California's English Learners and Their Long-Term Learning Outcomes

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LEARNING POLICY INSTITUTE

JULY 2024

Acknowledgments

The authors thank Sela Fessehaie and Jonathan Isler at the California Department of Education for support with accessing and interpreting data, as well as our Learning Policy Institute (LPI) colleagues Linda Darling-Hammond, Dion Burns, and Heather Price for their review of and feedback on this work. In addition, we thank the members of the LPI Communications team for their invaluable support in designing, producing, and disseminating this report.

Core operating support for LPI is provided by the Carnegie Corporation of New York, Heising-Simons Foundation, William and Flora Hewlett Foundation, Raikes Foundation, Sandler Foundation, Skyline Foundation, and MacKenzie Scott. We are grateful to them for their generous support. The ideas voiced here are those of the authors and not those of our funders.

External Reviewers

This report benefited from the insights and expertise of two external reviewers: Patricia Gándara, Research Professor at the University of California, Los Angeles Graduate School of Education, and Kenji Hakuta, Professor Emeritus at the Stanford University Graduate School of Education. We thank them for the care and attention they gave the report.

Suggested citation: Novicoff, S., Reardon, S. F., & Johnson, R. C. (2024). *California's English learners and their long-term learning outcomes.* Learning Policy Institute. https://doi.org/10.54300/636.224

This report can be found online at https://learningpolicyinstitute.org/product/ca-english-learners-outcomes.

Cover photo by Allison Shelley for EDUimages.

Document last revised August 29, 2024

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Executive Summary

California's K–12 funding and instructional policies for English learners (ELs) have changed significantly over the past 2 decades. California changed its Teaching Performance Expectations to incorporate EL instruction, required instructional materials specific to ELs statewide, integrated the Common Core State Standards into a new English Language Development Framework, overhauled its school funding system to fund ELs at a higher rate, and reinstituted bilingual education. These major policy shifts held the potential to change student learning outcome patterns for ELs.

As a first step in identifying the potential impacts of these policy shifts, this report describes changes over time in the development of academic skills and English proficiency among English learners in California. We take advantage of a stable English language proficiency testing period in California, during which a single test—the California English Language Development Test (CELDT)—was used. We use student-level longitudinal data from the 2006–07 through 2018–19 school years to examine the learning outcomes of 12 successive cohorts of students who were classified as English learners in kindergarten (K-cohort ELs) as they progressed through California's public school system.

First, we find that kindergarten ELs are increasingly diverse linguistically, with the share of Mandarin and Arabic speakers more than doubling over the 14-year time span, reaching 2.9% and 1.4%, respectively, while the share of Spanish-speaking kindergarteners decreased from 84% to 77%. We also find that kindergarten ELs are slightly more likely to be socioeconomically disadvantaged. Second, we find that English learners' academic achievement by 3rd grade has improved over time, shrinking the achievement gaps between K-cohort ELs and other students in English language arts (ELA) and math. Third, we find that more recent cohorts of kindergarten ELs are reaching English proficiency on the CELDT in earlier grades than previous cohorts had.

For the older cohorts who reached Grade 5 by 2018–19, we find almost no change in the overall share who were proficient in English by the end of elementary school; however, these cohorts began school between 2006 and 2012, before Local Control Funding Formula (LCFF) funding increases and many of the most recent reforms were launched. We also find small improvements in reclassification rates for these older cohorts, but still only half of these kindergarten ELs were reclassified by the end of elementary school in 2018–19.

Taken together, these results show significant improvements in the academic trajectories of California's ELs over time, likely due to improvements in the school learning environments that kindergarten ELs experienced. Our results suggest that some combination of the policies described earlier—from more rigorous requirements for teacher preparedness for EL students to increased funding and the introduction of transitional kindergarten—has likely made a difference in EL outcomes. The patterns of improvement for academic achievement in math and ELA across successive cohorts of kindergarten ELs are aligned with the timing of LCFF implementation and the staggered rollout of increased funding between 2013 and 2018. Meanwhile, the reduction in time to English proficiency appears to be gradual and steadily improves throughout the analysis period, suggesting a potentially positive role for the policies of the early 2000s, such as new regulations regarding teacher preparation and requirements for EL-specific materials in schools.

This report also illuminates a gap between when students achieve English proficiency and when they are reclassified. We find that almost three quarters of K-cohort EL students are English proficient as measured by CELDT by the end of elementary school, but only half of K-cohort ELs are reclassified by that same time point. In California, where English proficiency represents only one of the four criteria students must meet to be reclassified, this discrepancy demonstrates the role played by other barriers to reclassification, most likely the criterion to demonstrate basic skills on another assessment.

Introduction

More than 1 in 8 students in the United States are educated in California's public school system (National Center for Education Statistics, 2023). Forty percent of California students speak a language other than English at home, with the vast majority of these students classified as English learners (ELs) upon school entry and provided EL services such as targeted English language development instruction (California Department of Education, 2024). Over the past 2 decades, California has changed its Teaching Performance Expectations to incorporate EL instruction (beginning in 2004), required instructional materials specific to ELs statewide (2004), instituted the Common Core State Standards for math and English language arts (2010) and a new English Language Development Framework (2012), overhauled its school funding system to fund ELs at a higher rate (2013), and reinstituted bilingual programming (2016). These major policy shifts had the potential to change student learning outcome patterns for ELs.

As a first step in understanding the impact of these policy changes, we provide a descriptive analysis of trends in key outcomes across successive cohorts of California ELs. This work is descriptive and is not meant to identify the specific impacts of any of those individual policies, but rather is intended to help policymakers understand generally how ELs fared during this era. Using population student-level longitudinal data obtained from the California Department of Education, we track outcomes for 12 successive cohorts of students who entered as ELs from kindergarten through their entire trajectory in California schools over 13 school years from 2006–07 to 2018–19. We follow our first cohort through their potential graduation year from high school and can follow eight cohorts through the end of elementary school (Grade 5). We describe demographic changes, trends in academic outcomes, trends in timing to English proficiency, and timing to reclassification to shine a light on the backgrounds and academic trajectories of these students.

First, we find that kindergarten ELs are increasingly diverse linguistically, with the share of Spanish speakers decreasing from 84% to 77% over the time period, and speakers of Mandarin, Vietnamese, Cantonese, Korean, and Arabic increasing to represent another 10% combined, with a variety of other languages spoken by the remainder of the student population. We also find that kindergarten ELs are slightly more socioeconomically disadvantaged over time (increasing from 67% to 68%), with those in Spanish-speaking and the fast-growing Arabic-speaking groups most disproportionately from low-income households.

Second, we find that these students' academic achievement in 3rd grade improved over time, shrinking the achievement gaps between K-cohort ELs and other students in ELA and math. Third, we find that more recent cohorts of kindergarten ELs reached English proficiency on the California English Language Development Test (CELDT) in earlier grades than previous cohorts. For the most recent cohorts (students who entered school in 2011 and thus experienced only partial implementation of the new school funding infrastructure and new curricular standards), we can observe through Grade 5 and find that the overall share who became proficient in English by the end of elementary school remained almost unchanged. We hope future work will speak to the continued effects of those policies as later cohorts experience such policies sooner in their school careers and these earlier cohorts progress into middle and high school.

Finally, we find that despite small improvements in reclassification rates, only 53% of ELs who started kindergarten in 2011 were reclassified by the end of elementary school, even though 72% had reached English language proficiency on the CELDT.

Taken together, these results show significant improvements in the academic trajectories of California's ELs over time. Three possible explanations for these changes emerge: First, it is possible that the thresholds used for initial EL designation changed over time in ways that could contribute to the patterns observed. We explored this possibility and found that test-takers with similar initial kindergarten English language assessment scores were classified consistently over our study period as either ELs or Initial Fluent English Proficient (see Figure B1). Second, it is possible that more recent kindergarten cohorts were systematically different than earlier kindergarten cohorts in ways that might have improved their test scores. Our analyses of the socioeconomic and demographic familial backgrounds of successive kindergarten cohorts (see Figures B2–B5), however, allow us to conclude that more recent cohorts are only slightly more proficient in English upon kindergarten entry, and thus that compositional change is not likely substantial enough to improve performance. Instead, we turn to the third possible explanation: Elevated achievement patterns are attributable to improvements in the school learning environments that kindergarten ELs experienced.

Taken together, these results show significant improvements in the academic trajectories of California's ELs over time.

Background

California Policy Context

During our study period of 2006 to 2019, the instruction of English learners was in flux due to a wide-ranging set of new state policies and the lingering effects of previous policies. This policy landscape is depicted as a timeline in Figure 1, which shows when California introduced new regulations around teacher preparation, curriculum, school funding, early learning opportunities, and language of instruction for ELs.

Figure 1. Selected Timeline of California's EL-Related Policies by K Cohort

POLICY CATEGORY

Language of instruction	1998–2016: Prop. 227 in effect, defaulting to English-only instruction for ELs										In 2016, voters pass Prop. 58, repealing Prop 227 and allowing bilingual education.		
Teacher preparation	Beginning in 2004, *Williams v. California* requires teacher preparation programs to train new teachers on EL instruction.												
Curriculum	California Content Standards outline knowledge and skills for each grade level and are not aligned to other states.				In 2010, the State Board of Education adopts the Common Core state standards.		In 2012, the State Board of Education revises the English Language Development standards to align with Common Core. These remain in effect.						
Funding	California allocates money through "categorical" grant programs with specific purposes and ranks low among other states in funding levels for schools.							In 2013, the Governor signs the Local Control Funding Formula (LCFF), increasing state funding for education overall, providing additional money for ELs. Funding amounts are increased incrementally over time.					In 2018, LCFF reaches full funding.
Early childhood	Students with disabilities are able to attend limited early childhood options. 3- and 4-year-olds from low-income households can attend federal Head Start program or California State Preschool Program, depending on eligibility.						From 2012 to 2015, CA expands transitional kindergarten (TK) for all students turning 5 late in the calendar year.						

KINDERGARTEN COHORT

YEAR	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
2006	K	1	2	3	4	5	6	7	8	9	10	11	12
2007		K	1	2	3	4	5	6	7	8	9	10	11
2008			K	1	2	3	4	5	6	7	8	9	10
2009				K	1	2	3	4	5	6	7	8	9
2010					K	1	2	3	4	5	6	7	8
2011						K	1	2	3	4	5	6	7
2012							K	1	2	3	4	5	6
2013								K	1	2	3	4	5
2014									K	1	2	3	4
2015										K	1	2	3
2016											K	1	2
2017												K	1
2018													K

Sources: For Language of instruction see: Santibanez & Umansky, 2018. For Teacher preparation see: Santibanez & Umansky, 2018. For Curriculum see: California Department of Education, 2014. For Funding see: Contreras & Fujimoto, 2019. For Early childhood see: Johnson, 2024.

Beginning in 1999, all teacher preparation programs statewide were required to incorporate lessons on EL instruction (Santibañez & Umansky, 2018); however, that provision only covered new teachers. In 2004, the settlement of *Williams v. California* extended the requirement, mandating that all teachers acquire training and specific authorization to teach ELs. These changes were implemented based on research showing that teachers of ELs need to (a) be able to implement EL-specific scaffolds; (b) possess EL-specific teacher expertise (such as linguistics); and (c) ensure an EL-specific equity orientation with respect to cultural, ethnic, and linguistic diversity to help their students succeed (Santibañez & Snyder, 2018). Nine years after *Williams v. California*, the American Civil Liberties Union cheered in a 2013 report that "*Williams* is working," pointing to large reductions in the number of teachers instructing ELs without the certification to do so (Chung, 2013).

