

## *Narrative 2014 Fresno Teacher Residency Program (FTRP)*

### *Introduction*

To address the critical need at grades K-12, Fresno Unified School District (Fresno Unified) in partnership with California State University, Fresno (Fresno State), desire to establish the ***Fresno Teacher Residency Program (FTRP)*** with an emphasis on STEM (Science, Technology, Engineering and Math) education. FTRP will provide highly effective teachers who will be recruited, selected and trained to address the specific needs of the school district. The overarching goal of this project is to improve student academic achievement by improving the effectiveness of new teachers in high demand STEM subject areas in advanced content knowledge and effective instructional strategies using the Common Core State Standards (CCSS) and Next Generation Science Standards (NGSS).

Fresno recognizes teacher quality as the number one factor in raising student achievement, therefore, there is an urgency to break the cycle of inequity and provide children in high-poverty schools with high quality education. To “grow our own” teachers may be the most efficient and sustainable strategy for developing a diverse, effective teaching force that is committed to high academic expectations for all learners. Fresno is committed to providing targeted professional learning, support, and mentoring for aspiring, new and existing teachers in addition to offering the necessary tools to intervene and address those with persistent performance issues to accomplish the goal of preparing College and Career Ready graduates.

The Fresno Unified’s Theory of Action outlines a “significant increase in supports for all, through: Building capacity for all learners, engaging in collaboration, directing resources where required, and piloting new ideas.” Through the successful five year implementation of a **Transition to Teaching** federal grant, Fresno has established a coherent pipeline of teacher preparation

programs that will identify and recruit candidates who are recent graduates, mid-career professionals and individuals from underrepresented populations to the Fresno Teacher Residency Program (FTRP).

The FTRP project will result in significant changes in teacher preparation and effectiveness for Fresno, one of the nation's highest need school districts. This program will focus on the implementation of three primary objectives: 1) Recruitment and selection of diverse talent into the Fresno Teacher Residency Programs; 2) Fresno Unified and Fresno State faculty collaboratively reform the K-12 curriculum to train highly effective teacher residents; and 3) Induction and retention of highly trained new teachers at Fresno School District. Therefore, from day one, teacher residents are immersed in experiences and professional learning that by comparison veteran teachers acquire over a course of multiple years.

Fresno has identified the vast majority of students in grades 4-8 as being in critical need and on the path to school failure. On the 2013 California Standards Test Proficiency Rates for Benchmark California Districts, students in grades 2-7 were 41.2% proficient in math and 24.8% proficient in science. The primary issues are with math and science instruction, addressing the needs of English Learners (ELs), and teacher understanding of child/adolescent development. Although teachers in grade 4-8 have passed all required subject matter assessments they are not well prepared conceptually in math or science content and in that needed pedagogy. Of additional concern, Fresno anticipates that over the next five years 417 multiple subject (elementary), 66 math, and 40 science teachers will retire from the district creating an extensive void to our highly effective teacher workforce.

In recognizing this critical need in student achievement and decline of highly effective teachers, Fresno Unified and Fresno State have completed one year of planning and development in piloting the first Teacher Residency Program initiated through S. D. Bechtel Jr. Foundation (Bechtel) grant

focusing on grades 4-8, a Multiple Subject and Foundational credential in math or science. The Bechtel grant will continue in 2014 to support the first year of the Teacher Quality Partnership to improve and expand this pilot to establish a comprehensive K-12 Fresno TRP focusing on STEM and implementation of College and Career Ready (CCR) standards.

FTRP will incorporate research-based ideas, best practices, and encourage the exploration of innovative approaches that can bring about new solutions to longstanding challenges in teacher education (Darling-Hammond, 2006). This is essential in order to overcome patterns of low achievement among students with diverse ethnic, cultural, linguistic and socioeconomic barriers in Fresno and addressing the pattern of alternatively certified teachers being assigned to schools for low-income and minority student populations. An underlying tenet is recognition on the part of the partnership that excellent teaching requires the combination of strong pedagogical skills, deep knowledge of subject matter, an understanding of the value of diversity, and the skills to recognize and appreciate students' linguistic and experiential backgrounds (SRI International, 2000).

