Getting Down to FACTS

California's System of Special Education Staffing

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Executive Summary

The number of students with disabilities is growing rapidly in California and the United States as a whole. How are California's schools keeping up in terms of staff? To answer this question, we look beyond just special education teachers to the ecosystem of staffing across three types of professionals most directly engaged in meeting the needs of special education students: teachers, related service providers (such as psychologists or speech pathologists), and classroom support (paraeducators). Using the broad brush of administrative data to capture the *number* of staff occupying these three types of positions across California and more granular experiences of principals to show the *experience* within schools, we find shortages in each of the three staffing areas, particularly evidenced in our qualitative data. In a nutshell, there is no slack in the special education staffing system. Principals cannot make up for short- or long-term shortages in one area by drawing on another, which leads them to a crossroads about how to best meet the needs of special education students. What's more, we find that while staffing shortages occur across the state, they look different depending on where they take place in California's diverse educational landscape. To address the issues that we lay out in this report requires, at a minimum, additional data to better understand where and how staff shortages occur and with what effect. Additionally, targeted solutions for the special education workforce (e.g., differential pay) that take into account both role and district context could be a useful policy lever to pull. Beyond adjustments to pay and benefits, more robust in-service and pre-service training and preparation to equip general education staff to serve students with disabilities could have benefits for both staff and students in the state.

Introduction: Growing Needs and Constrained Capacity in California

Students with disabilities represent a growing, diverse group of students served by schools in California and across the nation. Indeed, there were over 865,000 students with disabilities in California schools as of the 2024-25 school year, representing about 15% of all students in the state (CDE, 2026), and over 10% of all students with disabilities in the country (NCES, 2024). State enrollment trends parallel those at the national level: over 7.5 million students, or about 15% of all students, received

special education and/or related services in the United States in 2023 (NCES, 2024). This rate of disability identification reflects a notable increase in the past decade, given that only about 10% of students in California were identified with disabilities in the 2014-15 school year (Ondrasek et al., 2020). Each of these students is educated by a diverse team of school staff, including general and special education teachers, related service providers (e.g., speech-language pathologists), and paraeducators (Cleveland et al., 2025; Gilmour et al., 2026). Thus, understanding the system of staffing who serves students with disabilities in schools requires attending to a wide range of different staff roles within and outside of special education.

Both the number of students identified with disabilities and the rate of inclusion in general education among students with disabilities are rising. Within California, 60.1% of students spend 80% or more of their school day in general education, 14.3% spend 40-79% of the day in such classes, and 16.8% spend less than 40% of their day in general education classrooms as of the 2024-25 school year (CDE, 2026). On a national level, as of the 2022-23 school year, 67% of students with disabilities spent 80% or more of the school day in general classes, compared to 16% who spent 40-79% of the day, and 13% of students who spent less than 40% (NCES, 2024). The distribution of students with disabilities across educational settings is similar in California to national rates, with the exception that more students with disabilities in California are educated in more restrictive environments (i.e., less than 40% of time in general education) than their peers across the country.

Numerous staff roles are essential to supporting students with disabilities in schools. Special education teachers are the primary service providers for students with disabilities, serving important roles related to instruction, behavior management, and case management (Bettini et al., 2021; Feng & Sass, 2013). However, general education teachers also provide essential direct services to the many students with disabilities in general education classrooms (Gilmour & Wheby, 2020). Furthermore, students with disabilities are eligible to receive related services such as speech-language pathology, social work, and occupational therapy (IDEA, 2004). Therefore, students with disabilities are likely to receive services from specialized personnel filling non-teaching roles including speech-language pathologists, occupational therapists, school psychologists, and social workers (Downing, 2004). Additionally, many students with disabilities receive support from paraeducators, who may be assigned as dedicated aides to individual students or as classroom aides to a full class, supporting multiple

students (Giangreco et al., 2010; Fisher & Pleasants, 2012). Indeed, while substantial special education staffing research has focused on special education teachers, there are many more individuals who support students with disabilities in schools and thus who are an essential resource for effective and equitable educational opportunities for students with disabilities.

As with many aspects of education, staffing resources are not evenly distributed across districts and schools. Extant literature demonstrates that certain schools and districts tend to face greater challenges attracting and retaining teachers, including those with higher proportions of marginalized students (e.g., students of color, students in poverty), as well as lower-performing schools (Adams & Darling-Hammond, 2012; Hanushek & Rivkin, 2012; Yao & Potter, 2026). Numerous studies demonstrate that special education staff - including teachers and paraeducators - are also inequitably distributed across schools and districts. For example, a study by Mason-Williams (2015) found that high-poverty schools were more likely to employ special education teachers with lower qualifications and preparation. Studies demonstrate that turnover is higher in schools with a larger proportion of students of color and low-income students (Carver-Thomas & Darling-Hammond, 2017). Rural schools are also shown to struggle with unique challenges in maintaining an adequate workforce (Ingersoll & Tran, 2023). Further, recent research by Theobald et al. (2025) indicates that schools with higher proportions of students of color have higher paraeducator-to-student ratios and higher turnover rates among special education paraeducators.

Overall, extant research demonstrates that the supply of students with disabilities is rising, challenging districts to adequately staff schools to implement special education services, particularly in inclusive settings. Research also indicates that staff are often inequitably distributed across schools, raising questions about the ability for the supply of adequately trained and prepared staff to meet the demand of student needs. Given the vast size and scope of the public school system in California, as well as the substantial geographic and demographic variation present across different parts of the state, California offers a unique opportunity to explore this supply and demand within a single state. Drawing on administrative data on staffing in the state and interviews with dozens of California principals, we provide both a wide-lens landscape of special education enrollment and staffing in California with an up-close view of how it operates on the ground.

We find that, aligned with national trends, more students with disabilities are being identified in California schools, particularly in the categories of autism spectrum disorder (ASD) and other health impairment (OHI). Most students with disabilities in California are educated in general education settings for the majority of their day, but there is substantial variation in rates of inclusion by region. We also find that school districts seem to recognize this rising need and are responding with increased estimated numbers of special education teacher hires. Additionally, the state has seen recent increases in the number of pupil services personnel employed in schools. Yet our interviews with principals suggest that despite the rise in staffing across these categories of special educators, related service providers, and paraeducators, school leaders still feel under-capacity to support the needs of students with disabilities. While some of the staffing challenges differed across these three groups, principals repeatedly described wanting more of these staff positions and facing challenges recruiting and retaining qualified people for these roles. More robust in-service and pre-service training and preparation for general education staff to serve students with disabilities may help strengthen the ability of all school staff to support students with disabilities, reducing the strain on special education staff in isolation.

Literature Review: Student Needs and Staffing Patterns

Expanding Enrollment and Inclusion of Students with Disabilities

Nationally, an increasing number of students are being identified with special education needs. As of the 2023 school year, 7.5 million students were deemed eligible to receive special education services through an Individual Education Program (IEP) (NCES, 2024). Students may be deemed eligible to receive special education services under one of 13 federal disability categories: intellectual disability, hearing impairment, speech or language impairment, visual impairment, emotional disability, orthopedic impairment, Autism spectrum disorder (ASD), traumatic brain injury, other health impairment (OHI), specific learning disability, deaf-blindness, multiple disabilities, and developmental delay (IDEA, 2004). Eligibility primarily due to a specific learning disability is the most common disability classification, accounting for about 30% of special education students (NCES, 2024). Yet research suggests that other disability classifications, particularly ASD, may be on the rise (Cardinal et al., 2021).

Each student with an IEP has the legal right to receive services delivered in the least restrictive environment (LRE), which includes educating students with their nondisabled peers to the maximum extent possible (IDEA, 2004). The principle of LRE has long been the foundation of special education services, but the meaning and implementation of LRE has been debated (Fuchs et al., 2025). Although the law is clear about the rights of special education students, it is far from certain what the most effective service delivery models are, and researchers are divided on this question. For example, some scholars emphasize evidence from randomized controlled trials demonstrating the importance and effectiveness of intensive instructional support in more restrictive settings (e.g., Fuchs et al., 2025). Others cite evidence from qualitative as well as larger-scale quasi-experimental research that demonstrates the benefits of inclusion for both academic and non-academic outcomes (e.g., Kaler et al., 2025; Jones et al., 2025). Regardless of these debates, students continue to be educated across the continuum of placements that may be defined as the LRE, including less restrictive placements such as inclusion in general education classrooms for over 80% of the day, as well as more restrictive settings including self-contained classrooms or schools (NCES, 2024).

The Constellation of Staff Supporting Special Education

There is robust agreement on the importance of quality teachers in the education of students with and without disabilities (e.g., Billingsley et al., 2004; Hanushek et al., 2004), even though substantial research also demonstrates that ensuring the stability and quality of the educator workforce is a persistent challenge, particularly in the wake of the COVID-19 pandemic (e.g., Bacher-Hicks et al., 2023; Nguyen et al., 2024). Workforce challenges include issues along the employment pipeline, such as attracting people to the profession, ensuring they are adequately trained, and retaining them in their roles. Turnover is a particularly salient challenge for stability within the special education workforce, among both special education teachers and paraeducators (e.g., Theobald et al., 2025).

While overall trends indicate similar challenges nationwide in recruitment, training, and retention, there is significant regional variation in the distribution of staffing services. For example, some studies show that rural schools have experienced significant reductions in student enrollment and in teacher hiring and retention (Ingersoll & Tran, 2023). Additionally, recent research leveraging job

posting data demonstrates distinct trends and differences across position and school types in terms of the timing and length of job postings (Goldhaber et al., 2025).

A robust school staff infrastructure is especially important for students with disabilities, who are likely to work with a wide range of staff on a daily basis. Depending on their specific IEP services, students with disabilities rely on both general and special education teachers, as well as paraeducators and related service providers (Bettini et al., 2021; Cleveland et al., 2025). Thus, to capture the true need in the special education workforce, it is essential to expand the scope of education workforce research beyond a narrow focus on teachers to explore patterns across a broader constellation of staff who perform many different roles through many different programs.

California's Context for Special Education

Within the state of California, special education services are in some ways uniquely organized. Most notably, state law requires that each school district and county office of education belong to a Special Education Local Plan Area (SELPA), which are designed to provide support as educational agencies implement special education services. SELPAs are required to submit an annual plan outlining elements such as governance, budget, and services (Doutre et al., 2021).

Recent research indicates that special education funding and governance, as well as teacher pipelines and working conditions, may present particular challenges to effective special education service delivery in California. The rising cost of special education services continues to outpace state funding (Warren et al., 2018), and California's census-based allocation of special education funding to SELPA governing boards also remains a key barrier to funding well-intentioned policy at the local level (Doutre et al., 2021). Studies on the teacher education pipeline have emphasized a need for comprehensive data and cost-effectiveness analysis on entry-points into the teacher education system, including K-12 schools, high school, community colleges, undergraduate institutions, and teacher preparation programs – the last of which most teachers enter through, although there is wide variation in how such programs evaluate and ensure teacher preparedness (Bell et al., 2018). The California Department of Education's relatively low average salaries compared to those of local districts further disincentivize the sustained, in-house subject-area expertise needed to ensure ongoing technical, organizational, and political capacity for frontline staff across the state (Moffitt et al., 2018).

California is seeing a growing number of special education students served by a wide array of educational professionals (teachers, specialists, and paraeducators). Yet it is not clear whether the increasing demand is being met by adequate supply: the right kind of specialists, with the appropriate qualifications, who are willing to work and remain in districts where there is great need.

Study Purpose and Research Questions

To explore the staffing for special education from a systems-based lens, we answer the following research questions:

1. What is the landscape of school staffing (i.e., supply of educators and educator credentials) in California, and how does that relate to student enrollment and inclusion for students with disabilities?
2. What perceptions do administrators have of challenges and strategies for implementing staffing for students with disabilities?

Method: Overarching Patterns and Close-Up Perspectives

To answer our research questions, we used a mixed-methods approach that combined publicly available state administrative sources to estimate numbers of staff and students and interview data from school principals across the state to show the experience of special education staffing in California. In our analysis, we focus on developing a statewide overview of staffing and special education service trends, along with exploring variation across different characteristics (e.g., region, enrollment). Overall, we provide a 20,000-foot picture paired with a close-up examination of how the system of special education staffing aligns with the needs of students with disabilities in California.

Data

Administrative Data

We leverage publicly available data from the California Department of Education (CDE) and the California Commission on Teacher Credentialing (CTC) on student enrollment and inclusion with

disabilities, the number of classified and certified staff employed in California schools by role[1], estimated teacher hires by subject, and teaching and service credentials by subject and permit type (CDE, 2026; CTC, 2026). We list each data source in Table 1. Additionally, we leverage regional categorizations of counties from the California census to explore variation by region (California Census, 2020). A map and list of counties that are included in each region can be found in Appendix A.

Table 1. *Publicly Available Administrative Data Provided by CDE and CTC*

Data	Provider	Years Available
Census Day enrollment	California Department of Education (CDE)	2024-2025
Enrollment and inclusion of students with disabilities	California Department of Education (CDE)	2023-2025
Classified staff by role	California Department of Education (CDE)	2020-2025
Certificated staff by role	California Department of Education (CDE)	2020-2025
Estimated teacher hires by subject	California Department of Education (CDE)	2012-2025
Teaching and services credentials by subject and permit type (e.g., new, permit, waiver)	California Commission on Teacher Credentialing (CTC)	2020-2024

Note. We define "years available" as the years for which a downloadable data file is made publicly available on the provider's website at the time this report was written.

Interview Data

We included our open-ended questions on a Getting Down to Facts instrument that interviewed 82 principals. The interview team selected a random sample of local education agencies (LEAs) stratified by district type: elementary, high school, and unified districts, yielding an analytic sample of 200 schools across 74 districts. Participants were recruited via email and phone, and after the

[1] Importantly, we cannot identify the number of teachers working in special education roles. We can identify the number of estimated teacher hires in special education and the number of teachers working in public schools overall, but we cannot discern between special and general education teachers with more precision.

interviews were conducted, they were compensated for their time. Interviews were conducted between September 8, 2025 and December 22, 2025. In total, 414 school principals from 126 districts in the state were contacted. From that sample, 82 responded (17% response rate), which resulted in a final analytic sample that includes 69 districts across 38 of the 58 counties in the state.

Table 2. *Sample of Interview Data*

School type	Number of interviewees
Elementary schools	30
Middle schools	19
High schools	33
Traditional schools	77
Charter schools	2
Continuation/alternative schools	3
Total schools	82

Note. This table includes the full sample of principal interviews.

Interviewers fielded open-ended questions related to six topics (i.e., staffing, special education, generative AI, high-impact tutoring, math pathways (for middle school principals only), and pensions) and were able to ask follow-up questions during the interviews. The interview protocol for questions on special education can be found in Appendix B. Three members of the Getting Down to Facts team conducted the interviews and each interview lasted between approximately 45 and 60 minutes. Raw interview data were cleaned and anonymized by the Getting Down the Facts team before the transcripts were shared with this research team. Stanford's Institutional Review Board (IRB) approved the study procedures.

Analysis of California Special Education Staffing

Administrative Data

To analyze our administrative data, we began with a descriptive analysis using summary statistics to establish trends in enrollment and inclusion of students with disabilities, as well as the

employment and certification of school staff over time. For each dataset that we analyze (e.g., enrollment of students with disabilities from CDE, education specialist credentials from CTC), we focus on longitudinal trends, as well as regional differences in the most recent year of available data.

To explore relationships between student-level and staff-level data, we combine multiple CDE datasets for the 2024-25 school year and conduct ordinary least squares regression analysis. We merge and analyze Census Day enrollment, enrollment and inclusion of students with disabilities, and counts of classified and certified staff. We employ a regression in the following form:

$$y_{cd} = \beta_1 SchoolCharacteristics_d + \beta_2 SPEDCharacteristics_d + \rho_c + \varepsilon_{cd}$$

In this model, y represents the number of individuals employed in a given staffing group (i.e., teachers, pupil services, paraeducators) in a given district *d* in county *c*. Additionally, $SchoolCharacteristics$ represents a vector of different overall school enrollment characteristics, including total student enrollment, percent of English Learner (EL) students, percent of socioeconomically disadvantaged students, percent White students, and percent male students within a given district. $SPEDCharacteristics$ represents a vector of different enrollment characteristics related to students with disabilities in the district, including percent of students with disabilities, percent of students with disabilities included over 80% in general education, and percent of students with disabilities included less than 40% in general education coursework. To control for unobserved variation at the county level, ρ represents a county fixed effect. Finally, ε is an error term. Standard errors are clustered at the county level.

Interview Data

To analyze our interviews, we engaged in thematic analysis. Research team members read the transcripts of each interview with an eye to answering our research questions, and individually composed memos capturing their interpretations of the challenges that principals faced with regards to special education and the solutions they used to address these challenges. We met as a team throughout the analytic process to discuss each coder's memo and come to a set of overall themes and conclusions from the full corpus of interviews. To show how staffing is experienced in districts, we include principals' descriptions in their own words at length. These data provide a close-up picture of the effects of increased demand for special education services within the constraint of limited staff.

