

Office of the President

TO MEMBERS OF THE ACADEMIC AND STUDENT AFFAIRS COMMITTEE:

DISCUSSION ITEM

For Meeting of September 20, 2023

RESPONDING TO THE STATE’S NEED FOR A HIGHLY PREPARED AND DIVERSE K–12 TEACHER WORKFORCE: UC’S EDUCATOR PREPARATION AND PROFESSIONAL LEARNING PROGRAMS

EXECUTIVE SUMMARY

The recruitment, preparation, and retention of high-quality educators are among the most serious challenges facing the field of education today. This is particularly true in a state such as California, where the K–12 student population is comprised of significant numbers of students who are low-income, English language learners, and from increasingly diverse backgrounds.

To address current challenges confronting the state’s teacher workforce and respond to calls from the State to increase the capacity of California’s teacher education programs, faculty and administrators in the University’s teacher education, extension, and professional development programs are collaborating with State education partners to create new credentialing pathways for future teachers. Critical to this work also has been the expansion of and development of new professional learning programs, a critical resource for retaining the state’s best teachers and administrators in classrooms, schools, and districts.

BACKGROUND

The University of California’s interest in supporting high-quality educator preparation and retention programs is long-standing and historically grounded in its land-grant mission. It is also core to its ongoing commitment to public education and educational equity. For nearly 100 years, UC has prepared educators to serve students in the state’s K–12 school system. Today, even though UC teacher education programs typically prepare a smaller share of the state’s educators compared with other higher education segments, these programs continue a tradition of excellence and equity, contributing to research on best practices in teaching, the preparation of doctoral students and teacher education faculty, and innovative programming and strategies that support new and expanded pathways to the teaching profession and for school leaders.

California’s Teacher Workforce Challenges

As in other states, California’s K–12 education system has been challenged in recent years by

many stressors on the teaching profession and, consequently, on school climate and student learning. These challenges have led to an ongoing, critical shortage of highly qualified teachers made worse by the impact of the COVID-19 pandemic, which resulted in widespread school closures and in the exacerbation of historical disparities in student learning. Teacher shortages persist in schools throughout the state and are particularly acute in the areas of mathematics, science, bilingual education, and special education. Although meritorious for many reasons, recently adopted State content standards and high school graduation requirements in the area of ethnic studies and the expansion of Universal Transitional Kindergarten (UTK) to include all four-year-olds have only increased pressure on the state to expand the teacher workforce.

According to the Learning Policy Institute, California will need to prepare 10,000 to 15,000 lead teachers and 15,000 to 20,000 assistant teachers by 2025–26 just to meet the new demand for teachers qualified in early childhood education.¹ Shortages have also resulted in an increase in the hiring of teachers who are not fully certified.² Surveys by national teacher associations have shown that more than half of their members are thinking about leaving the profession sooner than planned, and two-thirds have reported burnout as a very serious issue. Moreover, declining enrollments have been observed in some teacher preparation programs.

As a consequence of these trends, hiring has become a difficult enterprise in the K–12 school system. In a California School Boards Association (CSBA) survey of the state’s Local Education Agencies (LEAs), more than 91 percent reported that filling vacant or new teaching positions in their schools was moderately or very challenging. More specifically, 90 percent reported shortages of special education teachers and 80 percent reported a shortage of general education teachers.³

The urgency and magnitude of California’s teacher shortage have spurred Governor Newsom, the State Board of Education, and State legislators to approve investments in strategies designed to significantly bolster California’s teacher workforce and strengthen opportunities for academic success and preparation for college and careers for the state’s K–12 student population. This priority is also expressly articulated in the UC’s Compact with the Governor that charges the University “to produce future K–12 educators.” The remainder of this discussion item presents an overview of UC’s approaches to expanding and accelerating its teacher recruitment, preparation, and retention efforts.

UC’s Role in Preparing Educators: Supporting a Continuum of Learning and Teaching

The UC has a long history of producing highly qualified K–12 teachers and school leaders through multiple pathways that lead to the teaching (and administrator) credential as well as professional learning programs that provide ongoing education that serve to retain new and

¹ Melnick, H., García, E., & Leung-Gagné, M. (2022). *Building a well-qualified transitional kindergarten workforce in California: Needs and opportunities*. Learning Policy Institute.

² In California, an estimated 27,475 teachers were not fully certified for their teaching assignments for the 2020–21 school year.

³ California Schools Boards Association (CSBA), (2022), *Beyond the Spreadsheets: Insights from California Education Leaders on Utilizing COVID-19 Relief Funding*.

experienced classroom teachers. These programs exist along a school-focused continuum of educator preparation and professional development programs that partner with schools and districts to meet the needs of California's diverse students and ensure that all students are college and career ready.