### ***Needs Assessment - Fresno Unified***

Fresno Unified along with seven other school districts representing more than a million students (Long Beach, Los Angeles, Oakland, Sacramento City, San Francisco, Santa Ana, and Sanger) recognized the need to go beyond the minimum accountability of student achievement as outlined by No Child Left Behind and have come together to form a learning cooperative called the California Office to Reform Education (CORE). The Districts are focused on deep learning and sharing practices in the two critical areas: effective implementation of the Common Core State Standards and building social capital. The Districts have collectively decided to seek a federal waiver and have organized a process to include Local Education Agencies (LEAs) throughout the state that share a commitment to this reform work. CORE's waiver is rooted in shared learning and

responsibility for student achievement. It is designed to instill a new collective and individual moral imperative to prepare all students for successful futures—nested in the specific needs of California students, with an all-encompassing focus on eliminating disparities between subgroups. CORE Districts are ready to be held to a more comprehensive and higher standard on a range of measures that are collectively believed to be superior indicators of students' college and career readiness, and more effective drivers of change.

In 2013, the California State Legislature enacted laws establishing to specifically target school districts with high concentrations of poverty, English Learners, and foster children to receive enhanced funding. Districts that have more than 55% of their student population in one of these three categories qualify and more than 86 % of Fresno Unified's student population meets the criteria. Additionally, Fresno Unified has identified 40 underperforming schools with a 94% or higher concentration of the target population that aligns to these guidelines. Within the underperforming schools, 66% of third graders are below grade level in English Language Arts, over 3,900 third grade students in the District are reading below grade level, and 97.1% of English Learners are scoring below proficiency, demonstrating that these students need more time with effective teachers.

The Teacher Quality Partnership grant, with a focus on Fresno Teacher Residency Programs, will allow Fresno Unified and Fresno State to leverage funding and partnerships to develop, implement, institutionalize and sustain a Teacher Residency program that will prepare teachers to meet the needs of a diverse student population. Therefore, in preparation for the FTRP project, a needs assessment was conducted by both Fresno Unified and Fresno State. The following summarizes the findings of the assessments and informs the design of the project.

The City of Fresno is the 5th largest city in the state of California with a population of 509,924 people. The U.S. Census Bureau ranks Fresno as the second poorest urban area in the

entire United States and the poorest metropolitan area in California. (Appendix A). The current US Census figures also reports 27.5% of Fresno residents live below the poverty level compared to the 15.3% average for California. Additionally, the Public Policy Institute of California published a report, *Poverty In California* (2013) which found through the Great Recession and Recovery, California's poverty rate grew faster than the nation, and now is higher (16.9%) than the rate in the rest of the country (14.7%).

Fresno Unified is the 4th largest school district in the state located in the central San Joaquin Valley serving 73,689 students in grades K-12 during the 2013-2014 school year. It serves an ethnically diverse and predominantly minority (84% non-white) student population. The demographics of our students are: 66% Hispanic, 11% White, 12% Asian, 9% African American, 2% Other ethnicities. English Learners (EL) comprise 24% of the overall student population with 36 different languages spoken. Nearly eighty-four percent (83.8%) of Fresno Unified students are eligible for the Free and Reduced Price Meals program, 2,475 students are homeless, 658 are in foster care, and 4,965 have been identified as migrant. Of the 69 elementary schools, 63 schools (91%) have over 60% of students eligible for the Free and Reduced Price School Lunches (FRPSL). Of the non-elementary schools, 27 of 27 (middle and high) schools have over 45% of students eligible for FRPSL. Additionally, 85% students enrolled at Fresno Unified, a high need LEA, are identified by the CDE as Socioeconomically Disadvantaged (Appendix A).

Consequently, Fresno Unified and Fresno State collaboratively view the FTRP initiative as a critical element of Fresno's economic revitalization. Well trained highly effective teachers produce students who are *College and Career Ready*, the critical link to reducing poverty. Fresno has made significant investments in K-12 *College and Career Readiness* over the past two years which will be integrated throughout this FTRP initiative and effectively support the implementation of Common Core State Standards (CCSS) and Next Generation Science Standards (NGSS).