Integration

As we analyzed our administrative and interview data, we developed conclusions on areas of convergence and divergence across the datasets. While the quantitative and qualitative datasets were primarily analyzed separately, each was shaped by the other as our team worked to integrate the two sources together.

Results

Enrollment and Inclusion of Students with Disabilities

To gain a better understanding of the needs of students in the state, we explore recent patterns in the enrollment and inclusion of students with disabilities in California schools before turning to how staffing among different roles may fill those needs. Overall, we find that the number of students with disabilities has been increasing, putting pressure on schools and their multiple types of staff to meet the increased demand.

Rising Enrollment

We find that the number of students with disabilities identified in public schools in the state has risen over the past three school years, as shown in Figure 1, Panel A. The number of students identified with disabilities has risen from just under 800,000 to approximately 865,000, reflecting a 9% increase over the past three years. In the same period, the total number of students enrolled in California schools has declined from 5,852,544 to 5,806,221, reflecting a 0.79% decrease in total enrollment.

This rise appears to be especially driven by an increase in the number of students identified with autism spectrum disorder (ASD) as their primary disability, as seen in Figure 1, Panel B. Indeed, while there were approximately 150,000 students identified with ASD in 2023, that number has risen to nearly 190,000, representing a 27.5% increase over the past three school years. Correspondingly, ASD has since risen from the third most common to the second most common disability identification among students with disabilities in the state between the 2022-23 and 2024-25 school years. The number of students identified with other health impairments (OHI) has also risen over the past three

school years, from about 114,000 to approximately 131,000, which represents an increase of about 15%.

Although the administrative data paint a picture of a gradual increase, principals spoke about significant changes in their schools. One administrator said, “the special education numbers continue to just explode” (Principal Interview 095). They went on to say that these changes are not unique to their district:

> *It's just that the number of students that qualify for special education have risen so much that we just have tons and tons and tons of kids on IEPs. And again, I know that that's a larger state issue. I know that my superintendent, when he meets with other superintendents in the county, it's always a topic of conversation, the number of students that are on IEPs. It's kind of like when you look at the Autism spectrum and how that's exploded, right? It's the same kind of thing.* (Principal Interview 095)

While principals were frequently talking about these changes over a longer time period of time than the administrative data we analyzed, they described the increased number of special education students as “massive.”

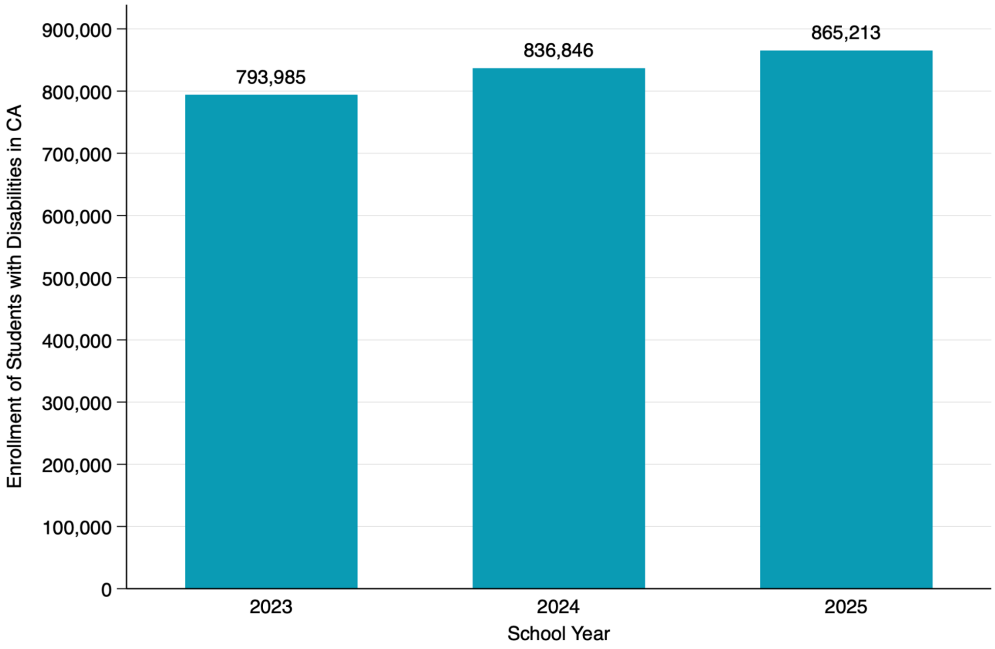
> *I would definitely focus on the increased numbers we're experiencing. Throughout the district, huge amount of increase. We're closer to 20% with IEPs where before, you go back 10 years, it was probably closer to 8%. So there's a massive increase in the number of students who have IEPs, need services.* (Principal Interview 286)

With the increasing number of students identified for special education, comes a similarly increasing administrative workload for school leaders. For some, the workload has moved from manageable to taking over their week, as illustrated by the time they spend in IEP meetings. One principal recounted,

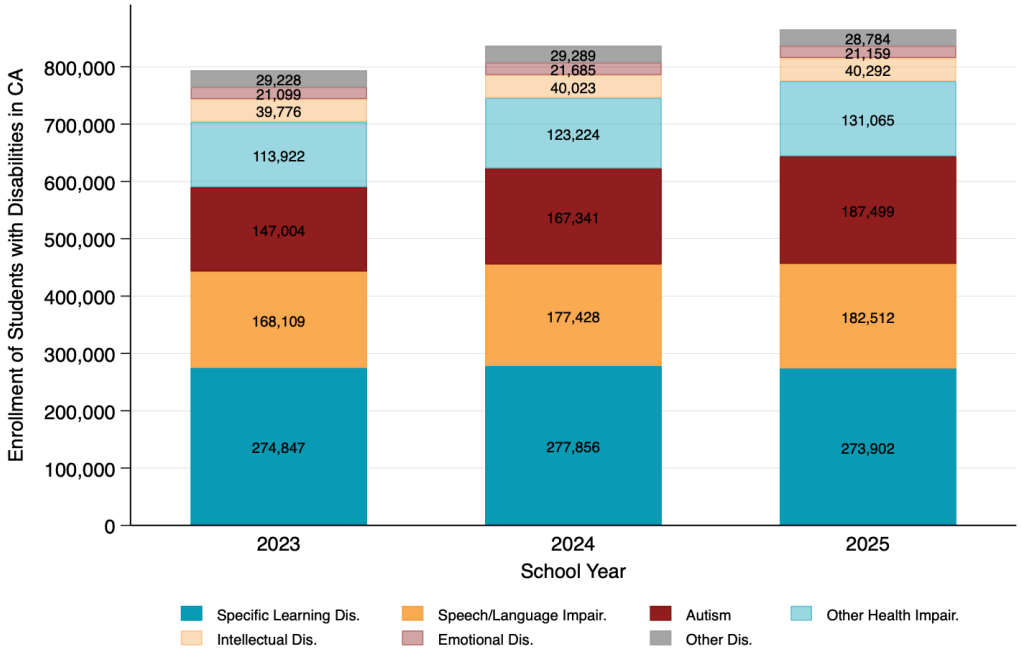
> *I sat in 197 IEPs last year. So to sit in 197 hour-and-a-half to two-hour meetings. It is beyond a heavy load. We're holding meetings two days a week, like two full days a week, and so if I'm in an IEP meeting, that means I'm not other places. And so it is very hard to manage the workload. Because I value the importance of being in IEP meetings.* (Principal Interview 398)

Figure 1. *Enrollment of Students with Disabilities in California, 2023-25*

Panel A: Total Number of Students with Disabilities



Panel B: Number of Students with Disabilities by Category



Note. "Other Disability" includes: Deaf Blindedness, Deaf/Hearing Impairment, Established Medical Disability, Hard of Hearing, Multiple Disabilities, Orthopedic Health Impairment, Traumatic Brain Injury, or Visual Impairment.

Another principal had a similar account of this increased workload, sharing that they and their assistant principal attended IEP meetings almost every day of the school year.

> *You know, 10 years ago I might have had one or two IEP meetings a week. And now, both myself and my assistant principal, we have an IEP meeting almost every single day after school. Last year, I counted, and I had like, 10 days in the entire school year when I wasn't in an IEP meeting after school.* (Principal Interview 095)

More than just taking their time, many principals expressed concerns that there are not enough staff and resources to meet the increased need. The same principal above commented:

> *I can't tell you why those numbers are so high and why we have so many students, but I can tell you the legal requirements of ensuring that we cross every T and dot every I demands more and more and more staff to accommodate.* (Principal Interview 095)

Other principals also spoke about not having the necessary staff for the rising needs.

> *It's scary the level of need that is coming out of special ed… Special ed in general is just on the rise so much, and our percentages are so high, and there's not enough bodies, there's not enough support for special ed.* (Principal Interview 339)

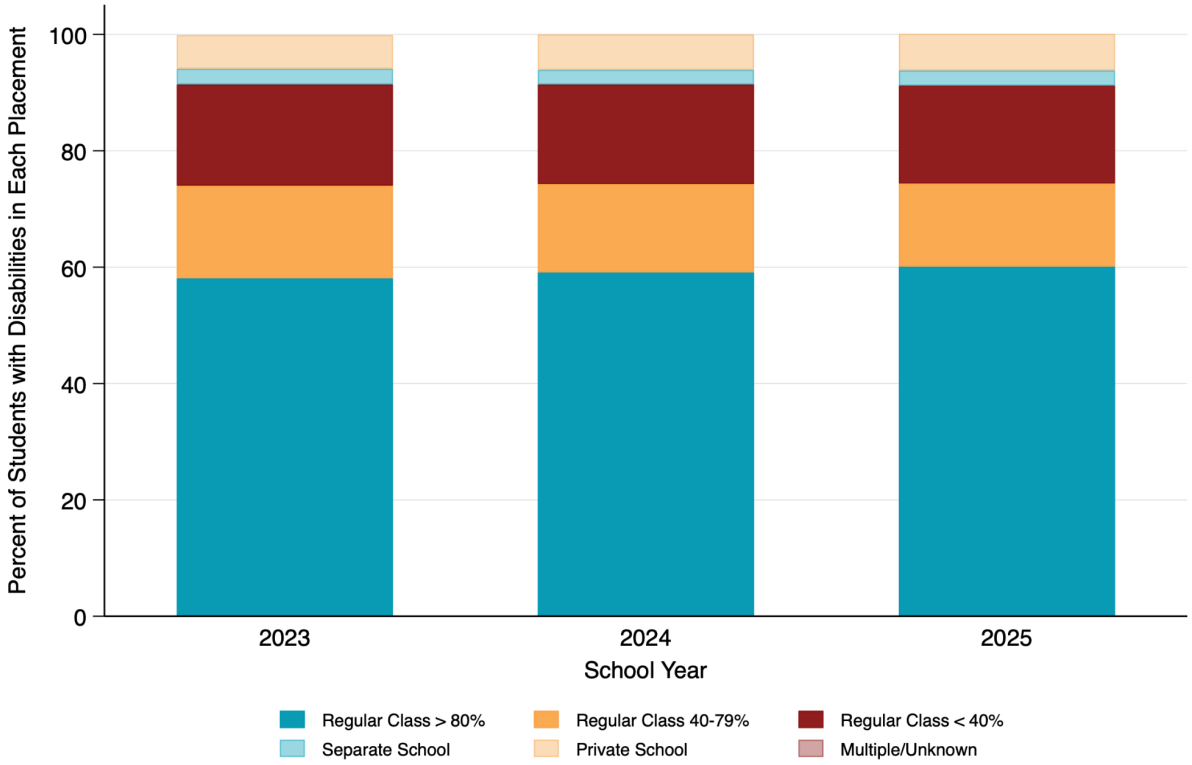
These staffing constraints were particularly apparent when administrators spoke about the inclusion of students along the LRE continuum.

Inclusion

If there are more students in schools, how are students included along the LRE continuum? We find that the proportion of students in different placements along the least restrictive environment continuum has not changed much over the past three years, although California's students lag behind the national average for proportion in the most inclusive classrooms. Many principals express a commitment to inclusion, though they also detail the barriers to it, including limited staffing and resources, siloing of responsibility between general and special education staff, and a lack of training and support. In Figure 2, we see that the majority of students with disabilities in California are included in general education classrooms for over 80% of their school days. We do not observe especially notable differences in this trend over the past three school years across any singular category, although

there is a marginal increase in the number of students included in general education classrooms for over 80% of their school days, from 58% in 2023 to 60% in 2025.

Figure 2. *Placement of Students with Disabilities Along the LRE Continuum, 2023-25*



Note. "Regular Class > 80%" refers to students who spend 80% or more of their school day in regular classrooms, which is the most inclusive placement along the LRE continuum. "Regular Class 40-79%" refers to those who spend 40-79% or more of their school day in regular classrooms, often termed resource room settings. "Regular Class < 40%" refers to those who spend less than 40% of their school day in regular classrooms, which is indicative of students spending the majority of their day in self-contained special education classrooms.

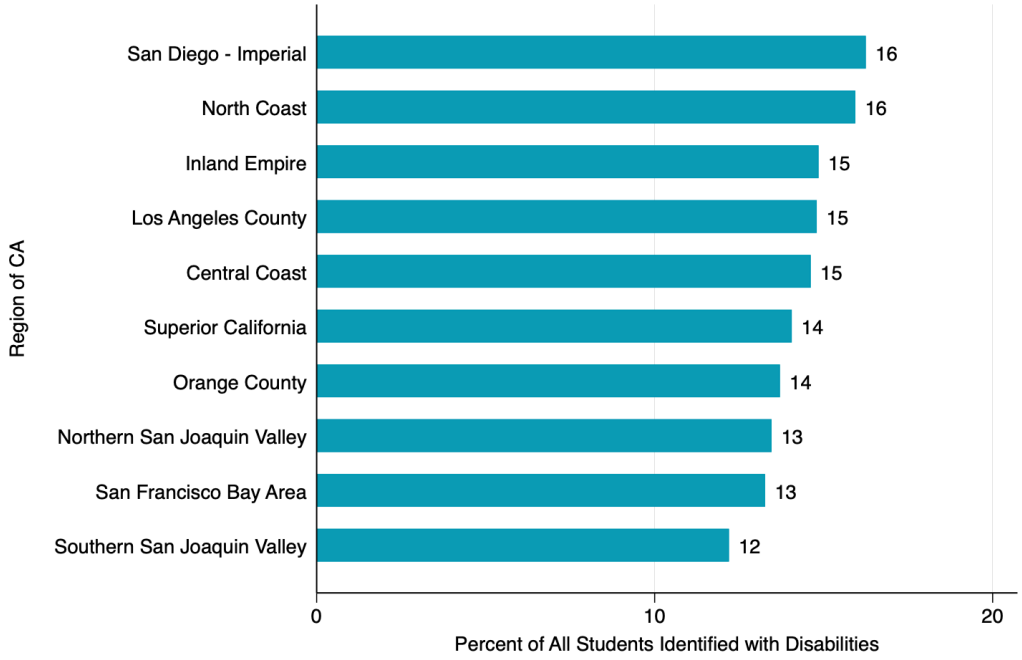
Notably, the proportion of students with disabilities educated in primarily inclusive educational environments (i.e., "Regular Class > 80%") in California is lower than the national average, while the proportion of students educated primarily in self-contained special classrooms (i.e., "Regular Class <40%") is higher than the national average across all three recent school years. For example, in the 2022-23 school year, 67% of students with disabilities nationally were educated in the most inclusive LRE placement, while only 58% of students in California were educated in the same. Additionally, while only 13% of students nationwide were educated primarily in self-contained special education

classrooms, 17% of students in California were educated in such placements. Both nationally and in California, about 16% of students were educated primarily in a resource room setting (i.e., “Regular Class 40-79%”) in the 2023 school year.