The University of California's educator preparation initiatives provide a school-focused continuum of educator preparation (credentialing) and ongoing professional development programs to improve teaching and learning and support the State's goals of addressing the teacher shortage. The continuum of UC programs and supports to recruit, prepare, and retain highly qualified, diverse teachers includes:

CalTeach

Aimed at addressing the state's critical need for highly qualified math and science teachers, the CalTeach program provides multiple pathways for undergraduate science, technology, engineering, and mathematics (STEM) majors to pursue teaching credentials and careers. Offered at all nine UC undergraduate campuses, the CalTeach program bridges math/science and education departments, allowing students to complete their undergraduate coursework in a STEM field while simultaneously exploring and preparing for a career in K–12 teaching through specialized courses, field placements in local K–12 schools, and mentorship by experienced teachers. At UC Berkeley and UC Irvine, CalTeach students can also complete a teacher credentialing program while completing their undergraduate degree program through a unique program accredited by the California Commission on Teacher Credentialing (CTC).

Since its launch in 2005, the CalTeach program collectively has produced over 3,000 mathematics and science teachers, many of whom are working in predominantly high-need schools.⁴ Additionally, 6,998 single-subject mathematics and science credentials and 2,395 multiple-subject credentials have been awarded to CalTeach alumni (new and experienced teachers).⁵ Demonstrating the statewide impact of the CalTeach Program, data shows that approximately 30 percent of all math and science credentials awarded in the state in 2020–21 had been to a teacher who participated in a CalTeach program.⁶

Teacher Education Programs (TEPs)

All nine of UC's undergraduate campuses offer multiple routes to teacher credentialing, including both traditional and alternative certification programs, most culminating in both a credential and a master's degree. TEPs offer multiple-subject credentials for elementary teachers, single-subject credentials for secondary teachers, and education specialist credentials (e.g., bilingual education specialists) for both elementary and secondary candidates. Annually, UC TEPs enroll an average of 1,000 teacher candidates, equivalent to slightly more than five percent of the state's share of newly credentialed teachers.

⁴ Annual data collected by the Information Management and Analysis Unit, Graduate, Undergraduate, and Equity Affairs (GUEA) Department, UC Office of the President, 2021-22.

⁵ Ibid.

⁶ Ibid.

UC TEPs have high standards for admissions: a minimum GPA of 3.0 is required, but the average for UC candidates is 3.3 to 3.4. In addition, prior work or volunteer experience with students is required and candidates must demonstrate the capacity and disposition to become teacher leaders and remain in teaching. Most TEP programs also weigh an applicant's commitment to working in high-need, diverse schools when making admission decisions.

UC Extension Teacher Preparation and Learning Programs

In addition to UC's traditional, full-time TEPs, California residents can also acquire a teaching credential, certificate, or authorization through one of UC's extension programs. Single Subject, Multiple Subject, and Educational Specialist Clear Credentials, Career and Technical Education Credentials, English Learner Added Authorization, and Designated Subjects Career Technical Education Teaching Credential Program are all offered through various extension programs, depending on the campus. All aim to enhance educators' qualifications and expertise in teaching and related fields. A few current examples of UC Extension-administered teacher preparation programs:

- UC San Diego's Division of Extended Studies offers the English Learner Authorization (ELA) program for teachers to gain competence in teaching English learners. Candidates can obtain ELA through California Teach of English Learners (CTEL) exams and approved coursework or by equivalency evaluation.
- UCLA's program which provides various credentialing programs for educators, including Single Subject, Multiple Subject, and Educational Specialist Clear Credentials through the Teacher Induction Program. It offers Preliminary and Clear Career and Technical Education Credentials, as well as Methods courses to add teaching or subject areas to existing CTC credentials. Additionally, the English Learner Added Authorization (CTEL/CLAD) program is available for credentialed teachers seeking a Cross-cultural Language and Academic Development (CLAD) certification. These programs cater to both aspiring and experienced educators looking to enhance their qualifications and expertise in the field of education.
- UC Santa Barbara's program through the Gevirtz Graduate School of Education which offers a mathematics add-on credential, a dual enrollment program for high school students, and an early credential education program for pre-K teachers in partnership with Santa Barbara County Education Office and Las Virgenes Unified School District. The dual enrollment program enrolls 16 students, while the early credential education program has trained two cohorts of 28 teachers each.

These and other examples of UC Extension's efforts to support teacher preparation offer both in-person and online courses that ensure hands-on learning and personal interaction with experienced instructors. As a result, students gain a comprehensive understanding of teaching methodologies and social-emotional learning in support of their professional growth and success in the competitive educational landscape.

