



Getting Down to  
**FACTS**



# Teacher Preparation for English Learners and Bilingual Education in California Schools

**Lucrecia Santibañez**

University of California, Los Angeles

**May 2026**



**Stanford** | SCALE Initiative  
*Accelerator for Learning*

# Teacher Preparation for English Learners and Bilingual Education in California Schools<sup>1</sup>

Lucrecia Santibañez  
*University of California, Los Angeles*

## Abstract

This paper examines how California prepares, develops, and supports teachers of English Learners (ELs). Using school-level data from the 2024-25 academic year, I analyze the relationship between school EL concentration and teacher preparedness indicators, including credentials, experience, and whether teachers teach outside their credential area. I find that schools serving higher proportions of ELs—particularly Long-Term English Learners (LTELs)—systematically have less well-prepared teaching staff. Specifically, high-LTEL schools have more out-of-field teachers, fewer fully credentialed and experienced teachers, and more teachers rated ineffective. Additionally, I document significant geographic inequities in access to bilingual teacher preparation programs, with "preparation deserts" overlapping areas of high EL concentration. These findings reveal a significant equity concern: students who most need specialized instruction receive teachers who appear, at least on paper, less equipped to provide it. A significant number of these students live in areas that are not easily accessible to teachers seeking bilingual authorizations or to DLI programs looking to expand. Policy implications are discussed.

**Keywords:** *English Learners, teacher preparation, teacher quality, Long-Term English Learners, bilingual authorization, California education policy*

---

<sup>1</sup> ACKNOWLEDGMENTS. This work was produced with funding and support from the Getting Down to Facts III project. Thank you to Magaly Lavadenz and Francesca A. Lopez who provided helpful comments and suggestions. All errors are my own.

# 1. Introduction

About thirty percent of California's kindergarteners speak a language other than English at home.<sup>2</sup> Multilingual students who, upon Kindergarten entry, do not pass assessments of linguistic proficiency (among others), are designated as “English Learners.”<sup>3</sup> This designation is federally recognized and entitles students to certain legal protections and financial supports. Yet it also often leads to exclusionary schooling practices and poor educational experiences (Cervantes-Soon et al., 2024; Santibañez & Umansky, 2018; Thompson, 2017). State efforts around multilingualism, such as California's Global 2030 vision and the “Multilingual Education for All” campaign, seek to change this by increasing the proportion of students enrolled in bilingual programs and preserving linguistic diversity while improving outcomes for EL-classified students (ELCs).<sup>4</sup>

Research consistently affirms the cognitive and cultural value of multilingualism (Callahan & Gandara, 2014; Valdes, 2001; Cadiero-Kaplan & Rodriguez, 2008). It also suggests that bilingual programs (or more specifically, dual-language immersion programs) lead to better learning outcomes for all students (Bibler, 2021; Morales, 2025; Steele et al., 2017), better or on-par reclassification rates by the end of elementary school (Steele et al., 2024; Bibler, 2021; Santibanez et al., 2026), and heritage or partner language acquisition (Watzinger-Tharp et al., 2018, 2021). Bilingual programs are popular with parents who support raising bilingual children (Williams et al., 2025) and with school districts because they can help reverse declines in public school enrollment amid rising competition from charter schools (Darriet & Santibañez, 2024).

<sup>2</sup> In 2024/25 the proportion of students classified as English Learners in California was 27.2%, the proportion of students classified as Initial English Proficient (IFEP) was 3.5%, and the proportion classified as RFEP (reclassified fluent english proficient) was 0.1%. Together these three classifications add up to 30.8%. All of these children fall into these designations because their parents reported speaking a language other than English at home. Data source:

<https://dq.cde.ca.gov/dataquest/DQCensus/EnrELAS.aspx?cde=00&aggllevel=State&year=2024-25>

<sup>3</sup> “English Learners” is an official, federally-designated student subgroup. It is composed of students who speak a language other than English at home and who, upon school entry, cannot demonstrate a certain minimum level of English Proficiency on standardized tests and other district-approved measures. I acknowledge the deficit implications of the term. While other terms such as Multilingual Learners, Emergent Bilinguals, dual-language learners are used in this literature, I use “English-learner-classified” (or ELC) students in this paper to highlight the programmatic, administrative nature of the label.

<sup>4</sup> See: <https://www.cde.ca.gov/sp/ml/documents/globalca200.pdf>. A different vision “Multilingual Education for All”, sets more ambitious goals than Global California 2030 was help reverse declines in public school enrollment amidput together by scholars and advocates and can be founhelp reverse declines in public school enrollment amid,d here: <https://www.mle4all.org/>.

This paper provides a critical examination of how California develops, prepares, and supports teachers of ELCs. The paper begins by describing the qualifications of teachers serving ELCs and comparing them with those of teachers serving non-ELCs to identify disparities that warrant policy attention. Next, it examines whether the existing bilingual teacher pipeline can sustain the state's expected growth toward achieving the 2030 vision. The analysis relies exclusively on publicly available data, which are limited to the school level and cannot link individual students to teachers, precluding answering more fine-grained questions about teacher effectiveness or how specific preparation pathways relate to student outcomes. The state also does not publish data linking students to bilingual (including Dual-Language Immersion) programs or to bilingually authorized teachers. Despite these limitations, this study is the first since Gándara, Rumberger, and Maxwell-Jolly (2003) to systematically examine the qualifications of teachers serving ELs and one of the few analyses to map the statewide landscape of bilingual teacher preparation (see Jacobson et al., 2025; Santibañez et al., 2026; Hernandez, 2023).

Results suggest that despite decades of policy attention, schools serving the highest concentrations of ELs—and particularly Long-Term ELs—continue to face systematic disadvantages in teacher preparedness. These inequities persist across credentials, experience, and other markers of preparedness. There is also some evidence, from this paper and a companion paper (Lopez, Saldaña, & Santibañez, 2026; Leider et al., 2021), suggesting that teacher preparation may be lacking in teaching ELs and could require stronger accountability mechanisms and better support. Teacher preparation for ELCs has undergone significant reforms since 2020. These reforms represent a return to a more specialized and robust system of preparation that has the potential to strengthen the skills and knowledge needed to teach ELCs both in bilingual and mainstream programs. These reforms have only begun to be implemented, however, so more time is needed to see results.

Second, bilingual teacher preparation programs are geographically concentrated, leaving high-EL regions and those with a strong potential for bilingual program growth—particularly along the border and in the Central Valley—underserved. We find that despite issuing a large number of bilingual authorizations – more than enough to fill planned vacancies – districts across the state continue to issue hundreds of emergency permits, suggesting that, at least in some areas of the state, the current bilingual teacher preparation capacity is insufficient to meet demand.

Whether teachers serving ELs are well-prepared to teach them is a question with significant policy implications, given the academic risks these students face if they do not exit the designation. Moreover, California has set a worthy and ambitious goal: expanding multilingual education to half of all students by 2030. Yet this vision will ring hollow if the state fails to address the inequities that continue to disadvantage English Learners, the very students a multilingual system should serve best.

## 2. Literature Review

### ***EL Student Rights and Outcomes***

Federal law establishes the right of ELs to receive language proficiency services such as English Language Development and appropriate instruction. There is no consensus in the literature on whether the EL designation is, by itself, detrimental for students. Some studies find that remaining classified as an EL and receiving associated services can lead to better student performance (Cimpian et al., 2017; Robinson, Cimpian & Thompson, 2016; Shin, 2018); others find negative effects (Umansky, 2016; Carlson & Knowles, 2016; Johnson, 2019). Many of these differences could stem from differences in the quality and support of EL services and the district context. Where the literature does reach a near consensus is that students who do not exit the EL designation after elementary school, facing “long-term EL” (LTEL) status, face limited opportunities and exclusionary content (Estrada & Wang, 2018; Thompson, 2022; Umansky et al., 2021; Umansky & Avelar, 2023; Shin, 2020). While most Ever-ELs reclassify by the end of elementary school and demonstrate positive academic trajectories on average, there is a critical “reclassification window” during upper elementary grades (Thompson, 2017).

Lower high school graduation rates than other student subgroups and other low achievement outcomes reflect historical system failures, which include reduced educational opportunity and subtractive pedagogical practices that frame multilingualism as a deficit rather than an asset (Valenzuela, 1999; Umansky & Avelar, 2023; Santibañez & Umansky, 2028; Umansky et al., 2020). EL-classified students face additional challenges related to measurement and assessment cultural validity and reclassification criteria that vary across districts (Hakuta, Butler & Witt, 2000; Novicoff et al., 2024).

An important determinant of student outcomes, more generally, is teacher preparedness, and it is safe to assume that EL outcomes are no exception. Teachers of linguistically diverse students require specialized skills, knowledge, and preparation supported by a framework that includes specialized pedagogical knowledge, linguistic knowledge, and knowledge of cultural and linguistic diversity (Menken & Antuñez, 2001; Faltis & Valdés, 2016; López & Santibañez, 2018; Lucas, Villegas & Freedson-Gonzalez, 2008). However, research consistently suggests that many teachers of EL-classified students do not feel adequately prepared and require continuous professional development to effectively support multilingual learners (Lucas, Villegas & Freedson-Gonzalez, 2008; Santibañez & Gándara, 2018). In California, more than 20 years ago, Patricia Gandara and colleagues argued that teachers with higher proportions of ELs in California were less qualified and received fewer hours of professional development (Gándara, Rumberger & Maxwell-Joll, 2003).

### ***Bilingual Education***

Bilingual programs hold special promise for multilingual learners because they can lead to positive academic and reclassification benefits, while helping students develop and maintain their heritage language (Steele et al., 2017; Steele et al., 2024; Bibler, 2021; Umansky & Reardon, 2017; Shen et al., 2022; Watzinger-Tharp, et al., 2018; 2021; Morales, 2024; Valentino & Reardon, 2015).<sup>5</sup> Parents, in particular Latino parents, are strongly supportive of dual-language immersion (DLI) programs (Del Hoyo Soriano et al., 2023; Williams & Zabala, 2024). Districts are strongly supportive of DLI programs too, because they help them curb enrollment declines caused, among other factors, by charter school competition (Darriet & Santibanez, 2024). As these programs grow and scale up, however, concerns emerge about the teacher pipeline and broader preparation. A recent statewide survey of district leaders rated the preparedness of new bilingual teachers with a 3.1 on a 5-point scale, highlighting concerns about initial bilingual teacher preparation (Lavadenz et al., 2021). This same survey also found that many leaders reported limited capacity to support initial bilingual teachers and to offer them specialized professional learning and coaching (Lavadenz et al., 2021). Similar analyses at the national level have found that about one-half of teachers serving multilingual learners did not feel

---

<sup>5</sup> While some studies have not found positive effects on academic or scale up reclassification outcomes for ELs (see for example Bibler (2021) for reclassification or Steele et al. (2017) for test scores, no study has found that DLI enrollment harms EL outcomes.

prepared to teach them and that addressing these learners' needs ranks toward the bottom of school leaders' priorities for professional development (Lee et al., 2025).

