

FINDING THEIR STRIDE

Kindergarten English Learners
and Time to Proficiency
in the School District of Philadelphia

June 2017

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Acknowledgments

The authors gratefully acknowledge the intellectual contributions of the following staff from the School District of Philadelphia: **Maria Giraldo Gallo** and **Allison W. Still** (Office of Multilingual Curriculum and Programs) and **Davinah Childs**, **Joy Lesnick**, **Adrienne Reitano**, **Kristyn Stewart**, and **Tonya Wolford** (Office of Research and Evaluation). At Research for Action, **Brittan Hallar**, **Alyn McCarty**, and **Kathleen Shaw** provided helpful feedback on drafts. RFA's communications team of **Alison Murawski**, **Megan Morris**, and **Katie Carter** developed the report design and dissemination strategy.

The authors thank the PERC Governance Committee for their contributions to develop key questions in the English Learner research agenda and the **William Penn Foundation** for its generous support of PERC.

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Suggested Citation

APA STYLE:

Lin, J., & Neild, R. C. (2017). Finding their stride: Kindergarten English learners and time to proficiency in the School District of Philadelphia. Philadelphia, PA: Philadelphia Education Research Consortium. Retrieved from <http://www.phillyeducationresearch.org/finding-their-stride>

CHICAGO STYLE:

Lin, Joshua, and Ruth Curran Neild. *Finding Their Stride: Kindergarten English Learners and Time to Proficiency in the School District of Philadelphia*. Philadelphia, PA: Philadelphia Education Research Consortium, 2017. <http://www.phillyeducationresearch.org/finding-their-stride>.

Summary

Almost 60% of the new English Learner (EL) entrants to the School District of Philadelphia between 2009–10 and 2013–14 were in kindergarten through third grade, with 37% entering as kindergarteners. Although these young students encounter the dual challenge of adapting to school routines and expectations while also learning English, acquiring English proficiency early in their school years will enable them to take full advantage of opportunities to learn academic content and skills.

This study provides evidence on the progress toward English proficiency of ELs who entered the School District of Philadelphia in kindergarten during 2008–09 through 2011–12.

Using data from these four kindergarten cohorts, we examine English proficiency upon entering school, the percentage who achieved proficiency within four years, and characteristics of students who were more likely to reach proficiency within four years.

KEY FINDINGS

- **About two-thirds of kindergarten EL students knew and used minimal English when they entered school.** Forty-nine percent of the kindergarten EL students placed at the lowest English language proficiency (ELP) level at entrance to school (ELP Level 1), and an additional 19% placed at ELP Level 2. About 32% of the kindergarteners placed at ELP Levels 3, 4, 5, or 6.
- **The percentage of students who were more proficient in English at school entry increased across cohorts between 2008–09 and 2011–12.** Twenty-seven percent of students in the 2008–09 cohort placed at an ELP Level 3 or above, compared to 41% of students in the 2011–12 cohort.
- **Almost 60% of kindergarten EL students achieved English proficiency within four years of starting school.** By the end of first grade, 12% of the ELs who entered in kindergarten had achieved English proficiency, and an additional 17% were proficient by the end of second grade. By the end of third grade, an additional 30% reached English proficiency.
- **Some groups of students were more likely than others to achieve proficiency within four years.** English proficiency rates were higher among female students and students who were not identified with a disability. Relative to Spanish speakers, students who spoke Arabic, Chinese, Khmer, or Vietnamese were more likely to achieve English proficiency within four years.
- **Students who were more proficient in English when they entered school were more likely to reach proficiency within four years.** Fifty-three percent of students who entered at ELP Level 1 reached proficiency within four years, compared to 62% and 68% of students who entered at ELP Levels 2 and 3, respectively.
- **More students became proficient in oral language (listening and speaking English) than in literacy (reading and writing English).** Within four years, 81% of kindergarten ELs were proficient in oral language, compared to 63% in literacy. A key driver of the lower proficiency rate in literacy is writing, with a 48% proficiency rate.

IMPLICATIONS FOR POLICY AND PRACTICE

- **These analyses can inform goal-setting for schools tracking kindergarten ELs' progress toward English proficiency.** This study can help to set ambitious but achievable proficiency targets for future cohorts. Targets for ELs could be set based on students' entering English proficiency levels.
- **High-quality pre-kindergarten for ELs may boost English proficiency at entrance to kindergarten.** Philadelphia's universal pre-kindergarten program provides an opportunity to help the city's youngest ELs begin school with less catching up to do in English. Research indicates that quality pre-kindergarten experiences can help ELs make rapid growth in both English proficiency and academic skills.
- **An area for continued work is supporting ELs to develop proficiency in writing.** Given the substantial disparity in proficiency rates between writing and the other three language domains (speaking, listening, and reading), the District may want to develop a stronger focus on supporting these students to become effective writers in English.

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Why this study

In recent years, the City of Philadelphia has experienced an increased rate of immigrant population growth. For example, from 2014 to 2015, Philadelphia had a net migration of 12,465 people from outside the United States, more than six times the number from 2009 to 2010.¹ For the agencies and organizations that serve the city's global communities, ensuring language access will be a continuing priority; in 2015, an estimated 21% of Philadelphia residents spoke a language other than English at home.²

Paralleling the demographic shifts in the city, the School District of Philadelphia also has seen an increase in its English learner (EL)³ population despite overall declining enrollments. In 2009–10, about one in fourteen students in the School District of Philadelphia was classified as ELs. By 2014–15, one in ten students was an EL.⁴

While ELs enter District schools at all ages and grades, they are most likely to enroll in the early elementary years. Almost 60% of the new EL entrants to District schools between 2009–10 and 2013–14 were in kindergarten through third grade, with 37% entering as kindergarteners.⁵

The young age at which a large percentage of Philadelphia's ELs first enroll in District schools presents both a challenge and an opportunity for the students, the schools, and the broader community. The challenge is to help these young Philadelphia residents make two important transitions at one time: adapting to the unfamiliar faces, routines, and expectations of schooling, while also becoming proficient in a second language. The opportunity is that these young learners can achieve English proficiency early in their school years when they are given strong instruction and support for acquiring English. Proficiency, in turn, enables them to take full advantage of opportunities to learn grade-level academic content and skills.

This study provides evidence on the progress toward English proficiency of ELs who entered the District in kindergarten across four cohorts of students: 2008–09 through 2011–12. We examine students' English proficiency upon entering school and the percentage who achieved proficiency within four years.

In recent years, the Philadelphia community has prioritized supporting all children to meet grade-level expectations for reading by the end of third grade. Because ELs form a sizable subgroup of the city's young students, reaching this civic goal will require attention to ELs' specific instructional needs and progress toward English literacy. The

One in ten students in the School District of Philadelphia was an English learner (EL) in the 2014–15 school year; the majority of ELs between 2008–09 and 2014–15 entered by third grade.

Achieving Philadelphia's early literacy goals will require attention to ELs' instructional needs and progress toward English proficiency.

¹ U.S. Census Bureau, Population Division, "Metropolitan and Micropolitan Statistical Area Population and Estimated Components of Change: April 1, 2010 to July 1, 2015 (CBSA-EST2015-alldata)," accessed May 24, 2017, <http://bit.ly/2rFDMPw>

² The Pew Charitable Trusts, "Philadelphia 2015: The State of the City," accessed May 24, 2017, <http://bit.ly/1NwHg7v>

³ *English learner (EL)* students have a primary home language other than English and need linguistic support to benefit fully from academic instruction conducted in English. *English learner* has been the U.S. Department of Education's preferred term for students whose home language is other than English. See, for example, the U.S. Department of Education, "U.S. Department of Education Releases Guidance on English Learners," September 23, 2016, accessed May 24, 2017, <https://www.ed.gov/news/press-releases/us-department-education-releases-guidance-english-learners>.

⁴ Author's calculations based on data from the Pennsylvania Department of Education, "Enrollment Reports and Projections," accessed May 24, 2017, <http://bit.ly/2rDvy2l>; and from Joshua Lin et al., "Characteristics of English Language Learners in the School District of Philadelphia," Philadelphia Education Research Consortium (2016).