California also reformed its curricular standards during this time period. In 2010, the California State Board of Education adopted the Common Core State Standards and began promoting them in professional development sessions with teachers and administrators. Two years later, the state revised its English language development standards to align with the Common Core; 2 years after that, California produced a joint English Language Arts/English Language Development Framework to guide instruction. In 2015, the state implemented new standardized testing that also aligned with these goals (California Department of Education, 2014). The Common Core instituted more complex academic literacy targets, and researchers openly worried whether teachers and schools were prepared to help ELs reach that higher bar (Goldenberg, 2013). A study of the Common Core in California about 3 years after the adoption of new curriculum frameworks showed uneven implementation and mixed results, with modest improvements in student outcomes for districts that had adopted the recommended instructional materials (Gao & Lafortune, 2019); however, that study did not focus on English learners specifically, leaving unanswered questions about the effects of the curricular shift on this key subgroup.

English learners also faced a new school funding environment in California during this time period. The 2004 settlement of *Williams v. California* required adequate instructional materials specifically for ELs and ensured regular facilities assessments for adequacy (SB 550, 2004). Then, in 2013, the passage of the Local Control Funding Formula (LCFF) directed large amounts of money toward the education of ELs and gave local education agencies broad authority and greater discretion in how to spend the increased funding, while also stipulating that districts regularly consult with communities when making spending decisions. LCFF committed $18 billion in increased state support and distributed it on the basis of pupil needs (which is defined in part by the proportion of students in the district who are English learners), then incrementally distributed funds over a 7-year period until it was fully funded in the 2018–19 school year. Early analyses of district-level spending plans showed that after LCFF, which required attention to ELs in districts' Local Control and Accountability Plans, districts increased their focus on English language development courses and dual-immersion programs, both of which could have driven an increase in EL performance (Contreras & Fujimoto, 2019). Johnson (2023) found positive and significant effects of LCFF-induced increases in per-pupil spending on academic achievement for every grade assessed (3rd–8th and 11th), in both math and reading, for every school that experienced this new infusion of state funds, as well as for the kindergarten EL subgroup.

There were also major expansions of public prekindergarten (PreK), which may have important implications for enriching early learning opportunities for ELs. Beginning in the 2012–13 school year, every elementary or unified school district was required to offer transitional kindergarten (TK) for

eligible children who turned 5 late in the calendar year.[1] Moreover, these expansions of public PreK investments in education have been sustained over the past decade, with TK eligibility set to expand to include all 4-year-olds in future years. The expansion of TK and preschool may represent an important policy opportunity to narrow school readiness gaps (Johnson, 2024). Amid growing evidence that school resource equity and funding adequacy matter for educational achievement and socioeconomic success in adulthood (Jackson, 2020; Jackson et al., 2016; Johnson & Jackson, 2019; Lafortune et al., 2018) and early evidence on the successes of TK implementation in California (Manship et al., 2017; Johnson, 2024), we would expect to see improvements in EL performance due to these investments.

Finally, in 2016, California voters passed Proposition 58, which repealed the 1998 Proposition 227 and allowed schools throughout the state to establish bilingual education programs. Though districts were not required to create bilingual education programs, they were encouraged to do so. They were also required to meet with community members to discuss the programs and offer bilingual programming if enough parents requested it (Hopkinson, 2017). At that time, research consistently showed the advantages of bilingual education for improving English proficiency (Goldenberg, 2013; Umansky & Reardon, 2014; Willig, 2004).

This study presents the academic achievement and trajectory of the learning outcomes of ELs between 2006 and 2019. This time frame allows us to track how the package of equity-focused policies described may have improved outcomes for EL students.

The Kindergarten EL Framework

English learners are defined in federal law as students who do not speak English as their primary language at home and who have difficulties with speaking, reading, writing, or understanding English (No Child Left Behind, 2002). In California, as in 20 other states, students are first identified as English learners with the administration of a Home Language Survey that includes questions about the languages used most frequently in the home; students in California, like students in 26 other states, are also given an assessment of English proficiency upon school entry (Rafa et al., 2020). This state-administered test determines a student's eligibility as an English learner and provides information about annual progress, while district criteria are also considered as part of the process to determine when a student no longer needs EL services.

Much work has shown the large and persistent achievement gap between ELs and their peers (e.g., Fry, 2007; Garcia, 2015; Rumberger & Gándara, 2004). Data from the National Assessment of Educational Progress show a large gap between ELs and non-ELs in both math and reading in Grades 4 and 8 in California and nationwide. Although scores for both groups improved over the past several decades, the gap persists (National Assessment of Educational Progress, 2022). This gap persists, in part, because the students who attain proficiency in English and are reclassified are then transferred out of the EL group.

The process by which students transfer out of ("exit") English learner status is known as reclassification. Reclassification in California, as in at least six other states (Colorado, Florida, New Jersey, New York, Texas, and Wisconsin), requires a student to pass an English language arts assessment in addition to an English proficiency exam (Rafa et al., 2020). Therefore, because standardized test scores are themselves an input into EL status, the achievement gap described earlier between ELs and non-ELs may be even greater because ELs with the highest test scores are more likely to be reclassified and thus enter the non-EL pool, expanding the size of the gap.

In addition, as immigrant students who have sometimes experienced inconsistent schooling enter California schools later in elementary or middle school, they enter the EL pool and have scores that reduce the average scores, further expanding the size of the gap. This phenomenon has been well documented in the literature on the topic (Hopkins et al., 2013; Linquanti, 2001; Saunders & Marcelletti, 2013). Furthermore, prior research has shown that reclassification rates differ by gender, home language, socioeconomic status, initial English proficiency levels, and age of entry into the school system (Conger, 2008; Grissom, 2004). Thus, when work focuses on current ELs and excludes reclassified students from the analyses, it disproportionately excludes particular demographic groups and emphasizes the pathways of others, resulting in selection biases that may distort and mask the progress of ELs.

To understand how the K–12 system is supporting and educating ELs, we must instead track the progress of a more stable cohort. This consideration highlights an important aspect of our study design and the contribution of our detailed descriptive evidence: We follow all California public school students who began receiving EL services starting in kindergarten, hereafter known as kindergarten ELs (K-cohort ELs). We then follow these kindergarten ELs through all of their years in school, including all of the years after their reclassification. To understand changes over time, we focus on the learning outcomes of 12 successive cohorts of K-cohort ELs rather than focusing on students who are English learners at a particular moment in time. This design excludes EL students who enter the California school system after kindergarten, such as a new student who moves to California at age 14. This redefinition of the sample from current ELs to students who were ELs at the beginning of kindergarten can offer practitioners and researchers new insights about the progress of ELs over time that may challenge our existing understanding of the educational landscape for this population. We can more clearly gauge the progress of EL students using this longitudinal, tracking-over-years approach.

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Data

We construct a student-cohort-by-year dataset using administrative data of K–12 school records from the California Department of Education (CDE). With these data, we describe the pathways of students who were initially classified as ELs and received English language services in kindergarten. To build this dataset, we link a student's EL status with their school enrollment, demographic information, and academic achievement on state standardized tests in English and math over time. These longitudinal data enable us to track all students as they progress through California's public school system, even as they move between public schools and districts within the state. While we cannot track the outcomes of students who move out of the state, attrition due to migration out of state is modest and has not changed appreciably over this time period (Johnson, 2023).[2]

Our dataset covers enrollment and EL status information from the 2006–07 through 2018–19 school years, a much longer time span than is covered in previous literature. We access student demographic information, including race and ethnicity, gender, language spoken at home, and an indicator of socioeconomic disadvantage in kindergarten or in the earliest year for which it is available.[3]

In California, EL students are identified through a two-step process: first, when registering for school, parents/guardians are asked to fill out a questionnaire called the Home Language Survey that has four questions about the language(s) spoken in the home environment. If parents or guardians answer that a language other than English is spoken at home, then school or district staff administer the state test of English proficiency. From 2000–01 through 2017–18, this initial assessment was performed using the California English Language Development Test (CELDT). In 2018–19, the state shifted to the newly developed English Language Proficiency Assessments for California (ELPAC). To maintain a stable measure of performance throughout our study, we focus on the long period during which CELDT was utilized to test English proficiency.

CDE classifies ELs in one of four categories: English Learner (i.e., a student who speaks a language other than English at home and scores below proficient on their initial assessment of English abilities), English Only (i.e., a student who speaks English only at home), Initial Fluent English Proficient (i.e., a student who speaks a language other than English at home but scores as proficient in English on an initial assessment upon school entry), and Reclassified Fluent English Proficient (i.e., an English learner who has been reclassified).

We restrict our primary analytic sample to students who were in kindergarten in California public schools at some point between 2006 and 2017. We use CDE's indicator of EL status to create a binary measure of whether a student was classified as an EL in kindergarten (we call these students "kindergarten ELs" or "K-cohort ELs").

Our full sample includes all students who began kindergarten between 2006 and 2017, regardless of their EL status. We link students to the fall of the first school year in which they attended kindergarten and count grades from that point (e.g., a 3rd-grader is a student in their third school year after the year of kindergarten entry). The examination of learning outcomes by years since kindergarten is based on the recognition that grade progression (and grade repetition) are potential outcomes influenced by the quality of learning conditions in schools; thus, the grade in which a student is observed in a particular

year may in part be endogenous to policy reforms.[4] By focusing on K-cohort ELs for our analysis, we exclude students who enter California's public schools after kindergarten; their acquisition of English and academic achievement patterns are less studied and may look different from their peers, especially if they are newcomers to the United States (Umansky et al., 2022). Our primary analytic sample thus includes 5,854,122 students across 13 kindergarten cohorts between 2006 and 2018. We can track EL status for 97.3% of them, and 35.8% (roughly 2.10 million) received English language services in kindergarten. Our analytic sample excludes the 2018 kindergarten cohort because insufficient time passed to observe their outcomes before 2019, our last year of data.

Methods

Previous work describing the pathways of kindergarten ELs to English proficiency in California has focused on more limited time periods and a limited number of school districts. Hopkins and colleagues (2013) focused on the cohort of Sanger Unified School District students entering kindergarten in 2003 and followed them longitudinally for 7 years to show that most students reached intermediate English proficiency on the California English Language Development Test (CELDT) within 2 years but could take up to 7 years to reach Early Advanced or Advanced benchmarks (the levels necessary for reclassification). Thompson (2012) utilized 9 years of data from the Los Angeles Unified School District to show that students typically took between 4 and 5 years to reach English proficiency on the CELDT. Other national work has shown a similar time frame of 4 to 7 years (Cook et al., 2012; Hakuta et al., 2000; Linquanti & Hakuta, 2012).

In general, research of the nation overall shows that about half of ELs have been reclassified by the end of their elementary years (Grissom, 2004; Thompson, 2012, 2017; Umansky & Reardon, 2014). But reclassification processes are highly variable across districts, and attempts to standardize them statewide have thus far only partially succeeded. California law allows for reclassification when students meet English proficiency, demonstrate the attainment of basic academic skills, and receive parent and teacher approval. Though these criteria may seem straightforward, each district can choose what test to use to assess basic skills and what minimum thresholds for scores to use to satisfy reclassification requirements. A recent survey of 231 California school districts, which educate one third of the state's EL population, showed that "districts use a huge range of assessments and benchmarks" (Hill et al., 2021). Even across a single district, reclassification policy can change many times in a short period. For example, between September 2009 and May 2015, Los Angeles Unified—the California district with the most English learners—changed its reclassification guidance four times (Aquino & Loera, 2013; Elliott, 2009; Loera & Maldonado, 2014, 2015). Previous research unsurprisingly shows that different district reclassification policies correlate with different district reclassification rates (Hill et al., 2014). Therefore, although this report also shares the trends in reclassification rates, it primarily focuses on English proficiency as measured only by the consistent statewide test: the CELDT.

