

## EXTANT DATA ANALYSIS

### Educational Experiences of English Learners: Instructional Staff, 2011–12

March 2016

This brief examines the levels of access that English learner students (ELs) have to teachers with certain characteristics (e.g., certification status, teaching experience, and absenteeism). Teachers play a critical role in students' academic achievement—and while the evidence is less than conclusive, some studies do show that teachers with full certification, more experience, and less absenteeism are likely to exert more positive influence on student learning than uncertified, novice, and absentee teachers.<sup>1</sup> However, too often, there are inequalities in the credentials and experience of instructional staff<sup>2</sup> across schools serving diverse student populations.<sup>3</sup> Research suggests that schools with high concentrations of students of color and high concentrations of students from low-income families tend to have higher percentages of uncertified, novice, and frequently absent teachers.<sup>4</sup> Schools with high concentrations of ELs are likely to also have high concentrations of students of color and students from low-income families.<sup>5</sup> Given the persistently low achievement of ELs compared with other subgroups—for example, in 2012–13, 5 percent of 8th grade ELs achieved the proficient level in math, compared with 37 percent of non-ELs,<sup>6</sup> and 61 percent of ELs graduated from high school, compared with 81 percent of all students<sup>7</sup>—it is useful to examine the access that ELs have to teachers with certain characteristics that might have a positive relationship with student outcomes.

This brief uses data collected by the Office for Civil Rights in the 2011–12 Civil Rights Data Collection (CRDC)<sup>8</sup> to examine ELs' access to teachers with certain characteristics and to answer the question: Do schools with higher concentrations of ELs have higher proportions of uncertified, novice, or frequently absent teachers, compared with schools with lower concentrations of ELs? The analyses compare schools with high (greater than 20 percent), medium (between 5 and 20 percent), and low (less than 5 percent) concentrations of ELs.

The relationship between teacher characteristics and EL school composition is complex, involving multiple interrelated school factors not analyzed here (e.g., socioeconomic status, location, and racial/ethnic composition).<sup>9</sup> The analyses presented in this brief are descriptive in nature. Determining why ELs perform academically below non-ELs is outside the scope of this analysis, and causality cannot be established based on the comparisons presented. Finally, these analyses are based on national data; findings may vary across states.

This brief is part of a series of extant data analyses about the educational experiences of ELs. The topics of the other two briefs are college preparatory courses and programs and grade retention and high school completion. Those briefs present descriptive analyses of the 2011–12 CRDC data to explore the extent to which ELs have access to and participate in advanced coursework and other college preparatory activities and the educational success of ELs with respect to grade retention, high school graduation, and GED preparation program participation and credential attainment.<sup>10</sup>

## HIGHLIGHTS

- Most teachers (86 percent) worked in schools where ELs were enrolled. About two teachers out of every five (39 percent) worked in a school where ELs comprised more than 5 percent of the school population.
- In schools with high concentrations of ELs, 2.6 percent of teachers were uncertified, compared with 2.3 percent of teachers in schools with low concentrations of ELs.
- The percentage of teachers in their first or second year was slightly higher in schools with high English learner (EL) concentrations than it was in schools with low EL concentrations (11 percent and 9 percent, respectively).
- Schools with high EL concentrations had lower percentages of teachers who were absent 10 or more days than schools with low EL concentrations (27 percent of teachers in schools with high EL concentrations were absent more than 10 days, compared with 29 percent in schools with low concentrations of ELs).

## TEACHERS OF ENGLISH LEARNERS

Teachers of ELs include general education teachers in reading/language arts, mathematics, science, and social studies, as well as teachers with special training and certification in English as a second language or bilingual education.<sup>11</sup> This brief examines the access that ELs have to teachers with certain characteristics (certification status, teaching experience, and absenteeism). In terms of these measurable criteria, teachers are not evenly distributed across schools. The characteristics of teachers in schools with high proportions of ELs are of particular interest. Most teachers (61 percent) work in schools with no or few ELs; however, because ELs more commonly attend schools with large numbers of their English learner peers, the relatively small proportion (14 percent) of teachers in high EL schools educate the majority (63 percent) of ELs (Exhibit 1). The following analyses compare the characteristics of instructional staff in schools with different concentrations of ELs.<sup>12</sup>