⁵ See Appendix A for analyses of the grade at which ELs first enrolled in the School District of Philadelphia.

four cohorts of students in this study experienced their K–3 education mostly prior to the city’s Read by 4th campaign and the District’s early literacy initiative. As such, they can be considered a baseline against which to track progress to proficiency of EL kindergarteners who enter in subsequent school years.

What the study examined

The study examined four cohorts of students who were identified as ELs in kindergarten between 2008–09 through 2011–12.

To understand initial English proficiency levels and progress toward proficiency, this study used administrative and assessment data from the School District of Philadelphia for four cohorts of students who (1) enrolled in kindergarten in 2008–09 through 2011–12; (2) were identified in kindergarten as English learners; and (3) remained in District schools for at least four consecutive school years after kindergarten or who transferred out of the District but became English-proficient before doing so. In all, this study tracked outcomes for 3,505 students attending public, non-charter schools in Philadelphia. Background information about the four kindergarten cohorts is provided in Appendix B.

English proficiency is assessed using the ACCESS for ELLs assessment.

A key piece of information for this analysis is student performance on a state-mandated assessment of English proficiencies needed to engage successfully with peers, teachers, and academic instruction in school: Assessing Comprehension and Communication in English State-to-State for English Language Learners (ACCESS). Pennsylvania requires that ACCESS scores be used as one of multiple criteria to determine whether a student needs continued linguistic support. The ACCESS assessment must be administered every spring to any student whose home language is one other than English until the student meets the state’s standards for English proficiency and is reclassified as no longer needing linguistic support. After reclassification, former EL students no longer take the ACCESS assessment, but their academic performance is monitored for two more years using grades, teacher observations, and other state and local assessments.⁶

Although time to reclassification is a useful metric of EL academic success, it is a more complicated measure that is affected by factors other than English proficiency. Requirements for reclassification differ across states, and individual states sometimes change their requirements. For a student to be reclassified, Pennsylvania requires additional evidence of the student’s academic success, such as meeting certain performance levels on state standardized tests or earning grades of C or above in all core subject courses.⁷

In this report, we instead examine time to English proficiency, defined as the number of school years a student took to reach an ACCESS composite score of 5 or above, the performance level on ACCESS necessary to meet the state’s first criterion for reclassification. Throughout this report, we refer to these students simply as “reaching English proficiency” or “reaching ACCESS score of 5 or above.”

⁶ 22 Pa. Code § 4.26 Retrieved from <http://bit.ly/2nut3ic>.

⁷ Pennsylvania Department of Education, “State Required Exit Criteria for Pennsylvania’s English Language Instructional Programs for English Language Learners,” <http://bit.ly/2qXNKSO>



We examine the percentage of kindergarten students who reach English proficiency by the end of third grade (or four years after entering school). We focus on this time point for two reasons. First, Philadelphia has identified a literacy goal that all third graders will read at grade level by the end of the school year. It is important for students to read well at this point because fourth grade marks the introduction of more complex informational and literary texts. Second, while there is no consensus about an ideal length of time it should take an EL to achieve English proficiency, there is some evidence that many ELs, especially those in the early grades, can become proficient within four years.⁸ We acknowledge, however, that the time required for an EL to develop English proficiency varies according to his or her age, learning needs, environmental exposure to English, and other social and psychological factors.⁹

We focused on each cohort's English proficiency rates at the end of third grade, a significant benchmark year for early literacy.

The specific research questions are:

- Among EL students who enrolled in kindergarten from 2008–09 to 2011–12, what percentage reached English proficiency within four years, as defined by having a composite score of 5 or above on the ACCESS assessment?
- For students who reached proficiency within four years, what were their performance levels on the third grade state standardized test of English Language Arts?
- Are there differences in proficiency rates by student gender, home language, disability, or English proficiency at entrance to kindergarten?
- Are there differences in proficiency on the ACCESS language domains (i.e., speaking, listening comprehension, reading, and writing)?

⁸ Jeff MacSwan and Lisa Pray, "Learning English Bilingually: Age of Onset of Exposure and Rate of Acquisition Among English Language Learners in a Bilingual Education Program," *Bilingual Research Journal* 29, no. 3 (2005); Dylan Conger, "Testing, Time Limits, and English Learners: Does Age of School Entry Affect How Quickly Students Can Learn English?" *Social Science Research* 38, no. 2 (2009); Jason Greenberg Motamedi, Malkeet Singh, and Karen Thompson, *English Learner Student Characteristics and Time to Reclassification: An Example from Washington State* (Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest, 2016).

⁹ Diane Larsen-Freeman and Michael H. Long, "Explanations for Differential Success Among Second Language Learners," *An Introduction to Second Language Acquisition Research*, ed. C.N. Candlin (New York: Routledge, 1991), 153–174; and also National Academies of Sciences, Engineering, and Medicine, *Promoting the Educational Success of Children and Youth Learning English: Promising Futures* (Washington, DC: The National Academies Press, 2017), 6–2.

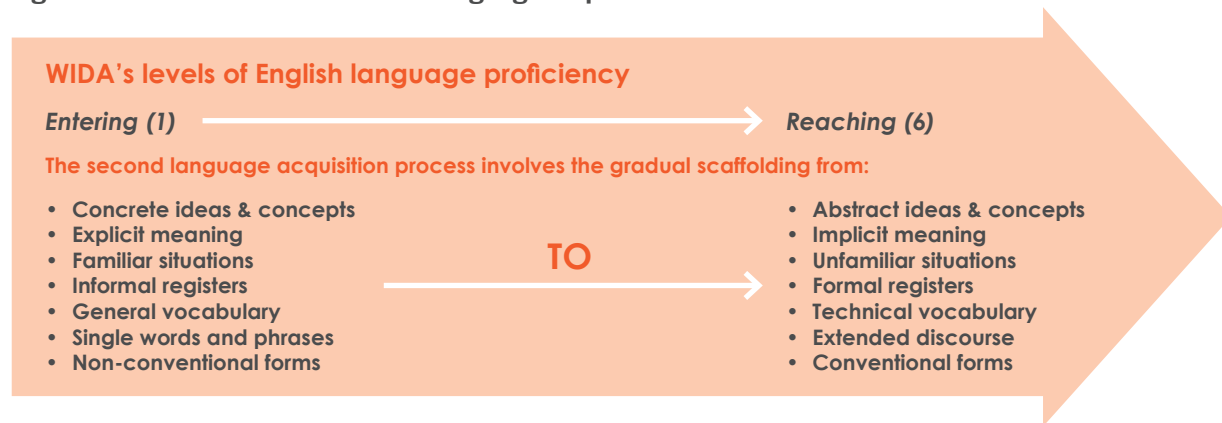
Box
1

How the ACCESS assessment defines English proficiency

The ACCESS assessment characterizes student proficiency in four language domains that are needed to comprehend and communicate information and thus benefit from academic instruction in English: Listening and Speaking (together called Oral Language) and Reading and Writing (together called Literacy). Students are rated on a scale ranging from 1 to 6 on the four domains, representing increasing English language proficiency (ELP) levels. The domains are combined to calculate a composite ACCESS score, which also ranges from 1 to 6.

The WIDA Consortium, the developer of the ACCESS assessment, defines the ELP levels along a continuum of second language acquisition, as follows:

Figure 1. The Continuum of Second Language Acquisition¹⁰



In each domain, WIDA's ELP Level 5 descriptors indicate that the student's English proficiency allows him or her to work with grade-appropriate academic material independently, without additional linguistic support.¹¹ Therefore, the ELP levels increase in challenge with each grade in order to keep step with the more abstract, technical, and formal English expected in higher grades.¹² Some states and districts—including the School District of Philadelphia—consider a student score of Level 5 or above on the ACCESS to be an indicator of oral and academic English language proficiency. For this study, a student with a composite ACCESS score of 5 or 6 is considered to have reached English proficiency.

Due to the subjective nature of the test's scoring in the speaking and writing domains,¹³ Pennsylvania requires that ACCESS tests be administered by a certified teacher who has experience with teaching English learners and has been trained to administer the assessment.¹⁴

¹⁰ WIDA Consortium, "Understanding the WIDA English Language Proficiency Standards: A Resource Guide," p. RG-12 (2007), accessed June 6, 2017, https://www.wida.us/standards/Resource_Guide_web.pdf.