In this study that uses population student-level longitudinal data drawn from the entire universe of California public schools, we are able to examine multiple cohorts of kindergarten ELs and their subsequent learning outcomes for a longer time span than has been previously examined in the literature. This report examines the demographic characteristics, academic achievement, and English proficiency of California's kindergarten ELs over a 14-year time period (2006–2019). There is some work that assessed other regions of the country (e.g., Cook et al., 2008; Hakuta et al., 2000) and investigated this question of English proficiency acquisition and academic achievement for kindergarten ELs. Our analyses of the learning outcomes of California schoolchildren present a unique opportunity to illuminate potential progress and acquire new insights into the ongoing considerations related to California's racial and ethnic, socioeconomic, and linguistic diversity; the immense size of the EL population; and the complex set of policy changes that occurred over this time frame that may have shaped students' learning trajectories.

This report examines the demographic characteristics, academic achievement, and English proficiency of California's kindergarten ELs over a 14-year time period (2006–2019).

We first describe the demographic composition and academic achievement of kindergarten ELs in California and changes in these areas over time. Then, we use scores on state-administered standardized tests to gauge academic achievement. We convert test scores to national grade-level equivalent units (informed by the National Assessment of Educational Progress) in a process described in Appendix A (Reardon et al., 2019). Finally, we present the cumulative proportion of K-cohort ELs who reach important proficiency milestones and are reclassified using a discrete-time survival analysis. This process is described in more detail in Appendix A.

Key Findings

Changing Composition of California's Kindergarten ELs

The California Department of Education (CDE) regularly reports the share of English learners by home language on its website. Spanish is the most common spoken language, followed by Vietnamese, Mandarin, Arabic, Cantonese, and Tagalog (California Department of Education, 2024). But because reclassification moves many students out of EL status, and the reclassification rates of students in different language groups also differ, these numbers do not necessarily match the home language composition of kindergarten ELs, nor do they describe changes over time. For example, if students from one home language group are reclassified more quickly than others, then that language group may represent a higher share of kindergarten ELs (K-cohort ELs) than current ELs.

The language composition of kindergarten ELs in California is changing. More than three quarters of all students speak Spanish upon entering California schools as kindergarten ELs. This percentage has decreased over time, with Spanish speakers accounting for 83.8% of kindergarten ELs in 2006 and 77.3% in 2018 (a decrease of 6.5 percentage points, or 8%). As the percentage of students entering kindergarten and speaking Spanish as their home language decreased, the share representing other languages grew (see Figure B2). Mandarin recently replaced Vietnamese as the second most-spoken home language among kindergarten ELs. The prevalence of kindergarten ELs speaking Mandarin in the home more than doubled over the time span of our data and is now at 2.9% of kindergarten ELs. Arabic's prevalence more than doubled over this time span as well, replacing Korean as the fifth most-spoken language of kindergarten ELs. Finally, California's linguistic diversity overall increased, with other languages now representing more than 12% of the non-English-speaking kindergarteners in the state. In 2018, these other languages included Russian (1%), Punjabi (1%), Tagalog (1%), Farsi (0.72%), Japanese (0.73%), and Armenian (0.66%), among many others.

We also note that the socioeconomic status of entering cohorts slightly changed. Socioeconomic status is calculated based on the percentage of students who are eligible for free or reduced-price lunch or whose parents or guardians have not received a high school diploma.[5] We find that the percentage of kindergarten ELs from households with low socioeconomic status increased slightly, from 67.8% in 2006 to 68.7% in 2018 (an increase of 0.9 percentage points, or 1.31%). This percentage has fluctuated, though, reaching its peak in 2012 during the Great Recession, when 79.4% of kindergarten ELs were from households with low socioeconomic status. Spanish-speaking ELs are more likely than those in other major home language groups to be from households with low socioeconomic status. (see Figure B3).

We also explore the distribution of scores on an initial exam of English proficiency, the California English Language Development Test (CELDT), which students took upon their entry into California schools through the end of the 2017–18 school year. In Figure B4, we observe that the percentage of students scoring in the Beginning level of proficiency decreased modestly, from 46.3% to 40.1% (a reduction of 6.2 percentage points, or 13%). The percentage of students scoring Early Intermediate increased slightly, as did the percentage of students scoring Intermediate, such that the percentages of students scoring Early Advanced or Advanced (i.e., clearing the CELDT threshold for Initial Fluent English Proficient) have

not changed over time. We therefore conclude that more recent cohorts are slightly more proficient in English upon entry to kindergarten, though these small increases likely do not explain the much larger improvements in proficiency and reclassification documented in this report.

Finally, Figure B5 shows the relationship between home language and initial CELDT scores. Mandarin-speaking kindergarteners generally enter school with higher initial CELDT scores on average than other subgroups, with more than half scoring Intermediate or above on their initial exam; by contrast, fewer than one third of Spanish-speaking kindergarteners scored Intermediate or above on their initial exams. Therefore, the slight increase in initial CELDT scores observed in Figure B4 may be explained by the changing home language composition of California's K-cohort ELs.

Trends in Academic Achievement of California's Kindergarten ELs

In Figure 2, we show the traditional snapshot view of the achievement gap in English language arts (ELA) and math.[6] We use 3rd-grade test scores because 3rd grade is the first tested grade on the California Assessment of Student Performance and Progress. Panels A and B present a traditional view of the achievement gap, comparing 3rd-grade students who receive EL services (Gr. 3 ELs) with all other students (Gr. 3 Not-ELs). In this snapshot, we find a widening achievement gap in both ELA and math between 3rd-graders who are designated EL and those who are not. But, as explained earlier, many of the highest-achieving EL students are most likely to be reclassified, thus entering the non-EL pool and widening the size of the apparent gap. Forty-one percent of ELs in the most recent K cohort to reach 3rd grade were reclassified by the end of 3rd grade, so the omission of reclassified students from the EL category can substantially skew the interpretation of results by masking the progress made by English learners.

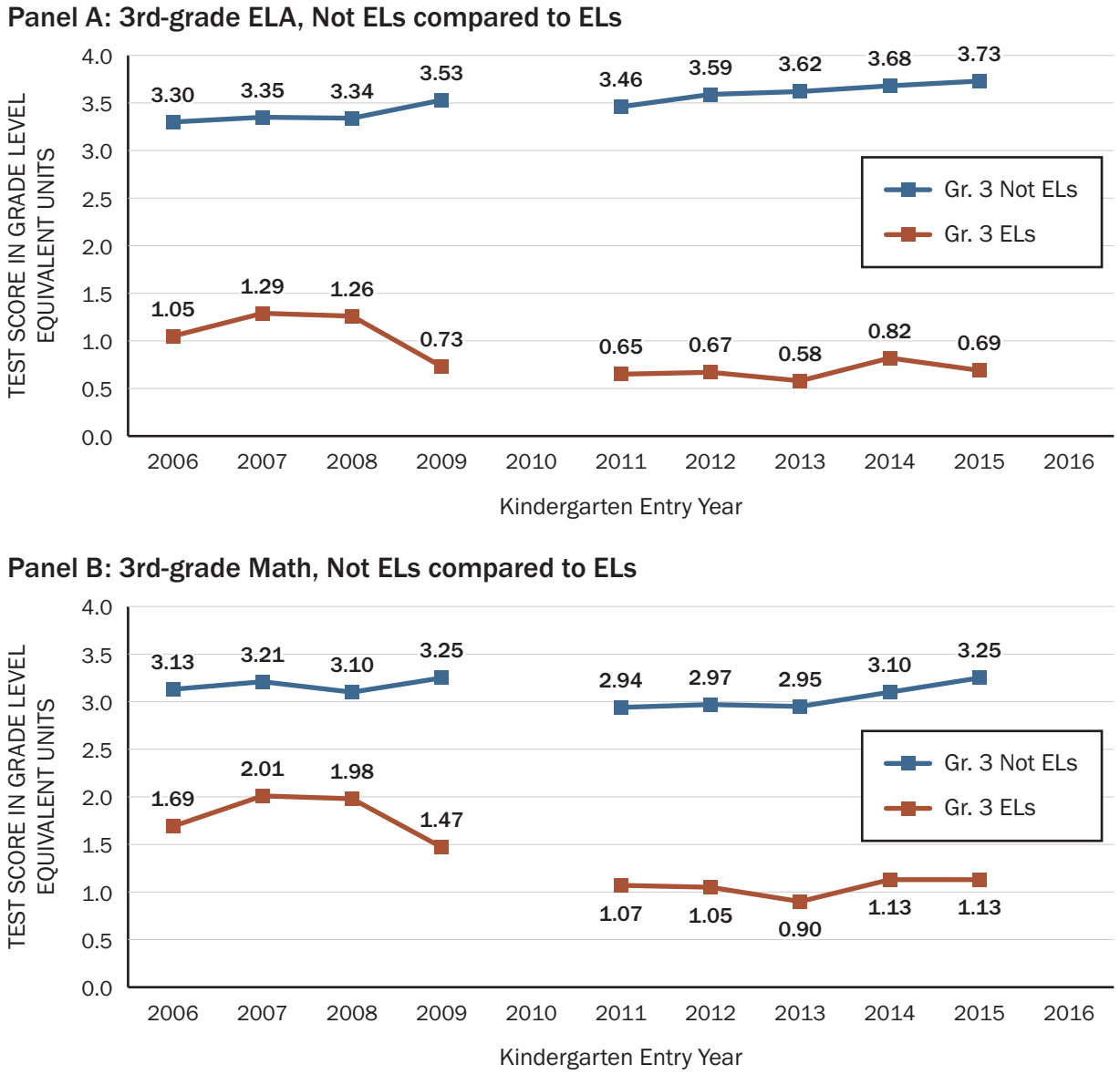
In Figure 3, we instead show 3rd-grade academic achievement using the K-cohort EL framework. In this framework, we focus on all students who were English learners in kindergarten (K ELs) and track their outcomes over time into 3rd grade, then compare them with students who were not English learners in kindergarten (K never-ELs). We observe two key phenomena.

First, we find that achievement in 3rd grade for K-cohort ELs improved in both math and ELA over this time period. We see that the 3rd-grade test scores of K-cohort ELs improved by 0.70 grade levels in ELA between the cohorts that began kindergarten in 2006 and 2015 and that 3rd-grade K-cohort ELs were performing in ELA above a 2nd-grade level in 2018–19. In math, K-cohort ELs improved by 0.19 grade levels and were also performing above a 2nd-grade level in 3rd grade.

Achievement in 3rd grade for K-cohort ELs improved in both math and ELA over this time period.

