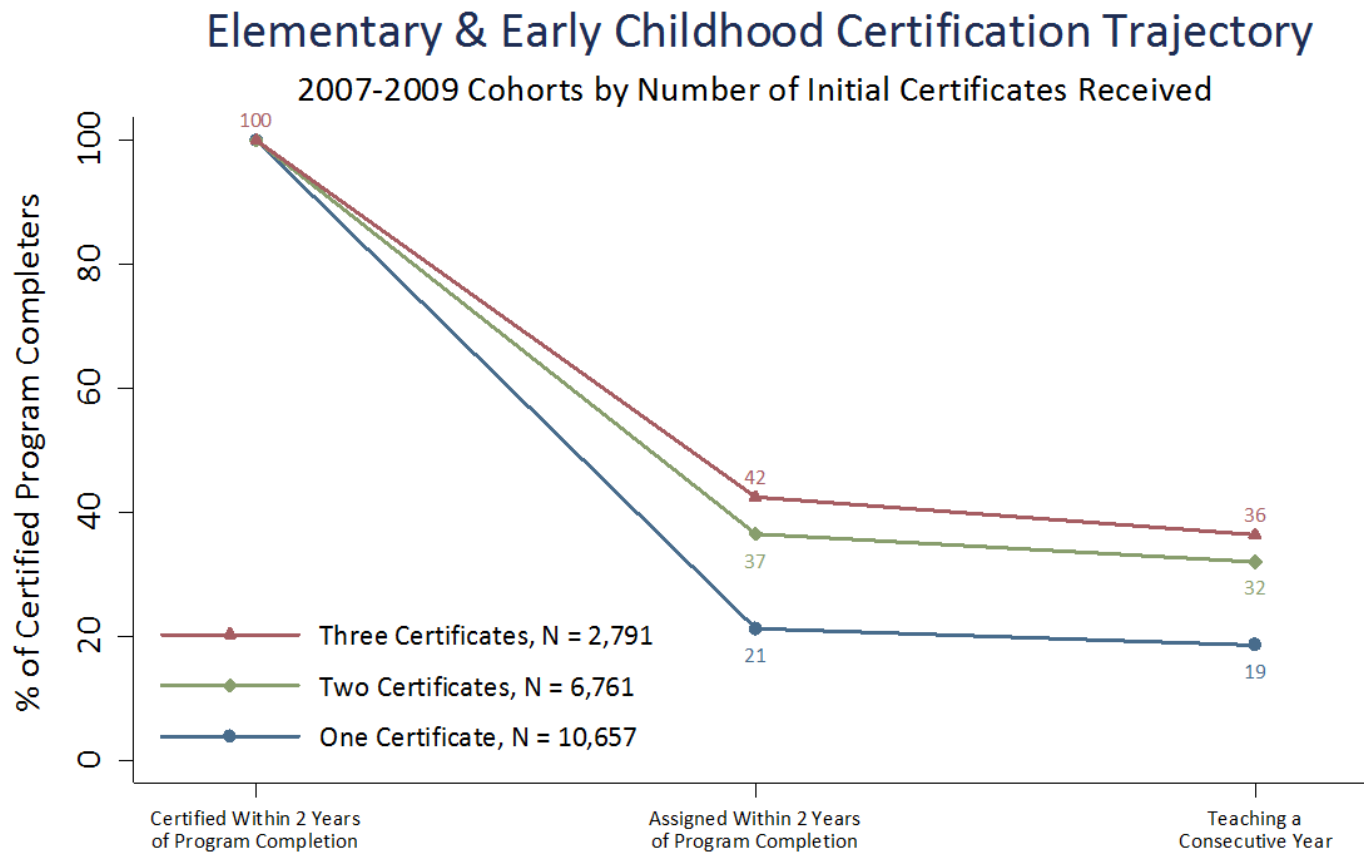
Sample includes individuals who completed elementary and early childhood teacher preparation programs at New York State institutions of higher education in 2006-07 to 2009-10 and who were not employed as teachers in NYS public or charter schools prior to program completion. Sample includes 5,677 individuals with no certificates, 14,532 individuals with one certificate, 9,434 individuals with two certificates, and 4,371 individuals with three or more certificates. Program completers who received Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

Graduates with multiple certificates are more likely to be hired



Sample includes certificate-holding individuals who completed teacher preparation programs at New York State institutions of higher education in 2006-07 to 2008-09 and who were not employed as teachers in NYS public or charter schools prior to program completion. Program completers who received Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

Elementary education graduates with multiple certificates are substantially more likely to find jobs



Sample includes certificate-holding individuals who completed elementary & early childhood teacher preparation programs at New York State institutions of higher education in 2006-07 to 2008-09 and who were not employed as teachers in NYS public or charter schools prior to program completion. Program completers who received Transitional B or Transitional C certificates are excluded from the analysis. Data source: New York State Education Department records.

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Thank You.