**Exhibit 1**  
**Distribution of schools, ELs, and teachers by school-level EL concentration**

School-Level EL concentration	Number of schools	Percentage of schools	Number of ELs	Percentage of ELs	Number of teachers	Percentage of teachers
All schools	95,622	100	4,745,156	100	3,129,177	100
High (20.01–100 % EL)	13,545	14	2,986,333	63	441,965	14
Medium (5.01–20 % EL)	21,152	22	1,346,399	28	780,072	25
Low (0.01–5 % EL)	37,076	39	412,424	9	1,467,375	47
None (0 % EL)	23,849	25	0	0	439,765	14

**Exhibit reads:** Of all 95,622 schools in the CRDC for which ELs composition could be calculated, 14 percent (13,545) had a high concentration of ELs. Of the 4.7 million ELs enrolled in schools, 63 percent (approximately 3.0 million) attended schools with a high concentration of ELs. Of all 3.1 million teachers, 14 percent (approximately 442,000) worked in schools with a high concentration of ELs.

Note: Teacher counts are in full-time equivalent (FTE) units, rounded to the nearest whole number.

Source: U.S. Department of Education, Office for Civil Rights, Civil Rights Data Collection (CRDC), 2011–12.

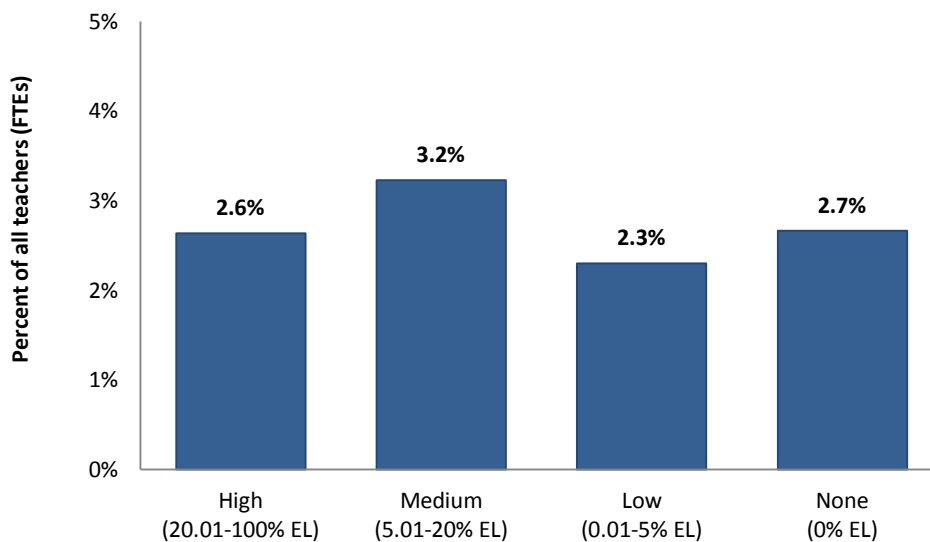
## TEACHER CERTIFICATION <sup>13</sup>

States set their own requirements for certifying or licensing teachers. These requirements vary across states and can include education, supervised teaching requirements, and minimum competency test performance.<sup>14</sup> Studies of teacher certification are inconclusive regarding whether certification affects student outcomes. According to one study, easily observed and quantifiable teacher attributes, such as credentials and test scores, only weakly correlate with student achievement.<sup>15</sup> Another study, however, found that having a teacher with a provisional, temporary, or emergency certificate produces about 3 to 5 percent of a standard deviation loss in math performance and about a 2 percent standard deviation loss in reading performance.<sup>16</sup>

There does not appear to be a consistent pattern to the distribution of uncertified teachers according to school EL concentration.

Schools with high concentrations of ELs had comparable percentages of uncertified teachers (2.6 percent) to schools with low EL concentrations (2.3 percent). Schools with medium concentrations of ELs had the highest percentages of uncertified teachers (3.2 percent).