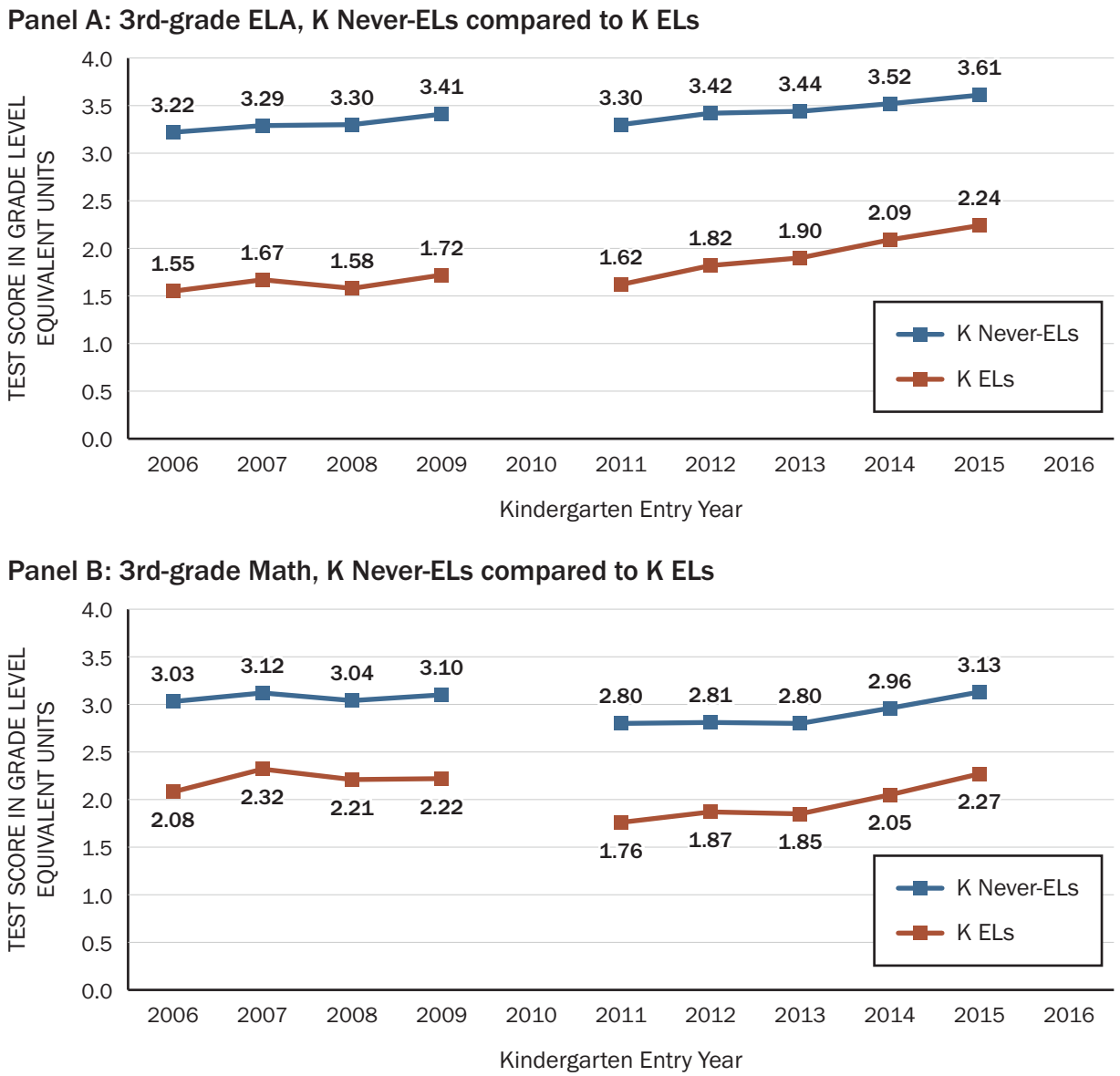
Second, in contrast with what is shown in Figure 2, the kindergarten EL framework shows that the achievement gap between students entering kindergarten as ELs and those who did not start kindergarten as ELs shrank in both subjects. In math, for students in the 2006 K EL cohort, K never-ELs outperformed K ELs by 0.95 grade levels. For the 2015 cohort, the math achievement gap remained but declined 9% to a gap of 0.86 grade levels. The 3rd-grade ELA achievement gap shrank from 1.67 grade levels for the 2006 cohort to 1.36 grade levels for the 2015 cohort (a 19% decrease). These findings are consistent with prior research showing larger achievement gaps for ELs in ELA than in math (Kim & Herman, 2009; Santibañez & Umansky, 2018).

Figure 2. Academic Achievement of California Students Classified as English Learners



Source: California Department of Education data. Researcher calculations.

Figure 3. Academic Achievement of California's K-Cohort English Learners



Source: California Department of Education data. Researcher calculations.

Acquisition of English Proficiency for California's Kindergarten ELs

In addition to striving to improve the academic achievement of ELs, schools specifically aim to improve their students' English proficiency. Schools administer annual tests to determine whether their EL students are making progress toward English proficiency. From 2000 through spring 2017, California used the CELDT to measure progress to proficiency relative to a student's grade level.[7] The CELDT measured not only overall proficiency levels but also proficiency across four domains: listening, speaking, reading, and writing. During this time period, districts typically required students to score a 4 (Early Advanced) overall and a 3 (Intermediate) or above on each of the eligible subtests to be considered proficient.[8] We describe how this overall score is calculated in Appendix A.

We investigated the percentage of K-cohort EL students who have reached Level 3 Intermediate on each domain. Looking at these domains helps us identify which domains grew over this time period and which areas persist as barriers to reclassification. We present our results in Figure B6, in which each panel represents one of the CELDT domains between 2006 and 2015.[9] We show the cumulative percentage of students meeting the threshold on the *y*-axis and denote kindergarten cohorts on the *x*-axis, with the color of the bars showing the grade when kindergarten EL students in that cohort reached the Level 3 score on that domain.

Figure B6 shows improvements occurred across listening, speaking, and reading, with the largest cohort changes in the rate of acquisition in reading attainment. The percentage of students scoring a 3 (Intermediate) or higher on the CELDT writing exam at the end of 1st grade was relatively flat between the entering cohorts from 2009 to 2015, while the percentage scoring Intermediate for reading improved by 23.0%, the percentage scoring Intermediate for speaking improved by 19.7%, and the percentage scoring Intermediate for listening improved by 16.7%.

Improvements occurred across listening, speaking, and reading, with the largest cohort changes in the rate of acquisition in reading attainment.

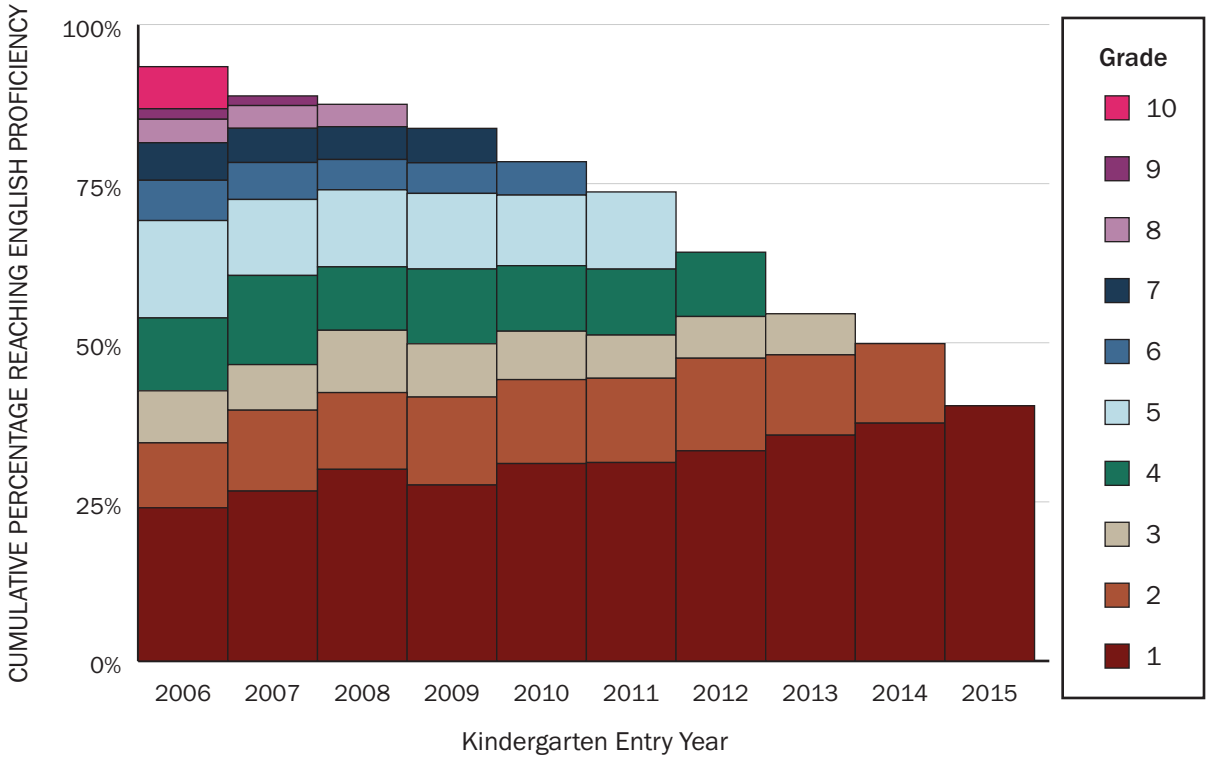
Additionally, as expected, K-cohort EL students generally scored Intermediate in listening and speaking much earlier than they did in reading and writing. Specifically, in the most recent cohort in our sample, 69.7% of K-cohort EL students scored Intermediate in listening by the end of 1st grade, and 77.7% scored Intermediate in speaking, while only 43.1% scored Intermediate in reading and 34.3% scored Intermediate in writing.

These differences shrink as students age, but they still persist. In our most recently observed cohort of 5th-grade K-cohort ELs, 96.3% scored Intermediate in listening, and 97.3% scored Intermediate in speaking, while 84.9% scored Intermediate in reading and 88.9% scored Intermediate in writing. This indicates that reading and writing may be areas with the potential for growth in the pursuit of English proficiency.

For an EL student to be reclassified during our study period, they must have met several criteria, including English proficiency. Districts typically, though not always, define English proficiency as obtaining a combined set of scores: an Early Advanced (Level 4) overall score on the CELDT and Intermediate (Level 3) scores in each of its four domains. This is the same definition for proficiency as the assessment itself recommended, as explained in Table A1. We use that definition in Figure 4 to present the cumulative percentage of kindergarten EL students meeting proficiency in each cohort.

Figure 4 demonstrates that kindergarten EL students are reaching proficiency earlier than before. For kindergarteners in 2006, only 23.4% of K-cohort EL students were at this level by the end of 1st grade. For kindergarteners in 2015, 40.0% had reached this level (a two thirds increase). For the older cohorts that we can observe through the end of 5th grade, Figure 4 also shows that proficiency acquisition by the end of elementary school did not change much. In 2006, our first class, 67.7% of K-cohort EL students reached Early Advanced by the end of 5th grade. For the kindergarten cohort of 2011, the most recent cohort that we can follow through the end of their elementary years, 72.2%—a little less than three quarters—of kindergarten ELs reached Early Advanced on the CELDT by the end of 5th grade.

Figure 4. Cumulative Percentage of K-Cohort ELs Meeting State Guidance for English Proficiency on CELDT



Source: California Department of Education data. Researcher calculations.

Acquisition of English Proficiency for Kindergarten ELs, by Initial Level of Proficiency

EL students are designated as such because they speak a language other than English at home and have not received a proficient score on their initial exam upon entering California schools. Even among EL students, all of whom are classified as not meeting the minimal score to be deemed proficient upon entry, English skills vary. Between 2006 and 2019, approximately 42% of EL students scored at a Beginning level (Level 1) of English on their initial CELDT, while the remaining 58% demonstrated at least Early Intermediate (Level 2) skills. Furthermore, initial CELDT scores differ based on home language group, with Spanish-speaking students scoring lower than Vietnamese-, Mandarin-, and Cantonese-speaking students upon entry into California schools. We might therefore be interested in determining how quickly students reach English proficiency on the CELDT based on their initial English proficiency level—expecting that students with higher scores upon entry reach the proficiency benchmark faster—and whether observed improvements in proficiency acquisition rates were sustained across the entire distribution.

In Figure B7, we analyze three panels of initial scores to find the rate at which students at that score level acquired English proficiency on the CELDT (as defined in Table A1) by their kindergarten cohort. Panel A shows the progress for students with a low score of 250 (20th percentile), Panel B shows progress for

students entering with a middle score of 325 (37th percentile), and Panel C shows progress for students entering with a high initial score of 400 (75th percentile). We find significant improvements in the likelihood of English proficiency acquisition in early elementary school grades across successive cohorts of students at all parts of the distribution of initial (K) English proficiency. Specifically, between 2006 and 2015, the percentage of students with low initial scores who were proficient by the end of 1st grade improved by 112%, while the percentage with middle initial scores improved by 95% and the percentage with higher initial scores improved by 64%. However, by the end of elementary school, after all students in our data had attended California public schools for 6 years (or more, if they attended TK), large gaps still remain. For the most recent cohort we can observe through the end of 5th grade on CELDT, only 43.1% of K-cohort ELs with low initial scores reached English proficiency by the end of 5th grade, compared with 89.7% of K-cohort ELs entering with high initial scores who reached proficiency by this point.