### 3. California Teacher Preparation Policy for English Learners

This section provides an overview of the policy landscape governing teacher preparation for English Learner-classified students in California.<sup>6</sup> I first describe the embedded credential model that authorizes all California teachers to serve ELCs; then discuss the teacher induction process and its limited focus on ELCs; and finally examine the specialized Bilingual Authorization pathway for teachers in dual-language and bilingual programs. Understanding these policy structures is essential context for interpreting the empirical findings that follow.

#### 3.1 The "Embedded" Credential

California statutes require that every teacher who provides instructional services to an English Learner be authorized to provide specialized instruction to those learners. In the 1990s, the state offered robust, specialized certifications for teachers of ELCs: the Cross-Culture, Language and Academic Development (CLAD) and the Bilingual CLAD emphasis certificates. However, in 1998, the state passed California Senate Bill 2042 (SB2042), which emphasized English language proficiency and lessened the focus on bilingualism (Cadiero-Kaplan & Rodriguez, 2008).<sup>7</sup> These reforms coincided with the state's voters' approval of Proposition 227 in 1998, which severely restricted bilingual education and required that ELCs be taught primarily in English (Cadiero-Kaplan & Rodriguez, 2008). Since then, all ELC-related teaching content is "embedded" into credentials issued by the California Teaching Commission. The result is that today, all teachers in California who receive a teaching credential are authorized to teach ELCs even if the preparation was less robust and specialized.

---

<sup>6</sup> A more detailed description and comparison to other states can be found in a companion paper by Lopez, Saldaña & Santibañez (2026).

<sup>7</sup> For more information see: <https://www.ctc.ca.gov/docs/default-sou.rce/commission/coded/2011/1102.pdf>.

To comply with the EL authorization, now “embedded” in each credential, teacher preparation programs train teachers to understand and use appropriate instructional approaches for developing language proficiency, apply theories of language acquisition, and use assessment data to identify EL students' academic proficiency in English. The new requirements included those favored by Proposition 227 proponents: an emphasis on English Language Development (ELD), Structured English Immersion (SEI), and Specially Designed Academic Instruction in English (SDAIE)—also referred to as “integrated” language development. Teachers who seek certification to teach in bilingual or dual-immersion language environments where content instruction is delivered in the primary language must obtain a separate Bilingual Authorization (BILA). Teachers from other states or those who earned credentials prior to 2002 and teach designated ELD in secondary schools must hold a Cross-cultural, Language, and Academic Development (CLAD) credential or a single-subject credential in ELD content.

In 2021, in response to longstanding criticism from practitioners, scholars, and others (for a summary of the main criticisms, see Cadiero-Kaplan & Rodriguez, 2008), California’s teacher preparation system underwent significant reforms to change literacy instruction (SB488). Under the new teacher preparation literacy standards, all teachers—not just ELD specialists—are responsible for attending to ELC’s language development during literacy instruction (integrated ELD). The standards also explicitly require dedicated time for focused English language instruction connected to content learning (designated ELD).

### 3.2 Teacher Induction

Within five years of receiving their preliminary credential, teachers must “clear” it by completing a teacher induction program. Historically, induction has not been EL-focused; the assumption was that EL competency was established during preliminary preparation and would be further developed through teaching practice (Santibañez, Snyder & Centeno, 2021).

In 2024, the California Commission on Teacher Credentialing, in conjunction with the California Department of Education, updated the California Standards for the Teaching Profession (CSTPs), which guide and structure teacher induction. The revised CSTPs include more nuanced language around ELs, greater attention to culturally relevant pedagogy, and better alignment with ELD Standards and the English Learner Roadmap. Despite these improvements, teachers can still clear their credentials

without EL-focused induction, meaning that pre-reform concerns about accountability for EL preparation remain valid (Santibañez, Snyder & Centeno, 2021).

### 3.3 Bilingual Teacher Preparation

In 2023, the CTC overhauled its BILA Program Standards and developed the first Bilingual Teaching Performance Expectations (BTPEs<sup>8</sup>) to support California's Global California 2030 goals of having at least half of the K-12 school population enrolled in bilingual education programs and to update the knowledge base from the previous standards.<sup>9</sup> The new standards went into effect in the 2025-26 academic year. Key changes include a minimum of 20 hours of mandatory field experiences, requirements that teachers demonstrate understanding of English learner typologies and different bilingual instruction models (one-way immersion, developmental, dual-language), and explicit expectations around translanguaging and linguistic repertoires across contexts. Candidates must also design and implement activities using a transnational lens to promote learning in two languages.

## 4. Data and Methods

### 4.1 Data and Sample

I analyze publicly available school-level data from the California Department of Education for the 2024-25 academic year. Data are available on the following variables: teacher credentials (clear, intern, out-of-field), average years of experience, teacher race/ethnicity, student-to-staff ratios (teacher, administrator, pupil services), and the percentage of teachers rated as "ineffective." I also construct composite measures of teacher quality combining credentials and experience. All data are only available at the school level and are not linked to students. Teacher credential data comes from the California Teacher Credentialing Commission (CTC) 's website. The analytical sample includes 7,894 schools with complete data on teacher and student characteristics.

---

<sup>8</sup> See here: <https://docs.ctc.ca.gov/Document/Download/30413>

<sup>9</sup> To better understand the rationale that went into the reform see here:

[https://digitalcommons.lmu.edu/cgi/viewcontent.cgi?article=1001&the California Teacher Credentialing Commission \(CTC\) 's context=whitepapersandstatements](https://digitalcommons.lmu.edu/cgi/viewcontent.cgi?article=1001&the%20California%20Teacher%20Credentialing%20Commission%20(CTC)%20's%20context=whitepapersandstatements)

The key independent variables are the percentage of students in each school classified as: current English Learners (EL), Long-Term English Learners (LTEL, classified for 6+ years), and English Only (EO) students. I control for school characteristics, including the percentage of socioeconomically disadvantaged students, the percentage of students with disabilities, log enrollment, charter school status, and district fixed effects.

## 4.2 Methods

I begin with descriptive analyses examining teacher characteristics across quartiles of school EL, LTEL, and EO concentration. To understand whether the descriptive results hold in a multivariate framework, I estimate linear regression models predicting each teacher quality outcome as a function of school EL composition:

$$Y_s = \beta_1(\%EL)_s + \beta_2(\%LTEL)_s + \beta_3(\%EO)_s + X_s\gamma + \delta_d + \varepsilon_s \quad (1)$$

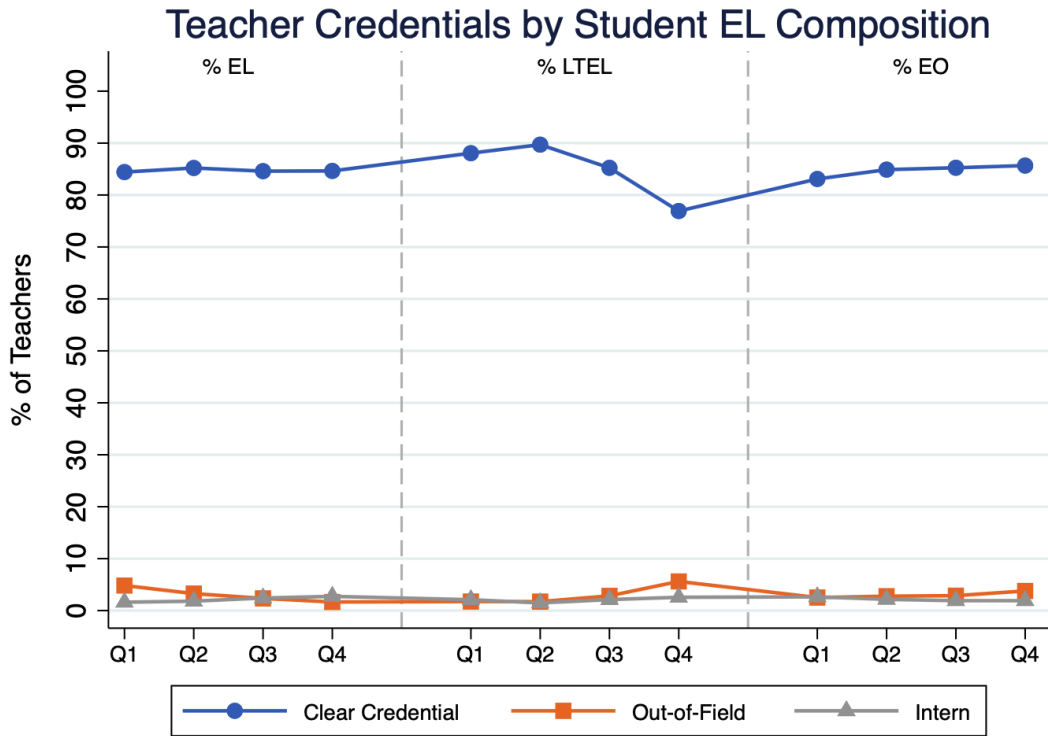
where  $Y$  is the teacher quality outcome in school  $s$ ,  $X$  is a vector of school-level controls,  $\delta$  represents district fixed effects, and  $\varepsilon$  is the error term. I report both unstandardized coefficients (representing the effect of a one percentage point increase in EL concentration) and standardized coefficients ( $\beta$ , representing the effect in standard deviation units). I use robust standard errors throughout.

# 5. Results

## 5.1 Teacher Characteristics by EL Composition

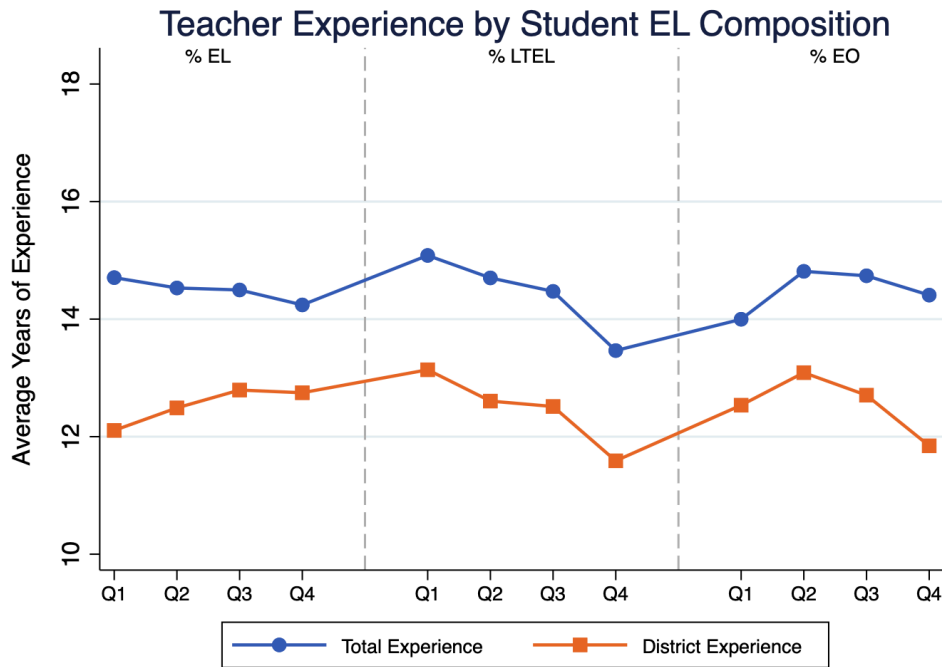
Figure 1 displays teacher credential status by school EL, LTEL, and EO quartiles. There are small absolute differences in credential status between schools with high and low proportions of ELs and EOs. However, more pronounced differences emerge for schools with high proportions of LTEs. Schools in the highest LTEL quartile (Q4) have fewer teachers with cleared credentials and more teachers on preliminary, emergency, or other non-standard permits.