¹¹ For example, in the WIDA English Language Proficiency Standards (2007), within the domain of writing for grades 3 through 5, a Level 4 student "edits and revises his or her writing based on peer reviews," whereas a Level 5 student "self-assesses to edit and revise writing to produce final drafts," (p. RG-15).

¹² For example, a "Reading scale score of 303 for a fifth grade student is interpreted as Level 2.0. The same scale score for a fourth grader results in Level 2.5, and for a third grade student that scale score results in Level 3.1." See WIDA Consortium, ACCESS for ELLs 2.0 Interpretive Guide for Score Reports, Spring 2017, accessed May 24, 2017, <https://www.wida.us/get.aspx?id=25>.

¹³ The Reading and Listening ACCESS tests are multiple choice, and the Speaking and Writing tests are scored according to the WIDA Interpretive Rubrics. Speaking tests are scored during the test administration by trained test administrators, but Listening, Reading, and Writing tests are sent to Data Recognition Corporation for scoring. See WIDA Consortium, ACCESS for ELLs 2.0 Interpretive Guide, Spring 2017, 42-43.

¹⁴ WIDA Consortium, Pennsylvania, accessed May 15, 2017, <https://www.wida.us/membership/states/Pennsylvania.aspx>.



Box 2

Data and variables

This study uses administrative and assessment data for students identified as English learners enrolled in the School District of Philadelphia. The data included no personally identifying information so that no individual student could be identified.

Key variables were:

- *Home language:* The primary language spoken in the home. School officials record this information for each child upon school enrollment using the Home Language Survey.¹⁵ Students identified by this survey as having a primary language other than English or living in a home where the primary language is not English are screened for English proficiency.
- *Annual composite scores on the ACCESS assessment:* The District uses the ACCESS assessment to test English learners each spring for progress toward proficiency. ACCESS composite scores summarize performance across listening, speaking, reading, and writing in English and range from 1 (least proficient) to 6 (most proficient). For the composite, reading and writing scores are weighted at 35% each and speaking and listening at 15% each.
- *Annual domain and subdomain scores on the ACCESS assessment:* Two key domains in the ACCESS assessment are Oral Language (an average of the Listening and Speaking subdomains) and Literacy (an average of the Reading and Writing subdomains). Scores on each of these domains and subdomains range from 1 (least proficient) to 6 (most proficient).
- *Entry English language proficiency (ELP) level:* When a new student enrolls and is identified as having a primary home or social language other than English, the District must assess the student's English proficiency within 10 days of enrollment. Because ACCESS is administered in the spring only and requires a week to administer, new kindergarten students take a shorter WIDA-ACCESS Placement Test (W-APT) to determine their entry ELP level for placement into EL programs. Like ACCESS, the W-APT scores are reported as composite proficiency levels ranging from 1 to 6. In this report, we refer to these entry placement levels as ELP levels, not scores, to distinguish them from annual ACCESS scores.
- *Performance level on the Pennsylvania State System of Assessment (PSSA) English Language Arts test for third grade:* Pennsylvania characterizes student performance with four levels: Below Basic, Basic, Proficient, and Advanced.¹⁶ Students at the Proficient and Advanced levels are considered to have met state standards.
- *Ever identified with a disability:* This includes students identified with a disability during the first four years of school, even if he or she was not identified as having a disability in his or her first year in school.

¹⁵ Pennsylvania Department of Education, "Home Language Survey," accessed May 15, 2017, <http://bit.ly/2rtqGyj>

¹⁶ Pennsylvania Department of Education, "Pennsylvania ELA Performance Descriptors," accessed May 15, 2017, <http://bit.ly/2cF9C2p>

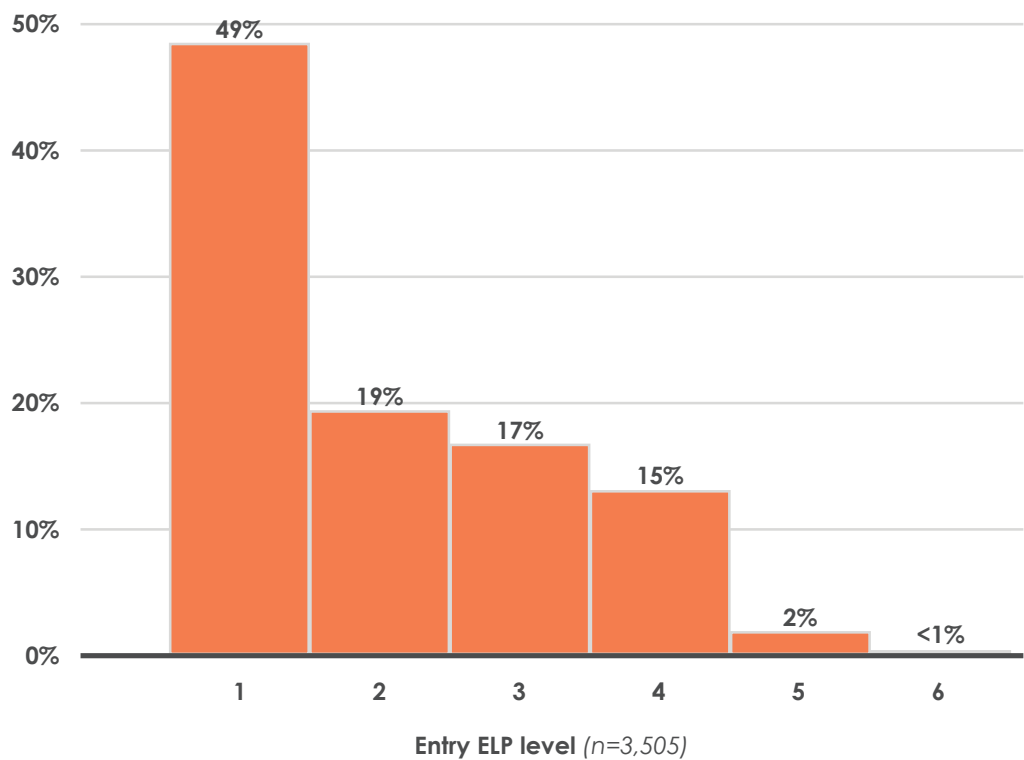
What the study found

About two-thirds of kindergarten EL students knew and used minimal English when they entered school.

Forty-nine percent of the kindergarten EL students placed at the lowest English proficiency level at entrance to school (ELP Level 1), and an additional 19% scored at Level 2. About 30% of the kindergarteners scored at either Level 3 or Level 4. Less than 2% of EL kindergarteners scored at either Level 5 or Level 6 (Figure 2).

Forty-nine percent of kindergarten EL students placed at the lowest English proficiency level at entrance to school, indicating they were still developing the ability to use English words to identify everyday objects.

Figure 2. Distribution of kindergarten ELs entry English language proficiency (ELP) levels on the WIDA-ACCESS Placement Test (W-APT), 2008–09 through 2011–12



Source: Authors' calculations based on student data provided by the School District of Philadelphia.

To illustrate what kindergarteners at different levels of English proficiency are able to do in a school context, the WIDA Consortium provides *Can-Do Descriptors*.¹⁷ These descriptors show the linguistic distance that EL kindergarten students must travel to catch up to their peers whose home language is English. For example:

- **Kindergarten EL students at ELP Level 1** are developing the ability to use English words to identify everyday objects; respond to directions and repeat words and simple phrases in English; identify their name in printed English; find words or symbols that match; and trace figures or letters, among other skills.

¹⁷ WIDA Consortium, "Can Do Descriptors: Key Uses Edition, Kindergarten," accessed May 15, 2017, https://www.wida.us/standards/CAN_DOs/



- **Kindergarten EL students at ELP Level 2** are developing the ability to match or sort pictures based on oral descriptions; use simple phrases to describe pictures or familiar people; answer questions with one or two words; and reproduce letters, symbols, and numbers, among other skills.

In each successive cohort, a larger share of EL students had higher English proficiency levels at entrance to kindergarten.