Time to Reclassification and Long-Term English Learners

Reclassification in California is determined based on four criteria: meeting English proficiency, demonstrating basic academic skills on English language arts, receiving parent or guardian approval, and obtaining teacher approval. In this report, we note that rates of English proficiency acquisition and ELA test scores are improving on state standardized tests (a common indicator of the basic academic skills criterion). We then ask whether this improvement has translated into faster reclassification and/or more reclassification (i.e., whether students are being reclassified earlier in elementary school and/or whether more students are being reclassified in elementary school overall).

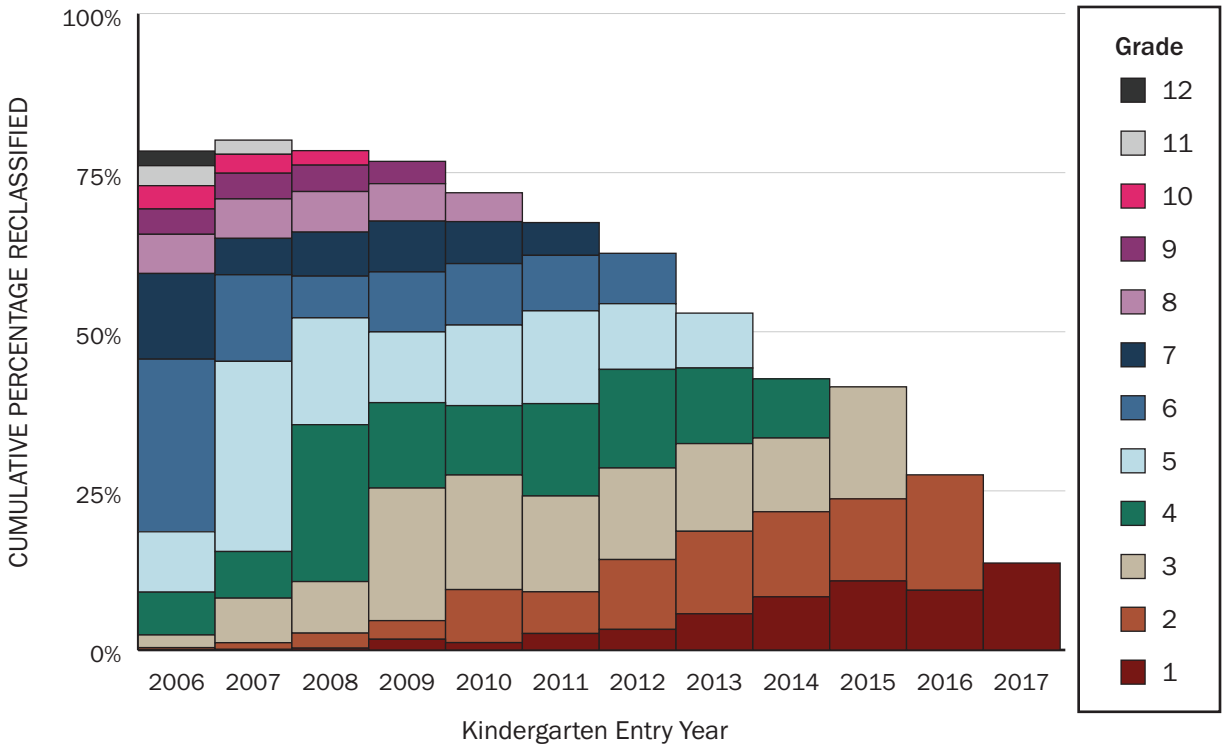
Figure 5 shows that reclassification rates by the end of 5th grade were approximately steady between the kindergarten cohorts of 2008 and 2013 (our most recently observed cohort) but that more reclassification is occurring in earlier elementary grades. In the kindergarten cohort of 2008, fewer than 1% of EL students had been reclassified by the end of 1st grade. In the kindergarten cohort of 2017 (the most recent cohort that we have observed finishing 1st grade), 13.7% had been reclassified by that point in time.

Figures 4 and 5 together demonstrate the gap between English proficiency and reclassification.[10] Though 72% of K-cohort EL students were designated as English proficient on the CELDT by the end of 5th grade and thus were eligible for reclassification based on that criterion, barely 50% were actually reclassified.

Figure 5 also shows big changes between the kindergarten cohorts of 2006 and 2008. In 2006, the first cohort studied, we observe that only 18.6% of K-cohort EL students were reclassified by the end of 5th grade. In the 2008 kindergarten cohort, 52.2% of EL students were reclassified by that same point in time.

After the kindergarten cohort of 2008, however, we do not observe large improvements in the rates of reclassification by the end of elementary school. In the kindergarten cohort of 2013 (the most recent cohort we can observe finishing 5th grade), we see that 52.9% of students were reclassified by the end of elementary school. In other words, the percentage of students who are Long-Term English Learners (LTELs)—traditionally defined as students who were classified as English learners for more than 6 years without making steady progress (Menken et al., 2012)—was stable for the kindergarten cohorts from 2008 through 2013.

Figure 5. Cumulative Percentage of K-Cohort ELs Reclassified by Grade and Year



Source: California Department of Education data. Researcher calculations.

To further explore the rates of students becoming LTELs and the composition of that group by home language, socioeconomic status, and initial proficiency levels, we focus on a single cohort—the kindergarten cohort of 2010, the last cohort for which we can observe the conclusion of middle school in 8th grade—and present descriptive statistics in Table 1.

We observe that 48.5% of K-cohort ELs were reclassified in elementary school. Among those who were not reclassified (e.g., LTELs), we observe that more than half scored proficient on the CELDT, again demonstrating the gaps between proficiency and reclassification discussed earlier. In middle school, another 18.8% of K-cohort ELs were reclassified. Put another way, among K-cohort ELs for whom we can observe reclassification data in both elementary and middle school, 73.1% were reclassified by the end of middle school. This leaves more than one quarter of K-cohort ELs who were enrolled in California schools for 9 years but were yet not reclassified.

Table 1 also shows the reclassification rates by home language, socioeconomic status (SES), and initial CELDT proficiency level. Spanish speakers, students from households with low SES, and students with lower initial English proficiency scores were more likely to be LTELs.

Table 1. Characteristics of Long-Term English Learners

Percentage of Kindergarten ELs	Overall		Home Language							SES	Initial CELDT Proficiency Level		
	N	Of K-Cohort ELs	Spanish	Vietnamese	Mandarin	Cantonese	Arabic	Korean	Other	Low SES	Beginning	Early Intermediate	Intermediate
Reclassified in ES	85,497	48.5	45.5	69.5	76.5	73.8	49.6	68.3	58.5	45.8	33.7	55.5	70.3
Not Reclassified in ES (LTELs)	80,396	45.6	49.2	26.3	14.9	23.6	37.7	14.4	31.0	49.2	59.7	39.5	24.5
Of LTELs													
Ever Proficient on CELDT	45,296	25.7	54.9	77.7	86.9	77.1	59.7	80.0	64.5	54.9	46.0	72.0	86.6
Never Proficient on CELDT	35,100	19.9	45.1	22.3	13.1	22.9	40.3	20.0	35.5	45.1	54.0	28.0	13.4
Of LTELs													
Reclassified in MS	33,133	18.8	41.1	47.7	31.3	52.0	37.2	35.9	41.1	41.0	37.8	44.4	45.4
Not Reclassified in MS	43,577	24.7	54.6	49.2	61.3	44.6	50.9	54.7	51.3	54.7	57.6	51.6	49.8
No Reclass. Data for MS	3,686	2.1	4.3	3.1	7.5	3.4	11.9	9.4	7.6	4.3	4.5	4.0	4.9
No Reclassification Data for ES	10,511	6.0	5.3	4.2	8.6	2.7	12.8	17.3	10.6	5.0	6.6	5.0	5.2

Note: ES = elementary school; MS = middle school. This table shows descriptive statistics for kindergarten-present ELs from the kindergarten cohort of 2010, the most recent class of data with complete proficiency data for 6 years that we can also observe through the end of middle school. We then compare the overall population of K ELs in that class to those who become Long-Term English Learners (LTELs) and disaggregate LTELs into those who have already been classified as proficient but not been reclassified versus those who have not been classified as proficient. We also disaggregate LTELs into those who are later reclassified in middle school, those who are not, and those whose reclassification data we do not observe during that period. Finally, we give descriptive statistics for K EL students who were reclassified within 6 years and for students who we do not observe for all 6 years and for whom we do not observe a reclassification.

Source: California Department of Education data. Researcher calculations.

Discussion

This report uses population student-level longitudinal data from the California Department of Education (CDE) from 2006 through 2019 to illuminate the demographic characteristics and pathways of students who were classified as English learners in kindergarten. We find that most kindergarten ELs in California speak Spanish in the home, though that percentage decreased over this time span as other languages, such as Mandarin and Arabic, became more common. We also find that kindergarten ELs were slightly more socioeconomically disadvantaged than their peers. We additionally find that achievement steadily improved for kindergarten ELs in math and English language arts (ELA) and that achievement gaps shrank in both subjects. Our results also highlight how cross-sectional snapshots and reliance on aggregated time-series data can provide a misleading portrait of the patterns of achievement among students initially classified as English learners in kindergarten.

We also find that more recent cohorts of kindergarten EL students reached English proficiency earlier in their school years than did previous cohorts. In our most recent cohort, almost 40% reached English proficiency by the end of 1st grade. We additionally find improvements in English proficiency among students across the distribution of initial English proficiency, but gaps remain, especially for students entering kindergarten with low levels of English proficiency. Barely more than 40% of that group were proficient by the end of 5th grade in the K-cohort ELs that started school between 2006 and 2011.

For older cohorts that we could follow into elementary and middle school, the proportion of students reclassified by the end of elementary school has not changed. In our most recent cohort that we can observe through the end of middle school with complete proficiency data (i.e., the kindergarten cohort of 2010), 45.6% were not reclassified by the end of elementary school (after 6 years observed in California schools), and 24.7% were not reclassified by the end of middle school (after 9 years in California schools). Given reclassification's role in increasing ELs' access to mainstream curriculum and improving ELs' sense of self-efficacy (Lee & Soland, 2023), these improvements in the speed of reclassification are important to document, as is the prevalence of non-reclassified students in middle school (e.g., LTEL students).

These results show significant improvements in the academic achievement and English proficiency acquisition rates of California's kindergarten ELs for the cohorts that began kindergarten between 2006 and 2015.

Taken together, these results show significant improvements in the academic achievement and English proficiency acquisition rates of California's kindergarten ELs for the cohorts that began kindergarten between 2006 and 2015, likely related to improvements in the school learning environments that kindergarten ELs experienced. Our results suggest that some combination of the policies described earlier—from more rigorous requirements for teacher preparedness for ELs to increased funding and the introduction of transitional kindergarten (TK)—has likely contributed to this improvement in EL outcomes.

Our descriptive methodologies do not allow us to conclude which policies contributed most to this positive change, nor whether some policies had negative effects that were outweighed by more positive ones. The patterns of continued improvement for academic achievement in math and ELA across successive cohorts of kindergarten ELs are aligned with the timing of Local Control Funding Formula

(LCFF) implementation and the staggered rollout of increased funding between 2015 and 2019, while the improved rate of progress over time to achieve English proficiency appears to be gradual and steadily improves throughout the analysis period, suggesting a potentially positive role played by the policies of the early 2000s, such as the *Williams v. California* mandate that teachers earn EL-appropriate credentials.

We encourage future research to tease out these causal mechanisms—including the role of LCFF as it became fully funded, the introduction of TK and its ongoing expansion, and the return of bilingual programming—and to include future years of data that will allow us to assess the effects of policies and potential synergies between them. In addition, as more recent cohorts—which have experienced higher rates of TK enrollment and more robust funding for traditionally underserved subgroups through LCFF—progress into middle and high school, future research should monitor whether rates of proficiency acquisition and reclassification by the end of elementary school improve. Future research could also examine the lingering effects of COVID-19 on the trends established in this report.