**Exhibit 2**  
**Percentage of teachers who were uncertified, by school-level EL concentration:**  
**2011–12**



**Exhibit reads:** In schools where ELs made up more than 20 percent of the student population, 2.6 percent of teachers were uncertified.

Source: U.S. Department of Education, Office for Civil Rights, Civil Rights Data Collection (CRDC), 2011–12.

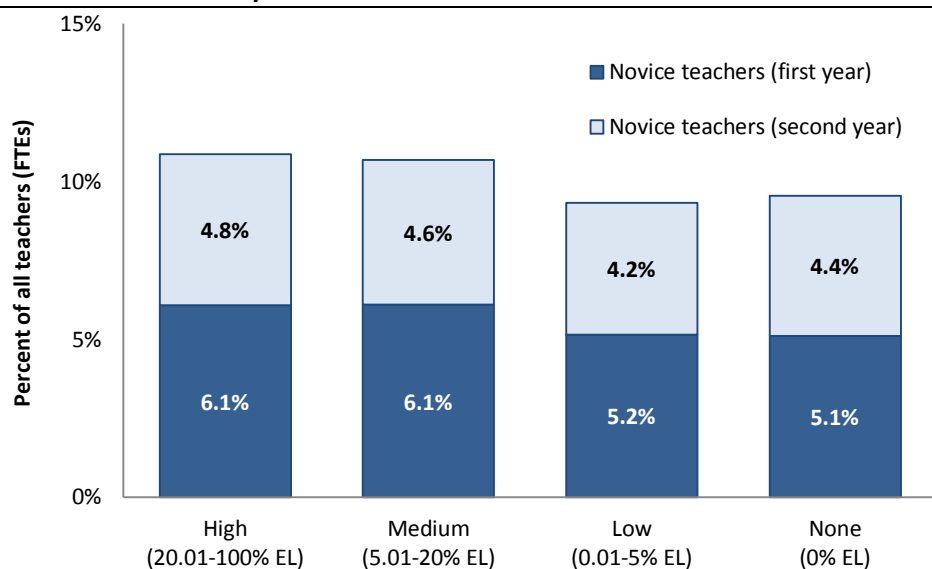
## TEACHER EXPERIENCE

Research frequently demonstrates that first and second year teachers are less effective than their more experienced peers.<sup>17</sup> However, the relationship between teacher experience and school composition is a complex one. For example, inexperienced teachers tend to work in lower performing districts and schools.<sup>18</sup> A rigorous study in North Carolina that took this sorting into account found that first-year teachers have a negative impact on students' academic achievement.<sup>19</sup> The study's results indicate that students with teachers in their first year of teaching perform about 12 percent of a standard deviation lower in math and about 10 percent of a standard deviation lower in reading than students with teachers who had more than 20 years of experience.

Schools with a high concentration of ELs had slightly higher proportions of novice teachers than schools with low EL concentrations.

Of all schools with high EL concentrations, 11 percent of teachers were in their first or second year of teaching (novice teachers), whereas 9 percent of teachers in schools with low EL concentrations were in their first year or second year (Exhibit 3). Schools with medium EL concentrations had proportions of novice teachers that were comparable to schools with high EL concentrations; similarly, the proportion of novice teachers in schools with low EL concentrations was nearly the same as that in schools with no ELs.

**Exhibit 3**  
**Percentage of teachers who were in their first or second year of teaching, by school-level EL concentration: 2011–12**



**Exhibit reads:** In schools where ELs made up more than 20 percent of the student population, 6.1 percent of teachers were in their first year of teaching and another 4.8 percent of teachers were in their second year.

Source: U.S. Department of Education, Office for Civil Rights, Civil Rights Data Collection (CRDC), 2011–12.