While the majority of kindergarten ELs in each cohort placed at or below ELP Level 3 when they entered school, increasing percentages placed at Level 4 or above in each successive cohort. Between 2008–09 and 2011–12, the share of kindergarten ELs at Level 4 or above almost doubled, from 12% to 22%. Kindergarten EL students at ELP Level 4 are able to share personal stories and experiences in English and their home languages; describe classroom routines; demonstrate the relationship between objects, people, or animals from detailed descriptions; and describe how to do something through a sequence of pictures and words, among other skills.

Our data set could not identify the factors driving this trend toward higher proficiency at kindergarten entrance. Nevertheless, we note that it will be important to track this baseline assessment, particularly as Philadelphia’s new universal pre-kindergarten program matures.

Almost 60% of the kindergarten EL students achieved English proficiency (ACCESS composite score of 5 or above) within four years of starting school.

By the end of their second year of school (first grade for most students), 12% of the ELs who entered in kindergarten had achieved English proficiency, and an additional 17% were proficient by the end of the third year of school (second grade for most students). An additional 30% were proficient by the end of the fourth year (third grade for most students, Figure 2), bringing the percentage who had reached proficiency in the first four years of school to 59%.

Twenty-one percent of kindergarten students scored at ELP Level 4 by the end of third grade, placing them close to achieving proficiency. If these students were to achieve proficiency by the end of fourth grade, they would be within the range of desired progress in acquiring English as a second language. Appendix C provides additional information on the percentage who became proficient after five years of schooling or more, for the first three cohorts.

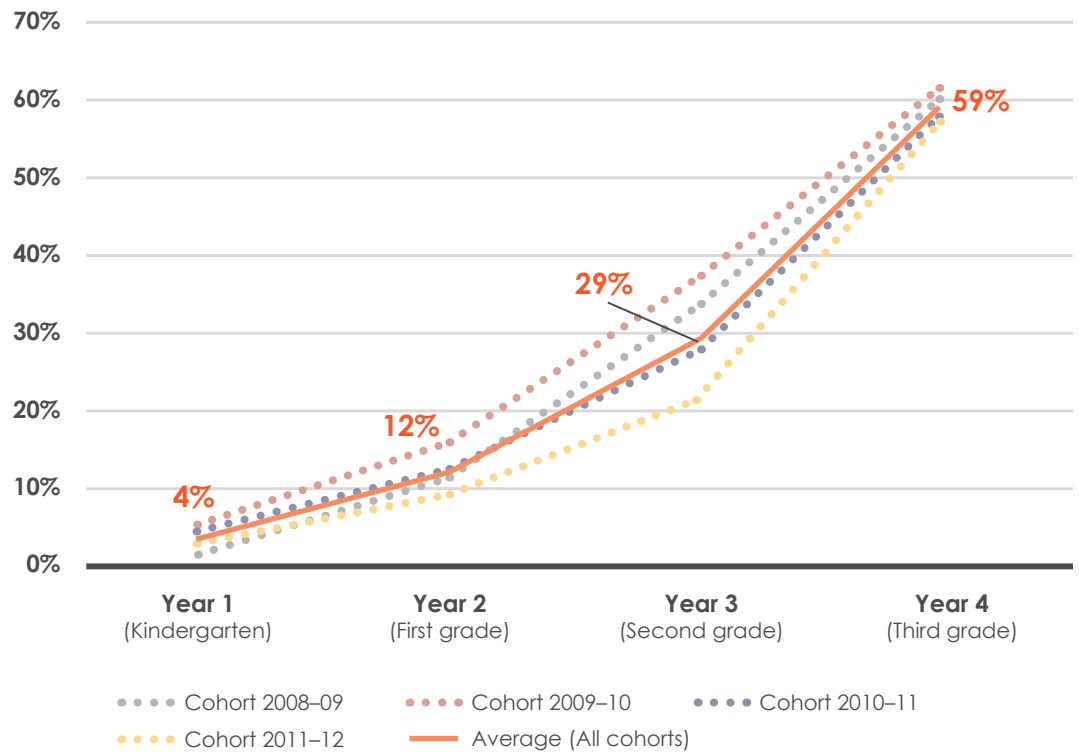
The share of kindergarten EL students placing at Level 4 almost doubled between 2008–09 and 2011–12. These students are able to share personal stories or experiences with others in English and their home languages, among other skills.

Almost 60% of kindergarten EL students achieved English proficiency within four years of starting school.

Twenty-one percent scored at ELP Level 4 within four years of starting school, indicating they were close to achieving proficiency.

The majority of kindergarten ELs who achieved proficiency within four years did so between years three and four.

Figure 3. Cumulative English proficiency rates by EL kindergarten cohorts, 2008–09 through 2011–12



Note: Proficiency is defined as reaching a composite score of 5 or greater on the ACCESS assessment.
Source: Authors' calculations based on student data provided by the School District of Philadelphia.

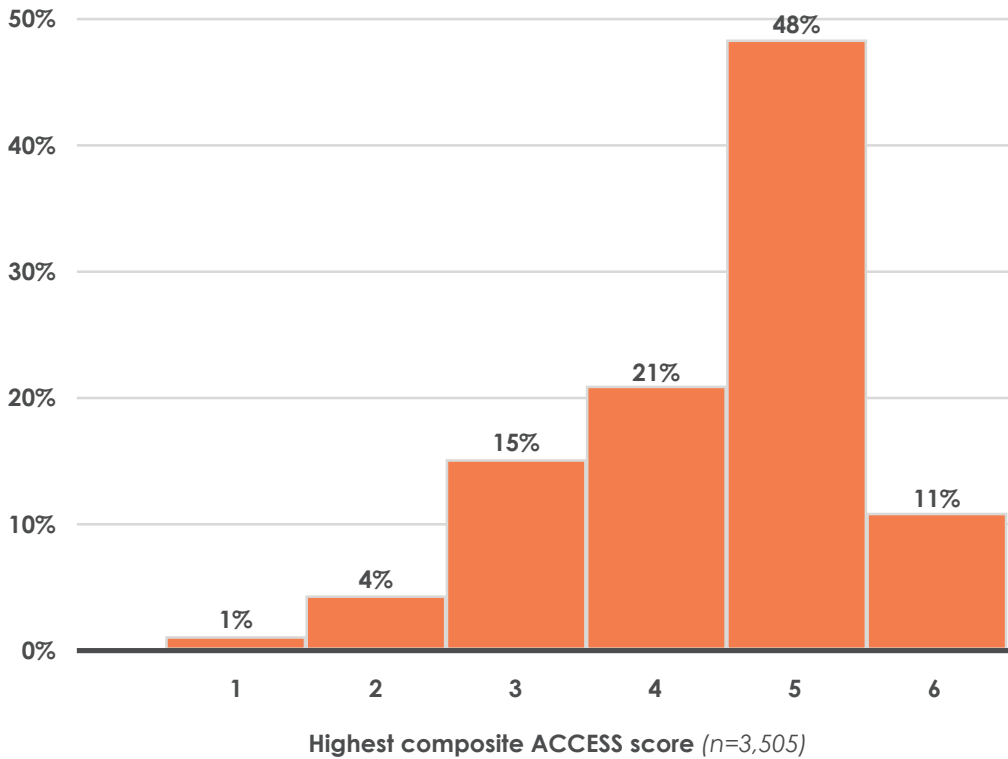
Four years after entering kindergarten, 20% of the students had not progressed beyond ACCESS Level 3.

Students who test at or below Level 3 after four years in EL services are at special risk of becoming long-term ELs compared to their peers who score at Level 4.¹⁸ As grade-level content becomes more complex and abstract, these students are likely to struggle with instruction in English-speaking classrooms. Twenty percent of the kindergarten EL students scored at Levels 1, 2, or 3 four years after entering school (Figure 3).

¹⁸ Studies vary in their definition of the years required for an EL student to reach English proficiency. However, previous studies have defined long-term ELs as students who have not reached proficiency or reclassification within four to six years. See, for example, Michael J. Kieffer and Caroline E. Parker, *Patterns of English Learner Student Reclassification in New York City Public Schools* (Washington, D.C.: Institute of Education Sciences, October 2016).