Principal Leadership Institutes (PLIs)

UC Berkeley and UCLA offer administrator credential programs through the mostly State-funded Principal Leadership Institutes. PLIs prepare primarily urban school leaders committed to increasing educational opportunities for underserved students. Upon completing the program, graduates receive a master's degree and a Tier I Administrative Services Credential. Collectively, since their founding in 1999, the two PLI programs have prepared over 1,300 administrators, principals, and vice principals to lead in the state's most urban, diverse, and high-need schools. Over half of the PLI graduates are non-white, and over 27 percent of PLI alumni are Latinx and 14 percent are African American.

California Subject Matter Project (CSMP)

Established through State statute in 1988, the California Subject Matter Project (CSMP), administered by the University of California, is dedicated to improving student learning and literacy through educator professional learning and instructional resource development. Its nine disciplinary networks—in the arts, global education, history-social science, mathematics, reading and literature, physical education and health, science, world languages, and writing—serve, on average, 25,000 to 30,000 educators from more than 1,200 schools and districts each year. Regional CSMP project sites, located at universities across California, bring together university faculty and experienced K–12 teachers to design and co-lead professional learning programs and develop instructional resources aligned with the most current state content standards and curriculum.

Doctoral Preparation

UC is also actively engaged in doctoral education and research playing a critical and unique role in the state by preparing education faculty and teacher education scholars by way of its doctoral programs. Many of these graduates eventually become faculty in teacher preparation programs, not only at UC campuses but in departments within the California State University system and at other institutions of higher education in California.

Research on Teachers

UC also conducts rigorous research in teacher education, developing programs and best practices for educators, researching their effectiveness in practical, school-based settings. Faculty from across UC, including all six UC schools of education, are currently participating in the California Teacher Education and Research Improvement Network (CTERIN), a multi-campus research network focused on conducting research on the teacher workforce, including teacher diversity, effectiveness, and quality. CTERIN receives support through a grant awarded through the UCOP Multi-Campus Research Programs and Initiatives program.

Annual State Budget Allocations for UC's Educator Programs

UC's educator preparation and professional development programs receive allocations from State funds distributed by UCOP to the campuses. Important to note, State funding for the CalTeach, Teacher Education Programs, and the Principal Leadership Institutes has not increased in nearly 19 years. Moreover, these funds do not represent the total cost to the campuses to operate these programs but rather provide a supplement to the other resources each program has

needed to raise in order to keep pace with program costs and meet the increased demand for teacher preparation and professional support. Other funding sources for these programs include campus and systemwide funding, federal grant awards (e.g., National Science Foundation Noyce Scholars Program, Department of Education Title V grants), State awards from the California Commission on Teacher Credentialing, alumni donors, and grants from various non-profit, private industry, and philanthropic organizations.

The following is a list of the State and federal funds that programs receive annually as pass-through funding from UCOP or through a contract with the California Department of Education (CDE).

Program	Annual State and Federal Funding	Sites
CalTeach (Science & Mathematics Initiative)	\$2,500,000 (State funds)	9 UC campus programs
Teacher Education Programs	\$320,000 (State funds)	8 UC campus programs
Principal Leadership Institutes	\$300,000 (State funds)	2 UC campus programs
California Subject Matter Project	\$5,000,000 (UCOP budget pass-throughs) \$3,400,000 (federal Title II funds contracted through CDE)	83 UC, CSU, and private university sites

Current Strategies for Strengthening and Expanding the Teacher Workforce

California's severe shortage of highly prepared teachers has prompted State lawmakers to make new investments in teacher preparation in the last few years designed to attract new and retain experienced teachers in the profession. Some of these investments have allowed UC's educator programs to expand and innovate in alignment with state priorities. UC is engaged in several innovative and proven strategies for strengthening and expanding the K–12 teacher workforce. These include the following:

Teacher Residency Programs

Seen as a highly effective approach to recruiting diverse candidates and retaining them as classroom teachers,⁷ over the last few years, the State has made recent significant investments in the establishment of teacher residency programs. Typically, teacher residencies are partnerships between a Local Education Agency (LEA) or a consortium of LEAs and an institution of higher education administered teacher preparation program that enable teacher candidates to work as paid apprentices alongside skilled expert teachers while simultaneously completing highly integrated coursework and a year-long clinical experience. Candidates also receive significant financial support packages while in the program.

⁷ Patrick, S. K., Darling-Hammond, L., & Kini, T. (2023). Early impact of teacher residencies in California [Fact sheet]. Learning Policy Institute.