**Figure 1.** Teacher Credential Type by EL, LTEL, and English-Only Students in School (Quartiles)



In terms of average years of experience, there are no large apparent differences across schools, though a modest decline is visible in the highest LTEL quartile (Figure 2).

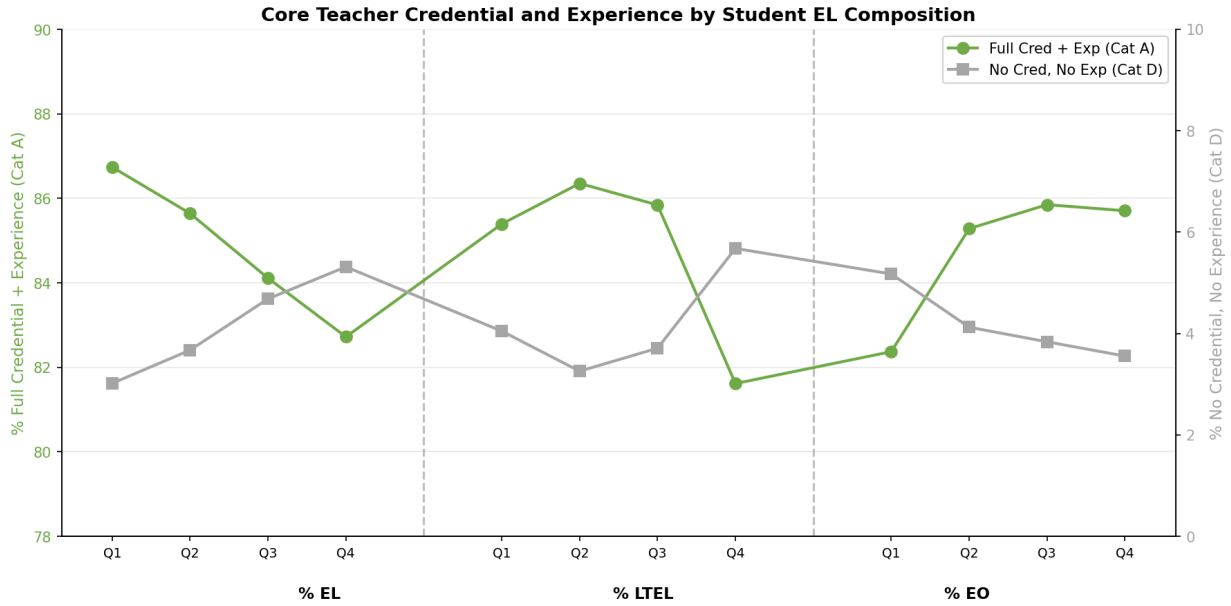
**Figure 2.** Average Years of Teacher Experience by EL, LTEL, and English-Only Students in School (Quartiles)



Note: Total experience includes all years across all districts. District experience line includes years of experience only in the current district.

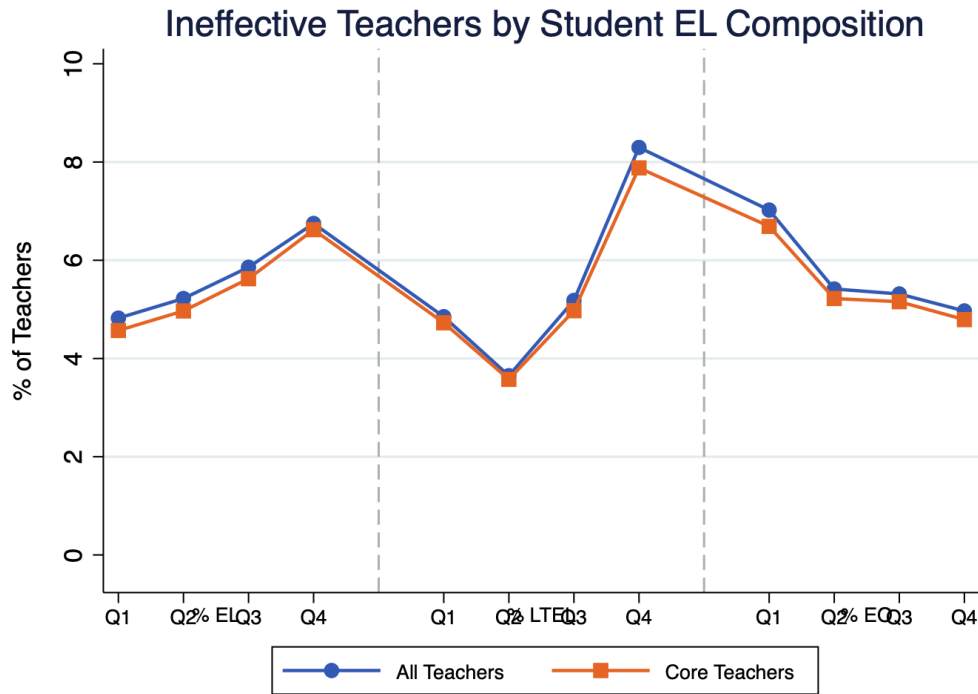
Figure 3 combines credentials with experience into composite categories. Category A represents teachers who are both fully credentialed and experienced (3+ years); Category D represents teachers who are neither fully credentialed nor experienced. For this graph, I restrict the sample to core subject-matter teachers (ELA, math, social studies, science, and elementary general education). This figure reveals that schools with high proportions of ELs and LTELs have fewer well-prepared, experienced teachers (lower Category A) and more teachers lacking both credentials and experience (higher Category D). Schools with high proportions of EO students show the opposite pattern.

**Figure 3. Teachers by Credential and Experience Status, by EL, LTEL, and English-Only Students in School (Quartiles)**



The CDE classifies a teacher as “ineffective” when they hold a provisional, short-term staff permit, a substitute permit, or a credential waiver. Overall, the proportion of teachers rated ineffective is relatively low (approximately 5%). However, a significantly higher proportion of teachers are rated ineffective in schools with high proportions of LTELs (Q4) (see Figure 4).

**Figure 4.** Percentage of Ineffective Teachers by EL, LTEL, and English-Only Students in School (Quartiles)



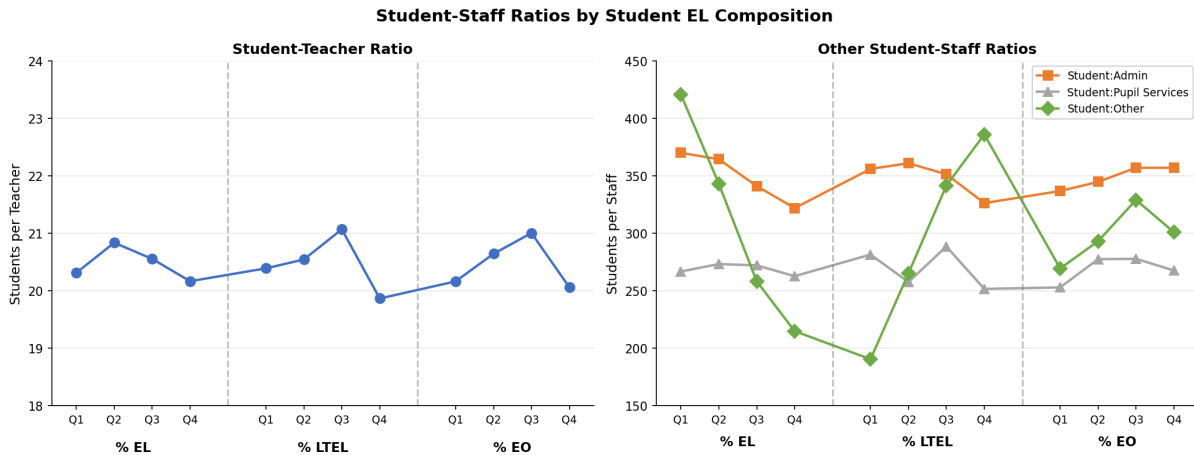
Note: An ineffective rating is given to teachers on provisional internship permits, short-term staff permits, waivers, and substitute permits. For more, see here: <https://www.cde.ca.gov/ci/pl/teacherequitydefinitions.asp>.

## 5.2 Student-Teacher and Staff Ratios by EL Composition

In this section, I examine student-teacher and student-staff ratios by EL composition. Smaller student-teacher ratios provide teachers with more time and resources to differentiate instruction and provide sheltered English immersion in non-DLI environments. Smaller student-administrator or student-staff ratios mean that schools have more resources to support EL services and EL students more generally.

Figure 5 shows different student-teacher and student-staff ratios by EL composition. Schools at the extremes of the EL and EO distribution have slightly lower student-teacher ratios, though differences are modest (approximately 20 versus 21 students per teacher). Schools with high proportions of ELs and LTELs have somewhat lower student-to-administrator ratios, suggesting more administrative support per student.

**Figure 5. Student-Teacher and Staff Ratios by EL, LTEL, and English-Only Students in School (Quartiles)**



Note: Other staff includes staff assigned to non-classroom-based support assignments, such as mentor teachers, teachers on special assignments (TOSAs), program coordinators, etc.

### 5.3 Regression Results

Because teacher characteristics can vary with other school-level factors, I estimate regression models predicting each teacher quality outcome as a function of school EL, LTEL, and EO concentration, while controlling for school characteristics and district fixed effects (see Table 1).