Figure 4. Highest English proficiency levels reached on the ACCESS by the end of third grade, 2008–09 through 2011–12



20% of students had not progressed beyond ACCESS Level 3 within four years of starting kindergarten.

Source: Authors' calculations based on student data provided by the School District of Philadelphia.

English proficiency rates were higher among female students, students who were not identified with a disability, and Chinese- and Vietnamese-speaking students.

Gender differences. Girls were more likely to achieve proficiency within four years (64%) than boys (54%). Boys were less likely than girls to progress beyond ACCESS Level 3 by the end of third grade. Twenty-five percent of boys did not progress beyond ACCESS Level 3 compared to 16% of girls.

Girls were more likely to achieve proficiency within four years (64%) than boys (54%).

Differences by disability status. Fifteen percent of kindergarten EL students were identified with a disability at some point during their first four years of school. Of these students, 16% achieved proficiency in that time period. In contrast, among students without an identified disability, 66% achieved English proficiency. Among students who had not advanced beyond ACCESS Level 3, there were a disproportionate number of students with disabilities. Forty-six percent of students who did not progress beyond ACCESS Level 3 by the end of third grade were identified with a disability, compared to 15% of all students.¹⁹

Students without disabilities were more likely to achieve proficiency within four years (66%) than those identified with disabilities (16%).

¹⁹ 513 students in our sample were identified with a disability at some point during their first four years in school. Of these students, the most common diagnosed disabilities were Specific Learning Disability (43%), Speech or Language Impairment (26%), Other Health Impairment (9%), Autism (8%), and Intellectual Disability (7%).

Differences by home language. Seventy-five percent of the kindergarten ELs spoke one of five languages at home: Spanish (44% of students), Chinese (13%), Khmer (7%), Vietnamese (7%), and Arabic (5%).

Forty-three percent of Spanish speakers achieved English proficiency within four years, less than the average of 59%.

Among these five largest language groups, 43% of students who spoke Spanish achieved English proficiency within four years. Four-year proficiency rates for speakers of the other four languages ranged from 64% to 79% (Table 1).

Spanish speakers were the least likely home language group to progress beyond ACCESS Level 3 by the end of third grade. Thirty-one percent of Spanish speakers did not progress beyond ACCESS Level 3, compared to 11% of Vietnamese speakers, 8% of Chinese speakers, 16% of Khmer speakers, and 15% of Arabic speakers.

Table 1. English proficiency rates for five largest home language groups in EL kindergarten cohorts, 2008–09 through 2011–12

| Home language | Number of students | Four-year proficiency rate |
|----------------|--------------------|----------------------------|
| Spanish | 1,533 | 43% |
| Khmer | 239 | 64% |
| Arabic | 173 | 68% |
| Vietnamese | 235 | 72% |
| Chinese | 465 | 79% |
| Overall | 3,505 | 59% |

Note: Proficiency was defined as reaching a composite score of 5 or greater on the ACCESS assessment.

Source: Authors' calculations based on student data provided by the School District of Philadelphia.

Proficiency differences between language groups may be explained by a variety of social and psychological factors that this study was unable to examine.

This result may seem counterintuitive because Chinese, Khmer, Vietnamese, and Arabic are at greater “linguistic distance” from English, while Spanish is less distant.²⁰ However, linguistic distance is only one factor affecting time to English proficiency. Proficiency differences between language groups may be partly explained by social and psychological factors including family socioeconomic status, the prevalence of English in the student’s environment outside of school, and the student’s perception of his or her home language, which we were not able to examine in this study.

Students who were more proficient in English when they entered school were more likely to reach proficiency, and proficiency level at school entry has increased across cohorts.

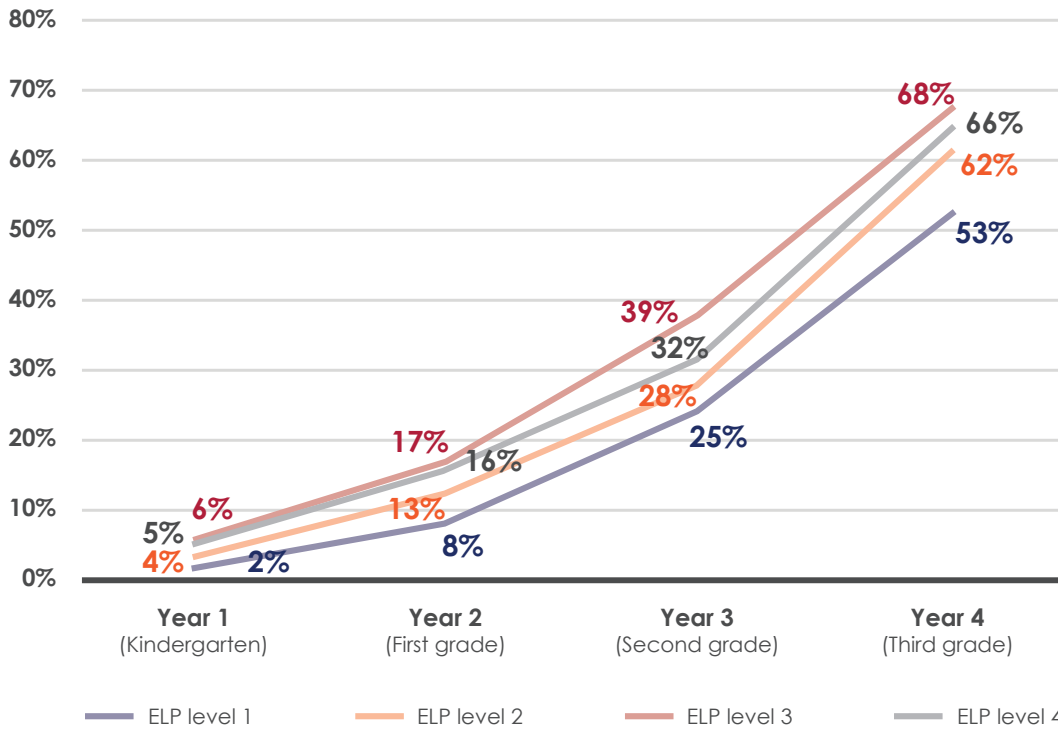
Students who demonstrated a stronger command of English at entrance to kindergarten attained proficiency at higher rates than those who entered school with weaker English skills (Figure 4). Students who entered at ELP Level 1 had a 53% proficiency rate by the end of third grade, compared to 62% at Level 2, 68% at Level 3, and 66% at Level 4.²¹

²⁰ Barry Chiswick and Paul Miller, “Linguistic Distance: A Quantitative Measure of the Distance between English and Other Languages,” *Journal of Multilingual and Multicultural Development* 26, no. 1 (2005).

²¹ 582 students in our sample entered kindergarten at Level 3, and 462 entered at Level 4. A 2 percentage point difference between these two groups is a difference of 12-14 students.



Figure 5. Cumulative English proficiency rates by entry English Language Proficiency (ELP) level and year of school for EL kindergarten cohorts 2008–09 through 2011–12



Students who entered at the lowest ELP level were less likely to achieve proficiency within four years.

Note: Proficiency is defined as reaching a composite score of 5 or greater on the ACCESS assessment.

Source: Authors' calculations based on student data provided by the School District of Philadelphia. This figure does not include the 69 students who were placed at Levels 5 or 6 upon entering kindergarten because they had already achieved proficiency in speaking and listening according to the WIDA-ACCESS Placement Test (W-APT, Box 2).

A larger percentage of students reached proficiency in speaking, understanding, and reading English than in writing English.

The ACCESS assessment gauges the extent to which students are proficient with Oral Language (Listening and Speaking) and Literacy (Reading and Writing). The composite ACCESS score accounts for all of these aspects of proficiency but weighs the literacy domains more heavily.²²

There was a notable difference between the percentage of students achieving proficiency in oral language and the percentage becoming proficient in literacy. Within four years, 81% of the kindergarten ELs had an ACCESS score of 5 or greater on oral language, compared to 63% in literacy. This finding is consistent with second language development research that shows that oral language typically develops before reading and writing.²³

Within four years, 81% of kindergarten ELs has an ACCESS score of 5 or greater on oral language (speaking and listening), compared to 63% on literacy (reading and writing).