Our research also demonstrates how much work remains to improve EL outcomes. For the cohorts we were able to study through 5th grade (i.e., those that began kindergarten between 2006 and 2013), the percentage of students reaching proficiency by the end of elementary school remained almost flat between 2008 and 2013, demonstrating the challenge the state has had in trying to reduce the number of Long-Term English Learners (LTELs). As the newer cohorts of kindergarten ELs—who have experienced more funding under LCFF, along with TK and more fully prepared teachers—move through the schooling system, researchers will be able to see whether EL progress is accelerated further.

We believe our findings have three important policy implications.

1. **This report demonstrates the need for additional monitoring mechanisms for "ever ELs"** (a group that includes both current and former ELs) as a subgroup distinct from ELs and for tracking their academic trajectories after reclassification. California has begun this work by presenting ever ELs as a subgroup in the state standardized test score reporting system, but it still does not report ever ELs as a subgroup on the California School Dashboard. Even this ever EL subgroup includes EL students who enrolled after kindergarten who likely should be separated from kindergarten ELs to demonstrate their distinct academic trajectories.

2. **This work illuminates the gap between when students achieve English proficiency and when they are reclassified.** We find that almost three quarters of K-cohort EL students are English proficient as measured by the California English Language Development Test (CELDT) by the end of elementary school, but only about half of K-cohort ELs were reclassified by that same time in their schooling. In California, where English proficiency represents only one of the four criteria students must meet to be reclassified, this discrepancy demonstrates that there were other barriers to reclassification, most likely the criterion requiring a student to demonstrate basic skills on another test of English language arts.

3. **Our work shows that students entering kindergarten with limited English skills have struggled.** Only 43% of students who entered with low English proficiency were proficient in English by the end of 5th grade for the most recent cohort we can observe (those who began kindergarten in 2011). This suggests a need to build targeted interventions in elementary grades that differentiate between students entering with intermediate or high English skills and those entering without that language familiarity.

In future work, we hope researchers will explore how these demographic, achievement, and proficiency patterns vary by district and school characteristics as well as identify the causal mechanisms that have led to the changes we observed. Finally, though this work focused on the academic achievement and English proficiency acquisition of kindergarten ELs, we hope future research will broaden the scope to include newcomer students and those arriving in later grades, whose learning trajectories are not well understood. Many questions remain, including further investigation into which programs, teachers, schools, or curricula can be most effective and for which students. Additional research is needed to understand which of the policies implemented during this time period contributed to the improved performance we document.

We believe these findings have national implications beyond the California context. Though California educates one eighth of all U.S. students and an even higher share of the country's English learners—making it the ideal setting to analyze English learner outcomes—ELs reside in other states too. Those states also face the challenge of achievement gaps between ELs and non-ELs, and a number have tried to improve these students' outcomes through a myriad of policy choices, from increasing funding to improving teacher training. The takeaway from this report—that outcomes for ELs in California are improving and policy changes can make a difference—should be a source of optimism nationwide and encourage policymakers to consider ways to support continued growth.

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Appendix A: Extended Methods

Academic Achievement (Figures 2 and 3)

We convert test scores to national grade-level equivalent units using test scores from the National Assessment of Educational Progress and following the methods described by Reardon and colleagues (2019). This approach enables our examination of academic achievement in reading and math to tease out potential absolute improvements (or declines) in learning outcomes across cohorts and grades, comparable to the national average for subject-specific achievement among the 2005 kindergarten cohorts in a standardized and consistent way.

Cumulative Proportion Analyses (Figures 4–5; Figures B6–B7)

We also present the cumulative proportion of kindergarten English learner (EL) students reaching English proficiency calculated using a discrete-time survival analysis (Willett & Singer, 2004). We write the equation as follows:

$$logit\left(h_{yg}^{i}\right) = \log\left(\frac{h_{yg}^{i}}{1 - h_{yg}^{is}}\right) = \sum_{y=2006}^{2015} \sum_{g=0}^{2017-y} \alpha_{yg} K_{yg}^{i}$$

where h_{yg}^{i} represents the hazard of achieving English proficiency for student i in grade g who entered kindergarten in year y (i.e., the probability that student i in kindergarten cohort y has reached English proficiency on the annually administered California English Language Development Test [CELDT] by grade g, conditional on that student not having previously scored at a proficient level). Because the CELDT was administered as a summative annual assessment only until the end of the 2016–2017 calendar year, we can only observe students on this outcome through that year. K_{yg}^{i} represents a series of dummy variables equal to 1 when a student i is in grade g from kindergarten cohort y. We use that same equation for each CELDT subtest and for reclassification rates, though our reclassification analysis additionally covers two cohorts that did not take the CELDT but for whom reclassification can be observed in our data.

We also present the cumulative proportion of kindergarten EL students reaching English proficiency conditional on their initial English proficiency score. We write the equation as follows:

$$logit\left(h_{yg}^{i}\right) = \log\left(\frac{h_{yg}^{i}}{1 - h_{yg}^{i}}\right) = \left[\sum_{y=2006}^{2015} \sum_{g=0}^{2017-y} \alpha_{yg} K_{yg}^{i}\right] + f\left(S^{i}\right)$$

This equation is similar to the previous one, except we now incorporate a function $f(S^{i})$ to incorporate a student's initial English proficiency score on the CELDT. Here, we specify f as a cubic function of students' initial CELDT score S^{i}.

Both proficiency and overall score are calculated following the CELDT Technical Guidance in the manner described in the table below.

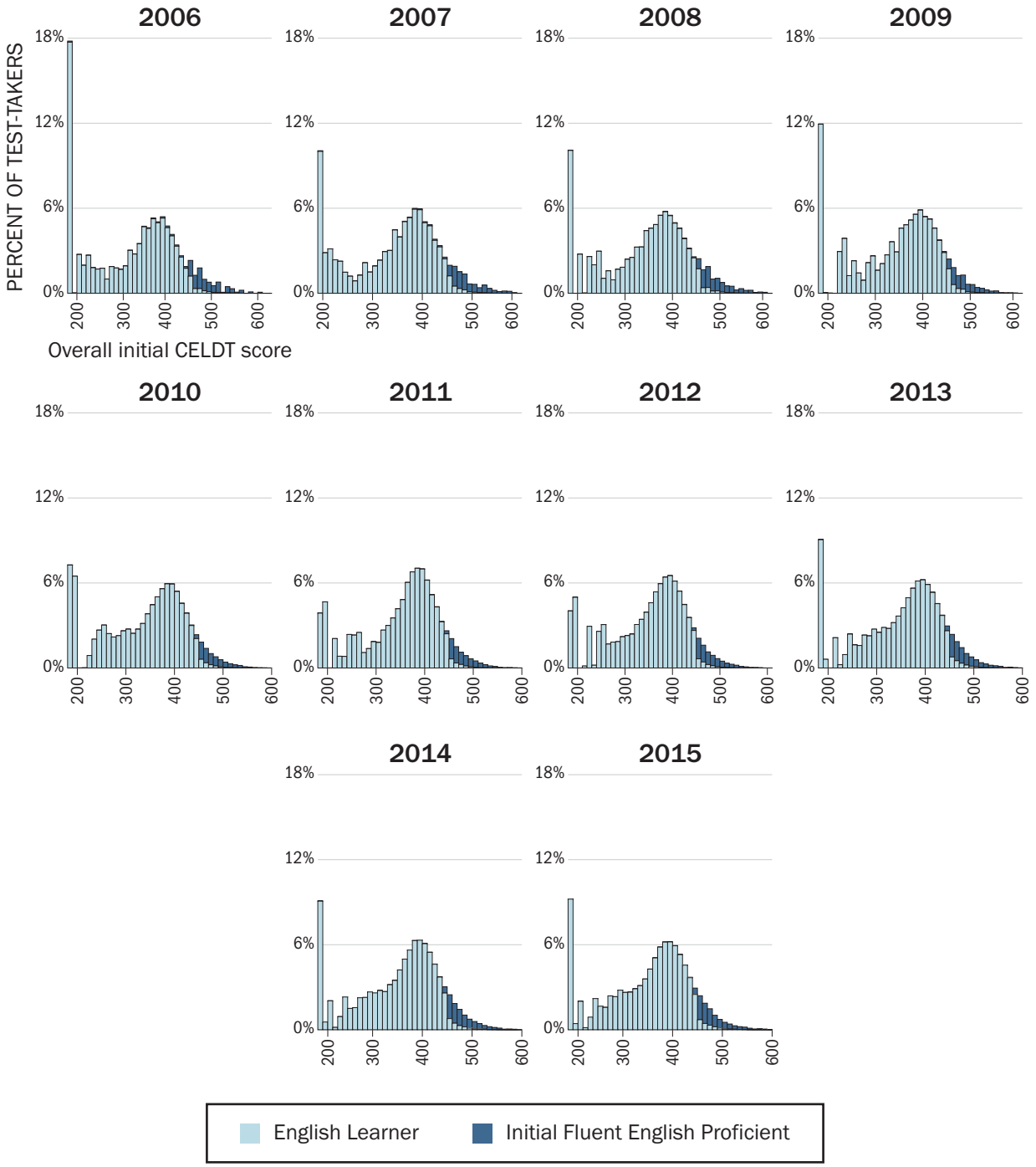
Table A1. Summary of CELDT Technical Guidance

Cohort	Grades K–1	Grades 2–12
Panel A: How is overall score calculated?		
2006–07 to 2009–10	50% Speaking, 50% Listening	25% Speaking, 25% Listening, 25% Reading, 25% Writing
2010–11 to 2016–17	45% Speaking, 45% Listening, 5% Reading, 5% Writing	25% Speaking, 25% Listening, 25% Reading, 25% Writing
Panel B: How is proficiency determined?		
2006–07 to 2016–17	Overall Score of Early Advanced (4) or Higher, as well as Intermediate (3) or Higher on Speaking and Listening	Overall Score of Early Advanced (4) or Higher, as well as Intermediate (3) or Higher on Speaking, Listening, Reading, and Writing

Source: CELDT Technical Manuals, publicly available at www.cde.ca.gov/re/pr/techreport.asp.