**Table 1.** Teacher Quality Outcomes by School EL Composition

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Stud - Teach Ratio	Stu - Admin Ratio	Avg. Yrs. Exp	% Out-of-fi eld Tch	% Intern Tch	% Ineff. Tch	Cat A Tch/1	Cat D Tch/2	% Latino Tch
<b>Panel A: Raw</b>									
<b>Coefficients</b>									
%EL	0.003	-0.607*	-0.002	-0.035	0.001	0.045*	-0.117**	0.016	0.326**
	(-0.007)	(-0.273)	(-0.009)	(-0.024)	(-0.011)	(-0.02)	(-0.03)	(-0.017)	(-0.036)
%LTEL	-0.076**	-0.663	-0.048**	0.215**	-0.005	0.091*	-0.260**	0.061*	-0.316**
	(-0.017)	(-0.581)	(-0.017)	(-0.066)	(-0.016)	(-0.036)	(-0.058)	(-0.032)	(-0.065)
%EO	0.006	-1.009**	0.023**	0.028	-0.000	0.007	-0.032	0.011	-0.146**
	(-0.006)	(-0.205)	(-0.007)	(-0.021)	(-0.007)	(-0.015)	(-0.023)	(-0.013)	(-0.028)
<b>Panel B: Std. Coeff. (<math>\beta</math>)</b>									
% EL	0.012	-0.068*	-0.007	-0.059	0.004	0.081*	-0.128**	0.034	0.223**
% LTEL	-0.085**	-0.02	-0.049**	0.098**	-0.005	0.045*	-0.078**	0.036*	-0.059**
% EO	0.034	-0.157**	0.119**	0.065	-0.000	0.017	-0.049	0.033	-0.138**
N	7,876	7,241	7,893	7,894	7,894	7,894	7,879	7,879	7,893

**Notes:** Panel A reports OLS coefficients (effect of 1 percentage point increase) with robust standard errors in parentheses. Panel B reports standardized coefficients ( $\beta = b \times SD_x / SD_y$ ), representing the effect of a 1 SD change in the predictor on the outcome in SD units. All models include district fixed effects and controls for % low-income, % SWD, log enrollment, and charter status. Outcomes: Stu:Tch = student-teacher ratio; Stu:Admin = student-admin ratio; Exp = avg years experience; Out-Field = % out-of-field; Ineffect. = % ineffective; Cat A = % full credential + experience; Cat D = % no credential/experience; Latino = % Latino teachers. \*  $p < 0.05$ , \*\*  $p < 0.01$ . EL (SD=15.2), LTEL (SD=4.2), EO (SD=21.1)  $< 0.01$

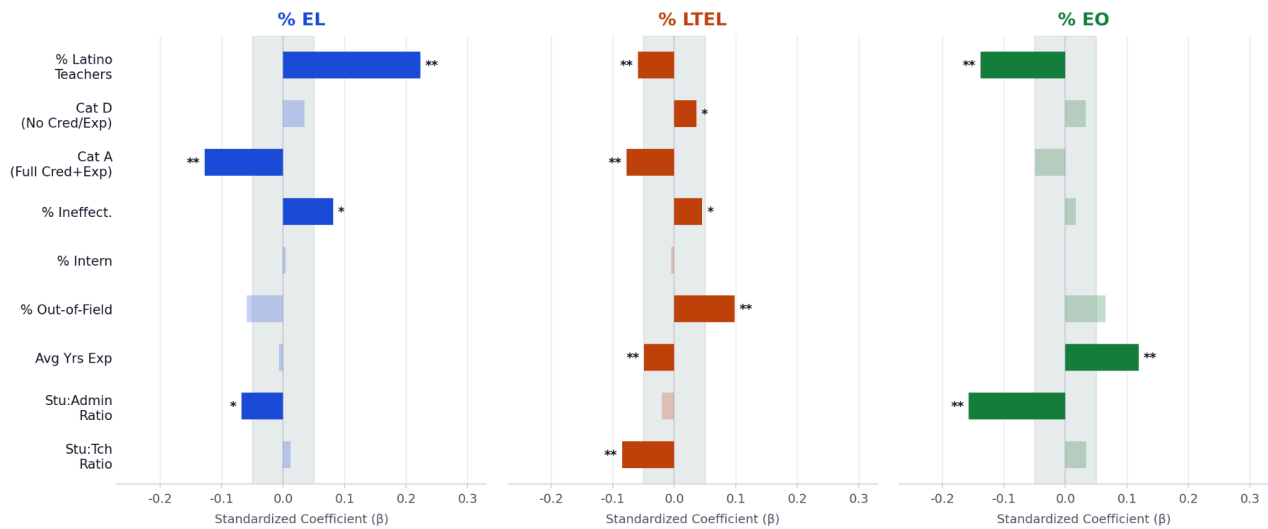
Table 1 reveals several patterns. Schools with higher ELC concentrations have significantly more Latino teachers, indicating strong demographic alignment between EL students (who are predominantly Latino) and their teachers. Higher percentages of ELs are also associated with fewer fully credentialed and experienced teachers, slightly more “ineffective” teachers, and lower student-administrator ratios, suggesting more administrative support.

Schools with more LTELs have higher proportions of out-of-field teachers, fewer fully credentialed and experienced teachers, slightly less experienced teachers, slightly more teachers rated

as ineffective, and fewer Latino teachers. Notably, student-teacher ratios are somewhat lower in schools with higher proportions of LTEL students. In contrast, higher percentages of English-only students are associated with higher student-administrator ratios (less administrative support), fewer Latino teachers, and more experienced teachers. Figure 6 visualizes these regression coefficients.

In sum, the regression analysis confirms the descriptive results: schools serving more ELs—and particularly Long-Term ELs—have less well-prepared, less experienced teachers, more teachers teaching out of field, and more teachers rated as ineffective. Schools with higher proportions of LTELEs show larger magnitudes across all of these relationships, suggesting more pronounced disparities in teacher quality.

**Figure 6.** Standardized Regression Coefficients for School EL Composition on Teacher Quality Outcomes



*Note: Bars show standardized  $\beta$  coefficients with 95% confidence intervals. Dark-shaded bars indicate  $p < 0.05$ .*

## 6. Bilingual Teacher Preparation

A pressing policy question is whether the state will have enough bilingual-authorized teachers to meet ambitious goals around bilingual education. Many scholars and policymakers have argued for years that there is a bilingual teacher shortage requiring more intensive state support. To address this, California has issued state grants to school districts to increase the pipeline and stock of bilingual-authorized teachers. In this section, we begin with an analysis of the bilingual teacher supply and demand, assuming the state moves toward meeting the 2030 goals or even more ambitious targets.<sup>10</sup> Next, we talk about teacher preparation “deserts” as a possible explanation for why there appears to be a mismatch between the number of new bilingual teachers and what the state demands.

### 6.1 Bilingual Teacher Supply and Demand

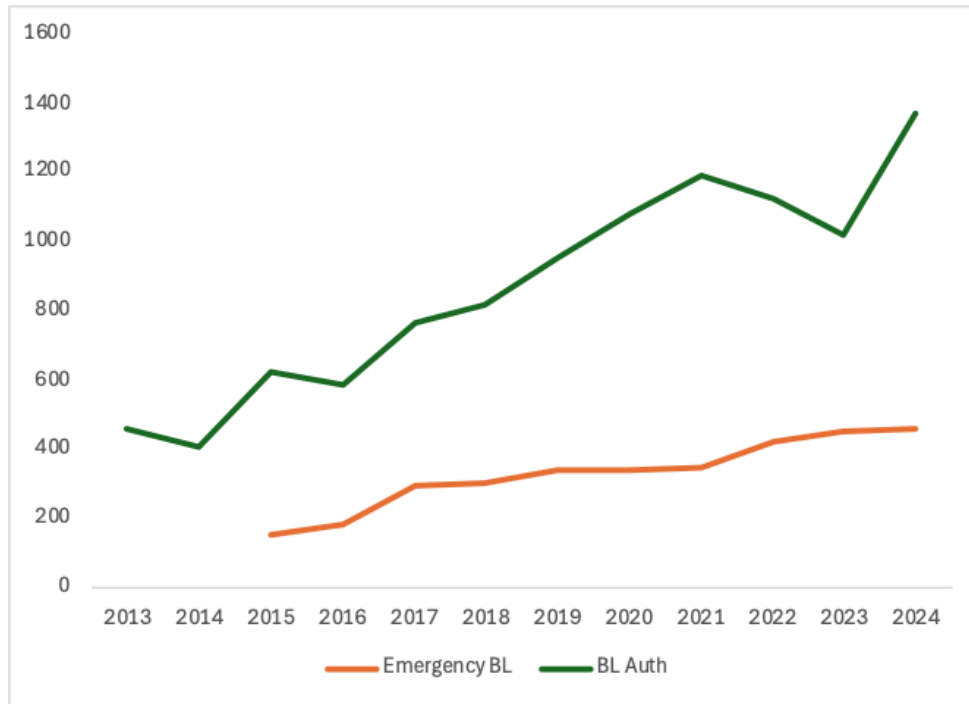
Estimating the precise number of bilingually authorized teachers needed to meet California's dual-language immersion expansion goals is challenging due to data limitations, but available evidence suggests substantial demand. A recent study by the UCLA Center for the Transformation of Schools estimates that to grow from the approximately 1,200 DLI programs currently operating to the 2030 vision of 1,600—while also expanding existing programs to serve students through 5th grade—would require training approximately 6,000 new bilingual teachers, or roughly 1,200 per year on average (Santibañez et al., 2026). This is a conservative estimate assuming programs add only one grade and one teacher per year. Most DLI programs in the state are two-strand programs within schools that offer, on average, only K through 3rd grade, which means actual needs could be two to three times higher under more ambitious expansion scenarios.

While the California Commission on Teacher Credentialing issued approximately 1,400 new bilingual authorizations in 2024, districts simultaneously issued nearly 500 emergency bilingual permits that same year—suggesting a mismatch between the supply of credentialed bilingual teachers and district hiring needs (see Figure 7).

---

<sup>10</sup> The Multilingualism For All campaign was launched in 2026 and is being supported by a wide range of scholars and advocates in the field. Two of its major goals are to make bilingual/DLI programs the standard for all ELs in the state and to have every student in California be exposed to a second language resulting in bilingualism. For more information see here: <https://www.mle4all.org/>

**Figure 7.** Bilingual Authorizations by Credential Type and Emergency Permits



Source: Santibanez, Pina & Ferraez, 2025. Original data from CTC.