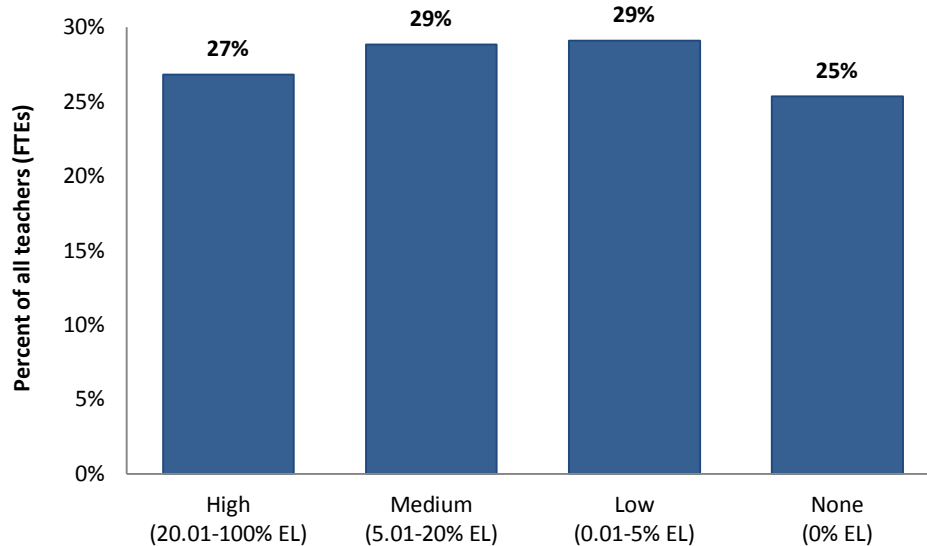
## TEACHER ABSENTEEISM

Having teachers who are credentialed and experienced is to no avail if those teachers are frequently absent from school. In the U.S., teachers are absent about nine days out of the school year, on average.<sup>20</sup> Thus, the number of teachers who were absent more than 10 days out of the school year can be seen as an indication of how many teachers have above average or frequent absenteeism. Students with frequently absent teachers will lose, on average, about 2 percent of a standard deviation in math and about 1 percent of a standard deviation in reading; while this effect is statistically significant, it is relatively small compared to the effect of having a novice teacher.<sup>21</sup>

Teacher absenteeism increased slightly with decreasing levels of EL concentration, except for in schools with no ELs.

Over all schools in the CRDC data, 28 percent of teachers met the high-absence threshold. In schools with high concentrations of ELs, 27 percent of teachers were absent more than 10 days, whereas in schools with low concentrations of ELs, 29 percent of teachers were absent more than 10 days. Schools with no ELs had the lowest percentage of frequently absent teachers (25 percent). However, the relationship between absenteeism and school composition may be confounded by other factors (such as differences in school poverty level) not accounted for in this brief.

**Exhibit 4**  
**Percentage of teachers who were absent more than 10 days,**  
**by school-level EL concentration: 2011–12**



**Exhibit reads:** In schools where ELs made up more than 20 percent of the student population, 27 percent of teachers were absent more than 10 days.

Source: U.S. Department of Education, Office for Civil Rights, Civil Rights Data Collection (CRDC), 2011–12.

## CONCLUSION

This brief examined whether ELs had disproportionate access to teachers who were uncertified, had less experience, or were frequently absent. These analyses provide an opportunity to begin to understand ELs' academic experiences and identify avenues for further research. The CRDC data show that overall, the distribution of teachers among schools with high concentrations of ELs does not appear to follow the same patterns that have been documented in other studies and analyses of schools with high concentrations of students of color and high concentrations of students from low-income families. A pattern of disadvantage only appeared for the teacher experience measure: schools with high EL concentrations had slightly higher percentages of novice teachers than all other schools. Lack of teacher certification was most prevalent in schools with medium concentrations of ELs; schools with high and low concentrations of ELs had comparable percentages of uncertified teachers. Finally, ELs appeared to have more access to teachers who were not frequently absent. Among schools with ELs enrolled, those with high concentrations of ELs had the lowest percentage of frequently absent teachers, but in schools with no ELs, frequently absent teachers were even less common.