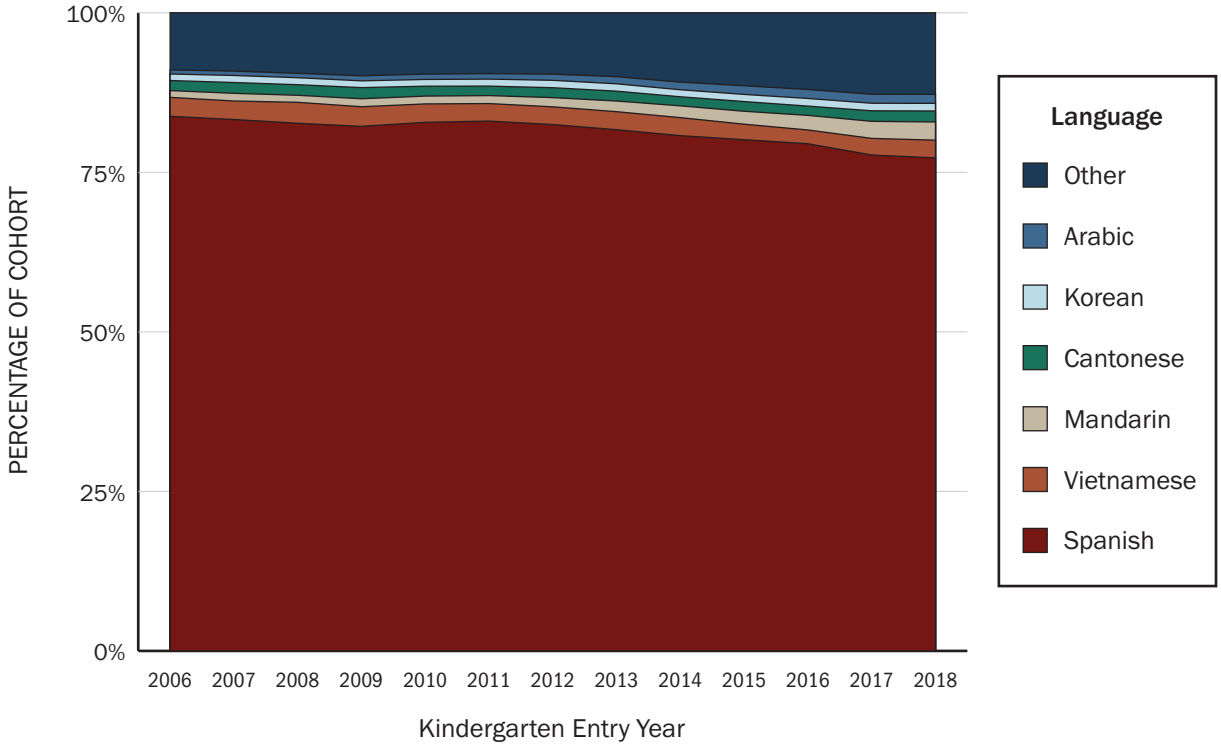
Appendix B: Additional Figures

Figure B1. Distribution of Initial CELDT Scores by K Cohort and IFEP



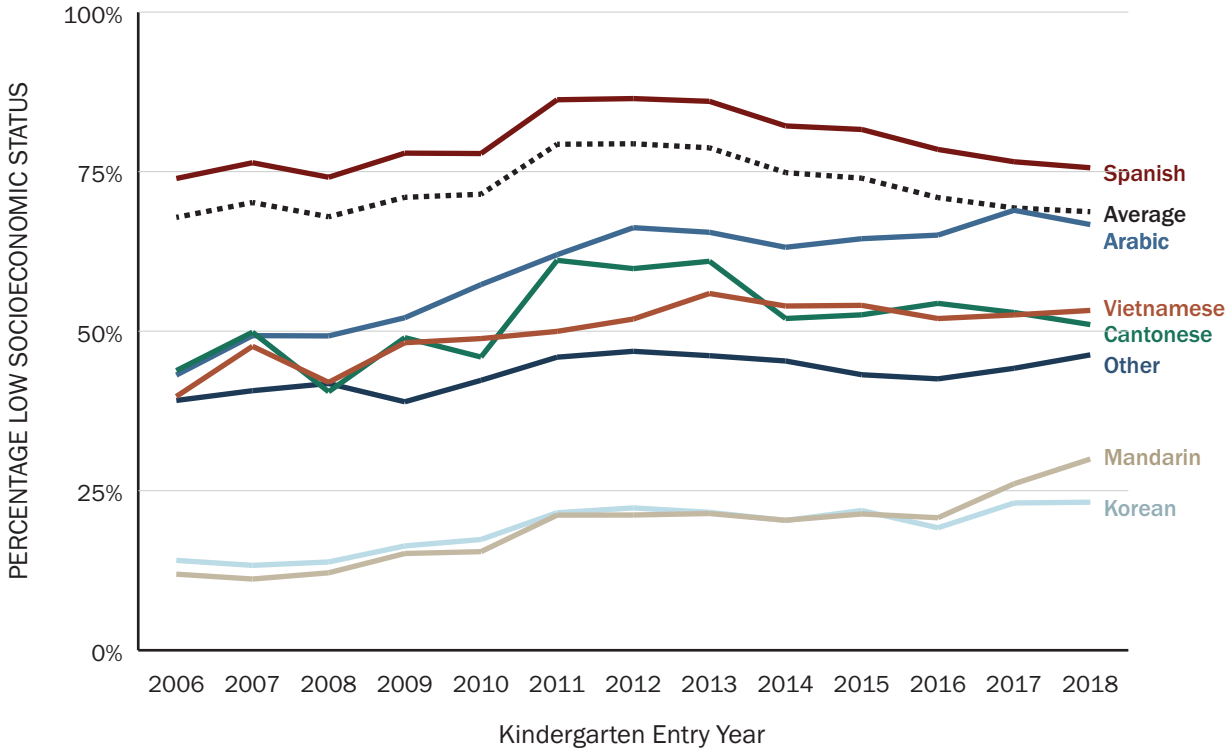
Source: California Department of Education data. Researcher calculations.

Figure B2. The Home Language of K-Cohort ELs



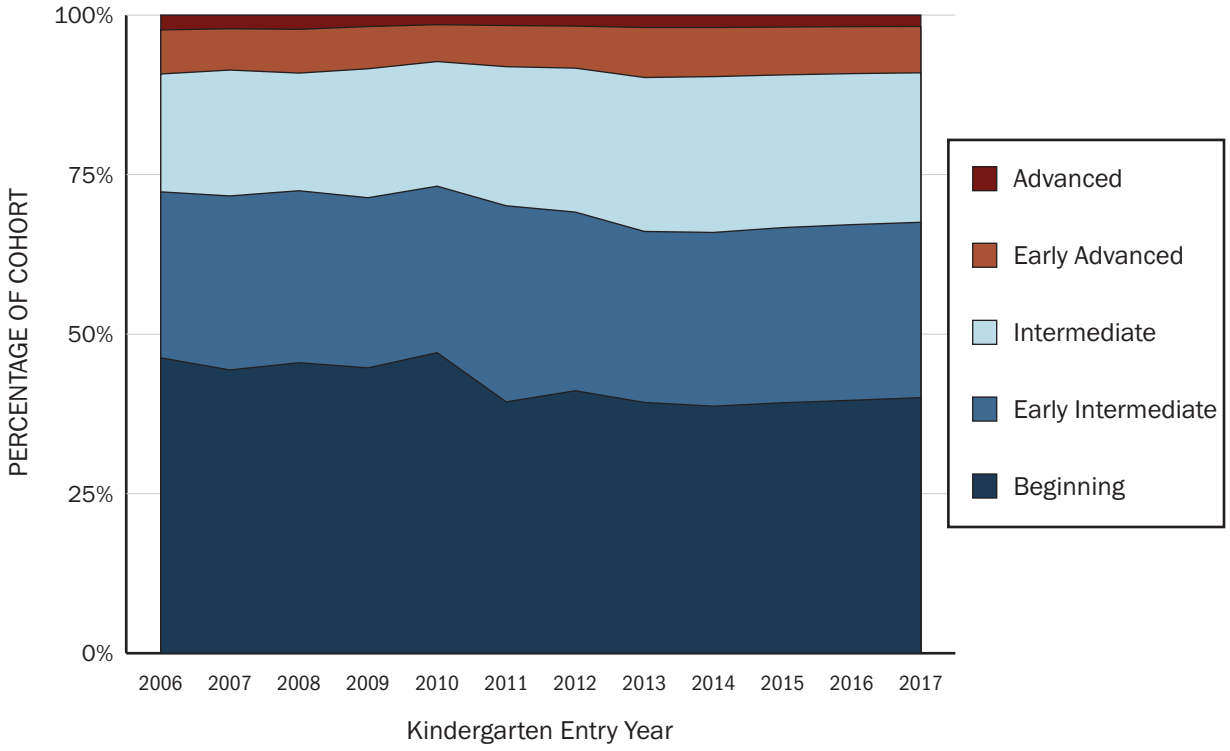
Source: California Department of Education data. Researcher calculations.

Figure B3. The Socioeconomic Status of K-Cohort ELs by Home Language



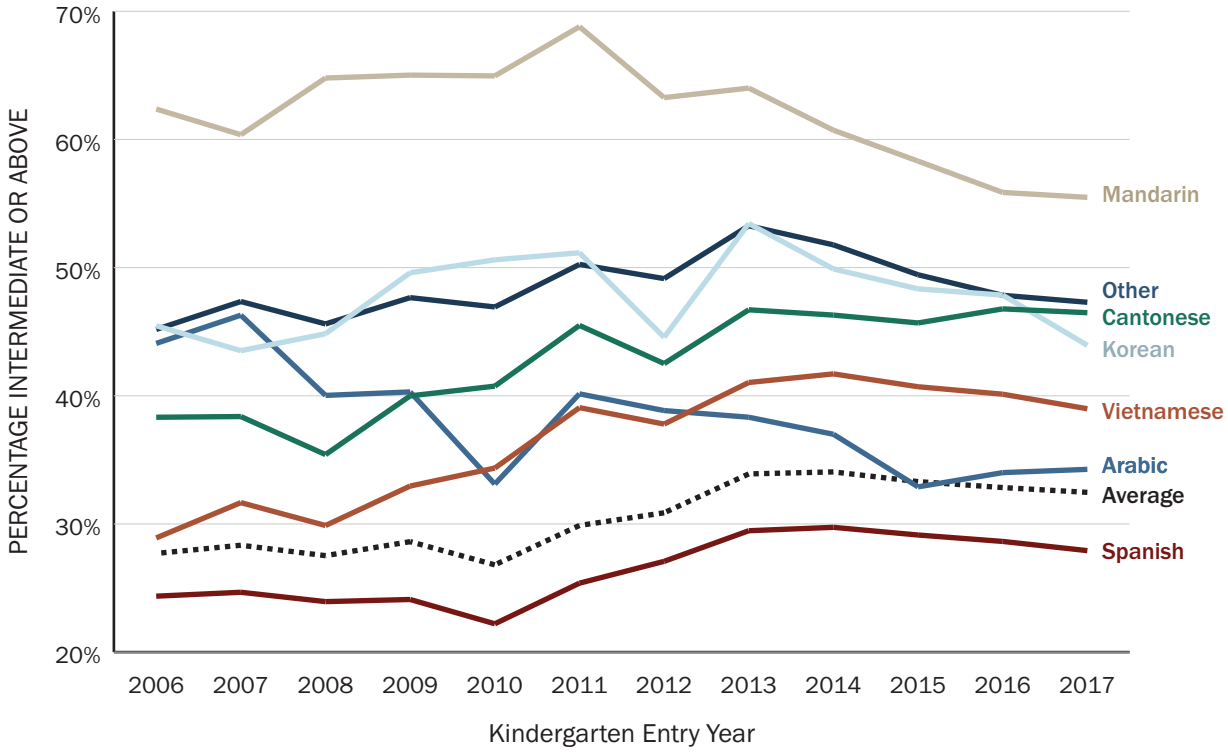
Source: California Department of Education data. Researcher calculations.