The misalignment between supply and demand for bilingual-certified teachers is not new and has been documented by scholars for at least a decade (Jacobson et al., 2025), and it is evident in public CTC data. The CTC reports a misalignment (i.e., positions held by teachers who are misassigned (not teaching in the area of their credential) or vacant)<sup>11</sup> for 2022/23, the most recent year of data available on their website, in all positions that fall within “English Language Development,” including designated/integrated ELD and bilingual/primary language development. In that year, there were almost 10,000 misassigned positions for integrated/designated ELD (54% of the total misaligned) and close to 3,000 vacancies (28%). For bilingual/primary language instruction positions, the CTC reported 1,000 misalignments, with the vast majority (72%) being non-credentialed teachers (misassigned) and 131 vacant positions (12%). For comparison, in the same year, the CTC reported nearly 5,000

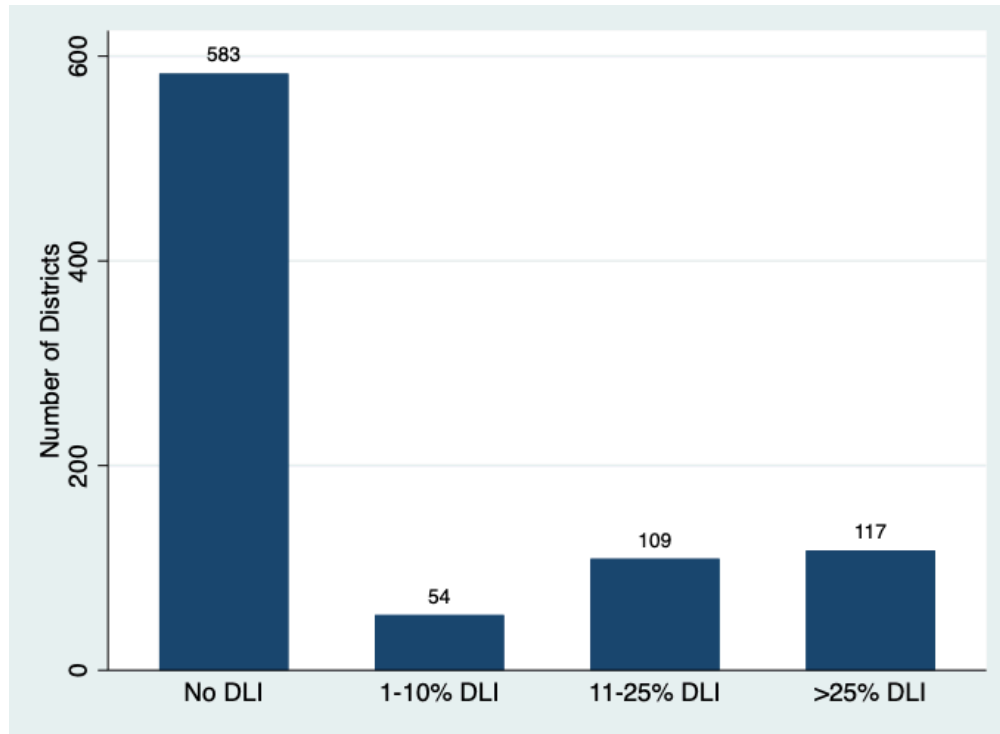
<sup>11</sup> Per CTC: A misassignment indicates that the educator in the assignment did not hold the appropriate Commission-issued credential for the assignment, and was not otherwise legally authorized for the assignment through flexibility afforded in Statute/Regulations. Pursuant to Education Code 44258.9, misassignments should be corrected within 30 calendar days of identification. <https://www.ctc.ca.gov/commission/reports/data/assignment-workforce-dashboard/dashboard-faqs>

misalignments between general education/math positions. More than half (53%) were misassigned, and 30% (around 1,500) were vacancies.

### ***Expected Hires***

One way to gauge potential teacher shortages is to compare the number of expected hires (for districts expecting to hire in the upcoming school year) to the number of newly certified teachers. CDE data has an indicator for whether districts expect to hire “multilingual education” teachers. This includes teachers for all types of multilingual programs: bilingual, designated ELD, and newcomer programs. The vast majority of current bilingual programs can be safely assumed to be elementary-level, two-strand DLI (Darriet & Santibañez, 2024). Figure 8 shows the number of districts with and without DLI programs by proportion size. Out of the 916 districts with public data, 64% do not have a DLI program, and 36% do. Among districts with DLI programs, the average is 4 programs per district, representing about 32% of schools.

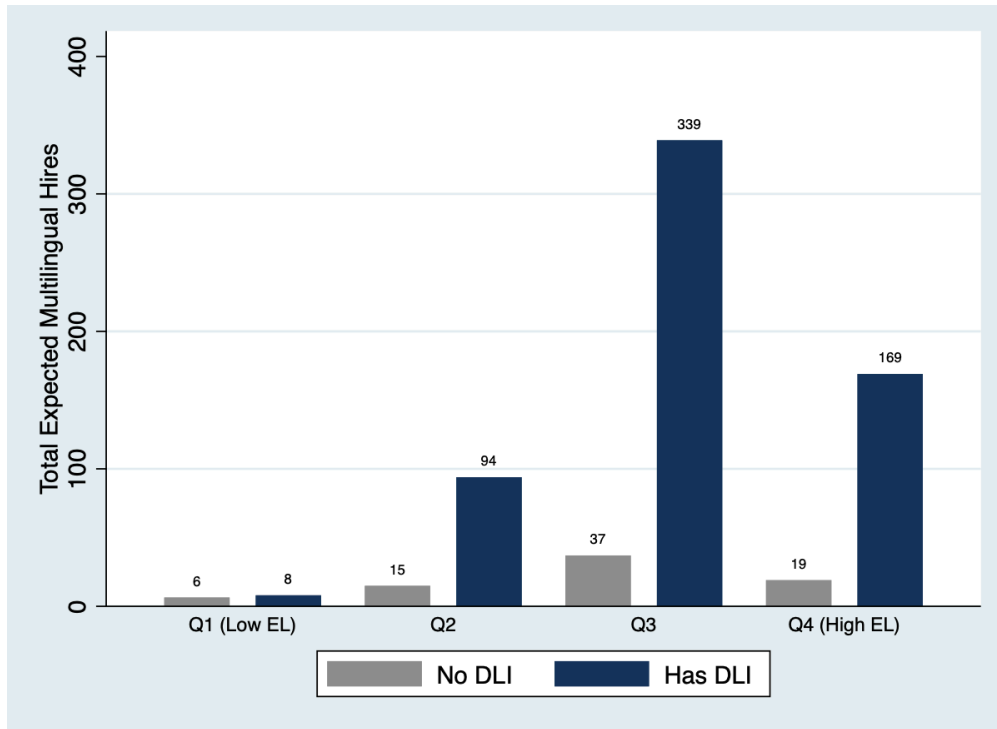
**Figure 8.** Distribution of Districts by DLI Program Concentration



Note: DLI school N=1,224. Districts with DLI have, on average, 4.3 programs (out of a mean of 18 schools), representing about one-third (32%) of all schools in the district. The maximum district has 174 programs.

In the 2024-25 school year, 180 districts (out of N=916) expected to hire 706 multilingual educators. Most of these districts, unsurprisingly, have high proportions of EL students (see Figure 9). Breaking down these districts by those with and without DLI programs reveals that most districts hiring multilingual educators are those with DLI programs. In fact, high-EL proportion districts without DLI programs hire comparatively fewer multilingual educators, indicating that most of these positions are likely to be filled by bilingual-authorized teachers in districts with DLI programs.

**Figure 9.** Expected Multilingual Teacher Hires by District EL Concentration and DLI Status



The previous section showed that in 2024, the CTC issued Bilingual Authorizations to nearly 1,400 teachers, which should have been enough to fill all expected hires (around 700 for 2024/25). Still, in that same year, districts issued nearly 500 emergency permits. Moreover, numerous reports in the media and among education scholars and think tanks warn of a current and impending bilingual teacher shortage.<sup>12</sup> What is going on? In the next section, we investigate whether the geographic distribution of BILA programs relative to DLI schools (and, more generally, EL students) may be related to this situation.

## 6.2 Geographic Distribution of Bilingual Teacher Preparation Programs

One potential explanation for the supply/demand mismatch previously discussed is that most BILA programs concentrate in areas where the supply of DLI programs and the proportion of EL students is not growing enough to surpass supply, but in other areas, it is actually surpassing supply.

<sup>12</sup> See for example A [SEAL](#) (2023) and a The [Hechinger](#) Report (Dec 2024) about grants to district, a [Language Magazine](#) (Sept 2025) report about a state sponsored bill to hire temporary teacher from Mexico, and a report using older data by the [Learning Policy Institute](#) (2017)

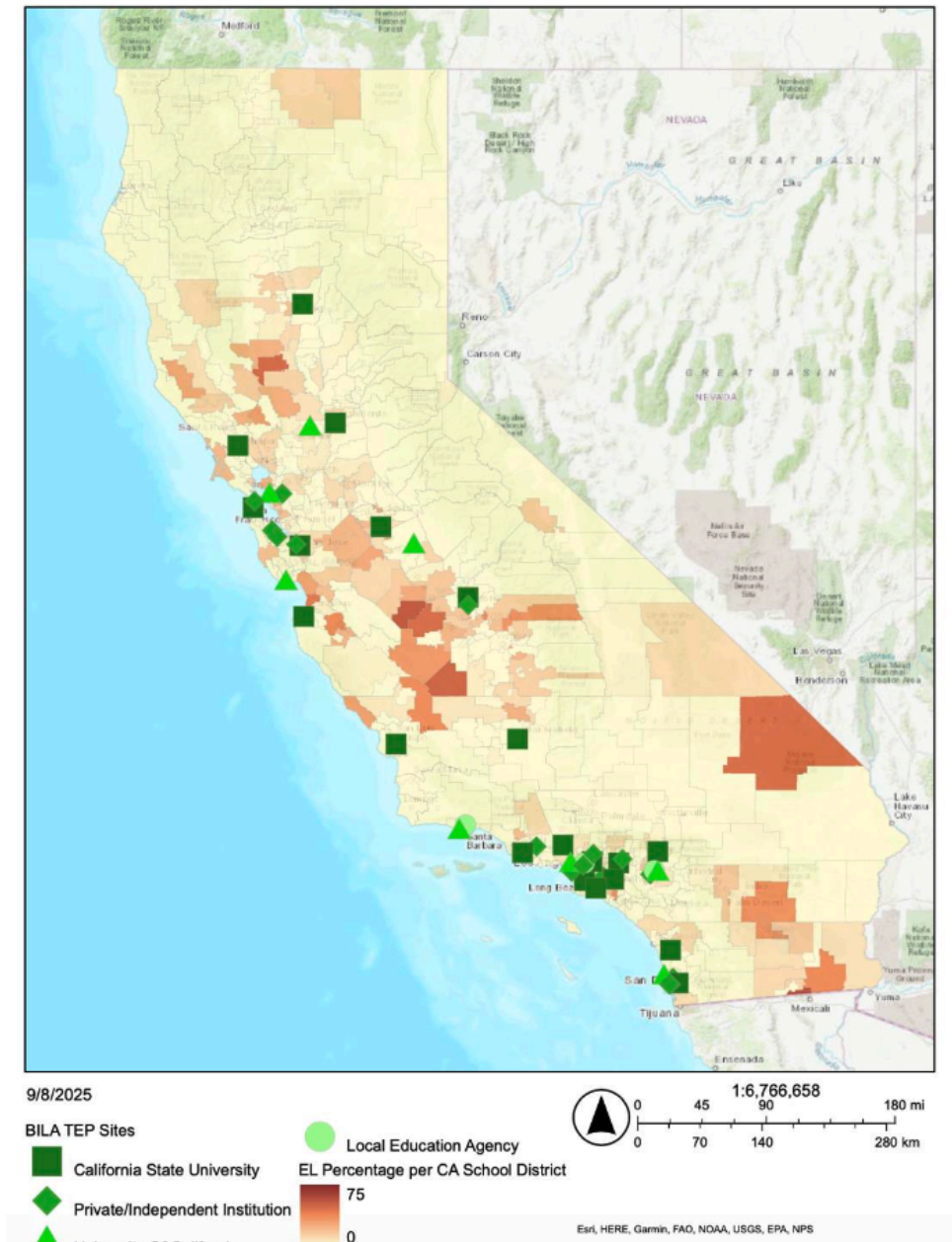
Research shows that teacher labor markets are highly localized: most teachers work within 15-40 miles of where they grew up and where they completed their preparation (Boyd, Lankford, Loeb & Wyckoff, 2005; Reiningger, 2012). This could mean that rural regions with high English Learner populations and a high demand for DLI may face difficulties attracting teachers to these positions because the costs of obtaining BILA may be much higher than for teachers who live near these programs.