²² WIDA Consortium, ACCESS for ELLs 2.0 Interpretive Guide for Score Reports, Spring 2017, accessed May 24, 2017, <https://www.wida.us/get.aspx?id=25>.

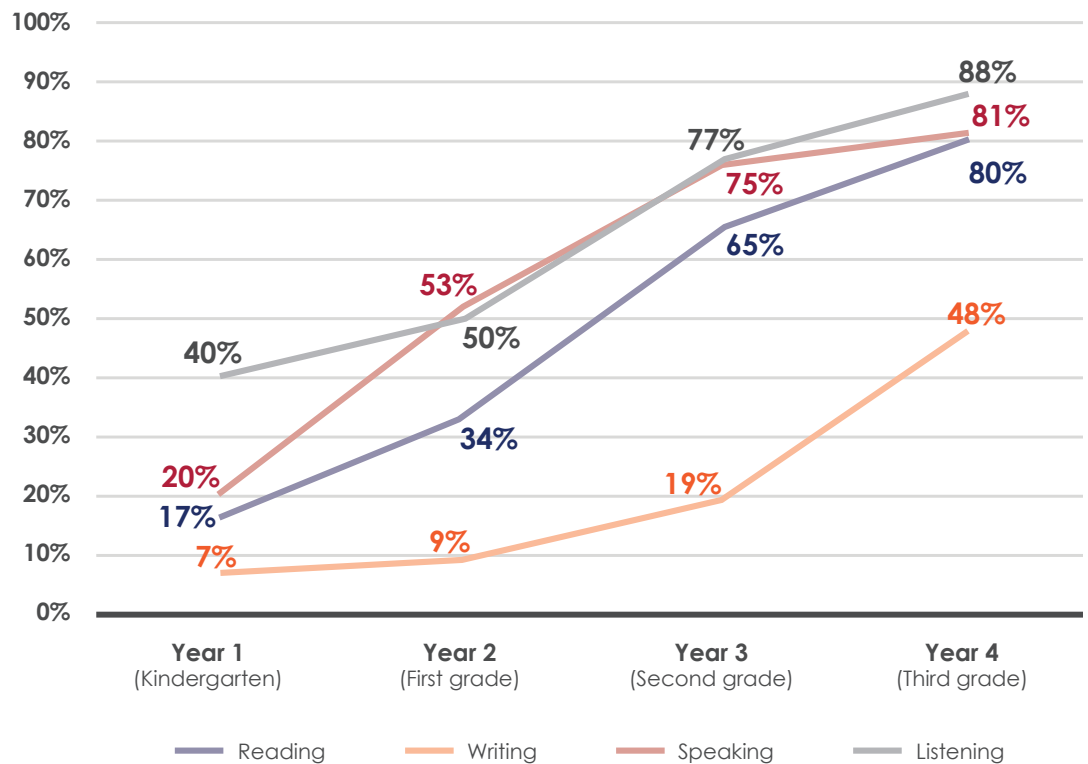
²³ Xiao-Lei Wang, *Understanding Language and Literacy Development: Diverse Learners in the Classroom* (Hoboken, NJ: Wiley-Blackwell, 2014), 33; Peggy McCardle and Erika Hoff, *Childhood Bilingualism: Research on Infancy Through School Age*, (Clevedon, GB: Multilingual Matters, 2006), 102.

The higher proficiency rates in listening and speaking are present at the beginning of kindergarten and continue through the first four years of school (Figure 5). The reading proficiency rate lags behind speaking and listening proficiency rates in the first three years but then closes the gap with the speaking proficiency rate at the end of year four.

The writing proficiency rate is by far the lowest (48%) among the four language skill domains. These data indicate that writing is a particular area of struggle for Philadelphia’s ELs.

In each year, the writing proficiency rate is by far the lowest (48%). From kindergarten to second grade, the number of additional students who became proficient in writing is notably less than the additional number who became proficient in either listening, speaking, or reading. These data indicate that writing is a particular area of struggle for Philadelphia’s ELs and may suggest an area for increased instructional emphasis in the District.

Figure 6. English proficiency rates by ACCESS Domain (reading, writing, speaking, listening) for EL kindergarten cohorts, 2008–09 through 2011–12



Note: Proficiency is defined as reaching a composite score of 5 or greater on the ACCESS assessment.

Source: Authors’ calculations based on student data provided by the School District of Philadelphia.



Implications for policy and practice

These analyses can inform goal-setting for schools tracking kindergarten ELs' progress toward English proficiency.

There is no scientific consensus about precisely how long it should take ELs to achieve proficiency, and there is a wide range of what is considered normal development in a second language.²⁴ Nevertheless, it is appropriate for school districts to set goals for EL time-to-proficiency; indeed, Federal law requires it as a condition of accepting Federal funding for education.²⁵ This study, which tracked four cohorts over time, can help to set ambitious but achievable proficiency targets for future cohorts. Targets for ELs could be set based on students' entering English proficiency levels. We caution that targets appropriate for ELs who enter school as young children may not be appropriate for those who enter in the middle grades or later, and targets for students without disabilities may not be appropriate for students with disabilities.

Schools can set goals for EL time-to-proficiency, possibly based on students' entering English proficiency levels.

High-quality pre-kindergarten for ELs may boost English proficiency at entrance to kindergarten.

More than half of the kindergarten ELs entered school with minimal English proficiency. We do not know how many of these students had attended pre-kindergarten programs that offered high-quality activities to help students build English proficiency. However, Philadelphia's universal pre-kindergarten program provides an opportunity to help the city's youngest ELs begin school with less catching up to do in English. Research indicates that quality pre-kindergarten experiences can help ELs make rapid growth in both English proficiency and academic skills. Further, ELs who become more proficient in English prior to kindergarten demonstrate higher achievement in math, science, and reading through 8th grade.²⁶ Practices that are effective for all students include rich use of language, engaging students in interesting and meaningful activities, and creating a warm and positive atmosphere. Additionally, pre-kindergarten teachers can support EL students with explicit vocabulary and phonemic instruction and making connections between the home language and English.²⁷

Universal pre-kindergarten provides an opportunity to help the city's youngest ELs begin school with less catching up to do in English proficiency.

An area for continued work is supporting ELs to develop proficiency in writing.

While 81% of ELs achieved an ACCESS score indicating proficiency in oral language (listening and speaking) and 80% were proficient in reading within four years of entering kindergarten, fewer students (48%) were proficient in writing in English. Given the substantial disparity in proficiency rates between writing and the other three domains, the District may want to develop a stronger focus on supporting these students to become effective writers in English. Indeed, a renewed emphasis on writing

A renewed emphasis on writing may be important for all early elementary students, including those whose home language is English.

²⁴ National Academies of Sciences, Engineering, and Medicine, *Promoting the Educational Success of Children and Youth Learning English: Promising Futures* (Washington, DC: The National Academies Press, 2017), 6-2.

²⁵ Council of Chief State School Officers, *Major Provisions of Every Student Succeeds Act (ESSA) Related to the Education of English Learners* (2016).

²⁶ Tamara Halle et al., "Predictors and Outcomes of Early Versus Later English Language Proficiency Among English Language Learners," *Early Childhood Research Quarterly* 27, no. 1 (2012).

²⁷ Dale C. Farran, "Characteristics of Pre-Kindergarten Programs That Drive Positive Outcomes," *The Current State of Scientific Knowledge on Pre-Kindergarten Effects* (Washington, D.C.: Brookings, 2017): 45-50.

may be important for all early elementary students, including those whose home language is English.

There are effective instructional approaches for improving ELs' skills in writing, including guides and materials for educators.

Fortunately, there are effective instructional approaches for improving ELs' skills in these areas, and there are guides and materials for educators. Of particular note is the Educator's Practice Guide entitled Teaching Academic Content and Literacy to English Learners and accompanying materials for teacher professional learning communities, all of which are available free of charge from the U.S. Department of Education.²⁸ The Department's What Works ClearinghouseTM also provides information on specific programs and curricula that have been found to be effective for English learners.²⁹

²⁸ This resource is available at <https://ies.ed.gov/ncee/wwc/PracticeGuide/19>.

²⁹ This resource is available at <https://ies.ed.gov/ncee/wwc/FWW/Results?filters=,EL>.