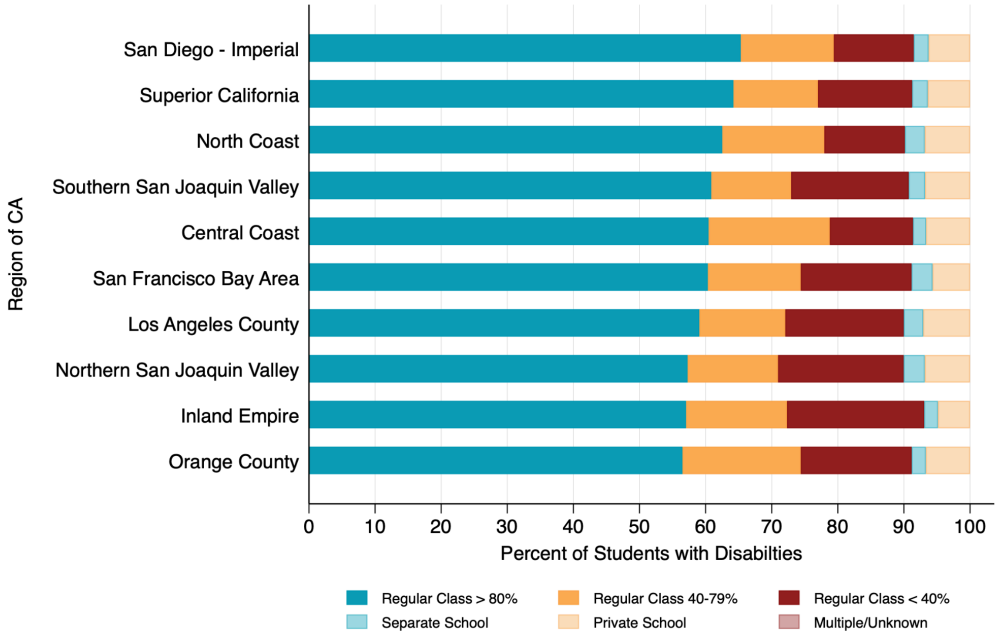
There are regional differences in the number of students identified and included in different placements along the LRE continuum. These are important to attend to given the fact that research suggests educational resources - including staffing resources - are not equitably distributed (e.g., Carver-Thomas & Darling-Hammond, 2017; Hanushek & Rivkin, 2012; Ingersoll & Tran, 2023). For example, while the national rate of disability identification is around 15%, that percent varies between 12 and 16 percent across different regions, as evidenced by Figure 3, Panel A. Digging deeper into regional differences, Figure 3, Panel B indicates that less than 60% of students with disabilities in Orange County, the Inland Empire, Northern San Joaquin Valley, and Los Angeles County are included in general education for the majority of their school days. On the other hand, about 65% of students with disabilities in the San Diego - Imperial or Superior (near Shasta) California regions are included in general education classes for over 80% of their school days. Interestingly, Central Coast schools include an average number of students with disabilities in general education classrooms (about 60%), but serve the lowest proportion of students in self-contained environments. Similarly, while the students in the Inland Empire are not included in general education classes as much as other regions, they include the highest proportion of students with disabilities in public, rather than separate or private school settings.

Figure 3. *Enrollment and Inclusion of Students with Disabilities by Region of CA, 2025*

Panel A: Enrollment of Students with Disabilities



Panel B: Placement of Students with Disabilities Along the LRE Continuum



Note. The 10 regions of California are identified based on state Census regions, which are grouped by "hard-to-count populations, like-mindedness of the counties, capacity of community-based organizations within the counties, and state Census staff workload capabilities" (California Census, 2020). A map can be found in Appendix A.

Many school principals expressed strong ideological commitment to inclusion, though they frequently contrasted these goals with what they identified to be practical difficulties. Referencing increases in the number of students identified in ASD and OHI categories, increases we also found at the state level, one principal spoke about what the "wider range of differentiated need" means in their school and classrooms.

> *One is how we teach a classroom that maybe has more ADHD and Autism than existed before or where we have it more diagnosed than before. So it's our job to work on how we approach the classroom and the lesson plans, and it's a lot of work right now for us to be able to hold a classroom accountable to grade level standards with, I think, a wider range of differentiated need, perhaps than ever before, because we're not tracking students like we did, which was a very poor and unethical practice. We're trying to give students the best and keep them in the mainstream or the single stream… Again, the ability to co-teach, the ability to have teachers push in, rather than take a group of students who have needs and pull them out of their class and perhaps lose out on instruction, or that mainstream experience is unethical.* (Principal Interview 062)

This quote reflects commitments to more inclusive practices that were voiced by many principals in the interviews, but it also acknowledges that these commitments are requiring, "a lot of work for us right now." This principal, earlier in the interview, voiced that there needs to be more co-teaching, but "I think right now, it's spread too thin" (Principal Interview 062). This principal was not alone in expressing concerns for what these increased numbers mean in practice.

Despite the fact that many administrators viewed inclusion not just as a legal requirement but as an ethical imperative to ensure students with disabilities are not marginalized and have access to the general education curriculum, they spoke about the significant barriers they perceived in implementing more inclusive practices. These barriers included limited staffing and other resource constraints, siloing of responsibility between general and special education staff, and a lack of training and support.

Limited Staffing and Resource Constraints

When speaking about special education teachers pushing into general education classrooms, a principal said, “It is a great idea in theory, but in practice, there's not enough staffing to make that work” (Principal Interview 125). Another principal, who had great success with a co-teaching model at their previous school, lamented not having the staffing to make it work in their current position.

> *I'm a very firm believer in a co-taught model in special education for students that are able to access what's in the general education classroom with support so being able to staff in order to be able to serve students best, especially in special education… in my former school, I brought in a co-taught model, and we saw huge gains from our special education students, who were now being placed in a general education classroom and accessing general education curriculum with accommodations and support, either by, you know, support from an instructional aide or support from an actual specialized academic instructor. And I wish I had the flexibility to be able to do that in my current role, but I don't, and again, it has to do with staffing and what needs to be offered to students.* (Principal Interview 226)

Similarly, principals spoke about smaller class sizes being helpful to support inclusive practices but not having adequate staff for it. One high school principal suggested taking the number of special education students in a class into account when determining class size: “So if you do have X number of special ed kids in a class, maybe you're capping that class at 25…if we're looking at inclusion… it's being sensitive to their needs and supporting sites with funding to…cap sizes” (Principal Interview 285). This principal was keenly aware that their suggestion would require, “supporting sites with funding,” but not all of the challenges to inclusion that administrators identified were about staffing and resources.

Siloing Between General and Special Education

School administrators also perceived siloing of responsibilities between general and special education staff as a significant impediment to more inclusive practices. One administrator noted “The culture here was one of the big barriers. Essentially our gen ed teachers are saying, yeah, those kids aren't my problem.” (Principal Interview 375). Another principal explained, “We're trying to shift the mindset of the quote, unquote, ‘You're responsible for the kids with IEPs,’ as opposed to, ‘We're

responsible for the kids'" (Principal Interview 343). This principal went on to say that they were also working on the professional and relational roles between general and special education teachers in the classroom, noting, "Some gen ed teachers really treat the ed specialists as co-teachers. In other classrooms, they are treated more like aides or assistants" (Principal Interview 343).

Lack of Training and Support

Other principals also recognized that co-teaching models required more than simply putting two educators in the same room.

> *You really have to train them in the credential programs on how to do it, because you just can't go to independent teachers and say, "Okay, go into one class together and teach." Because team teaching is really involved. And teachers like control of their own classroom. So…they're going to be like, "Who's this person, right?" So if it's done correctly I think team teaching would be a good idea to do in more schools.* (Principal Interview 271)

Calls for training extended beyond co-teaching models, and some focused on more training for general educators. "I would really like efforts and funding available to really train our gen ed teachers to support our special education students, and so that they are getting access to grade level curriculum" (Principal Interview 295). But even with additional training, one administrator reported hearing from their general education teachers that they were struggling.

> *We've also provided additional training for teachers on how to provide supports for students with special needs within the gen ed setting, and there is a push at multiple levels for inclusion…But I'm going to be honest, it leads to a lot of challenges for teachers in a gen ed setting to try to bridge that gap, for students that may be at that level will have these unique behavioral needs, but you're in a gen ed setting with students that are two three grade levels above, and then you have kids that are ELs, and it's just, it's and I'm more channeling what our teachers are saying than I am from my own perspective, but I gotta listen to them. And that's something that some are struggling with."* (Principal Interview 285)

Across the principal interviews, we found several systemic, cultural, and operational barriers that hinder the successful implementation of inclusion for students with disabilities including staffing and budgetary constraints, training and professional support, and cultural resistance. At the same time,

some principals reported success with inclusion models. One principal reported, “We have very much moved to an inclusion model, as I mentioned before, which is moving kids out of sheltered classes and supporting them in gen ed settings with push in support with special education teachers” (Principal Interview 300). Another said, “We mainstream all of our SPED students…so we place them into core classes with students and support them that way. We don't isolate any special education students” (Principal Interview 378).

Overall, trends in the enrollment and inclusion of students with disabilities indicate that there is a rising supply of students with disabilities in the state, which contrasts with declining total student enrollment rates over the past three years. Increased identification of students with disabilities is driven in part by rising rates of students with ASD and OHI. Despite changes in the number and share of students with disabilities enrolled in the state, California has not seen a similarly significant shift in placement rates along the LRE continuum. More variation in LRE placement is likely due to regional differences within the state rather than to change over time.

Supply and Demand of Staff to Support Students with Disabilities

In light of the growing enrollment in special education and trends around inclusion, we turn to our administrative data to understand the number of staff (special education teachers, related service providers, and paraeducators) schools have to meet the demand and to principal interviews to see their experience managing it. We find that demand outpaces supply across all three types of professionals, and, if anything, the quantitative data understate the severity of day-to-day experience in schools. There is no slack in the special education staffing system where schools can meet short- and long-term shortages in one form of staffing by drawing on another. Principals are at a crossroads about how to continue to address a problem that is growing more acute.

California principals describe a growing crisis where the demand for special education services—driven by a surge in special education student enrollment and increasing complexity of needs—far outstrips the supply of special educators, related service providers, and paraeducators at once.

I have a huge Special Ed population in my school…and their needs are higher than they've ever been before…And so student need is only getting higher, but support has remained the same.

> *And I think that is a real disservice to everyone, because if needs are higher then support should be higher, but we have no way to provide support that is needed to meet students where they're at.* (Principal Interview 145)

This need for more support was described across the constellation of staff members that work with students with disabilities. When asked about their top three priorities for staffing to support students with disabilities, one principal helped to summarize this constellation: "So the biggest three is finding teachers, finding paraeducators, and then trying to create better systems to support students" (Principal Interview 125). Another, when describing a special education classroom they created this year explained, "that classroom includes a highly trained certificated teacher, three to four paraprofessionals, and the related service providers that come in and support with speech, OT, adaptive PE, all of the things, counseling services" (Principal Interview 007). Of course, general education teachers, school administrators, and other classified staff are also part of the constellation of school employees supporting students with disabilities in schools, not to mention district and SELPA staff as well as community partner organizations. However, special educators, related service providers, and paraeducators are central supports to the system of special education and the students served within that system.

Limited Supply but High Demand for Special Educators: "They Do Not Grow on Trees"

Students with disabilities are, importantly, served by teachers, both special and general educators. Special education teachers who, in California, are professionally referred to as Education Specialists, hold a specific Education Specialist Instruction Teaching Credential. This credential allows them to "provide special education instruction and related services to students whose primary disability falls within the specialty area indicated on the credential in preschool and K-12 (up to age 22)" (CTC, 2026). Education Specialists roles include conducting educational assessments and providing instruction and special education support (Education Specialist Instruction Credential) (CTC, 2026). While the CDE provides measures of the overall number of teachers employed within the state, it does not provide the precise number of special education teachers working in the state. It does, however, provide an estimate of the number of teacher hires anticipated by district leadership for each school year, including special education teacher hires.

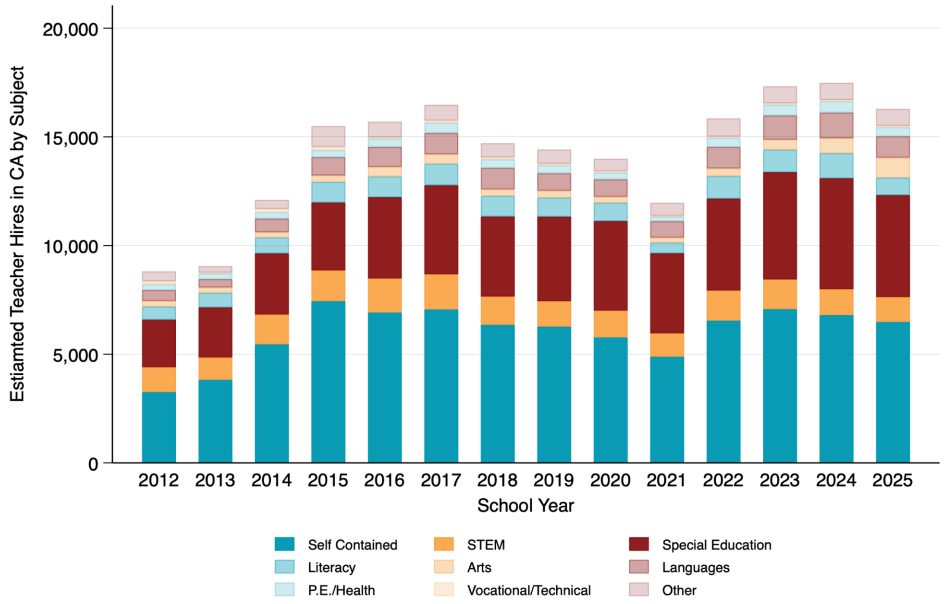
When examining the total number of teachers school districts anticipate hiring in the next school year, we see an increase in overall demand. The need for special education teachers is particularly notable, as that number more than doubles over the observation period, from about 2,200 in 2012 to about 4,700 in 2025. When looking at just the last three years of data, for which we also have data on the enrollment of students with disabilities, we observe a 5% decrease in the anticipated number of special education teacher hires from 2023 to 2025, although special education remains 30% of the overall amount of estimated hires in 2025.

Analyzing not only cumulative trends in teacher hires in Figure 4, Panel A, but also subject-specific trends in Figure 4, Panel B, we see that self-contained teachers and special education teachers are the only two subject areas with notable increases in anticipated hiring between 2012 and 2025. Additionally, there is a slight dip in anticipated hires among both self-contained and special education teachers among estimated hires between 2023 and 2025, which may be indicative of a more global trend in hiring practices in those years, rather than a trend specific to special education, although our we are unable to unpack this further with our data.

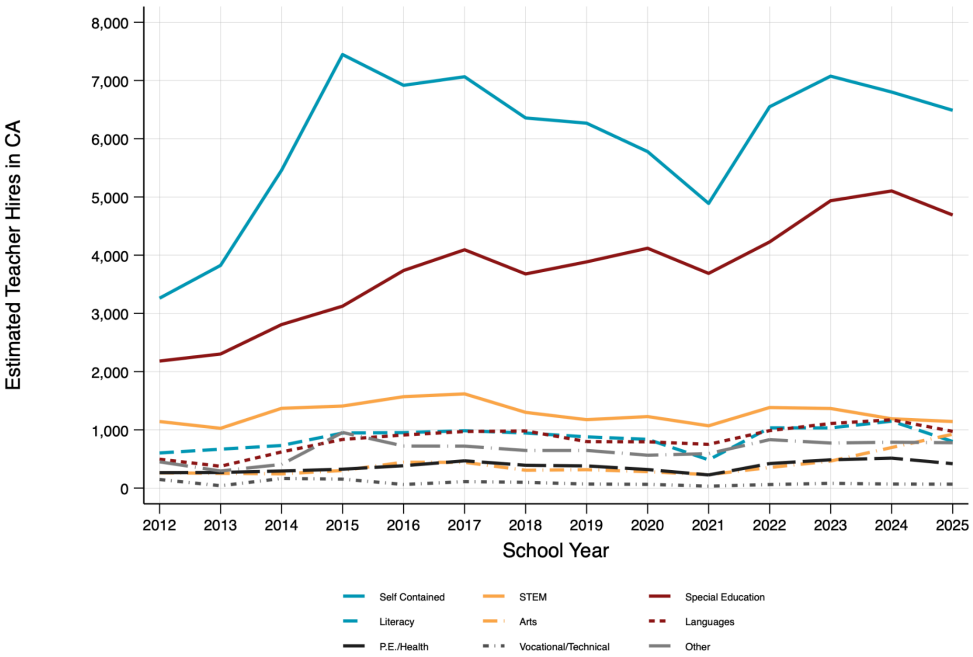
Similar to trends in student enrollment and inclusion of students with disabilities, we identify regional variation in the estimated number of special education teacher hires across California's ten Census regions in Figure 5. Schools in the San Francisco Bay area and Los Angeles County demonstrate the highest need for teachers overall, but a comparatively lower proportion (24%) of their overall estimated hires in 2025 are for special education. In contrast, about 36% of Orange County’s anticipated teacher hiring is in special education.