To better understand this, we compiled publicly available data from CTC on the number of bilingual authorizations issued and the programs across the state approved to provide these authorizations and mapped these programs onto California school districts by proportion of EL students to examine whether teachers in high-EL areas have ready access to preparation programs.<sup>13</sup> The analysis reveals significant differences in the availability of BILA programs (see Figure 10). Districts along the U.S.-Mexico border show high numbers and proportions of EL students and potentially strong demand for DLI, with some, such as Calexico Unified, having English Learner populations nearing 60% of their enrollment (90% if we count Ever-ELs). Yet the nearest bilingual authorization programs require two- to three-hour drives to San Diego. Similar challenges exist in the Imperial Valley and along the Nevada-California border, where the Baker Valley Unified School District, which serves a population of 51% English Learners, has limited nearby preparation options. The Central Valley districts face similar challenges. Williams School District (53% EL) and Mendota School District (58% EL) are far from preparation programs. Prospective teachers in Tulare County's Earlimart School District (57% EL) must travel roughly an hour to access programs at Fresno State or CSU Bakersfield.

---

<sup>13</sup> Sam Ferraez at UCLA provided research support to gather these data and produce these maps.

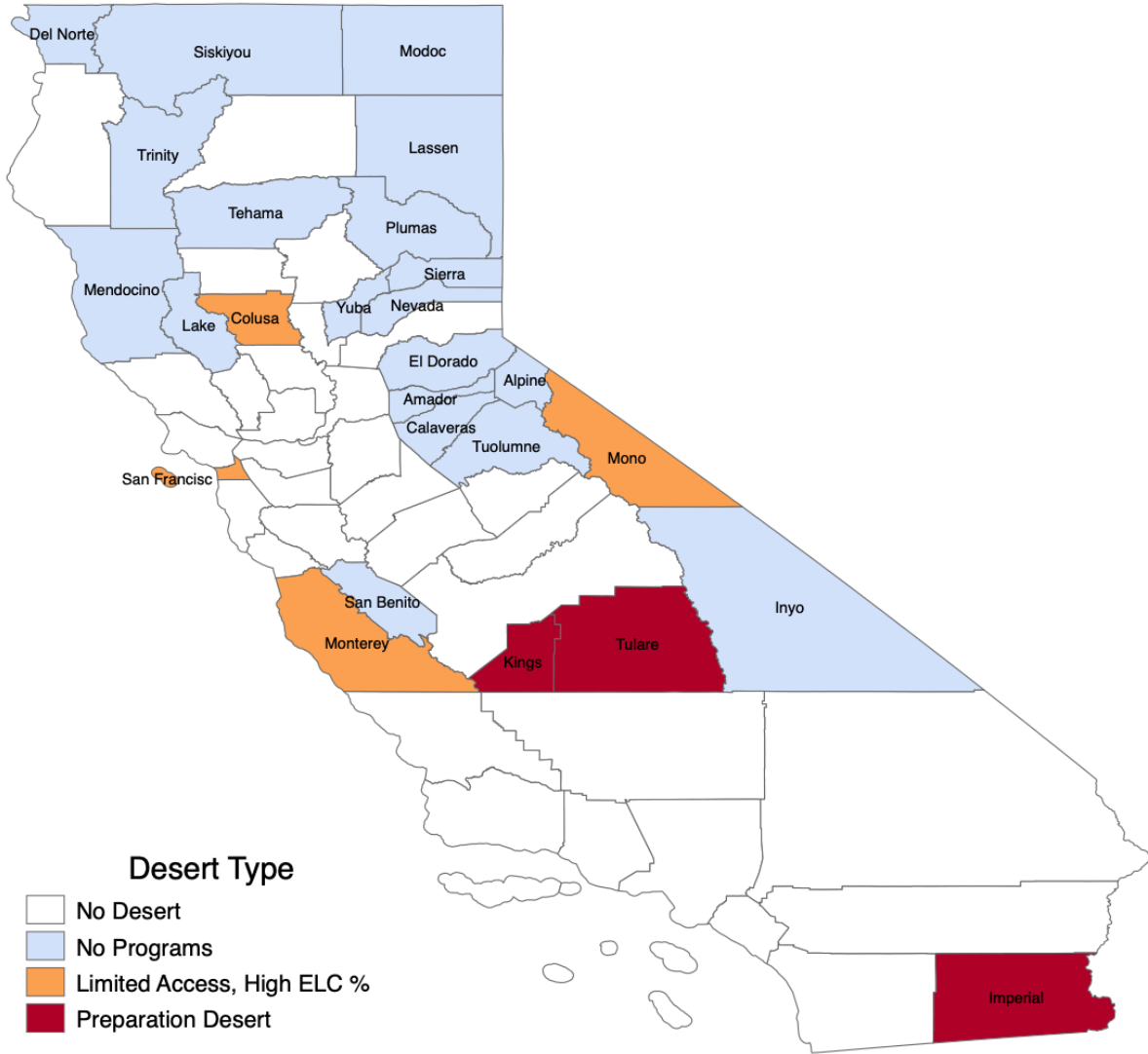
**Figure 10.** Teacher Preparation Programs Offering Bilingual Authorizations by EL Concentration in California (2023/24)



EL growth, however, is not the only criterion that can be used to determine an area a “preparation desert.” We define a preparation “desert” as counties with: high proportions of ELC enrollment (highest quartile), availability of at least one teacher preparation program in the county offering BILAs, and a measure of how “far” the average person is in the county from the nearest preparation program—defined as being above the median distance in the state. We include all counties

in this measurement because large counties (such as Los Angeles) may have areas that are 60, 70, or more miles from the nearest preparation program, even though they are in-county. Results are shown in Figure 11.

**Figure 11. Bilingual Teacher Preparation Deserts in California**



Preparation Desert: No preparation programs in county + far from nearest program  
 Limited Access, High EL: Far from nearest program, EL enrollment highest quartile  
 Prep Desert, High EL: No prep programs, far from nearest, high EL enrollment

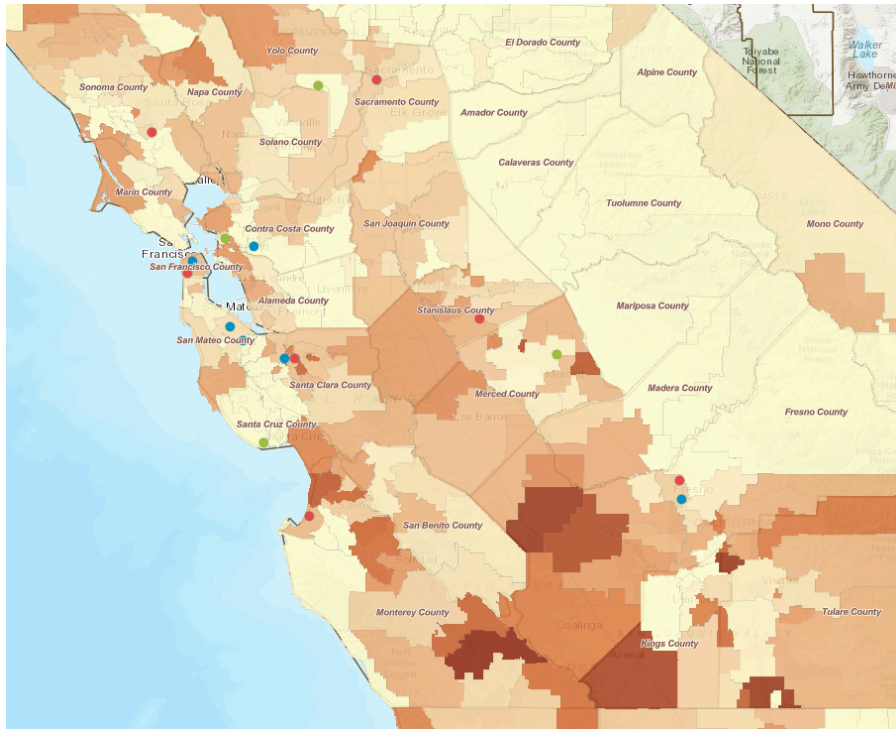
Note: Own elaboration using public county-level data from the California Department of Education, the U.S. Census, and the CTC for 2023/24.

Four counties are classified as preparation deserts under this definition: Kings, Tulare, and Imperial.<sup>14</sup> In addition, Monterey, San Francisco, Colusa, and Mono counties have high percentages of ELC students and limited access to preparation (although Colusa and Mono have each fewer than 1,500 ELC students, so total enrollment numbers are low).

*Preparation Access and DLI Program Supply*

Figure 12 shows a subsection of the map focusing on four counties with the largest proportion of DLI programs in the state: San Francisco (N=59, 59% DLI), San Benito (N=8, 36% DLI), Monterey (N=28, 25% DLI), and Yolo (N=14, 31% DLI).

**Figure 12. Bilingual Teacher Preparation Programs in High-DLI Counties**



San Francisco and Yolo County (near Sacramento) appear to be well served by multiple preparation programs in the greater Bay Area. In San Benito and Monterey counties, however, only one nearby university offers a bilingual authorization: CSU Monterey Bay. Imperial County in Southern California (N=12, 21% DLI) also has a significant proportion of schools with DLI programs, but is located

<sup>14</sup> Kings County has 4k, Tulare county has ~21k and Imperial has 12k ELC students. Data is for 2023/24.

far from programs or LEAs offering BILAs (see Figure A2 in the Appendix). Two counties, San Francisco and Monterey also overlap with restricted access to teacher preparation programs using ELC criteria (see Figure 11).