Appendix A: Grade at entry to the School District of Philadelphia for ELs

As background information for this report, the study team examined the grade at which EL students first entered the School District of Philadelphia. We used data on students who were (1) new entrants to the District from 2009–10 through 2013–14 and (2) who were identified as English learners. Students who were not observed in the District data for 2008–09 were counted as new entrants to the District in 2009–10.

For the 17,110 EL students who first enrolled in the District during those five school years, we calculated the distribution of grades at entry (Table A-1).

Kindergarten was, by far, the most common grade of entry for ELs (37%). Together, EL students in kindergarten through second grade constituted 54% of new EL entrants.

Table A-1. New EL students by grade at enrollment in the School District of Philadelphia, 2009–10 through 2013–14

| Grade | Percent (%) | Number |
|--------------|--------------|---------------|
| Kindergarten | 37.1 | 6,352 |
| First | 10.0 | 1,712 |
| Second | 7.2 | 1,230 |
| Third | 5.4 | 928 |
| Fourth | 5.1 | 879 |
| Fifth | 4.7 | 807 |
| Sixth | 4.2 | 713 |
| Seventh | 3.9 | 669 |
| Eighth | 3.9 | 665 |
| Ninth | 8.9 | 1,517 |
| Tenth | 4.8 | 818 |
| Eleventh | 3.3 | 559 |
| Twelfth | 1.5 | 261 |
| Total | 100.0 | 17,110 |

Source: Authors' calculations based on student data provided by the School District of Philadelphia.

Appendix B: Additional Information on Kindergarten EL Students, 2008–09 through 2011–12

Table B-1. Characteristics of sample and non-sample students

| | Sample | Not in sample |
|-------------------------------|---------|---------------|
| | n | 1,257 |
| | Percent | Percent |
| Kinder Disability Flag | | |
| Has Disability | 7 | 5 |
| No Disability | 93 | 95 |
| Total | 100 | 100 |
| Ever Disability Flag | | |
| Has Disability | 15 | 8 |
| No Disability | 85 | 92 |
| Total | 100 | 100 |
| Home language | | |
| Arabic | 5 | 6 |
| Chinese | 13 | 13 |
| Creoles & Pidgins | 2 | 3 |
| English ³⁰ | 2 | 3 |
| Khmer | 7 | 5 |
| Spanish | 44 | 41 |
| Vietnamese | 7 | 7 |
| Other | 21 | 24 |
| Total | 100 | 100 |
| Race/ethnicity | | |
| Asian | 34 | 32 |
| Black | 8 | 11 |
| Latino | 43 | 41 |
| Native American | 0 | 0 |
| Other | 7 | 8 |
| White | 8 | 8 |
| Total | 100 | 100 |
| Gender | | |
| Female | 47 | 47 |
| Male | 54 | 53 |
| Total | 100 | 100 |
| Entry ELP level | | |
| 1 | 49 | 50 |
| 2 | 19 | 18 |
| 3 | 17 | 16 |
| 4 | 13 | 14 |
| 5 | 2 | 2 |
| 6 | 0 | 0 |
| Total | 100 | 100 |

Source: Authors' calculations based on student data provided by the School District of Philadelphia. Numbers may not add up to 100 due to rounding.

Note: The sample included students who (1) were first enrolled in kindergarten in 2008-09 through 2011-12; (2) were identified in kindergarten as English learners; and (3) remained in District schools for at least four consecutive school years after kindergarten (through the end of third grade) OR reached English proficiency within four years, as measured by scoring a 5 or higher on the ACCESS for ELLs assessment.

There were 1,257 students who satisfied the first and second criteria but not the third. These students began kindergarten in the District but left before reaching English proficiency or reaching third grade. The only notable difference between the two groups is the percentage ever identified with a disability: 8% of excluded ("not in sample") students had documented disabilities before exiting compared to 15% of included ("sample") students. However, this is likely due to the fact that excluded students were observed for a shorter amount of time; the majority (70%) were in our dataset for 2 consecutive years or less.



Table B-2. Characteristics of kindergarten EL students, 2008–09 through 2011–12

| Cohort year | 2009 | 2010 | 2011 | 2012 | Total |
|--|---------|---------|---------|---------|---------|
| <i>n</i> | 772 | 789 | 979 | 1,015 | 3,505 |
| | Percent | Percent | Percent | Percent | Percent |
| Identified with disability in kindergarten | | | | | |
| Yes | 6 | 6 | 9 | 6 | 7 |
| No | 94 | 94 | 91 | 94 | 93 |
| Total | 100 | 100 | 100 | 100 | 100 |
| Identified with disability in any grade | | | | | |
| Yes | 17 | 14 | 16 | 12 | 15 |
| No | 83 | 86 | 84 | 89 | 85 |
| Total | 100 | 100 | 100 | 100 | 100 |
| Home language | | | | | |
| Arabic | 4 | 5 | 5 | 6 | 5 |
| Chinese | 14 | 14 | 13 | 12 | 14 |
| Creoles & Pidgins | 2 | 2 | 1 | 2 | 2 |
| English³⁰ | 2 | 1 | 3 | 1 | 2 |
| Khmer | 9 | 9 | 5 | 5 | 7 |
| Spanish | 40 | 40 | 47 | 47 | 44 |
| Vietnamese | 7 | 7 | 7 | 6 | 7 |
| Other | 21 | 22 | 19 | 21 | 20 |
| Total | 100 | 100 | 100 | 100 | 100 |
| Race/ethnicity | | | | | |
| Asian | 37 | 38 | 33 | 31 | 34 |
| Black | 11 | 8 | 6 | 8 | 8 |
| Latino | 40 | 39 | 46 | 44 | 43 |
| Native American | 0 | 0 | 0 | 0 | 0 |
| Other | 4 | 6 | 8 | 8 | 7 |
| White | 7 | 8 | 7 | 9 | 8 |
| Total | 100 | 100 | 100 | 100 | 100 |
| Gender | | | | | |
| Female | 48 | 46 | 46 | 46 | 47 |
| Male | 52 | 54 | 54 | 54 | 54 |
| Total | 100 | 100 | 100 | 100 | 100 |
| Entry ELP level | | | | | |
| 1 | 51 | 54 | 51 | 41 | 49 |
| 2 | 22 | 21 | 17 | 18 | 19 |
| 3 | 15 | 17 | 14 | 19 | 17 |
| 4 | 8 | 5 | 15 | 21 | 13 |
| 5 | 3 | 2 | 2 | 0 | 0 |
| 6 | 1 | 0 | 0 | 0 | 0 |
| Total | 100 | 100 | 100 | 100 | 100 |

Source: Authors' calculations based on student data provided by the School District of Philadelphia.

³⁰ In some cases, an EL student's home language may be English. Such students may have been adopted by or placed with an English-speaking family or may speak a variety of English that is sufficiently different from American English that additional support is required (e.g., English-based creoles and pidgins).

Appendix C: Time to Proficiency Beyond Four Years

In this study, we censored the time to proficiency at five years to compare proficiency rates across four cohorts and to align with the School District of Philadelphia’s Anchor Goal 2, which envisions 100% of 8 year-olds (third graders) reading at grade level.³¹ However, for three of the cohorts, our dataset includes information on progress to proficiency during students’ fifth, sixth, or seventh years of school in the District.

In each of the three cohorts for which a fifth year of data is available, between 71% and 73% of the students reached English proficiency. By the end of the sixth year in school, approximately 80% had reached proficiency, and in the one cohort for which data was available for the seventh year of school, 84% had become proficient in English by earning a composite score of 5 or greater on the ACCESS. Across the years, the most substantial jump in percent proficient occurs between the third and fourth year of schooling (second to third grade, for most students). Past five years of schooling, the additional percentage becoming proficient begins to diminish.