Figure 4. *Number of Estimated Teacher Hires by Subject, 2012-25*

Panel A: Cumulative Number of Estimated Hires by Subject



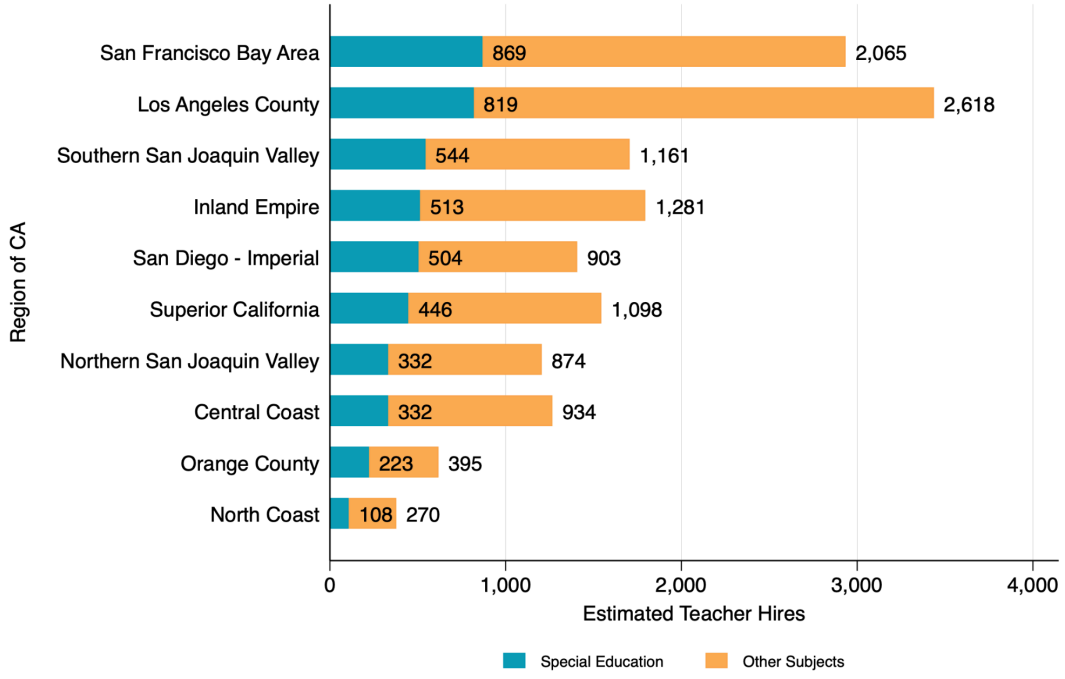
Panel B: Non-Cumulative Number of Estimated Hires by Subject



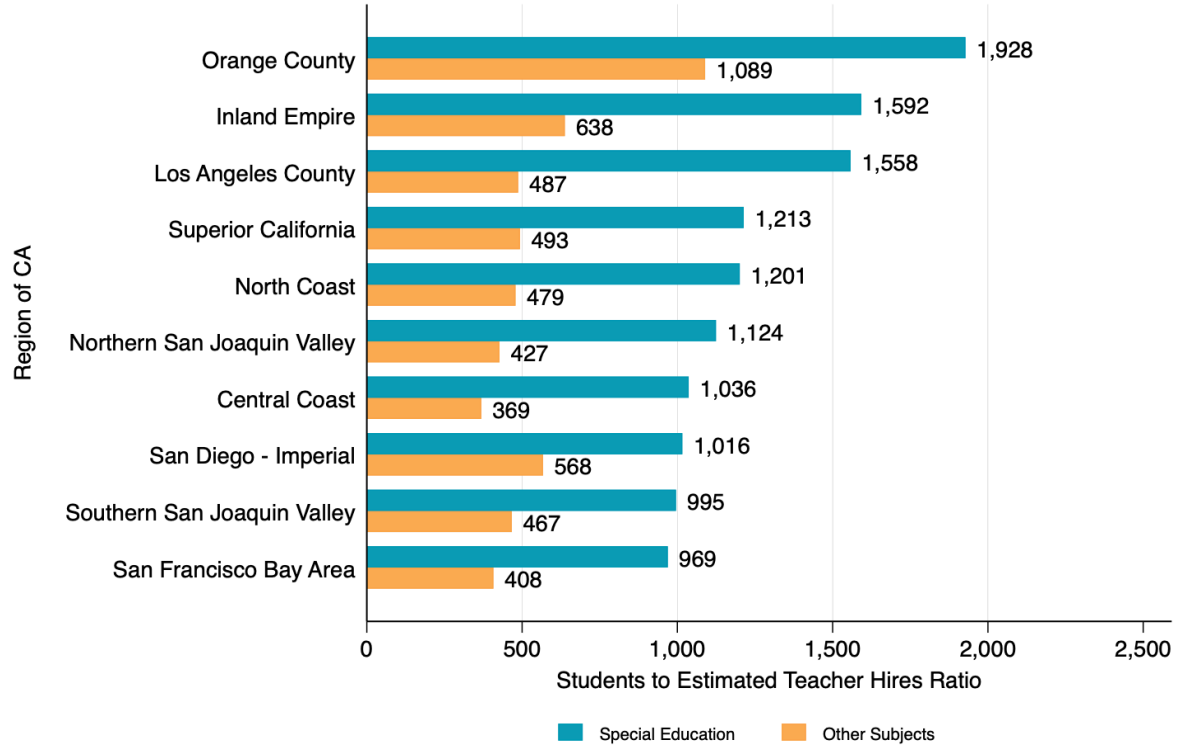
Note. Data is from the CDE California Basic Educational Data System (CBEDS) dataset. CDE defines estimated hires as "the number of full-time equivalent teaching and specialist positions that are projected or estimated to be hired to fill new or vacated positions in the next academic year."

Figure 5. *Number of Estimated Special Education Teacher Hires by Region, 2025*

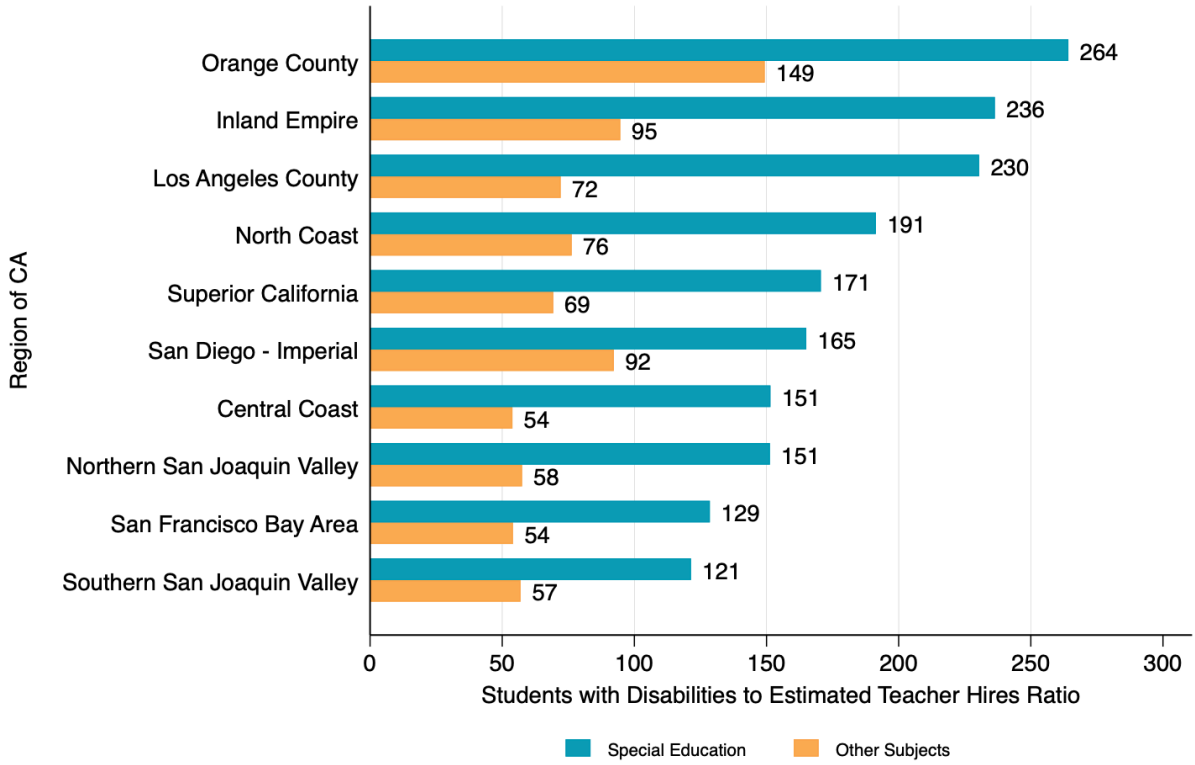
Panel A: Unweighted Number of Estimated Hires



Panel B: Ratio of Students to Estimated Hires



Panel C: Ratio of Students with Disabilities to Estimated Hires

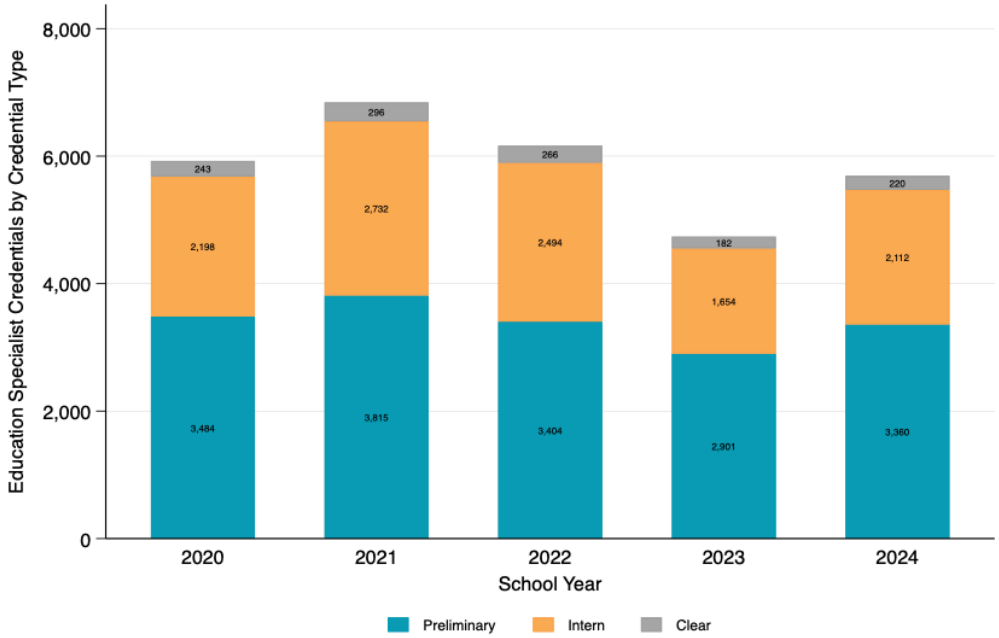


Note. The 10 regions of California are identified based on state Census regions, which are grouped by "hard-to-count populations, like-mindedness of the counties, capacity of community-based organizations within the counties, and state Census staff workload capabilities" (California Census, 2020). A map can be found in Appendix A.

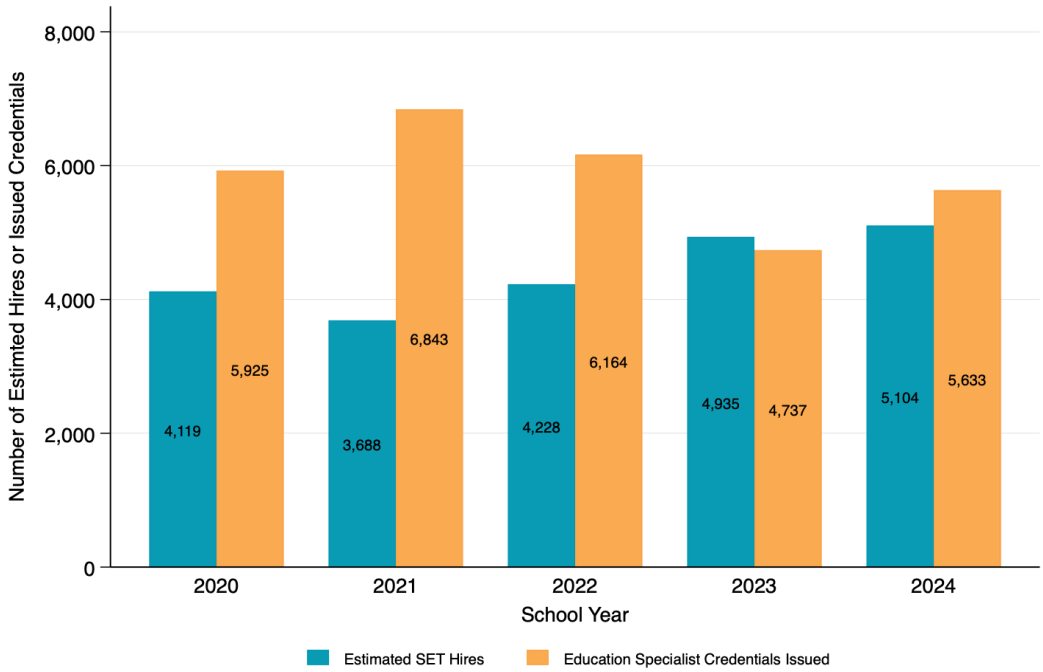
Although the data on estimated hires suggest that districts recognize an increasing need to staff special education teachers, certification data suggests that there is not a substantial rise in special education teacher credentials to meet this need. We explore the number of teachers who recently earned a special education teacher credential - termed an Education Specialist credential - in the state over the past five years, from 2020 to 2024 in Figure 6. Overall, we see an inconsistent pattern in the education specialist credentials administered by the CTC. Notably, we observe a slight decline from 2020 to 2024.

Figure 6. *Number of Education Specialist (i.e., Special Educator) Credentials Administered, 2020-24*

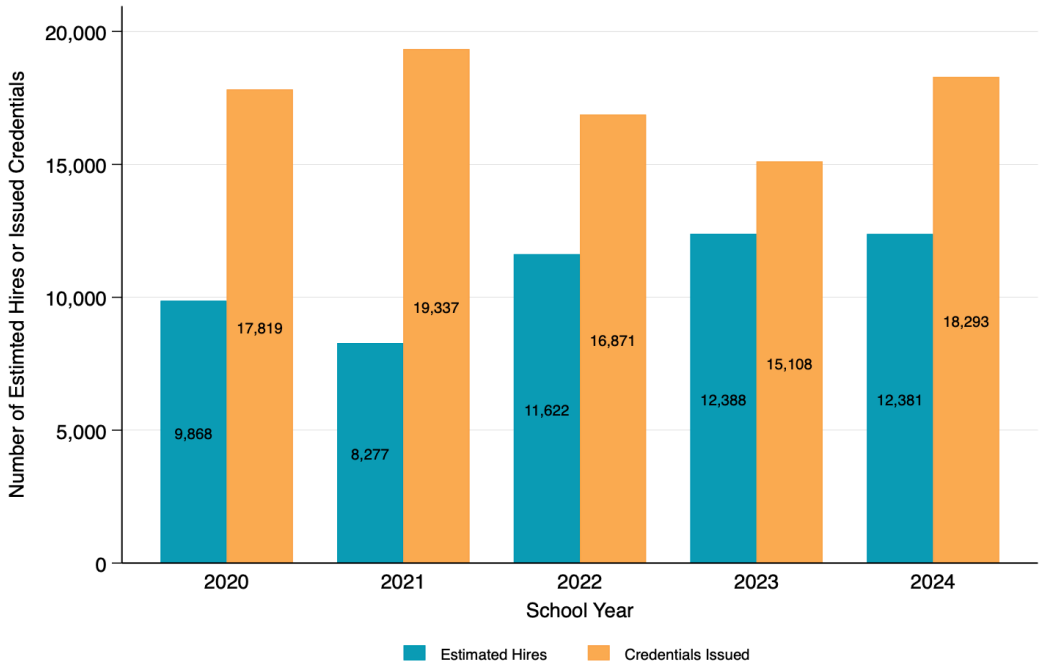
Panel A: Number of Credentials by Credential Type



Panel B: Number of Education Specialist Credentials Issued Compared to Estimated Number of Special Education Teacher Hires



Panel C: Number of Other Teacher Credentials Issued Compared to Estimated Number of Other Teacher Hires



Note. The CTC defines each credential type as follows: "Issuance of the **preliminary** credentials indicates that candidates are fully prepared to teach in schools. Issuance of the **intern** credential indicates that candidates are employed in a school while completing credential requirements. Issuance of the new **clear** credentials indicates that credential holders are fully prepared to teach in schools, and may have earned the clear credential via out-of-state, out-of-country, or other preparation pathway. New clear credentials may be issued to credentialed teachers earning an additional teaching credential via completion of a California-prepared preliminary teaching program without being required to complete an additional induction program. See the CTC's Glossary for more information: https://www.ctc.ca.gov/commission/reports/data/data-terms-glossary/clear-credential. Panels A-C focus on K-12 so include only Education Specialist Instruction Credentials and exclude PK-3 Early Childhood Education Specialist Instruction Credentials.

While we find an increase in demand for special educators in the administrative data without a similar increase in certification, principals, likewise, report a chronic scarcity of qualified special education teachers. Over and over again, principals described this shortage and what it means for them and their fellow school leaders. One principal said, "Personally, in our school district, we really struggle to find qualified special education teachers. It's definitely a shortage for us" (Principal Interview 095). Another principal explained, "My top priorities? Staff, having staff. We started last year with no [special education] teacher. So yeah, the staffing itself was very difficult" (Principal interview 312). And yet another said, "They do not grow on trees. They are not, they're not out there" (Principal Interview

369). The fact that special education teachers "are not out there," was echoed by another principal who spoke about sometimes having no applicants for a position at all.

> *We just had a retirement, and then we brought someone on board, and she had been a student teacher with us, and it just so happened to work out like that. And so we were very, very fortunate on that timeline. Had that not been the case, for special education applications, you're oftentimes choosing from one candidate, if that. Sometimes…there's no applicants." (Principal Interview 374)*

Because of these shortages, principals reported that it was difficult to find and employ credentialed special educators, and that they often relied upon people with fewer qualifications to fill open positions. One principal said,

> *Finding people who can meet all the legal requirements and follow all the legal timelines and things, who can work with kids and can also have the curriculum side of it right, that has been a challenge for me to find all three. (Principal Interview 358)*

Another principal also commented on the knowledge and skills that they are looking for in special education applicants but noted that increasingly there is a "low bar for hiring special education teachers."