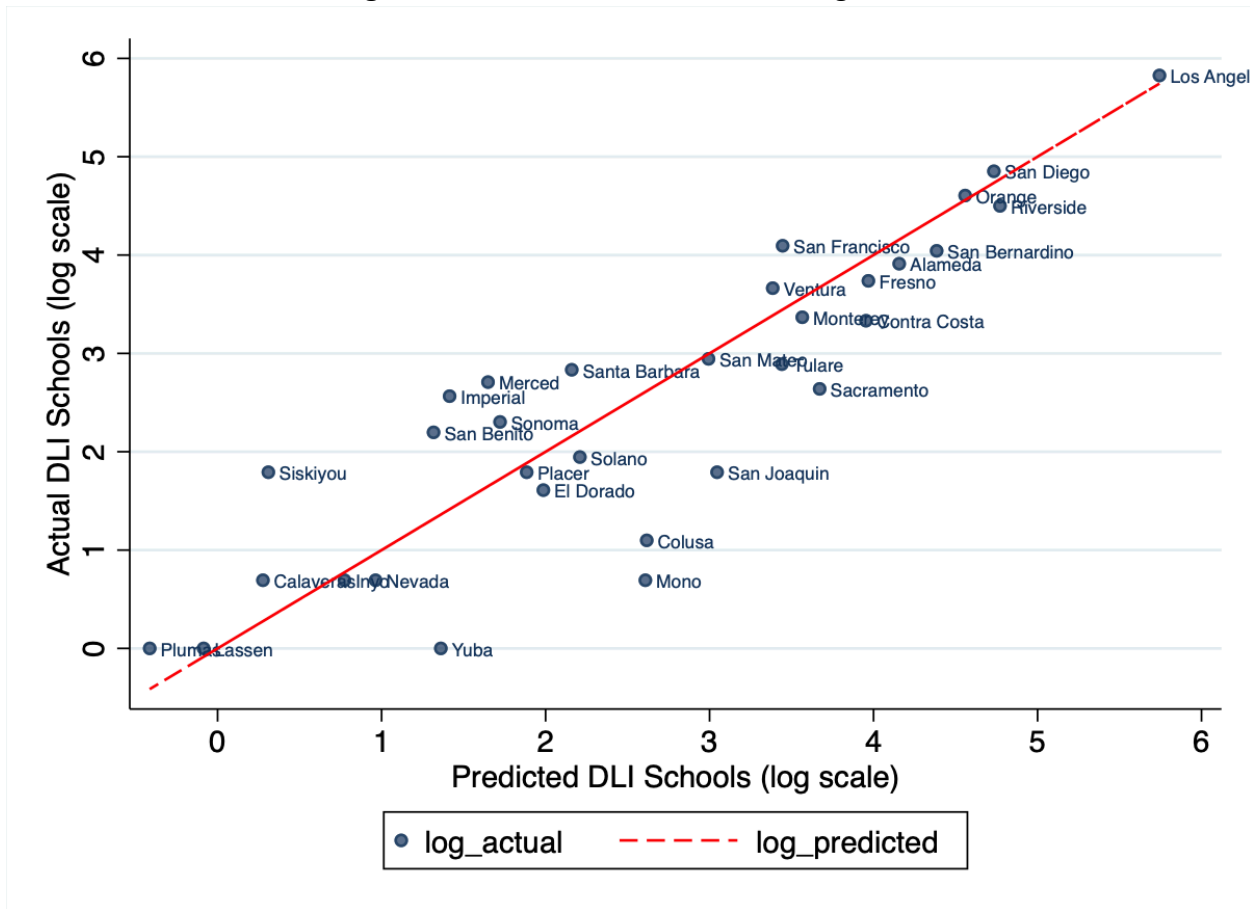
## **Summary**

Taken together, these findings indicate a continued mismatch between the supply of BILA teacher preparation program graduates and the concentration of ELC students. Although less populous than metropolitan areas, these districts have high ELC enrollment, indicating strong potential for growth in bilingual programs. A weak BILA teacher pipeline could be a serious limitation.<sup>15</sup> To explore this further, we merge program-level issued BILA permits and waivers with the number of university-based teacher preparation programs at the county level, and county-level school EL enrollment and other data, to run a regression analysis and identify any meaningful patterns. Figure 13 shows the predicted vs. the actual number of DLI programs (full regression results are available in the appendix).

---

<sup>15</sup> To examine this further, researchers would ideally have access to historical data on EL-enrollment, DLI programs, BILAs by program, and placements. This would help establish trends, predict future growth, and allow a better understanding of local teacher labor market conditions. We could, for example, know whether BILA teachers are being hired by schools with bilingual programs, and whether these programs are geographically close to where they obtained their credentials.

**Figure 13.** Actual vs. Predicted DLI Program Growth



Note: Some clarity of presentation, some (small) counties are not shown on the graph. Predicted coefficients on the number of DLI schools from a regression on: total enrollment, proportion of ELCs, number of BILA permits and waivers, access to BILA teacher preparation programs (number of programs, distance to programs). All data is at the county level.

Some of the counties that we classified as preparation deserts (either full or with restricted access and high ELC representation), such as Monterey, Tulare, Mono, and Colusa, are below the 45° line, suggesting that a limited pipeline may be slowing DLI growth. However, other counties labeled as preparation deserts (or restricted access), such as Imperial and San Francisco, are above the line, suggesting robust DLI growth despite these potential limitations. These counties may be growing through district-issued emergency or other permits that allow programs to continue expanding despite pipeline constraints. Geographical or physical proximity, of course, is not the only factor affecting the supply and demand for DLI or other bilingual programs. Teacher preparation programs can enter into partnerships between county offices of education and are able to serve regions outside their own

through online or hybrid programs.<sup>16</sup> Unfortunately, the lack of available data from CTC and CDE on program completers, initial placement, and credential status limits our analysis of teacher supply and demand, and potential demand for multilingual programming.

## 7. Discussion and Policy Implications

This study examined the relationship between school English Learner concentration and teacher preparedness indicators in California. In addition, it examined the growth in DLI programs and BILA authorizations across the state to identify potential pitfalls as California advances toward the 2030 vision.

The results reveal a consistent and troubling pattern: schools serving higher proportions of English Learners—particularly Long-Term English Learners—systematically have less prepared teaching staff across multiple dimensions. The patterns are reversed for schools serving predominantly English-only students, which have more experienced teachers and fewer concerns about preparation. This contrast underscores that the teacher preparedness challenges are concentrated among schools serving the students who most need specialized instruction.

The analysis of bilingual teacher preparation reveals additional equity concerns. Despite state efforts to expand bilingual authorizations, some regions of the state experience teacher preparation "deserts" that, in several cases, are likely to pose limits on DLI program expansion. This includes areas along the northern and Central Valley part of the state. While the state issued approximately 1,400 new bilingual authorizations in 2024, districts simultaneously issued nearly 500 emergency bilingual permits—suggesting persistent mismatches between supply and demand that may intensify as DLI programs continue to expand toward the 2030 goals.

The lack of comprehensive data linking teacher authorizations to actual classroom placements, tracking teacher mobility between DLI and non-DLI positions, and monitoring program-level staffing patterns makes it difficult to precisely quantify the gap between supply and demand. However,

---

<sup>16</sup> See for example San Diego's bilingual credential program, the largest program in the state, offers an online/hybrid option through their partnership with Butte County Office of Education: <https://education.sdsu.edu/credential/bilingual-education#:~:text=We%20graduated%20the%20first%20cohort,educators%20who%20understand%20bilingual%20education>

available indicators point to a shortage that current preparation capacity may not adequately address, particularly in geographically underserved regions.

### *Limitations*

The analysis relies on publicly available school-level data, which precludes examination of student-teacher matching at the individual level. I cannot determine whether EL students within a school are more or less likely to be assigned to the school's less-qualified teachers. Second, the cross-sectional design establishes associations rather than causal relationships. Schools with high EL concentrations may face staffing challenges for reasons correlated with—but not caused by—their student populations. District-level policies, geographic factors, and school resources may all contribute to the patterns observed. Third, the "ineffective" teacher rating likely captures a complex set of factors, and its validity and reliability across contexts remain unestablished. I include this measure because it is publicly reported and policy-relevant, but results should be interpreted with appropriate caution, as it may not reflect what is considered "effectiveness" in the education policy literature, which typically relies on test-score value-added or observational metrics.

## 7.1 Policy Implications

These findings have several implications for policy and practice, which take on particular urgency given California's Global 2030 vision (only four years away) and recent federal guidance that may significantly affect funding for English Learner services.

**1. Strengthen EL-Specific Requirements in Teacher Preparation.** While California has made progress in embedding EL-related content into teacher preparation—particularly through the 2021 literacy reforms and updated Bilingual Authorization standards—more work remains. Induction programs should include meaningful accountability for EL-specific competencies, not merely exposure. The discrepancy between teachers' EL authorization (which all credentialed teachers hold) and their actual preparation to serve ELs effectively warrants examination. Given that LTEL students have distinct needs from newly arrived ELs, preparation programs should specifically address LTEL instructional strategies.

**2. Target Interventions to LTEL-Concentrated Schools.** Schools serving high proportions of Long-Term English Learners show the most pronounced teacher quality gaps and should be prioritized for intervention. Additional professional development resources and pre-service focus on LTEL-specific instructional strategies (and preventative strategies as well) would help existing teachers better serve this population.

**3. Address Regional Inequities in Bilingual Teacher Preparation.** The preparation "deserts" documented in this analysis require targeted policy responses. Areas with high English Learner populations and a high demand for DLI may face difficulty attracting teachers to these positions because the costs of obtaining BILA may be much higher than for teachers who live near these programs. The state should consider incentivizing universities in underserved regions to develop bilingual authorization programs, expanding district-based preparation pathways in high-need areas, and supporting program models that can reach prospective teachers with rigor and quality regardless of location. Strategic placement of new preparation programs in counties with high EL concentrations but limited current access—such as Imperial, Tulare, and parts of the Central Valley—could substantially improve the bilingual teacher pipeline.

**4. Protect and Strengthen EL Services Amid Federal Uncertainty.** The August 2025 federal guidance, which creates uncertainty around Title III and other funding for supplemental English Learner services, makes these findings particularly concerning. If funding for EL programs is reduced, the teacher quality gaps documented here may widen further. California should develop contingency plans for maintaining EL services if federal funding is eliminated, consider state-level funding mechanisms to backfill potential federal cuts, and document and communicate the importance of dedicated EL funding to policymakers. The state's substantial EL population—and the equity concerns this analysis reveals—underscore the importance of protecting investments in teacher quality for this student population.

**5. Better Data and Data Availability.** One clear policy implication of this study is that better data and data availability are needed to understand, with a higher level of precision, the challenges the state will face as it advances toward Global California 2030 and other worthy, ambitious educational goals.

## 7.2 Concluding Remarks

There is incredible richness in California’s student and teacher diversity that must be protected and preserved. Today, nearly 40 percent of students enter Kindergarten as multilingual (they speak another language at home). The state also has a significant, growing proportion of diverse (racially and linguistically) teachers. As the state moves toward ambitious multilingual learner goals, we should remember that existing inequities persist and could undermine the potential success of these ambitious plans. Despite decades of policy attention, schools serving the highest concentrations of ELs—and particularly Long-Term ELs—continue to face systematic disadvantages in teacher preparedness. Geographic inequities in access to bilingual teacher preparation compound these challenges, particularly in regions with high EL concentrations but limited preparation infrastructure. There is strong demand for bilingual programs in areas not well served by current teacher preparation options. The students who most need expert, specialized instruction are less likely to receive it. This represents a fundamental equity challenge that California's education system has yet to resolve. As federal policy creates new uncertainties around EL services, California has both the opportunity and responsibility to address this challenge. Doing so will require sustained attention and funding for bilingual education, teacher preparation, strategic interventions in high-need schools, expansion of preparation programs to underserved regions, and policies that protect and strengthen EL services.