## APPENDIX

### Exhibit A1

#### Schools and teachers included in the analyses, by measure and school-level EL concentration: 2011–12

Analysis and school-Level EL concentration	Number of schools included in analyses	Total number of teachers included in analyses
<b>Percentage of uncertified teachers</b>		
All Schools	95,402	3,128,716
None (0% EL)	23,774	439,765
Low (0.01-5% EL)	37,021	1,467,298
Medium (5.01-20% EL)	21,098	779,687
High (20.01-100% EL)	13,509	441,965
<b>Percentage of novice teachers</b>		
All Schools	95,408	3,129,124
None (0% EL)	23,774	439,765
Low (0.01-5% EL)	37,021	1,467,321
Medium (5.01-20% EL)	21,104	780,072
High (20.01-100% EL)	13,509	441,965
<b>Percentage of teachers absent 10 or more days</b>		
All Schools	95,354	3,128,315
None (0% EL)	23,753	439,586
Low (0.01-5% EL)	37,009	1,467,098
Medium (5.01-20% EL)	21,089	779,752
High (20.01-100% EL)	13,503	441,880

**Exhibit reads:** For the measure on uncertified teachers, a total of 95,402 schools and 3,128,716 teachers were included in the analysis.

Note: Teacher counts are in full-time equivalent (FTE) units, rounded to the nearest whole number. Detail may not sum to total due to rounding.

Source: U.S. Department of Education, Office for Civil Rights, Civil Rights Data Collection (CRDC), 2011–12.

## TECHNICAL NOTES

The Civil Rights Data Collection (CRDC) is a biennial (i.e., every other school year) survey required by the U.S. Department of Education's Office for Civil Rights (OCR). The 2011–12 CRDC was designed to include data about every public school in the nation. Generally, school districts submit their data directly to OCR. The CRDC is a mandatory data collection, authorized under the statutes and regulations implementing Title VI of the *Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Department of Education Organization Act* (20 U.S.C. 3413). The regulations implementing these provisions can be found at 34 CFR 100.6(b); 34 CFR 106.71; and 34 CFR 104.61. To learn more about the Civil Rights Data Collection, visit <http://ocrdata.ed.gov>. The CRDC data used in these analyses are privacy protected by rounding student counts in groups of three to prevent the disclosure of individual student information. For example, student counts from one to three are rounded to two and student counts from four to six are rounded to five. Schools that did not meet data quality requirements for specific analyses were excluded from those analyses.

This brief used the following measures obtained or derived from the CRDC dataset:

**School EL Concentration:** The CRDC includes the number of ELs enrolled and the total number of students enrolled in each school. The percentage of ELs is the number of ELs divided by the total enrollment. This percentage determines the school's EL concentration: None (0 percent), Low (0.01 percent-5 percent), Medium (5.01 percent-20 percent), or High (20.01 percent-100 percent).

**Certification:** The CRDC includes the number of full-time equivalent teachers meeting all applicable state requirements for a regular or standard teaching certificate (it does not refer to specific certification to teach ELs) and the total number of teachers in each school. The number of uncertified teachers at each school was calculated by subtracting the number of certified teachers from the total number of teachers. For each EL concentration category, the percentage of teachers who were uncertified was calculated by first summing the number of uncertified teachers across schools in the category and then dividing the result by the sum of the total number of teachers in those schools.

**Experience:** The CRDC includes the number of full-time equivalent teachers in their first year and second year of teaching. For each EL concentration category, the percentage of teachers in their first or second year of teaching was calculated by first summing the number of classroom teachers in their first or second year across schools in the category and then dividing the result by the sum of the total number of teachers in those schools.

**Frequent Absenteeism:** The CRDC includes the number of full-time equivalent teachers who were absent more than 10 days of the 2011–12 school year. For each EL concentration category, the percentage of teachers who were absent more than 10 days out of the 2011–12 school year was calculated by first summing the number of classroom teachers absent more than 10 days across schools in the category and then dividing the result by the sum of the total number of teachers in those schools.