Table C-1. Cumulative English Proficiency Rates (Uncensored) for Kindergarten Cohorts 2008–09 through 2011–12

| Years to ACCESS ≥ 5.0 | Cohort 2008–09 (n=722) | Cohort 2009–10 (n=789) | Cohort 2010–11 (n=979) | Cohort 2011–12 (n=1,015) | All cohorts (n=3,505) |
|-----------------------------|---------------------------|---------------------------|---------------------------|-----------------------------|--------------------------|
| 1 (End of K) | 2% | 5% | 4% | 3% | 4% |
| 2 (End of 1 st) | 11 | 15 | 12 | 9 | 12 |
| 3 (End of 2 nd) | 33 | 36 | 27 | 21 | 29 |
| 4 (End of 3 rd) | 60 | 62 | 58 | 57 | 59 |
| 5 (End of 4 th) | 73 | 73 | 71 | - | - |
| 6 (End of 5 th) | 78 | 81 | - | - | - |
| 7 (End of 6 th) | 84 | - | - | - | - |
| % Taking 6+ years | 24 | 24 | 29 | - | - |

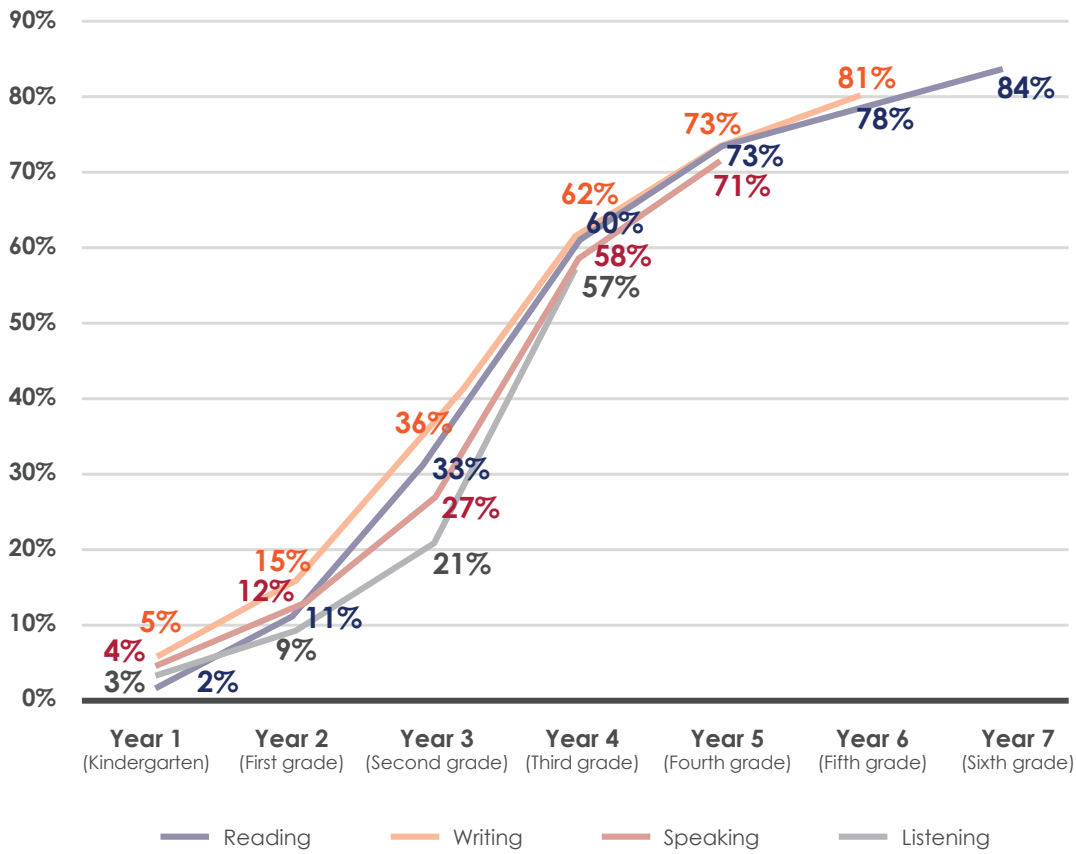
Note: Proficiency is defined as reaching a composite score of 5 or greater on the ACCESS assessment.

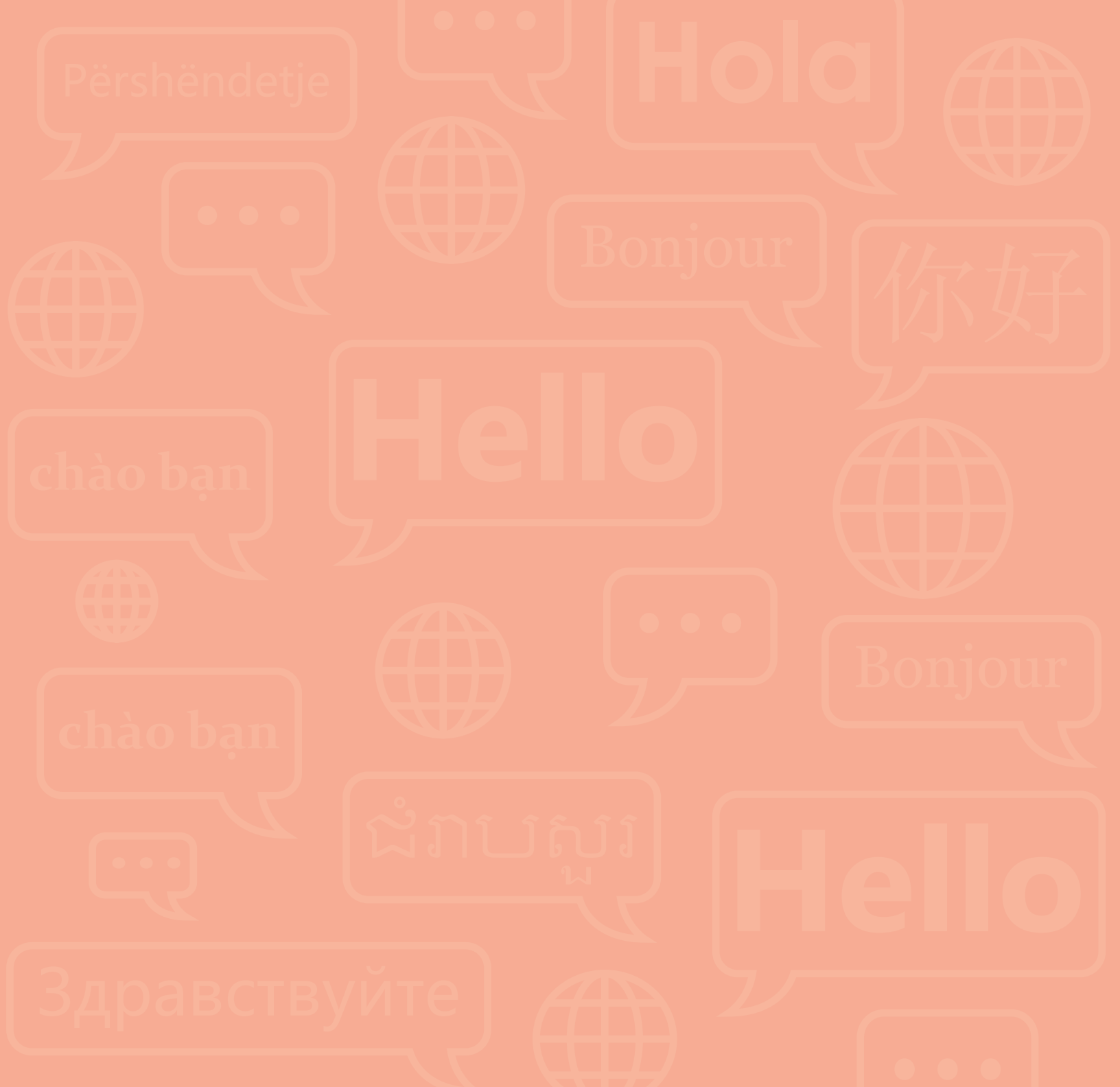
Source: Authors' calculations based on student data provided by the School District of Philadelphia.

31 The School District of Philadelphia, “Action Plan 3.0,” accessed May 24, 2017, <http://webgui.phila.k12.pa.us/uploads/bj/6T/bi6T3DCFvqvaCS0HeGZoZg/Action-Plan-3.0-FINAL-3-4-15.pdf>.





Figure C-1: English Proficiency Rates (Uncensored) for Kindergarten Cohorts 2008–09 through 2011–12





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