> *So when we're hiring special ed staff, it's finding people that are knowledgeable so there's no litigation, but someone that has a ton of patience and, yeah, that's a tough one. I mean, the bar has gotten so low on some. You're just taking anyone that seems like they're a good guy or a good woman, just a good person." (271)*

That principal went on to say that, "the constraints are just qualified people applying for the job."

In the face of these constraints, many principals reported hiring brand new teachers, many of whom were still working toward their credentials. One principal explained that the lack of applicants had them hiring people with internship credentials[2] and emergency sub credentials.

[2] The CTC defines "intern" credentials as follows: "Commission-approved institutions that offer a teaching intern program may recommend candidates for an intern credential. Issuance of the intern credential indicates that candidates are employed in a school while completing credential requirements. School districts that are unable to fill a teaching position with a teacher who holds a preliminary or clear credential may request for an intern candidate as the teacher of record. Intern candidates who complete the intern and preliminary credential requirements may be recommended for a preliminary credential by the intern program" (CTC, 2026).

In the last four schools where I've been, we will fly teaching positions and have zero applicants for those positions. And so we're hiring people who are on internship credentials, on emergency sub credentials, people who, 20 years ago, would never have gotten into the classrooms at the schools where I was…and that's because we're desperate for teachers. (Principal Interview 375)

Another principal had a similar account. When asked about the staffing challenges of meeting students instructional needs, the principal responded:

I think right now, just really getting teachers who have the credentialing. We have a lot of teachers right now that are on waivers or some very, very new teachers, so really just getting them the training and the support that they need to succeed. (Principal Interview 217)

And like this principal who was then seeking to train and support their new teachers, other principals also spoke about the support their new special education teachers required.

Honestly, I think that the hardest staffing challenge, and again, HR hires. I mean, we interview, but the reality is, there's not enough people out there with credentials, where we can actually really hold interviews, because it's, "Oh, we have this intern who's willing to take the position, yay. We have a body!" So that in and of itself, it's the people just start out there. And so we're having to, I mean, I even hate to say it this way, but you take what you can get, and then it's how do we come alongside the adults to support them and supporting students? (Principal Interview 343)

"Coming alongside the adults" to support both teachers and students was a common refrain given how desperate leaders were for people who could fill these roles. But, as the next principal illustrates, supporting novice special educators who haven't done this work before and are still going through credentialing programs puts great demands on schools and these novice educators. Moreover, ensuring that their special education students' needs are being met and they aren't "letting kids drop through the cracks" can become an "an ongoing nightmare."

So hiring people is finding somebody who is absolutely qualified, which is pretty near impossible. So we're hiring teachers now that have never read an IEP, have never seen an IEP. They're brand spanking new to the teacher world, and so we'll just say we're going to train them as we go. And so now you really have to have someone really on top of them to teach them the ways of the IEP, the laws, the requirements, everything about special education, because you

> *can easily get this all mixed up. And it does happen, because we have such inexperienced staff, but you can't go without staff. So it's like, how desperate are you? Well, we're very desperate right now. So training happens. They have their own PLCs that they go to when we do our site PLC time, they go for additional training. They're also the ones that are since they're brand new teachers. They're going through their credentialing program, so they're going to school four nights a week, as well as tracking minutes, tracking IEPs, servicing kids, you know, going to find out, what are kids missing? What are they needing, not letting kids drop through the cracks. So it's an ongoing nightmare, unless you have somebody who is absolutely a veteran and knows how to budget their time. (Principal Interview 174)*

These repeated descriptions by school leaders about the challenges of staffing special education positions are compounded by the current realities of the job itself.

Principals shared concerns that the administrative burden, the large case loads, and legal requirements of the job deterred many people from pursuing special education and also led to burnout for existing special educators. One principal explained, “People aren't willing to go into the SPED ranks because it's very difficult, you almost need a law degree to start heading into that direction” (Principal interview 174). Another principal called attention to how the position was structured.

> *We are staffed at the secondary level by caseload. So a special education teacher is hired to support a caseload of, let's say, 25 students that have IEPs. It's such a bad, poorly designed structure, because most of the work that they have to do is compliance, paperwork, meetings… they're not doing as much teaching as they would like to do because they're doing all that paperwork compliance. And so becoming a special education teacher is really challenging to get people to want to do it. First of all, because when they see the paperwork requirements, the litigation challenges, the demands of parents and students and schools, it's a lot. (Principal Interview 125)*

And a third principal described how special education comes with increased responsibilities that they aren’t always compensated for, leading to burn out.

> *Not only do they have to prep for their instruction if they're doing a co-teach model or they're teaching an isolated class, so they have to do the prep and prepare lessons… plus they're testing kids, plus they're writing IEPs, plus they're having these meetings… And to me, I think*

they're doing more work with the same pay or less pay, and the burnout in special ed. (Principal Interview 335).

These principals' accounts of special educators' roles and responsibilities compound the challenges of recruiting and retaining educators for these positions.

Districts anticipate needing more staff, but credentialing data suggests there are not enough qualified teachers to meet those needs. Principals meet the scarcity, describing how "you take what you can get" to find teachers willing to take a position where high workload means that burnout is a problem.

Limited Supply but High Demand for Related Service Providers: "Not Enough Credentialed People"

Related service providers are certified staff who, under the Code of Federal Regulations, provide additional, specialized support related services like speech and language pathology and audiology services, psychological services, and physical and occupational therapy.[3] School nurses, counselors, social workers, psychologists, speech-language pathologists (SLPs), and occupational therapists (OTs) are all included in this category of related service providers. Although the need for related service professionals is increasing, so are certifications for these positions. Yet the reality on the ground is not reflected in the administrative data. Principals report that they want more of these staff positions for their schools; that finding and retaining qualified people that they do have can be extremely difficult; and that many of the strategies to meet these challenges are failing to meet the full needs of their students and schools.

To explore the role of related service providers across the state, we start by examining the number of certificated employees in California schools. Within the state, a certificated employee is anyone who holds a valid license from the Commission on Teacher Credentialing (CTC). This includes

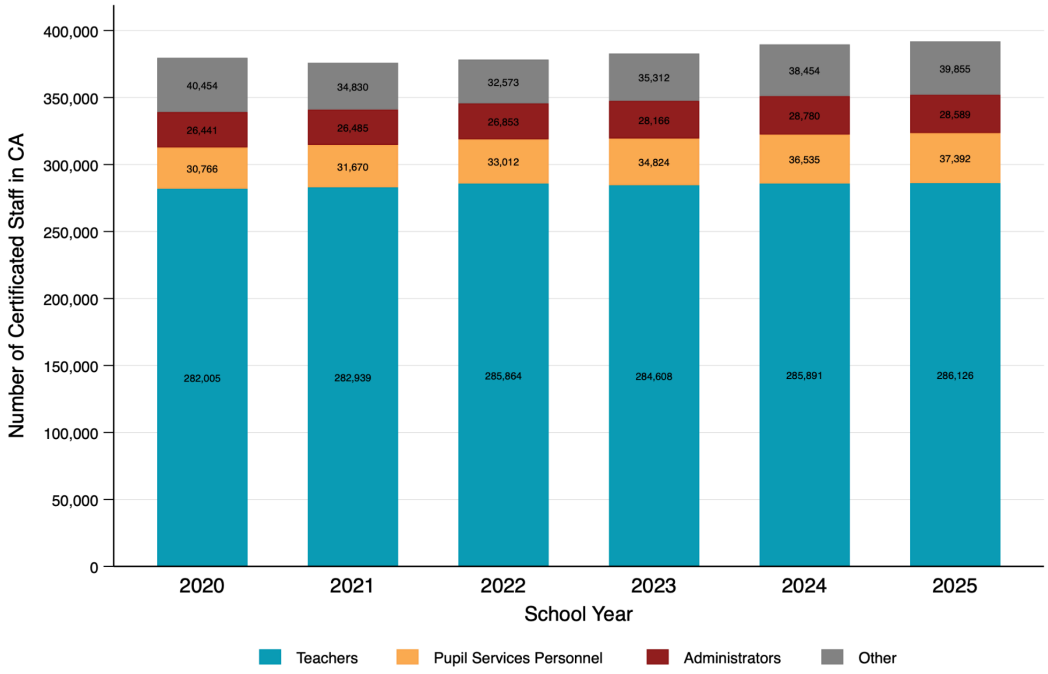
[3] "***Related services*** means transportation and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from special education, and includes speech-language pathology and audiology services, interpreting services, psychological services, physical and occupational therapy, recreation, including therapeutic recreation, early identification and assessment of disabilities in children, counseling services, including rehabilitation counseling, orientation and mobility services, and medical services for diagnostic or evaluation purposes. Related services also include school health services and school nurse services, social work services in schools, and parent counseling and training" (34 CFR 300.34(a)).

teachers, pupil services[4] (e.g., school counselors, social workers), administrators, and various other roles. Figure 4 demonstrates that teachers make up the large majority of certificated staff: 286,126 individuals worked as teachers in the 2024-25 school year, accounting for about 73% of all certificated staff while pupil services personnel make up 10% of certificated staff.

Overall, there has not been an overly significant change in the number of certificated staff employed in the state since the 2022-23 school year. As seen in Figure 7, there has been a 2.43% increase from 370,727 to 379,739. Among certificated staff, pupil services personnel are the fastest growing segment, increasing 21.5% over the past three years, from 30,766 to 37,392 staff members. In contrast, the teacher workforce grew only 1.5% in that time period, from 282,005 to 286,126. The number of administrators in the state has increased by 8% since 2020, from 26,441 to 28,589, while the number of other certificated staff has decreased by 1.5% over that period.

[4] According to the CTC, ***pupil personnel services*** is a certification type in California that includes the following roles: school counseling, school social work, school psychology, and the additional authorization of child welfare and attendance services (CTC, 2026). While this group does not include all potential related service providers for students with disabilities, it does include a substantial group and thus we focus primarily on this group in our report when exploring trends in administrative data regarding related service providers.

Figure 7. *Number of Certificated Employees in California Schools, 2020-25*

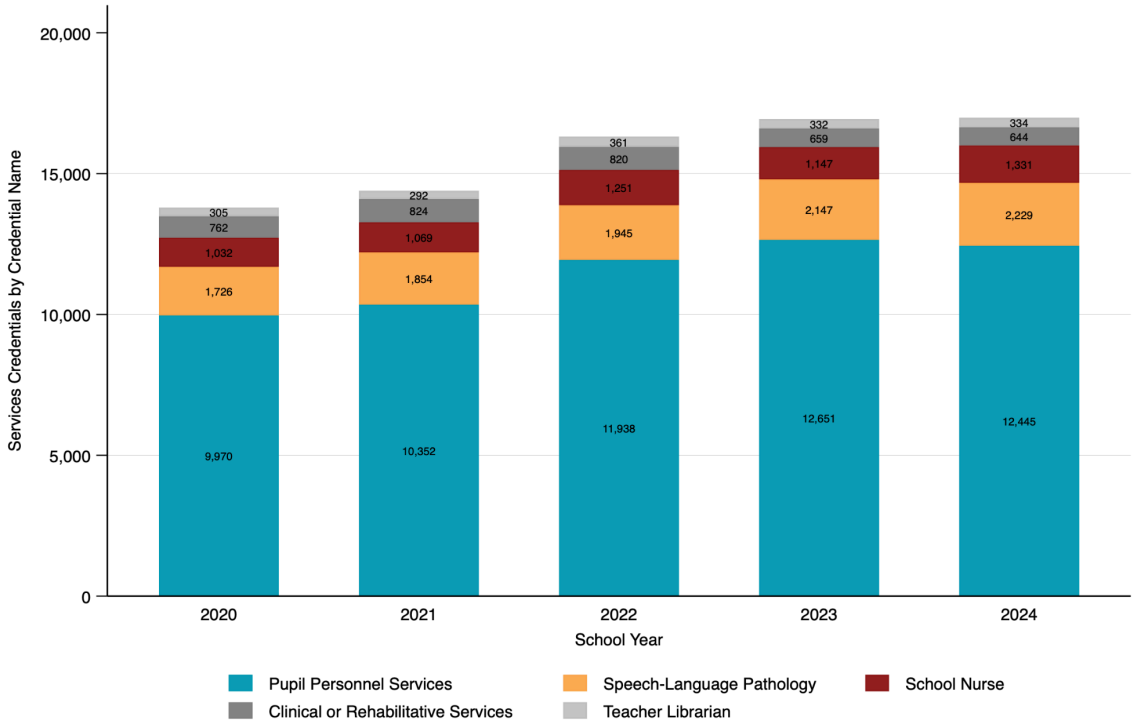


Note. Teachers include classroom-based instructional personnel. Pupil services include non-classroom-based support personnel who provide direct services to pupils (e.g., counselors, school psychologists, school social workers, and nurses). Administrators are non-classroom based personnel required to hold an administrator certification but not required to provide direct pupil services (e.g., superintendents, principals, and vice principals). Other certificated staff include non-instructional support staff for whom a certification is required (e.g., mentor teachers, teachers on special assignment, special education case manager (non-instructional)) (CDE, 2026).

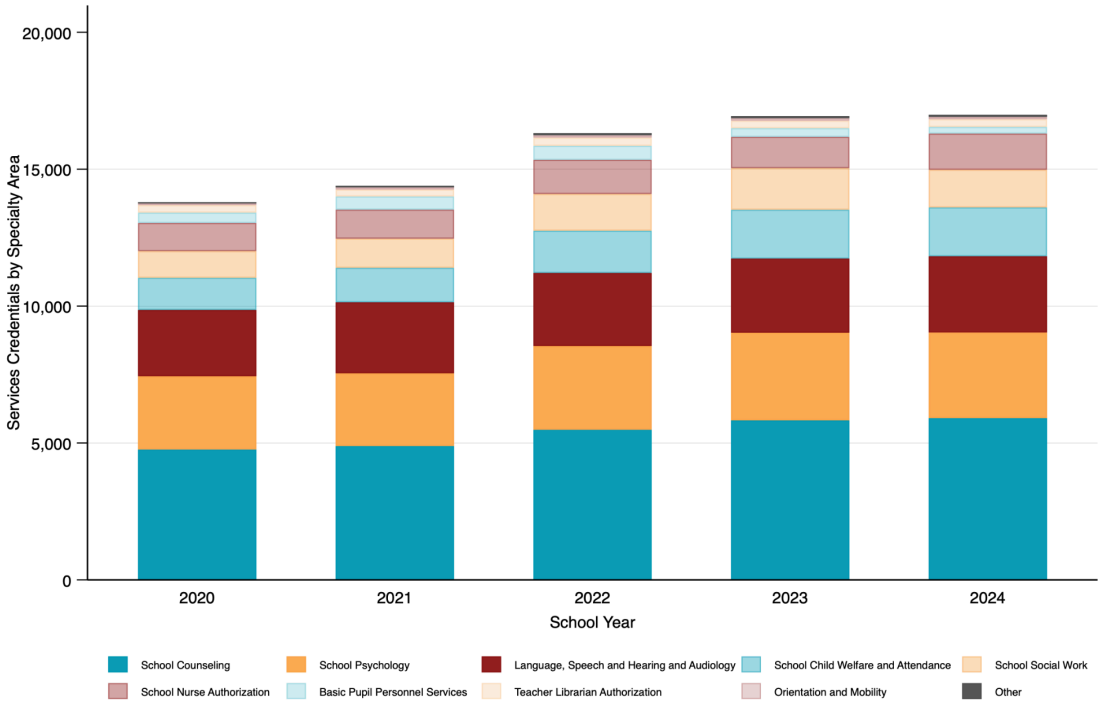
Given the increase in pupil services personnel employed in California schools, we wanted to more closely explore whether the CTC reported a parallel rise in the number of pupil services credentials. Indeed, Figure 8, Panel A shows a 25% increase in issuance of pupil services personnel credentials between 2019-20 and 2023-24, along with an overall rise in services credentials shown in Figure 8, Panels A and B. The CTC administered 12,445 credentials for a pupil services personnel license in 2024. Of those licenses, nearly half (47.5%) were for school counseling, approximately a quarter (25.1%) were for school psychology, and the remaining were for child welfare and attendance, social work, and basic pupil personnel services, as seen in Figure 8, Panel C.