This brief compares schools with high concentrations of ELs to schools with low concentrations of ELs in order to examine ELs' disproportionate membership in schools with uncertified, inexperienced, and frequently absent teachers. While data for the no EL group are presented, in most cases, the low EL group of schools should serve as the comparison for the analyses in this brief rather than the schools with no ELs because the schools with no ELs appear to be a unique group of schools compared to schools with all other levels of EL concentration, with lower mean enrollment (254, compared to 620, 607, and 573 for the low EL, medium EL, and high EL concentration groups, respectively) and lower mean FTE teacher counts (18, compared to 40, 37, and 33 for the other groups, respectively). The schools with no ELs also tended to be in rural areas (52 percent, compared to 33, 20, and 12 percent for the low, medium, and high EL groups, respectively). Tests of the significance of differences between groups of schools were not conducted because these analyses used population data from all U.S. public schools.

Because school records in the CRDC can have missing data for some items, the number of schools and teachers included in this brief vary from measure to measure. Exhibit A1 displays the counts for each measure by school-level EL concentration.

## ENDNOTES

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<sup>1</sup> Charles T. Clotfelter, Helen F. Ladd, and Jacob L. Vigdor, “Teacher Credentials and Student Achievement: Longitudinal Analysis with Student Fixed Effects,” *Economics of Education Review* 26 (2007): 673–82; Charles T. Clotfelter, Helen F. Ladd, and Jacob L. Vigdor, “Are Teacher Absences Worth Worrying About in the United States?” *Education Finance and Policy* 4 (2009): 115–49; Dan Goldhaber, “Everyone’s Doing It, But What Does Teacher Testing Tell Us About Teacher Effectiveness?” *The Journal of Human Resources* 42 (2007): 765–94; Thomas J. Kane, Jonah E. Rockoff, and Douglas O. Staiger, “What Does Certification Tell Us About Teacher Effectiveness? Evidence from New York City,” *Economics of Education Review* 27 (2008): 615–631.

<sup>2</sup> This brief is based on CRDC data for general classroom teachers, defined as staff who “provide instruction, learning experiences, and care to students during a particular time period or in a given discipline.” It uses the terms “instructional staff,” “classroom teachers,” and “teachers” interchangeably.

<sup>3</sup> Frank Adamson and Linda Darling-Hammond, “Funding Disparities and the Inequitable Distribution of Teachers: Evaluating Sources and Solutions,” *Education Policy Analysis Archives* 20, no. 37 (2012): 1–46; Patricia Gándara, Russell Rumberger, Julie Maxwell-Jolly, and Rebecca Callahan, “English learners in California schools: Unequal resources, unequal outcomes,” *Education Policy Analysis Archives* 11 (2003): 1–52; Hamilton Lankford, Susanna Loeb, and James Wyckoff, “Teacher Sorting and the Plight of Urban Schools: A Descriptive Analysis,” *Educational Evaluation and Policy Analysis* 24 (2002): 37–62; Tim R. Sass, Jane Hannaway, Zeyu Xu, David N. Figlio, and Feng Li, “Value Added of Teachers in High-Poverty Schools and Lower Poverty Schools,” *Journal of Urban Economics* 72 (2012): 104–22.

<sup>4</sup> Adamson & Darling-Hammond (2012); Sass et al. (2012); U.S. Department of Education, Office for Civil Rights. “Dear Colleague Letter: Resource comparability” (Washington, DC: 2014), <http://www2.ed.gov/about/offices/list/ocr/letters/colleague-resourcecomp-201410.pdf>.

<sup>5</sup> Randy Capps, Michael Fix, Julie Murray, Jason Ost, Jeffrey S. Passel, and Shinta Herwanto, “The New Demography of America’s Schools: Immigration and the No Child Left Behind Act,” *Urban Institute* (Washington, DC: 2005), <http://www.urban.org/url.cfm?ID=311230>.

<sup>6</sup> U.S. Department of Education, National Center for Education Statistics, “National Assessment of Educational Progress (NAEP), 2013 Mathematics Assessment,” <http://nces.ed.gov/nationsreportcard/naepdata>. In most cases, the NAEP assessment is only administered in English, thus putting students with limited English proficiency at a greater disadvantage than their English-proficient peers. In certain cases, ELs can receive accommodations for the NAEP assessment, which include extended time, bilingual dictionary (without definitions in any language), directions read aloud in Spanish, Spanish/English version of the test, or test items read aloud in Spanish. However, only a small percentage of ELs received accommodations on the 2013 mathematics assessment (ranging from zero to less than 5 percent, depending on the particular accommodation).