Figure B4. The Initial CELDT Distribution of K-Cohort ELs



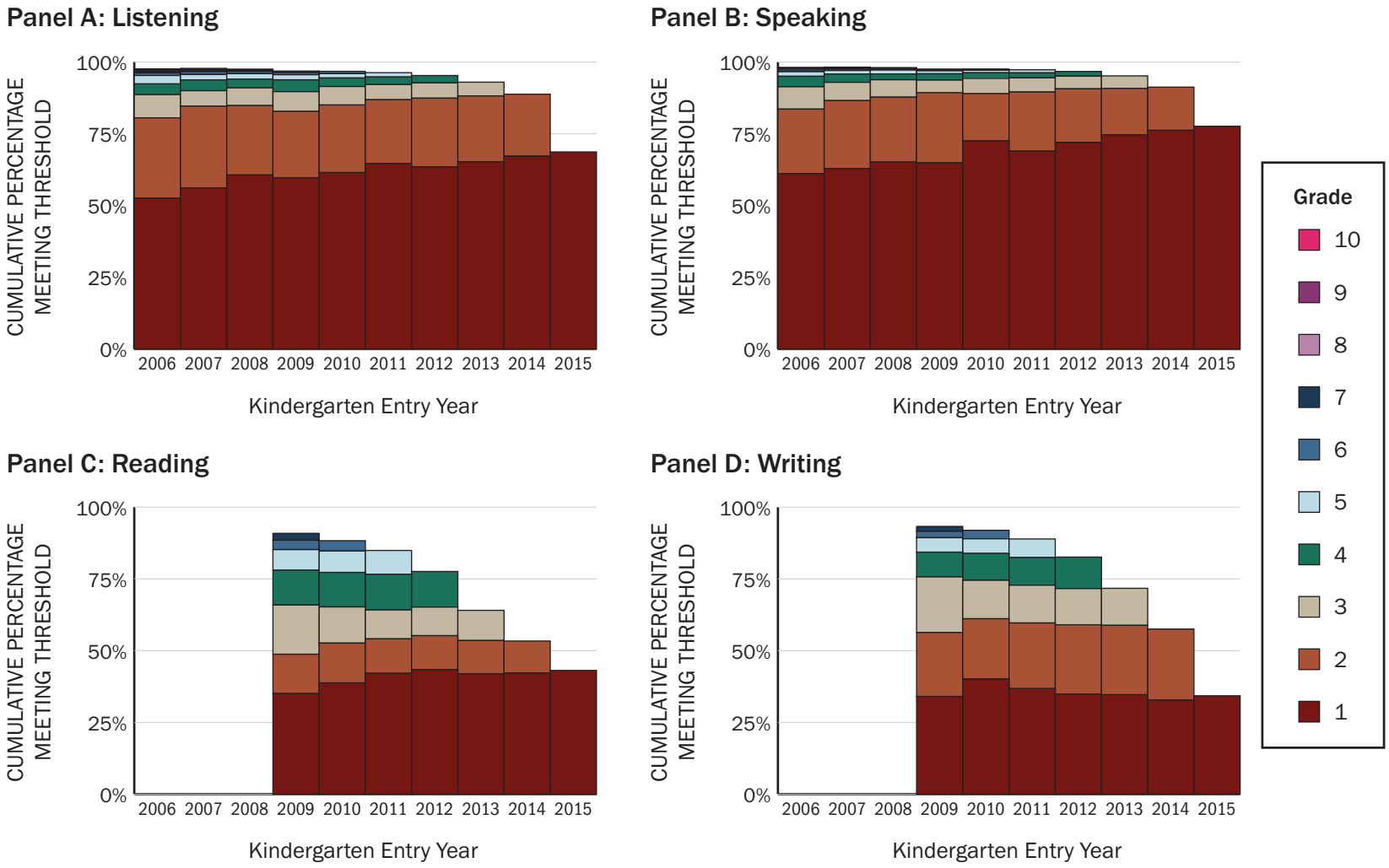
Note: The CELDT was administered for the last time as an initial examination of EL proficiency in 2017–18.
Source: California Department of Education data. Researcher calculations.

Figure B5. The Percentage Intermediate or Above on Initial CELDT of K-Cohort ELs by Home Language



Note: The CELDT was administered for the last time as an initial examination of EL proficiency in 2017–18.
Source: California Department of Education data. Researcher calculations.

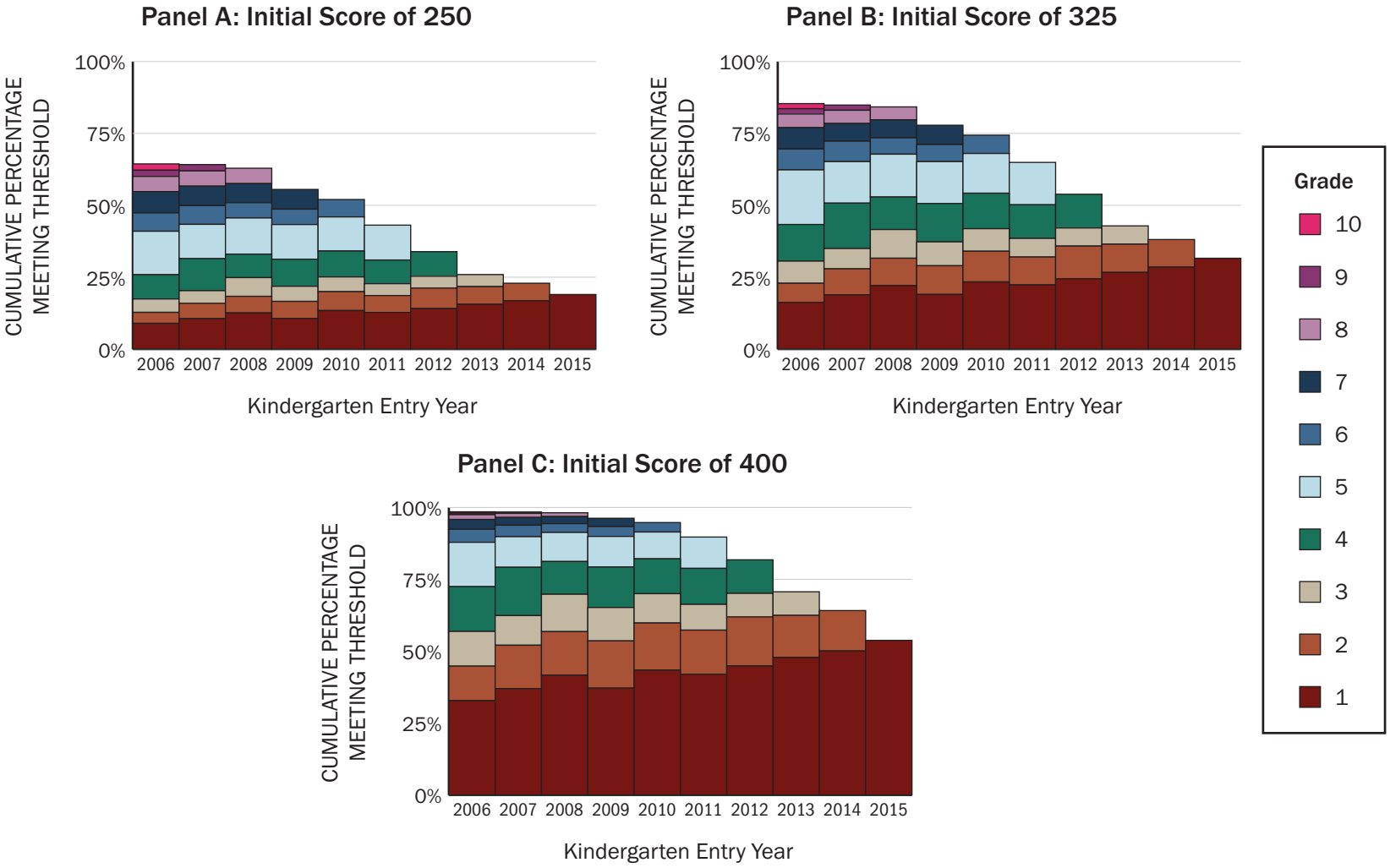
Figure B6. Cumulative Percentage Scoring Intermediate or Above by Domain on the CELDT



Note: Reading and writing tests began being administered to all elementary grades in 2009.

Source: California Department of Education data. Researcher calculations.

Figure B7. Cumulative Percentage of K ELs Meeting State Guidance for English Proficiency on CELDT, by Initial Score



Source: California Department of Education data. Researcher calculations.

Endnotes

1. In the first year of transitional kindergarten (TK) rollout (2012–13 school year), TK program eligibility was for children whose fifth birthday fell between November 2 and December 2. In the second year of TK rollout (2013–14 school year), TK program eligibility was for children whose fifth birthday fell between October 2 and December 2. In the third year of TK rollout (2014–15 school year), TK program eligibility was for children whose fifth birthday fell between September 2 and December 2.
2. Attrition is less than 5% per grade for all cohorts observed in elementary and middle school. Attrition rates increase slightly in high school for cohorts we can observe through that time period. Attrition rates are slightly higher for non–English learner (EL) students and non-socioeconomically disadvantaged students, likely because they have more options outside of the public school system in private schools. Students attending public charter schools are included in this analysis; students transferring to private schools drop out of our analysis. For students who move to the state at some point during their K–12 years, the data do not provide information on their out-of-state school performance before their move to California. We also do not have information on the school performance of students in private schools.
3. The student demographic information typically begins in the 2008–09 school year, though there are limited changes in those variables from year to year, so we are able to accurately impute these variables backward for 2006–07 and 2007–08.
4. For example, Johnson (2024) finds Local Control Funding Formula (LCFF)–induced increases in per-pupil spending, along with the implementation of TK, led to significant improvements in grade progression and reductions in the probability of grade repetition, particularly in early-elementary grades.
5. The Community Eligibility Provision (CEP) allows a school to receive free meals for all of its students if enough students qualify for the meals based on Direct Certification. However, a school's CEP status does not change individual student eligibility for the National Student Lunch Program and thus does not affect data quality in this report.
6. These trends map across two academic achievement testing assessment systems. The student achievement outcomes are National Assessment of Educational Progress (NAEP)–normed and converted into grade-level equivalent units, separately for math and reading, so that standardized student outcomes can be compared across kindergarten cohorts, years, grades, and subjects, relative to the national average achievement for the cohort that entered kindergarten in 2005 (see Appendix A for details). All panels in Figures 2 and 3 exclude test scores from 2013–14, when California suspended its state standardized testing under the Standardized Testing and Reporting (STAR) Program and administered a year of field tests for which no scores were reported (Fensterwald, 2014). The state replaced STAR with the Common Core State Standards–aligned California Assessment of Student Performance and Progress (CAASPP) in 2014–15.
7. CELDT was administered annually through the end of the 2016–17 school year as both an initial assessment of English proficiency upon school entry and an assessment of English proficiency acquisition to students already designated as English learners. In 2017–18, the CELDT was used only for initial assessment, and the state transitioned toward using another assessment for annual summative tests of proficiency for those already categorized. Therefore, the last year for which we can observe proficiency acquisition on the CELDT for "ever EL" students is 2016–17; thus, we can only observe 10 kindergarten cohorts on this assessment in 1st grade.
8. In order to determine the district-specific guidance for reclassification, we searched the websites of the 10 school districts with the largest number of ever EL students during our time frame. We were able to find district guidance for 7 of those 10 districts. Fresno Unified, Los Angeles Unified, San Bernardino City Unified, San Francisco Unified, and Santa Ana Unified all required students to score a 4 overall, as well as a 3 on each eligible subtest. (*Eligible* in this context indicates that for some of this time frame, kindergarteners and 1st-graders did not take the Reading and Writing subtests and thus were exempt from those score requirements for reclassification.) San Diego Unified, the second-largest ever-EL-serving district in the state, imposed a higher bar, requiring a student to score a 4 or higher on at least three of the four subareas. Fontana Unified, the ninth-largest ever-EL-serving district, was more permissive and allowed a student to have no more than one subscore lower than a 3. We note as well that the cut score needed on the CELDT to earn a 3 changes as a student advances grades because reclassification requires students to demonstrate a grade-appropriate level of proficiency. This requirement makes English proficiency a developmentally adapted moving target. For example, in 2016–17 (the last year of CELDT administration as a summative assessment for reclassification), a kindergartener needed to earn a 455 in the listening domain, a 457 in speaking, a 380 in reading, and a 383 in writing. The same year, a 6th-grader needed to earn a 570 in listening, a 518 in speaking, a 568 in reading, and a 553 in writing (California Department of Education Assessment Development and Administration Division, 2017).

9. In 2009, reading and writing tests were first administered to K–1 students as part of the CELDT, but many districts chose to exclude those domains as criteria for reclassification for those students, and the state excluded them from their recommendation (see California Department of Education 2013 Report to the Legislature). We therefore present results for the listening and speaking domains beginning in 2006 but do not present results for reading and writing until 2009.

10. We note that the CELDT was phased out following the 2016–17 school year. This change means the last cohort we can observe in English proficiency on the CELDT through the end of 5th grade is the kindergarten cohort of 2011, though we can observe reclassification through the end of 5th grade for the kindergarten cohorts of 2012 and 2013.

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