- In 2022, UC TEPs at the Berkeley, Los Angeles, Merced, and Santa Barbara campuses were awarded teacher residency grants from the California Commission on Teacher Credentialing focused on diversifying the workforce and expanding capacity to prepare teachers in the shortage areas of STEM, bilingual, and special education.
- In 2022, UC Berkeley and UCLA began collaborating with UC Merced to design and implement a new teacher residency program within the Merced County Office of Education. This new program ultimately will produce 60 new teachers trained in early childhood education to work in underserved Merced schools and help meet the expected demand for transitional kindergarten teachers. With \$1.5 million in a grant awarded by the California Commission on Teacher Credentialing earlier this year, the new teacher residency program will focus on producing new teachers trained in early childhood education by advancing the careers and pay of experienced pre-K teachers, including many women of color with longtime experience in Head Start and other community-based programs. Leaders also hope to create a seamless pipeline for preparing high-quality pre-K teachers and classroom aides and to strengthen collaborations between local education agencies and universities. Graduate, Undergraduate and Equity Affairs in the UC Office of the President will provide additional funding for fellowships for graduate-level teacher trainees, including those whose status falls under Deferred Action for Childhood Arrivals (DACA), also known as “Dreamers.”
- UCLA’s Teacher Education Program (UCLA TEP) and the Principal Leadership Institute (UCLA PLI), housed in Center X in the School of Education and Information Studies, have been awarded an \$8 million, five-year grant from the U.S. Department of Education Teacher Quality Partnership Program grant to support middle school teachers and leaders, creating positive academic and social outcomes for middle school students of color by creating a middle school teacher residency program and a professional learning and support program for current and aspiring middle school leaders. This work includes initiating partnerships with a consortium of geographic and demographically diverse K–12 public school districts and the UCLA School of Social Welfare, East Los Angeles College, and Long Beach City College, preparing 60 pre-service teachers and providing professional learning experiences for 30 mentors/in-service teachers, 45 Community College students, and 20 school administrators.

New Preparation Pathways to Addressing Teacher Workforce Needs

In response to the State’s newly adopted Ethnic Studies high school graduation requirement, several UC teacher education programs have developed new concentrations and/or pathways for their multiple- and single-subject teacher credential candidates in the area of Ethnic Studies, developing curriculum that embeds specific courses in Ethnic Studies, field placements with experienced K–12 ethnic studies teachers, and collaborations and mentoring opportunities with university Ethnic Studies faculty. Some examples include:

- UCLA’s teacher education program established an ethnic studies pathway for their teacher credential candidates in 2014 in response to LAUSD’s adoption at that time of an

ethnic studies requirement for high school graduation. To date, the program has prepared 139 credentialed secondary teachers with an emphasis in Ethnic Studies.

- In 2019, UC Riverside's School of Education established a focused K–12 Ethnic Studies Pathway for master of education (M.Ed.) students enrolled in the English and Social Science credential programs, as well as an Ethnic Studies Emphasis program open to all teacher education students, thus far preparing 59 teachers in the Inland Empire.

Advancing Teacher Professional Development

High-quality professional development and resources for teachers have been identified as one of the most important factors in improving retention in the teacher workforce.

- In 2020, CSMP received one-time State funding to support the mitigation of learning loss in mathematics, science, and English and language arts resulting from the impact of COVID-related school closures and disruptions to learning. These funds were used to develop over 260 professional learning programs and instructional resources for more than 7,800 K–12 educators from 1,692 schools. Special attention was given to creating programs that emphasized the importance of attending to children's academic and social-emotional needs across all subject areas, particularly for students in communities that bore the brunt of COVID-related human and economic losses. Many of these new programs embedded social-emotional learning supports for teachers (e.g., listening sessions, coaching, and collaborative planning) and offered teachers strategies to engage students in learning and attend to their social and emotional development.
- Through a combination of additional one-time State and grant funding, CSMP is developing new professional learning programs in the areas of ethnic studies, computer science, environmental literacy, and environmental justice, areas in which there is expected to be high demand by both new and continuing teachers.

Advancing School Leadership

In 2019, UC Berkeley's PLI program was awarded a grant by the California Department of Education (CDE) to create and manage the 21st Century California School Leadership Academy (21CSLA) State Center. Working with its partners at the UCLA PLI and the California Subject Matter Project (CSMP), the 21CSLA State Center offers no-cost leadership coaching, professional learning programs, and communities of practice focused on advancing educational equity for educational leaders in seven 21CSLA regional academies across the state. This past year, the 21CSLA State Center was awarded an additional \$7 million from the CDE to support California's implementation of Universal Transitional Kindergarten (UTK), and an additional \$12 million from CDE to sustain the program which will continue to focus on equity leadership with an emphasis on improving instruction and achievement outcomes for English Learners, students with disabilities, low-income students, and other historically marginalized students.