Figure 8. *Services Credentials Administered by the CTC, 2020-2024*

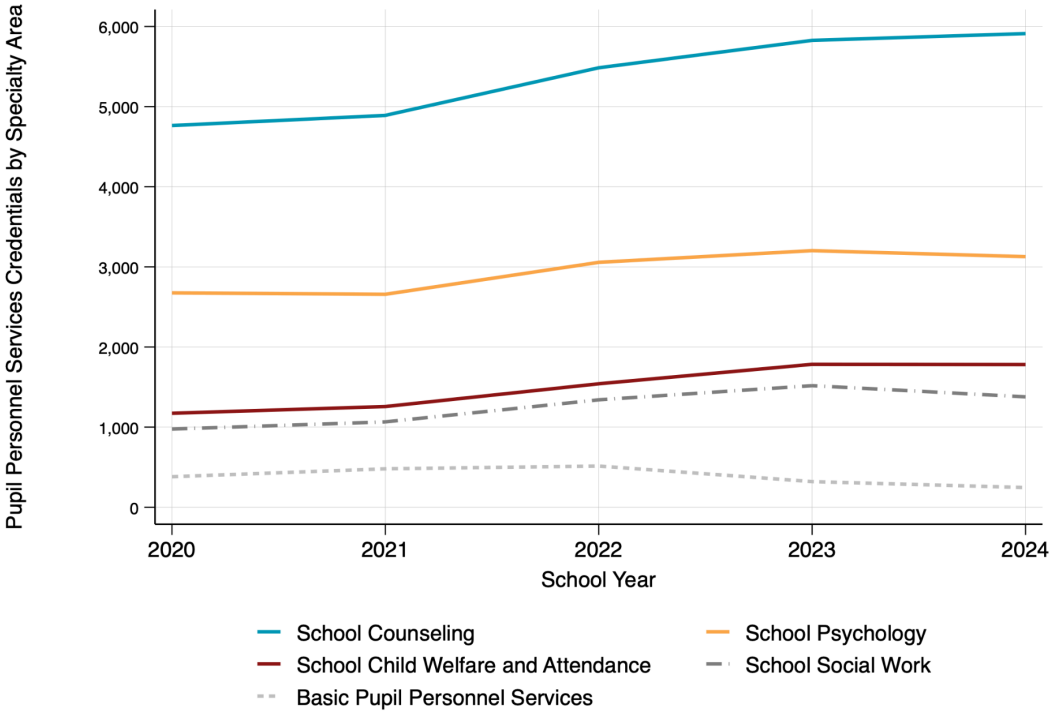
Panel A: Number of All Services Credentials by Credential Name



Panel B: Number of All Services Credentials by Specialty Area



Panel C: Number of Pupil Personnel Services Credentials by Specialty Area



Note. CTC definitions of each credential and specialty area can be found here: https://www.ctc.ca.gov/commission/reports/data/data-terms-glossary.

Although we observe a rise in pupil service personnel and licenses in the state overall, California principals suggest that they want more of these highly valued staff positions for their schools, that finding and retaining qualified people in the positions that they do have can be extremely difficult, and that many of the strategies to mitigate these challenges are failing to meet the full needs of their students and schools.

Principals want more related service providers

When speaking about their desire for more related service providers than they currently have, one principal said, "We're trying to constantly get more social workers, more school psychologists, more interns, more counselors, because just the need for managing social emotional concerns and behavior issues have just grown significantly since COVID" (Principal Interview 193). Another principal explained that they had made significant investments in support services already:

> *We put our money into support services. So we have a school-based social worker, we have a school-based psychologist, we have a school-based behaviorist, we have 1, 2, 3, wellness*

> *coaches. We have a school-based counselor. We have two resource programs instead of one, we have two structured day class programs instead of one, so we can put that funding into those programs. (Principal Interview 040)*

But despite those investments, that principal wanted more support services. “Honestly, I would love to have more money put into support, just support services in general. I would love to have two counselors. I would love to have two social workers.” Many times principals talked about advocating for these positions with district leadership. “We've been trying to advocate for an increase in our school psychology support, primarily because we're…a continuation high school…And we see a lot of undiagnosed special ed or especially ED type students that have no IEP” (Principal Interview 126). And some principals had very little say over this staffing but still expressed a desire for more support than they were given.

> *And what's interesting, and maybe every other district doesn't do it this way, but they're just given. So this year they'll be like, “Okay, here's your counselors, here's your psychologist, here's your…” I'm not a part of that process there. It's done at a district level, and then they're pushed out. So I'm not a part of the hiring process in that area. They're just pushed out to us, but again, they're filled. Now, can I complain that my counselor is only here twice? I'm a small school, and I only get a counselor twice a week. I only get a school site two days a week. Yes, I would love to have five days a week for all of them, but it's all done at a district level and then pushed out. (Principal Interview 339)*

While administrators wanted more related service providers to meet the needs of students in their schools, they also struggled to fill the positions that they had available.

Finding and retaining qualified people is difficult

Despite the rises in pupil service personnel and licenses that we find in the administrative data, many principals reported shortages across a range of related service provider specializations suggesting that the challenges experienced by California administrators are more acute. Commenting on the challenges of finding people with mental health credentials, one principal said, “It's extremely competitive right now, and there's just not enough credentialed people to do that work. Mental health specialists right now are really difficult to find because every school district's hiring them” (Principal Interview 372). Another principal described finding speech pathologists as a “diamond in the rough.”

I can tell you that speech pathologists for the last 15 years are a diamond in the rough, right? We don't have enough. We don't have programs here. And to further add to that complication, when you want to recruit from a different state, a local university has to approve that, and they never do because then they're going to lose students, even though they're already capped at most universities… So then you're looking again at how deep is the candidate pool, right? And most importantly, what's the experience level that they bring to the table? Because I'm going to tell you… you've got to staff with people who are experienced, because if they didn't get a rich internship opportunity, it's going to be very hard to hit the ground running. (Principal Interview 061)

These challenges were made even harder when other districts were able to offer higher salaries. A principal from a small charter school needed speech and language pathologists because, "the caseload is just huge. The majority of the IEPs that we have are speech" (Principal Interview 190) but, "the salary of an SLP in a regular district is very, very high, and we cannot compete with that range" (190). Principals also had to rely on contracting for some services virtually when they could not fill a position. "Sometimes it's hard to find providers in person. So we've had to contract for OT services virtually. We've had other services other years where speech was virtual, or different things like that. But currently, OT is the only one" (Principal Interview 353). As principals spoke about the challenges of trying to fill these related service provider positions, they also shared shortcomings of their existing staffing strategies and challenges in retraining the people they were able to hire.

Many strategies to mitigate challenges fail to meet the full needs of students and schools

When it comes to strategies for staffing related service provider positions, the principals in the interviews explained that certain positions were filled through contracts with outside agencies or county offices of education and that for some positions and in some locations positions were shared across schools or districts. And while some of these strategies worked in some cases, principals also shared that many of these strategies failed to fully meet the needs of their students and their schools. To hire behavioral specialists, one principal explained that their district was contracting with a local company.

Well, the district's trying to hire more psychologists, and so we have, in the last two years, districtwide have reached out to a human behavioral company from… the town next to us to

> *contract with them to have more behavioral specialists on our campuses. So we're contracting out to make sure that we have enough services for our students… because there's not enough people that we can hire. But since we're contracting it out, we're fully staffed right now. (Principal Interview 372).*

One principal described their district contracting for speech and language pathologists using an agency that recruited internationally.

> *Speech and language pathologists are really hard… our district, for example, had a contract through an agency that has brought people from Argentina, from India, from other parts of the world. We use… an online platform. So if you can imagine being a third grader, fourth grader, and having to go into a room with a paraprofessional but then go on Zoom and have your speech sessions like this, because we can't get people to actually come in. (Principal Interview 285)*

Receiving speech and language services virtually was a common theme, and it wasn't always viewed as an effective alternative to in-person services.

> S*peech is crazy hard, because everything's tele speech right now, which? How do you do speech over tele? That doesn't work out very well. And so I'd say that's the biggest frustration. But that's countywide. That's not just me, because it's the same thing. We go through the county office, and so the county office can't even hire a speech person, so it's all tele and it just is not effective." (Principal Interview 360)*

And while non-local contracts filled some needs, one principal explained that it meant the person wasn't on campus for emergencies.

> *We're contracting with a bilingual school psychologist. That person doesn't live here, so it's not like we have her on our staff, where I'm like, "Hey, student emergency. Can you come help us?" But she helps with the assessments and IEPs. (Principal Interview 311)*

This was also a challenge for positions that were shared across school sites.

> *So now the school psychologist that we shared went there, and we only have that same psychologist on an on-call basis, or we have one person who comes out from the county, a school psychologist, but he's contracted, I guess there's an MOU. He helps us with assessments. So we've been advocating through our Community Schools grant that we have to see if we can*

use some of that funding to hire a full-time school psychologist, because I feel as the principal, we need a full-time school psychologist here, not just a shared role, just to better support our students and our teachers. So we're kind of waiting. (Principal Interview 217)

Principals reported that sharing specialists across sites presented challenges not just for their schools and students but for the specialists as well.

Yeah, they call it a least restrictive specialist. They're district based, so they're assigned to 20 different schools. One person is assigned to 20, 22 schools. So even if they're the most amazing specialists in the world, like, how do you go and support? I mean, there's only eight hours of work in the day. By the time they drive from one school to another one, even if they really want to be supportive of every school, then they can't. This is not feasible. (Principal Interview 347)

These staffing strategies might mean that positions are filled on paper, but many principals suggested that the full needs of their students and schools were not being met through these arrangements. Moreover, principals worried about holding on to the staff that they had.

Multiple principals shared challenges of retaining related service providers, especially school psychologists. One principal suggested that this was because the current demands of the job requires school psychologists to spend a great deal of time on administrative tasks rather than hands-on work with students, which the staff enjoy more.

Instead of your psychologist really getting to work with students, they're just doing assessments and writing the assessment reports, doing the assessment writing the assessment reports, and that's not fulfilling for them. So often, our very best people at that level will leave education to go out and find a more rewarding psychology related field where they feel like they're actually helping people instead of just diagnosing people. (Principal Interview 375)

At another school, the principal reported that their school psychologists leave for higher paying positions in other districts.

The shortage of special educators and related providers is a real challenge, and keeping them. So I mentioned that our pay scale is lower than other areas in the state. In the last nine years that I've been here, I have had nine school psychologists. This is the first year that a school psychologist has returned for a second year, and they use our district as a stepping stone to get to a higher-paying district, and I don't blame them for that. (Principal Interview 007)

Across these interviews, principals help to illuminate the ways in which, despite some of the increases in pupil service personnel in the state in recent years, there are still not enough personnel for many districts to find, hire, and keep these critically important staff.

Limited Supply but High Demand for Paraeducators: "Constant Revolving Door"

A third category of staff delivering essential educational services for students with disabilities are paraeducators, a category of non-certified support staff or classified staff that includes teacher aides and instructional aides. Classified staff do not require certification and include paraprofessionals, clerical staff, custodians, bus drivers, and business managers. Paraeducators in particular - also called paraprofessionals, teachers' aides, instructional aides, or instructional assistants - represent a large and growing proportion of the workforce nationally (Bisht et al., 2021; Penner et al., 2026; Theobald et al., 2025), and their roles and responsibilities can include working with individuals and small groups to provide instructional assistance, behavioral supports, and physical/medical care (Giangreco et al., 2010; Fisher & Pleasants, 2012).

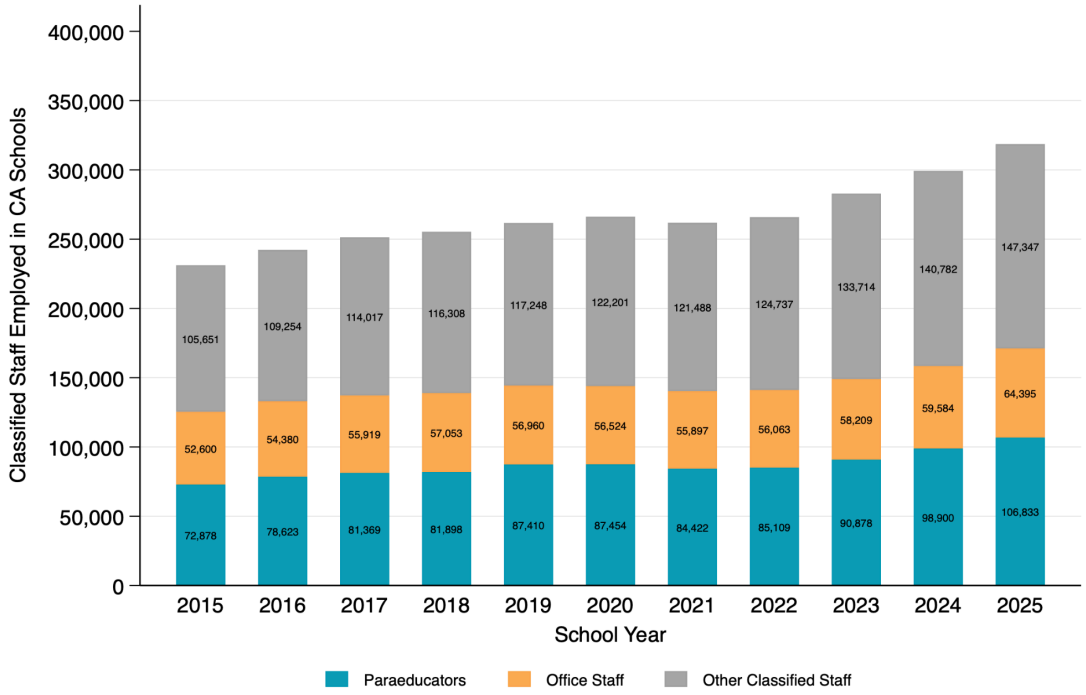
Within the state of California, paraeducators include "an instructional aide as defined in subdivision (a) of California Education Code (EC) Section 45343 and a teacher aide as described in EC Section 45360" and conduct their work under the supervision of a certificated staff member (CDE, 2026). The CDE identifies four distinct categories of paraeducators: non-Title I, Title I, Title III, and non-instructional[5]. Most paraeducators (except non-instructional paraeducators) employed by the CDE must have a high school diploma or equivalent, and each type of paraeducator also requires distinct additional requirements for employment, and local educational agencies may have additional hiring requirements (CDC, 2026).

Although there is a steady increase in paraeducators in California, principals report that the number of paraeducators still does not keep up with the need on the ground and retaining these staff has been particularly difficult, describing the problem as a "constant revolving door."

[5] Non-Title I paraeducators are employed at non-Title I schools. Title I paraeducators are employed at Title I schools. Title III paraeducators are those who "act primarily as translators and are proficient in English and another language other than English" or "serve primarily as parental involvement specialists." Non-instructional paraeducators are those working in "food services, cafeteria or playground supervision, personal care services, non-instructional computer assistance, and similar positions." These role definitions and requirements can be found here: https://www.cde.ca.gov/ci/pl/paraprofessionals.asp.

We observe a steady increase in the number of classified staff employed in California schools over the past 11 years, including a 46.5% increase in paraeducators.

Figure 9. *Number of Classified Staff in California Schools, 2015-2025*

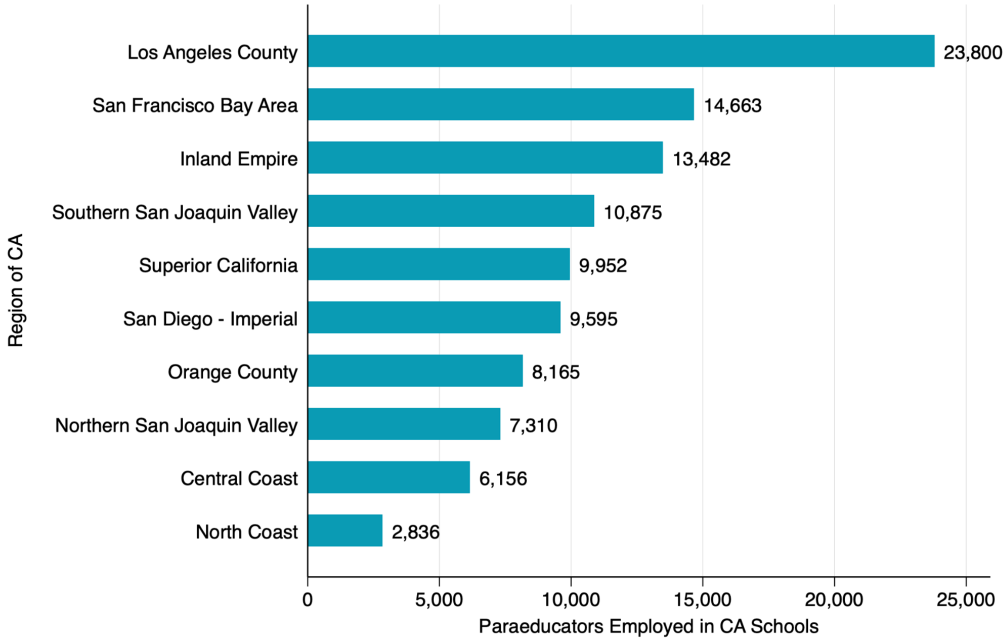


Note. According to the CDE: "Classified staff are employees of a school, district, or county office of education who are in a position not requiring certification. Classified staff include paraprofessionals, office/clerical staff, as well as other classified staff, such as custodians, bus drivers, and business managers" (CDE, 2026).