## References

- Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). The draw of home: How teachers' preferences for proximity disadvantage urban schools. *Journal of Policy Analysis and Management*, 24(1), 113-132.
- Cimpian, J. R., Thompson, K. D., & Makowski, M. B. (2017). Evaluating English learner reclassification policy effects across districts. *American Educational Research Journal*, 54(1 Suppl.), 255S–278S.
- Darriet, K., & Santibañez, L. (2024). Dual Language Immersion in California: Program characteristics and student outcomes. UCLA Center for the Transformation of Schools.
- Gándara, P., & Hopkins, M. (Eds.). (2010). *Forbidden language: English learners and restrictive language policies*. Teachers College Press.
- Gándara, P., Rumberger, R., Maxwell-Jolly, J., & Callahan, R. (2003). English learners in California schools: Unequal resources, unequal outcomes. *Education policy analysis archives*, 11, 36-36.
- Estrada, P., & Wang, H. (2018). Making English learner reclassification to fluent English proficient attainable or elusive: When meeting criteria is and is “not” enough. *American Educational Research Journal*, 55(2), 207–242.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? University of California Linguistic Minority Research Institute.
- Hernández, S. J. (2023). Increasing bilingual teacher pathways to address the surge of dual language bilingual education programs. *The Handbook of Dual Language Bilingual Education*, 327-336.
- Lavadenz, M., Ee, J., Armas, E. G., & López, G. V. (2021). "No. 9, September 2021: Leaders' Perspectives on the Preparation of Bilingual/Dual Language Teachers." *Education and Policy Briefs*. 10. [https://digitalcommons.lmu.edu/ceel\\_education\\_policybriefs/10](https://digitalcommons.lmu.edu/ceel_education_policybriefs/10)
- Lee, S., Woo, A., Kaufman, J., & Doan, S. (2025). *Lost in Translation—Teachers Report Feeling Unprepared to Support Multilingual Learners*. RAND Corporation. Available at: [https://www.rand.org/content/dam/rand/pubs/research\\_reports/RRA100/RRA134-29/RAND\\_RRA134-29.pdf](https://www.rand.org/content/dam/rand/pubs/research_reports/RRA100/RRA134-29/RAND_RRA134-29.pdf)
- Leider, C. M., Colombo, M., & Nerlino, E. (2021). Decentralization, teacher quality, and the education of English learners: Do state education agencies effectively prepare teachers of ELs?. *Education Policy Analysis Archives*, 29, 100-100.
- López, F., & Santibañez, L. (2018). Teacher Preparation for Emergent Bilingual Students: Implications of Evidence for Policy. *Education Policy Analysis Archives*, 26(36).

López, F., Saldaña, C., & Santibañez, L. (2026) Multilingual Learners learning English: What can California learn from other states? Getting Down to Facts III.

Lucas, T., Villegas, A. M., & Freedson-Gonzalez, M. (2008). Linguistically responsive teacher education: Preparing classroom teachers to teach English language learners. *Journal of Teacher Education*, 59(4), 361-373.

Novicoff, S., Reardon, S. F., & Johnson, R. C. (2024). California's English Learners and Their Long-Term Learning Outcomes. Learning Policy Institute.

Reininger, M. (2012). Hometown disadvantage? It depends on where you're from: Teachers' location preferences and the implications for staffing schools. *Educational Evaluation and Policy Analysis*, 34(2), 127-145.

Robinson-Cimpian, J. P., & Thompson, K. D. (2016). The effects of changing test-based policies for reclassifying English learners. *Journal of Policy Analysis and Management*, 35(2), 279–305.

Santibañez, L., Pina, P., & Ferraez, P. (2026). Bilingual teacher supply and demand in California: Projections for 2030. UCLA Center for the Transformation of Schools.

Santibañez, L., Snyder, C., & Centeno, D. (2021). Strengthening teacher induction policies to better serve English learners. *Policy Analysis for California Education*.

Santibañez, L., & Gándara, P. (2018). Teachers of English language learners in secondary schools: Gaps in preparation and support. The Civil Rights Project, UCLA.

Shin, N. (2018). The effects of the initial English language learner classification on students' later academic outcomes. *Educational Evaluation and Policy Analysis*, 40(2), 175-195.

Shin, N. (2020). Stuck in the middle: Examination of long-term English learners. *International Multilingual Research Journal*, 14(3), 181–205.

Thompson, K. D. (2017). What blocks the gate? Exploring current and former English learners' math course-taking in secondary school. *American Educational Research Journal*, 54(4), 757-798.

Thompson, K. D. (2022). Exploring leveled and exclusionary tracking in math course-taking for English learner students. San Diego, CA: American Educational Research Association.

Umansky, I. M., & Avelar, J. D. (2023). Canaried in the coal mine: What the experiences and outcomes of students considered long-term English learners teach us about pitfalls in English learner education... and what we can do about it. *Journal of Education for Students Placed at Risk (JESPAR)*, 28(1), 122-147.

Umansky, I. M., Callahan, R. M., & Lee, J. C. (2020). Making the invisible visible: Identifying and interrogating ethnic differences in English learner reclassification. *American Journal of Education*, 126(3), 335-388.

Umansky, I. M., Poza, L. E., & Flores Gutierrez, M. (2021). "A sentencing": Veteran educators' perceptions of a constriction of English learner students' opportunities across grade spans. *International Multilingual Research Journal*, 15(3), 267–291.

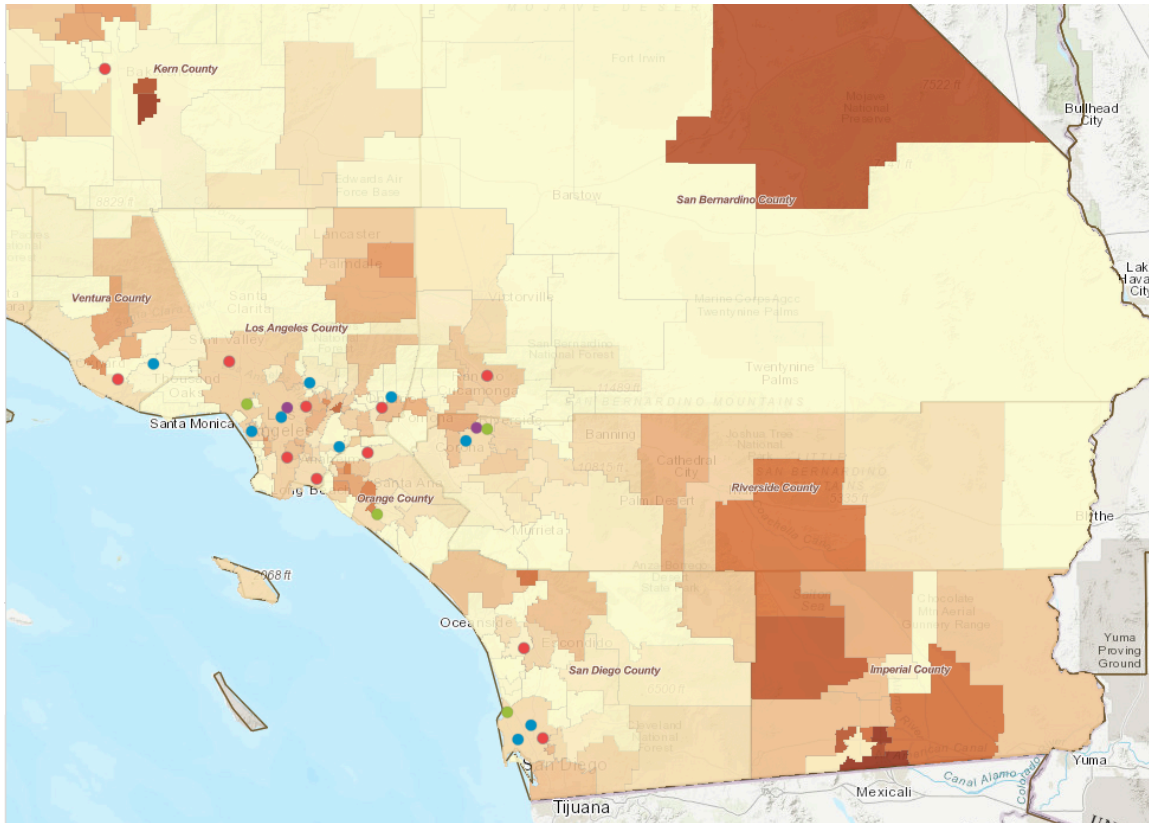
Umansky, I. M. (2016). Leveled and exclusionary tracking: English Learners' access to core content in middle school. *American Educational Research Journal*, 53(6), 1792–1833.

Valenzuela, A. (1999). *Subtractive schooling: U.S.-Mexican youth and the politics of caring*. SUNY Press.

## Appendix

### A.1 Additional Figures

Figure A. DLI Programs and Counties in Southern California



**Table A1. Regression Results (Relationship between number of DLI schools, EL enrollment and teacher preparation variables), 2023/24**

Linear regression	Number of obs	=	58
	F(6, 51)	=	43.35
	Prob > F	=	0.0000
	R-squared	=	0.9480
	Root MSE	=	11.971

	Robust					
n_dli_schools	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
total_enrollment_100	.0223362	.0043442	5.14	0.000	.0136148	.0310575
bila_p_w	1.026561	.5059281	2.03	0.048	.0108677	2.042254
el_pct	.0576506	.1602804	0.36	0.721	-.2641256	.3794268
desert_type						
No BILA Programs	8.655268	2.977908	2.91	0.005	2.676869	14.63367
Limited Access, High EL %	19.56928	9.896974	1.98	0.053	-.2997194	39.43829
Preparation Desert	.020779	6.819962	0.00	0.998	-13.67087	13.71242
_cons	-9.628556	3.505864	-2.75	0.008	-16.66687	-2.59024

## A.2 Glossary of Terms

**Student/Administrator Ratio:** The number of students per certificated administrator FTE at a school. Calculated by dividing total enrollment on Census Day by total certificated administrator FTE.

**Student/Pupil Services Ratio:** The number of students per certificated pupil services FTE. Pupil services staff include counselors, social workers, nurses, speech therapists, psychologists, and related positions.

**Student/Teacher Ratio:** The number of students per certificated teacher FTE at a school.

**Category A Teachers:** Teachers who hold a full (cleared) credential and have three or more years of teaching experience.

**Category D Teachers:** Teachers who do not hold a full credential and have fewer than three years of teaching experience.

**Long-Term English Learner (LTEL):** A student who has been classified as an English Learner for six or more years without reclassifying to fluent English proficient status.

**Out-of-Field Teacher:** A teacher assigned to teach a subject for which they do not hold the appropriate credential authorization.

**Intern Teacher:** A teacher who holds an intern credential, meaning they are completing their teacher preparation program while serving as the teacher of record.

**Ineffective teacher:** An individual whose assignment is legally authorized by an emergency permit that does not require possession of a full teaching license; or a teacher who holds a teaching credential but does not possess a permit or authorization that temporarily allows them to teach outside of their credentialed area (misassigned), or an individual who holds no credential, permit, or authorization to teach in California. Under this definition, teachers with the following limited emergency permits would be considered ineffective: Provisional Internship Permits, Short-Term Staff Permits, Variable Term Waivers, and Substitute permits or Teaching Permits for Statutory Leave (TSPL) holders serving as the teacher of record