Increasing Financial Support for Teacher Candidates

UC's teacher and administrator preparation programs struggle to acquire sufficient funding for their teacher candidates that would allow them to recruit a more diverse applicant pool and at the

same time expand their capacity to enroll an increased number of students each year. Recently, the State established the Golden State Teacher Grant (GSTG) program administered by the California Student Aid Commission, which awards up to \$20,000 to students currently enrolled in a professional preparation program approved by the Commission on Teacher Credentialing (CTC) and working towards earning their preliminary teaching or pupil personnel services credential. In addition to other requirements, eligible students must commit to work at a priority school⁸ in California for four years within eight years of completing their program. In 2022–23, 490 UC teacher candidates applied for GSTG grants, nearly double the number of UC applicants from the year prior (272 UC applicants in 2021–22).

Expanding Enrollment Capacity in UC’s Teacher Preparation Programs

UC TEPs and other educator preparation and professional development programs can help the State address the teacher shortage and increased demands for highly prepared teachers and administrators by increasing enrollment in its programs. However, this option is dependent on acquiring additional resources, particularly for student financial aid.

- Recent one-time, short-term investments by the State have provided a much-needed boost in immediate resources and student financial support at a critical time. However, increased and stable, long-term investments in teacher education programs will be needed to truly alleviate the projected continuing teacher shortage and prepare the number of teachers schools will need in highly specialized areas.
- Long-term increases in funding will be necessary to strengthen and expand the infrastructure the state needs to attract and admit an increased number of teacher candidates to pursue credentials in high-need areas (especially in mathematics, science, special education, and bilingual education), hire faculty and staff, and provide the type of high-quality and intensive preparation that teachers need to stay in the profession.

With new and continued State, federal, and philanthropic investments and world-renowned expertise in teaching and educator best practices, UC’s teacher education professional learning programs are well positioned to expand their capacity to help the State address the teacher shortage while also meeting the need to prepare more teachers in new content areas. UC’s educator preparation leadership has developed a multi-pronged strategy for addressing these needs. These include the following:

- Build new statewide online programs in which candidates learn from virtual courses and a full-time student-teaching “residency” in a school. A statewide online option is not bound by campus location and will allow preparation in geographic areas with the highest need for teachers, thus expanding capacity across all UC TEPs and PLIs.
- Build and expand high-need areas in campus-based programs via expansion of undergraduate and post-baccalaureate pathways to prepare more teachers in high-need

⁸ Priority schools have more than 55 percent of pupils classified as English Learners, eligible for free or reduced-price meals, or current foster youth.

areas such as STEM, bilingual, special education, ethnic studies, computer science, and elementary/early childhood for Transitional Kindergarten classes.

- Increase the undergraduate pathway to teaching by expanding the capacity of UC's highly successful CalTeach program to provide greater opportunities for STEM majors to explore and pursue a teaching credential in math or science.
- Increase the capacity of UC's professional learning programs to expand their capacity to serve more teachers and administrators through an increase to permanent state funding (instead of relying on one-time state funds). This would allow CSMP to sustain its newly developed programs to support learning acceleration in underserved schools by opening new project sites and hiring the requisite staff needed to provide services on a permanent basis in rural and remote regions where teachers are most in need of instructional support.

CONCLUSION

The University of California's portfolio of educator preparation and professional development programs is high-quality, research-based, and grounded in a commitment to educational opportunity and equity. Throughout the crisis of the COVID-19 pandemic, these programs served as professional homes and support for tens of thousands of future and current K–12 teachers as they continued to teach students through trauma and loss. UC's faculty and administrative leaders in these programs are engaged in multiple new and innovative initiatives designed to strengthen the teaching profession which continues to be affected by numerous challenges and pressures.

KEY TO ACRONYMS

21CSLA	21st Century California School Leadership Academy
CDE	California Department of Education
CLAD	Cross-cultural Language and Academic Development
CSBA	California School Boards Association
CSMP	California Subject Matter Project
CTC	California Commission on Teacher Credentialing
CTEL	California Teach of English Learners
CTERIN	California Teacher Education and Research Improvement Network
ELA	English Learner Authorization
GSTG	Golden State Teacher Grant
LEA	Local Education Agency
PLI	Principal Leadership Institute
STEM	Science, Technology, Engineering, and Mathematics

TEP	Teacher Education Program
UTK	Universal Transitional Kindergarten