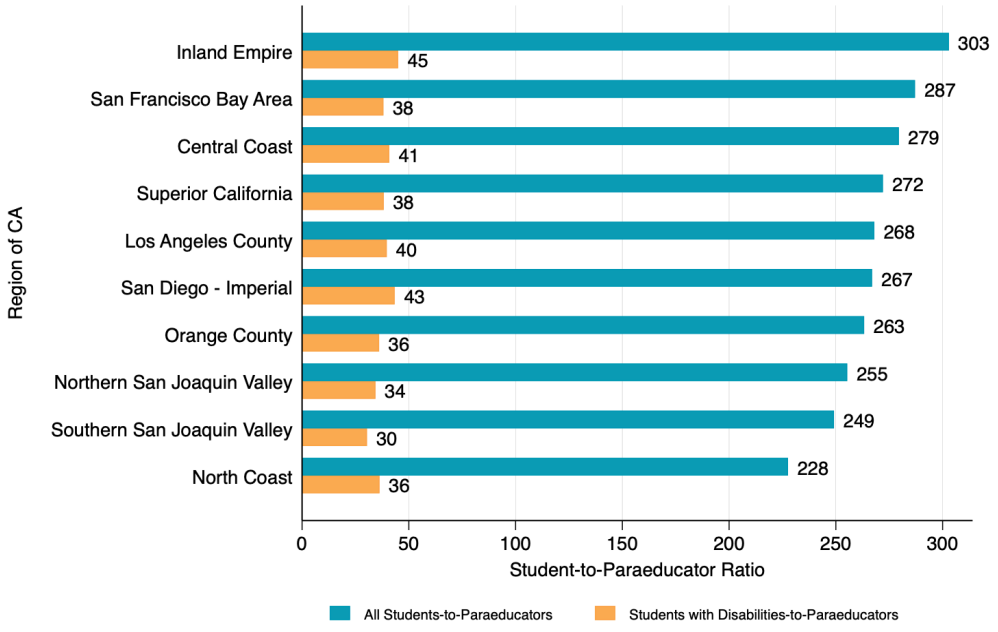
Similar to our findings about teachers and pupil services personnel, we identify regional differences in the number of paraeducators employed across different regions. For example, Figure 10, Panel A shows that Los Angeles County employed nearly a quarter of all paraeducators in the state as of the 2024-25 school year, whereas districts in the North Coast region employed a mere 3%. Some of these differences are a factor of district size and student enrollment within a region, however, as demonstrated by the student-to-paraeducator ratios shown in Figure 10, Panel B. Districts in the Inland Empire have the highest student-to-paraeducator ratios when calculating ratios both by the number of total students in the region and the number of students with disabilities in the region. School districts in the Southern San Joaquin Valley, however, had the lowest ratios in the state by both calculations.

Figure 10. *Number of Paraeducators by Region in California Schools, 2025*

Panel A: All Paraeducators Employed in CA Schools



Panel B: Student-to-Paraeducator Ratios in CA Schools



Note. The 10 regions of California are identified based on state Census regions, which are grouped by "hard-to-count populations, like-mindedness of the counties, capacity of community-based organizations within the counties, and state Census staff workload capabilities" (California Census, 2020). A map can be found in Appendix A.

Although there has been an increase in classified staff generally and paraeducators specifically, our interviews suggest that these increases haven't kept up with the need on the ground, especially when principals report high turnover for paraeducators. Like special educators and related service providers, paraeducators are viewed by school administrators as essential staff for meeting the needs of students with disabilities.

Paraeducators are essential to meet student needs, and principals report there are not enough

Like the other two categories of staff, principals wanted more paraeducators than they had. One principal said, "At the end of the day, if I could give one recommendation, and I hate asking for more, but it's paraprofessionals, it's additional support in those classrooms" (Principal Interview 285). Another principal, citing an interest in decreasing the student to adult ratio, also talked about wanting more paraeducators in the classroom. "I think that even adding aides into classrooms, anything where you can bring down that ratio of adult attention, I think is huge" (Principal Interview 145). And a third principal made clear that they had filled all of their paraeducator positions, but they still needed more paraeducators to meet the need.

> *I need more. Like, my positions I have are filled. That's what I'm saying… I don't feel there's enough support in general, like bodies, whether it's paras, [an additional adult support], and all that… I wish there were more positions, like posts. I wish I had more bodies. Mine are not unfilled positions. I just there's never enough because there's such a high need*. (Principal Interview 339)

Unfortunately, wanting more paraeducators didn't translate into having them. One principal shared that they had asked their district leadership for more paraeducator support in special education but that it had been denied.

> *But then I asked the district for a second a special ed aide, and so did that formally, and met with the superintendent, and was told no, just so from a district standpoint, budget constraints right now, so that's a challenge with staffing. (Principal Interview 353)*

In addition to wanting more paraeducators, principals reported having a hard time filling their paraeducator positions.

Hard time filling positions that they have

Many principals in the interviews explained that some of these positions were very hard to fill and could remain unfilled for months or longer. One principal recounted, "I have been without special education aides the entire school year…finding aides is difficult" (Principal Interview 095). Another principal described how they were using a long-term sub for a paraeducator position that remained open. "We are now in December, and we're still technically short one paraeducator position, and so we've had, like, a long-term sub in and out of that position throughout the year so far" (Principal Interview 054). For some principals and schools, having multiple unfilled positions was common and filling them was a top priority.

> *I would say the top priority was finding the paraeducators that are necessary. I don't know if we've had less than five openings at one time, and so that's always been a priority. Whatever level of instructional aid, paraeducator… that's always been one of the top priorities for us. It's so hard to find… people to do the job that are qualified, that can help support these students. (Principal Interview 335)*

Unfortunately this left one principal feeling like, "there's nothing else I can do."

> *But if I don't have the aide, all I get to do is say, "I'm sorry, the job is posted. I just can't find anybody." And then there's nothing else I can do. The kids are supposed to be in a gen ed class with support. I don't want to put them back into an SDC class. Yeah. So it's a very tough situation right now. (Principal Interview 160)*

While wanting more staff positions and having a hard time filling positions were common themes across the constellation of staff supporting special education students, principals also made clear that some of the staffing challenges between paraeducators and the other staffing groups were different.

Recruiting and retaining paraeducators is difficult: low wages, part-time status, little training

Principals noted that recruiting and retaining paraeducators was made more difficult by low wages, a lack of "full-time" status, and little to no training. In talking about the wages for these paraeducator positions, many principals referenced the fact that paraeducators could make more money working at local fast-food chains like Chipotle or In-N-Out. One principal said,

> *So in those areas where they're low incident but they're high-need, we ask a lot of our aides, and we pay them less than Chipotle's starting wage across town. So you're not… going to attract*

the best people into the most difficult of those positions if we're not paying them a salary that actually matches what we're asking them to do, so we end up giving lower quality service to our families because we get what we pay for, right. (Principal Interview 375)

Another principal made a similar point.

You have the paraeducator that's not making great money or not enough to live in [our] County, and they're dealing with some really severe behaviors or some interesting dynamics on campus, and they weigh it, and they're like, "it doesn't make sense for me to do this job anymore. I can go elsewhere." I mean, you can go to a fast food restaurant and make a heck of a lot more money, you know? (Principal Interview 335)

That same principal also explained that in addition to the hourly wage paid to paraeducators, these aren't full-time positions, leading to a "constant revolving door."

So when it comes to the paraeducator, I think it's a rate of pay and hours. Our district historically does whatever they can to keep you under the full-time threshold, and so they'll hire two, 3.5 hour employees to cover somebody that we need for a full day. And those folks are always looking to move on, right? They're always looking to find the full-time, to find the benefits and those things. So it's just a constant revolving door. (Principal Interview 335)

Another principal also spoke about how the part-time nature of the position leads to high turnover.

We have a sub pool that we go to, and it's kind of our training ground of when we find a good quality aide, next year we might have a position where something opens up. Because having only a five and three quarter hour position might not pay the bills. So if you're looking for an eight hour position, they might move to something different… But then that… pool becomes a revolving pool, constantly evolving. (Principal Interview 174)

In addition to wages and a lack of full-time-status, other principals spoke about the difficult job paraeducators are being asked to do without training and support. A principal who explained that they "just can't hold on to [paraeducators]," elaborated,

There needs to be more professional development that can be provided to non-teaching staff or classified staff. You know, we take people that want to earn $15 an hour, and we ask them to be paraeducators, but there isn't enough provided to them to really learn and know "what does it mean to be a paraeducator in a special education classroom?"... We're putting people in that

> *are literally learning on the job. It's not fair to them, it's not fair to our kids, it's not fair to the teachers. And I hate using the word fair, because it's my least favorite word in the whole world, but I think that we need to do more to be able to develop and provide regular professional development for paraeducators that is meaningful to the classroom experience. (226)*

Another principal also wanted more training for classified staff, marveling at the fact that, as a district, there wasn't a more structured and systemic way of supporting paraeducators.

> *I would want more training for maybe aides that work with students. I always find it really strange that we don't have more training for classified staff… I'm surprised that in 2025 there isn't something more structured and a framework and something that really supports all the systems. (Principal Interview 398)*

And while training was seen as one possible way to help manage the high turnover of paraeducators, one principal pointed out the challenges of constantly training staff who only stay for a short period of time.

> *We sometimes have in the low 40s, high 30s, typically, of paraprofessionals to support our students with disabilities on our campus. And it's harder to keep that consistent. It's more of an entry-level wage. And so people move on, and they move out, and there's more of a revolving door, and that's difficult with training, as you can imagine, right when we teach you to function in a gen ed classroom and support kids and support the teacher and all the things that have to happen. And then if, in eight months, you take a better position, now we're back at square one, so I think it's just consistency of staffing our paraprofessionals. (Principal Interview 300)*

These factors together highlight the ongoing struggle to maintain a stable, qualified paraeducator workforce in schools and the interrelated nature of these factors.

Although there has been an increase in the paraeducator workforce in California over the past decade, similar to other special education staff, principals report shortages on the ground here, too. Principals, further, explain that it is particularly difficult to retain paraeducators because of low wages, part-time status, and lack of training.

Summary Trends: "Robbing Peter to Pay Paul"

Overall, across our time period and across available datasets, we see that there are indeed increases in the supply of students with disabilities in the state and the demand for staff who can directly support them. For example, we see a 9% increase in the number of students with disabilities from 2023-25, along with a 7% increase in pupil services personnel, a 5% decrease in estimated teacher hires in special education, and an 18% increase in paraeducators.

We see a promising 19% increase in educator specialist credentials issued in the most recent years of data (2023-24), but our interviews suggest that this increase in credentials has not yet been adequate to meet principals' demands for qualified special educators. Additionally, we see a 2% decrease in pupil services credentials over the period, compared to a 7% increase in the number of pupil services personnel employed in California schools. Again, our interviews suggest that many schools and districts continue to struggle to meet rising demands of students with disabilities with adequately trained personnel.

Next, we look across data CDE datasets on student enrollment across categories, inclusion of students with disabilities, numbers of paraeducators, teachers, and pupil services staff for the 2024-25 school year. Regression estimates shown in Figure 11 suggest that, unsurprisingly, the number of students enrolled in a district is significantly related to the number of staff employed across roles (i.e., paraeducators, teachers, and pupil services staff). Controlling for other factors, each additional 100 students enrolled in a district is associated with an additional 0.09 paraeducators, 5.15 teachers, and 0.95 pupil services staff. We also see that the proportion of White students and students with disabilities enrolled are significantly associated with higher numbers of teachers and pupil services personnel. Indeed, across models, we find similar estimates for the relationship of student enrollment characteristics and the number of teachers and pupil services personnel employed in a given district.

Table 3. *Annual Changes Among Student and Staff Groups, 2023-2025*

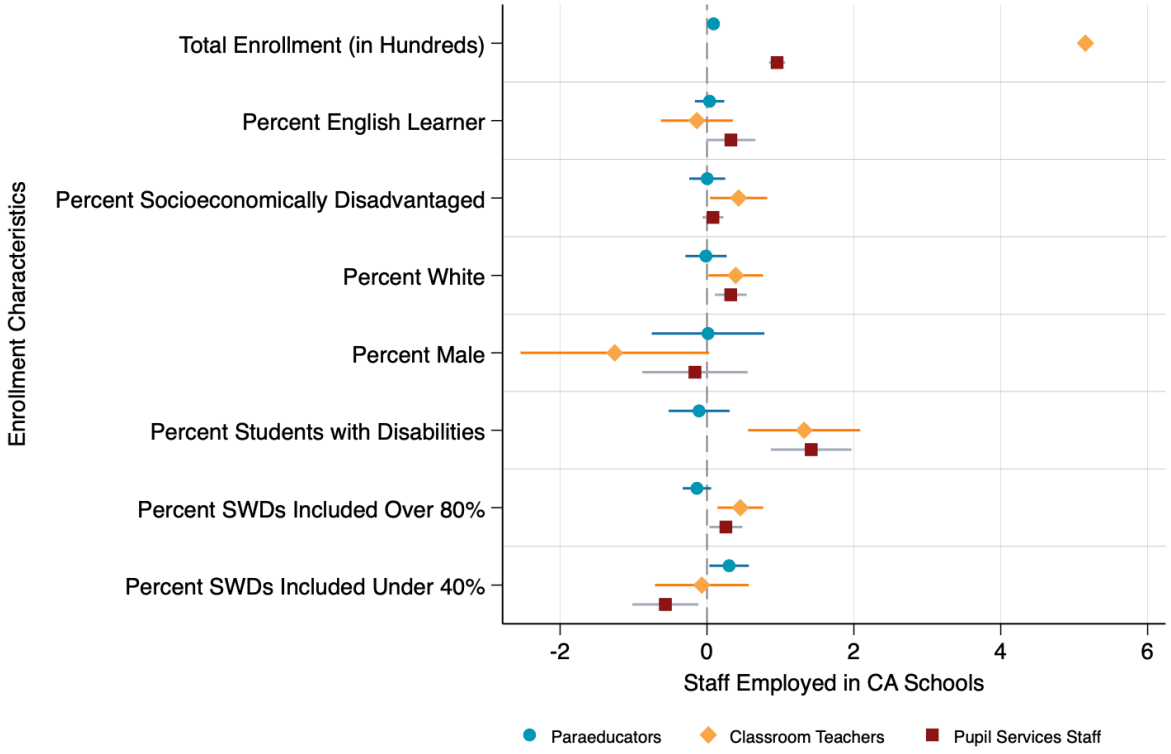
	2023	2024	2025	*Average % Change*	*Total % Change*
All Students	5,852,544	5,837,690	5,806,221	*-0.40*	*-0.79*
Students with Disabilities	793,985	836,846	865,213	*+4.40*	*+8.97*
Included in GE >80%	58.1%	59.1%	60.1%	*+1.71*	*+3.44*
Included in GE 40-79%	15.9%	15.2%	14.3%	*-5.16*	*-10.06*
Included in GE <40%	17.4%	17.1%	16.8%	*-1.74*	*-3.45*
Certificated Staff	370,727	377,026	379,739	*+1.21*	*+2.43*
Pupil Services	34,824	36,535	37,392	*+3.63*	*+7.37*
Teachers	284,608	285,891	286,126	*+0.27*	*+0.53*
Estimated Teacher Hires (SPED)	4,935	5,103.7	4689.9	*-2.35*	*-5.23*
Classified Staff	282,800.9	299,266.3	318,575.8	*+6.14*	*+12.65*
Paraeducators	90,877.79	98,900.23	106,833.5	*+8.43*	*+17.56*
Teacher Credentials Issued	19,845	23,985	-	*+20.86*	*+20.86*
Educator Specialist Credentials	4,737	5,633	-	*+18.91*	*+18.91*
Services Credentials Issued	16,936	16,983	-	*+0.28*	*+0.28*
Pupil Services Credentials	12,651	12,445	-	*-1.63*	*-1.63*

Note. Data in the following rows is provided by the CDE, sourced from downloadable data files: all students, certificated staff, estimated teacher hires, and classified staff. Data for teacher credentials issued and services credentials issued is provided by the CTC.

Interestingly, we see slight differences in the relationship between student enrollment characteristics and the number of paraeducators employed in schools versus the relationship for teachers and pupil services staff. This is especially true for the proportion of students with disabilities included in general education classes for over 80% of their day or under 40% of their day. A ten percentage point increase in the proportion of students with disabilities included in general education classes for over 80% of their day is associated with 5 more teachers and 3 additional pupil services staff

but no statistically significant differences in paraeducators, holding all other enrollment characteristics constant. In contrast, holding other enrollment characteristics constant, a ten percentage point increase in the proportion of students with disabilities educated in self-contained classrooms (i.e., in general education for less than 40% of the day) is associated with 6 fewer pupil services staff, but 3 more paraeducators, and no statistically significant differences in the number of teachers.

Figure 11. *Relationships Between District Enrollment Characteristics and Staff Employed in CA Schools, 2025*



Note. Total enrollment is scaled by a factor of 100 (e.g., a one-unit increase is equivalent to a 100-student increase). SWDs = Students with disabilities.

These regression estimates suggest that schools may be deploying teachers and pupil services staff in similar ways given enrollment characteristics, which may be in opposition to the way that they deploy paraeducators, holding all other things constant. Thinking specifically about paraeducators, this may suggest that districts are employing paraeducators more often in self-contained classrooms rather than in inclusive classroom settings. While paraeducators are essential supports in such settings,

research also suggests that they may be a beneficial support for serving as a key support for including students with disabilities in general education classrooms. Additionally, while students enrolled in more restrictive environments are likely to have more significant needs and thus a greater potential need for related services, we see that more pupil services personnel are employed in districts serving more students in more inclusive environments rather than more restrictive environments, raising questions about how students with more significant support needs are receiving necessary related services.