<sup>7</sup> Based on the four-year adjusted cohort graduation rate (ACGR). The ACGR is the percentage of students from the original cohort who graduated in four years with a regular high school diploma. Data source: U.S. Department of Education, National Center for Education Statistics, “EDFacts/Consolidated State Performance Report (2011–12),” <http://eddataexpress.ed.gov/index.cfm>.

<sup>8</sup> The Civil Rights Data Collection (CRDC) is a biennial survey required by the U.S. Department of Education’s Office for Civil Rights (OCR). The 2011–12 CRDC was designed to include data about every public school in the nation. See the technical notes for more information.

<sup>9</sup> Teachers are not randomly assigned to students; rather, teachers with more experience tend to be assigned to schools that consist of higher performing students; poorer districts and schools have a harder time attracting and retaining highly qualified teachers. Thus, it is not surprising when the data show that lower qualified and less-experienced teachers happen to have students who are low performing. However, the relative growth rate of students (whether they start out as low performing or not) can be informative. Studies cited in this brief used sound statistical methods such as student and teacher fixed effects to estimate causal impact.

<sup>10</sup> These briefs are available at <http://www2.ed.gov/about/offices/list/opepd/ppss/reports.html>.

<sup>11</sup> Dennis Van Roekle, “Professional Development for General Education Teachers of English Language Learners,” *An NEA Policy Brief, National Education Association* (2011), [http://www.nea.org/assets/docs/PB32\\_ELL11.pdf](http://www.nea.org/assets/docs/PB32_ELL11.pdf).

<sup>12</sup> The low EL concentration group of schools serves as the comparison rather than the schools with no ELs because the no ELs schools appear to be a unique group of schools compared to all other EL concentration groups, with lower mean enrollment (254, compared to 620, 607, and 573 for the low EL, medium EL, and high EL concentration groups, respectively) and lower mean FTE teacher counts (18, compared to 40, 37, and 33 for the other groups, respectively). The schools with no ELs also tended to be in rural areas (52 percent, compared to 33, 20, and 12 percent for the low, medium, and high EL groups, respectively). These analyses were conducted using population data from all U.S. public schools (see Technical Notes) and therefore no significance tests were conducted.

<sup>13</sup> CRDC data refers to teachers’ standard certification, not specific certification to teach ELs.



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<sup>14</sup> National Research Council, "Preparing teachers: Building evidence for sound policy," *National Academies Press* (2010), [http://www.nap.edu/catalog.php?record\\_id=12882](http://www.nap.edu/catalog.php?record_id=12882).

<sup>15</sup> Daniel Aaronson, Lisa Barrow, and William Sander, "Teachers and Student Achievement in the Chicago Public High Schools," *Journal of Labor Economics* 25 (2007): 95–135.

<sup>16</sup> Clotfelter, Ladd, & Vigdor (2007).

<sup>17</sup> Donald Boyd, Hamilton Lankford, Susanna Loeb, Jonah Rockoff, and James Wyckoff, "The narrowing gap in New York City teacher qualifications and its implications for student achievement in high-poverty schools," *Journal of Policy Analysis and Management* 27.4 (2008): 793–818; Gary T. Henry, Kevin C. Bastian, and C. Kevin Fortner, "Stayers and Leavers: Early-Career Teacher Effectiveness and Attrition," *Educational Researcher* 40.6 (2011): 271–280; Douglas N. Harris and Tim R. Sass, "Teacher Training, Teacher Quality and Student Achievement," *Journal of Public Economics* 95.7 (2011): 798–812.

<sup>18</sup> Lankford, Loeb, & Wyckoff (2002); Sass et al. (2012).

<sup>19</sup> Clotfelter, Ladd, & Vigdor (2007).

<sup>20</sup> Clotfelter, Ladd, & Vigdor (2009).

<sup>21</sup> Clotfelter, Ladd, & Vigdor (2009).