It is important to note that one of the primary difficulties in interpreting these regression results is that the outcome combines two different processes: how schools would have staffed their schools if they could have hired everyone they wanted, and how many staff they were actually able to hire. The fact that we are unable to discern the number of actively employed special education teachers in the state from publicly available data further contributes to challenges in interpretability, as we are not able to explore trends among special education teachers in particular compared to other teacher roles. Even still, this gives us some insights into how schools are currently staffed. More detailed data on hiring processes at the school level would allow us to look even more closely at the differences between how schools are staffed and how administrators wish they were staffed.

Looking across the special education ecosystem shows that there are shortages across the special education ecosystem (teachers, related service professionals, and paraeducators), and these shortages mean that principals are at a crossroads: they cannot borrow capacity in one area to make up for short- or long-term shortages in another. Many times, they are left with a no-win situation, what one principal described as “robbing Peter to pay Paul:”

> *You know, we are, what is it, robbing Peter to pay Paul, the phrase, right? And we're doing that all over. So we may have someone that works with mild mod and supports mild mod, but we need them in the mod sev program for the day, because we have to look at where the need is, right. So let's say it's a classified, and I have an instructional aid that is normally supporting in a mild mod, but I've got to pull them for the day. So that's great, because now our highest needs students have support, but the other student is not getting their IEP minutes made, right? So we're kind of robbing from one to cover something else. So we do that. As far as the psychologist, we reach out to. We work together. You know, when we're talking about something specialist like that, speech therapist, for example, I have a speech therapist out. I*

don't have someone yet set to come cover their position. So we're using our other speech therapists creatively. We're reaching out to other sites to see if we can borrow here or there to do assessments. So it really comes down to us working as colleagues to see if we can support each other, and then you're at the mercy of the people around you if they're willing to share or not. (Principal interview 181)

Sometimes, principals work collaboratively, creatively, and innovatively to solve problems as this principal describes. At other times, resources are stretched thin and they manage the problem the best they can. And some principals find that they cannot adequately meet the needs of students with the resources that they have. Nearly every principal in our sample, however, had a staffing challenge to manage. As the principal above summarized, "But I mean, that's really staffing is a huge problem right now in education, I know in our district for sure, and in other, you know, friends that are in surrounding districts too, just getting positions covered."

Discussion

States that are serious about improving outcomes for students with disabilities need to think broadly about the constellation of resources that are needed to support students, including the essential resource of highly effective, well-trained staff members who fill numerous instructional and non-instructional roles. To understand the system of staffing for special education, it is essential to consider the *full* range of staff who support these students, including special and general education teachers, related service providers, administrators, and paraeducators. Further still, looking across both quantitative and qualitative data sources allows us to understand broad trends within the state, as well as how those trends are tangibly experienced in schools. In this study, we meet this need by combining a 20,000-foot view from administrative data with a close-up examination of administrator perceptions based on interviews, providing a robust exploration of the demand for special education services and supply of staff to meet student needs within a single large, diverse state: California.

Across the state, we find a rising need to increase capacity to serve students with disabilities with a range of needs, especially in inclusive settings. In the case of special education, capacity means more than just a single teacher. Our interview data reinforces existing literature on the importance of a comprehensive and coordinated school team in supporting students with disabilities. Patterns in

certification and employment of educators across different role types - including but not limited to teachers and related service providers - reflects an effort to increase the number of support staff that are available to students in schools (e.g., pupil services personnel, paraeducators). Yet our qualitative data suggests that even these efforts do not meet the needs on the ground in schools. Administrators speak frequently about feeling the pressure of shortages among one or multiple groups of staff essential to serving students with disabilities. Thus, while there is a growing need for special education teachers to support students with disabilities, it is key for general education teachers to be prepared to support students with disabilities as well. Overall, we find that trends in administrative data may present some element of the illusion of policy implementation and the illusion of services, where aggregate data do not necessarily capture the experience of implementers who are responsible for ensuring the effective education of students with disabilities.

Our findings align with national trends and current literature. Nationally, the number of students with disabilities and the inclusion of those students in general education classrooms is rising (NCES, 2024). This puts additional strain on schools to recruit and retain special educators, which has historically proved challenging (Billingsley & McLeskey, 2004), and to recruit and retain - and in some cases train - general educators, paraeducators, and related service providers who also provide direct services to students with disabilities (e.g., Downing, 2004; Gilmour & Wehby, 2020; Theobald et al., 2025). The challenges of persistent staffing shortages that are described by school principals in our study are aligned with other literature on the drivers of teacher and paraeducator turnover. For example, literature demonstrates that salary is a strong correlate of paraeducator turnover (Kaler & Theobald, 2026). Additionally, studies suggest that targeted teacher salary increases that focus on shortage areas like special education can draw certified special education teachers serving in general education roles into special education roles and can increase retention among teachers (e.g., Theobald et al. 2025; Zamarro et al., 2026). Our findings indeed suggest that salary and working conditions are essential factors shaping staffing.

The discrepancies that we find between the broad trends in administrative data and the ways in which administrators describe their experiences of staffing for special education suggest that that aggregate data does not accurately capture what is happening on the ground. What's more, this data may hide the scope and magnitude of a problem making it more difficult to see, termed the illusion of

services (Strach et al., 2020) and/or it may reflect implementation of the letter of the law but not its spirit, called illusory implementation (Manna & Moffitt, 2021). In the case of special education staffing, administrative data that is discernable and accessible at the level of state policymakers may belie some of the real challenges that administrators and school staff face in implementing special education services. For example, while we find an increase in the number of pupil services personnel employed in California schools and certified by the CTC, administrators nonetheless cite challenges with hiring and retaining enough personnel to meet their needs, especially in harder to staff districts (e.g., rural districts, lower-paying districts).

One of the things that makes California a unique context for studying special education systems is that there is substantial variation throughout the state in terms of geography, demography, and governance across the state. Indeed, we observe notable variation in the enrollment and inclusion of students with disabilities across different Census regions of the state. For example, districts in the San Diego - Imperial region have the highest rates of both identification and inclusion of students with disabilities (16% and 65%, respectively). By contrast, districts in the Northern San Joaquin Valley have the third lowest rates of identification and inclusion of students with disabilities (13% and 57%, respectively). Similarly, we see regional variation in staffing patterns. For example, North Coast school districts employ the lowest number of paraeducators, but also have the lowest student-to-paraeducator ratios in the state. By contrast, Central Coast school districts employ the second lowest number of paraeducators, but have the third-highest student-to-paraeducator ratios in the state. Further still, our regression estimates indicate that district-level student enrollment characteristics, particularly school size and the enrollment and inclusion of students with disabilities, is related to the number of paraeducators, teachers, and pupil services staff employed in a given district. While we can speak to some levels of variation within the state, we are limited by data availability regarding how much we can speak to trends over longer periods of time, as well as variance based on other geographic, demographic, and governance-related factors. More robust data systems would enable more comprehensive analyses of these patterns across time and across the state.

Policy Implications

Our findings suggest that there is a growing need to support students with disabilities that is likely outpacing the rate of special education teacher preparation. Additionally, our qualitative evidence indicates that administrators are interested in implementing more inclusive practices when possible, which includes necessary collaboration with general education teachers. Thus, additional preparation of general education teachers to support students with disabilities might help meet the diverse needs of the student body. Additionally, expanding the capacity of general education teachers to support students with disabilities may help meet the needs of other students who are not yet - or may not ever be - identified with special education needs, but who may need additional support. As one principal reminds us, the number of students in special education does not necessarily reflect the number of students needing support.

> *And one of the things I really fear happening is that there's still a significant stigma to special needs. I suspect at my school, there are another 10 to 15% of the students who could use services whose parents refuse them on the grounds that it's still regarded as a negative. And so there is a greater need than is visible, and within that need, in order to do it right, you need to double the number of people who are doing the work. (Principal Interview 086)*

Additionally, policymakers may consider changes to their recruitment procedures, training opportunities, and salaries to attract and retain more educators across roles. For example, our findings suggest that salary is a major factor - and often barrier - related to staffing for special education, and extant literature supports this finding. It is essential to consider the potential spillover effects of such a policy shift on other elements of the special education system. For example, while some studies demonstrate that salary incentives may draw special education certified general educators into special education teaching positions (Theobald et al., 2025), other studies on the detrimental impact of general education teacher turnover on students with disabilities suggests that this could potentially harm the achievement of students with disabilities incidentally (Kaler et al., 2025). There is no slack in the special-education staffing system. Schools cannot make up for short- or long-term shortages in one area by leaning on another. As the principal from our study (above) cautions that some policy decisions can feel like “robbing Peter to pay Paul.” Thus, the system is deeply interconnected and any policy

decision should be made with clear consideration of the whole, rather than isolated parts. And it is clear that explicit policy actions are needed to add more slack into this constrained system.

Another major policy implication of our study is that while in many ways, California provides a more robust and comprehensive data system than many other states, it could still use improvement if the state is serious about the mission of improving services and outcomes for students with disabilities. California has made efforts to improve its data systems through the development of the California Longitudinal Pupil Assessment and Data System (CALPADS) and Cradle-to-Career data system (Burch et al., 2022; Philips et al., 2018). These data systems provide a promising structure for data collection, but must make intentional improvements to incorporate more precise and expansive data collection on issues of importance in special education and for students with disabilities. Notably, there is no clear way to identify special education teachers in publicly available CDE data. This seriously limits the ability to draw accurate, timely conclusions about the special education workforce. Instead, we must develop findings based on estimated teacher hires and CTC data on teacher certifications. Concerningly, however, recent studies on the use of administrative data systems to study the special education workforce find that the use of teacher certifications to measure the special education teacher workforce substantially overestimates the supply of special education teachers working in schools (Gilmour et al., 2026). To develop a comprehensive, accurate, and timely portrait of how students and staff engage with the system of special education in the state, improvements to the data infrastructure that explicitly attend to questions of importance in special education are critically needed.

Limitations and Future Directions

One of the major limitations of this work is that publicly available data from CDE does not clearly identify special education staff, including teachers. Thus, while we are able to identify the number of currently employed teachers overall and the number of estimated teacher hires in special education, we are not able to identify the number of special education teachers currently working. This limits our ability to comprehensively understand the supply and demand of special education students and staff. Future work exploring a single district or multiple districts might lend itself to data access that allows more analytical precision. For example, partnership with a district may provide more clarity on who is working as a special education teacher. More specific data may also illuminate other patterns in

special education services delivery, including the number of special education teachers serving as co-teachers, resource room teachers, and self-contained teachers in a way that aligns staffing supply with patterns in LRE placement.

Additionally, our interviews are with school principals, but do not include the voices of teachers, related service providers, or paraeducators, nor students with disabilities or their families. These individuals could provide essential insights into how special education staffing is experienced by those closest to the daily implementation of special education services. Further, our principal interviews only included school principals, however, some participants made clear that much of the special education hiring occurs at the district level and we do not have interview data from administrators working at this level. It might be fruitful to explore other drivers of special education supply, demand, and service delivery from an in-depth qualitative perspective, including incorporating other data sources such as observational data. For example, a future study may explore other school staff and family members' perceptions of special education identification, services, and staffing to better understand how special education is experienced and how we may identify levers for systems-level improvement.

Additionally, we focus this analysis on three groups of frontline staff implementing special education services for students with disabilities: teachers, related service providers, and paraeducators. Yet there are still more groups of staff that shape the experiences of students with disabilities in schools. Recent literature has emphasized the role of administrators in shaping special education implementation (Bettini et al., 2017; DeMatthews et al., 2025). Additionally, students with disabilities may be served by any number of staff who are externally contracted and thus not included in our administrative data analysis. We tailored the focus of this study on three primary groups of staff supporting students with disabilities on a daily basis and observable in our administrative data. Yet, future studies could explore even more staffing groups as well as the relationship between staff hired by school districts and those hired by external contractors.

Further, given the complexity of educational governance in California, including in special education, there is much more variation that our report does not explore that could be fruitful for developing more localized findings. For example, we focus our attention on regional variation and variation based on district-level characteristics. There may be differences in staffing based on other factors, however, including charter school status, school and district type (e.g., special education

schools, county offices of education (COEs), Regional Occupational Centers and Programs (ROCPs)), as well as depending on a district's assigned SELPA. Prior research - as well as policy documents from the CDE - suggests that SELPAs do play a role in the implementation of special education services in schools, including in elements of the staffing system such as training and technical assistance (CDE, 2026; Doutre et al., 2021; Warren & Hill, 2018). Future work could take a more explicitly governance-oriented approach to studying systems of special education staffing in the state in ways that more comprehensively explore issues like funding and localized policies.

Conclusions

The ultimate mission of IDEA is to provide a free and appropriate public education to students with disabilities, ensuring their rights to an education (IDEA, 2004). Yet, the current system of special education staffing does not adequately, consistently help realize that right. Schools are constrained and put under pressure by a combination of rising student needs and staffing levels that are not rising quickly enough and not distributed in ways that meet those demands. We contribute to the literature by looking across three pillars of the special education staffing system - teachers, related service providers, and paraeducators - with both wide-lens and close-up perspectives using a combination of administrative and interview data. We find a lack of slack in the system as well as potential evidence of the illusion of services. Even while school districts make earnest efforts to meet the needs of the rising number of students with disabilities, more resources are required to reduce strain and improve the system of special education staffing in ways that more effectively and sustainably support students with disabilities and their families.

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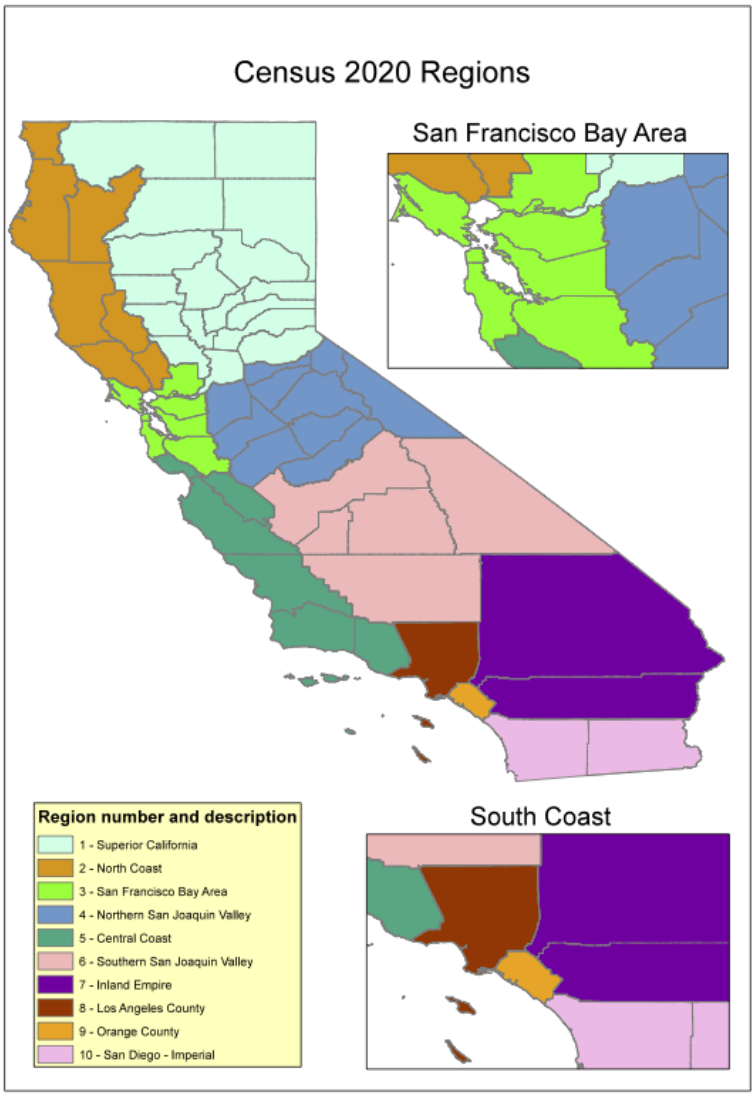
Appendix A: California Census Regions

Figure 12. *Map of California Regions, Based on 2020 California Census*



Note. Counties in each region are as follows. Region 1: Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer. Region 2: Del Norte, Humboldt, Lake, Mendocino, Napa, Sonoma, Trinity. Region 3: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, Solano. Region 4: Alpine, Amador, Calaveras, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tuolumne. Region 5: Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura. Region 6: Fresno, Inyo, Kern, Kings, Tulare. Region 7: Riverside, San Bernardino. Region 8: Los Angeles. Region 9: Orange. Region 10: Imperial, San Diego. Retrieved from: https://census.ca.gov/regions/.

Appendix B: Interview Protocol

1. Thinking back on the past school year, what were your top three priorities when it came to staffing your school to support students with disabilities?
2. Thinking back on the past school year, what are the primary constraints that you faced in hiring staff who can support students with disabilities, both teachers and non-teaching staff (e.g., school psychologists, paraeducators)?
3. Can you identify 2-3 ways that you managed those constraints to meet your staffing needs?
4. Over the past school year, can you identify 2-3 things that made your job easier, or ways that you got support when it comes to serving students with disabilities?
5. If you had the ear of policymakers, what would you want them to know regarding staffing and supporting students with disabilities in your context?