Fresno Unified faces a variety of challenges in recruitment and hiring of highly effective teachers, especially in STEM subject areas. Over the past four years, the district has increasingly been forced to rely upon more teachers under provisional permits, short term staff permits, limited assignments and internships within these fields; 95 teachers in 2013-2014 compared to 48 teachers in 2010-2011. Challenges include decreased numbers of credential candidates impacted by increased requirements in teacher preparation and passing State examinations (California Subject Examination for Teachers); lack of accelerated programs to enable degree holders to obtain subject matter competency or complete prerequisites to enter alternative certification programs within a condensed time period; and lack of advisement opportunities for career changers and non-teaching majors regarding clearly defined credential pathways.

The transiency of highly effective teachers internally is a challenge for a large urban school district. The average teacher turn-over rate over the past three years is close to 9% not retained at Fresno Unified and 18.5% transient within the district, those teachers who did not return to the same school the following school year (Appendix A).

Fresno Unified finds it must continually provide professional learning in subjects such as math, science, technology and engineering; special education; instruction of English Learners; preparation of elementary teachers to provide effective math and science instruction; and the ability of all teachers to provide differentiated instruction that gives all students universal access to the full range of the adopted Common Core State Standards curriculum. The district has difficulty in attracting teachers from underrepresented groups and other diverse backgrounds. The teacher ethnic/racial characteristics do not represent the characteristics of students, as the majority of Fresno Unified teachers and administrators are white (Table 1).

**Table 1. Fresno Teacher, Student, and Administrator Ethnicities in 2013-2014**

<b>FUSD Teacher and Student Populations 2012-2013 – CA Basic Ed Data System</b>					
	<b>White</b>	<b>Hispanic</b>	<b>African American</b>	<b>Asian</b>	<b>Other</b>
<b>Teachers</b>	<b>65%</b>	<b>22%</b>	<b>3%</b>	<b>8%</b>	<b>2%</b>
<b>Students</b>	<b>11%</b>	<b>66%</b>	<b>9%</b>	<b>12%</b>	<b>2%</b>
<b>Administrators</b>	<b>60%</b>	<b>26%</b>	<b>8%</b>	<b>6%</b>	<b>0%</b>

Student proficiency rates in 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> grades in Fresno had increased over the past several years on the mathematics section of the California Achievement Test (CST). While the scores had risen through 2012 and remained relatively stable in 2013 (Appendix H1 – CA Standards Test), two important facts remain as concerns for Fresno students: a) students mathematical achievement drops off after 4<sup>th</sup> grade, as problem solving and mathematical reasoning become more important in achievement, and b) Fresno achievement continues to trail other benchmark districts. While 64.5% of Fresno 4<sup>th</sup> grade students scored proficient or advanced on the mathematics section of the CST, only 35% percent of 7<sup>th</sup> graders were proficient or advanced.

The intermediate elementary grades represent an important transition in mathematics and science for children, from “learning to compute” to “computing to learn,” a transition that is made more difficult with a teaching staff with less pedagogical capacity in STEM, as compared to reading or other subjects. The teaching capacity concern is at the core of the precipitous drop-off seen in the CA standards test and is a primary reason we seek to develop STEM capacity in our 4<sup>th</sup>-8<sup>th</sup> grade teaching population as the first cohort for the grant. Even though our primary grade scores have risen in the past several years, we continue to lag behind our benchmark districts in the State and nationally in elementary mathematics and science (Appendix H2 – CA Proficiency Rate Benchmarks). Further comparison of Fresno Unified’s scores on the 4<sup>th</sup> and 8<sup>th</sup> Grade National Assessment of Educational Progress (NAEP) illustrates the need for increased capacity in mathematics thinking and problem-solving. The NAEP assessments are the closest existing national benchmark to the Common Core

Standards now being implemented across the country (Appendix H3 – 2013 NAEP).

Fresno Unified has 36 languages, 24% of Fresno Unified students are classified as English Learners (EL); 93% of Fresno Unified's EL students are also classified as Socioeconomically Disadvantaged (SD), and 85% of the district's total enrollment is classified as Socioeconomically Disadvantaged. The Achievement Gap between the District's English Only and Fluent English Proficient students vs. our English Learner students is demonstrated across all categories in local and state student assessments. As a result of an extensive analysis of new teacher performance based on classroom observations of instructional coaches and curriculum coordinators, Fresno Unified has identified gaps in the knowledge, skills and abilities that will be addressed by the Fresno Teacher Residency Program in partnership with Fresno State.

### ***Needs Assessment – Fresno State***

Fresno State has had a strong track record in preparing teachers and administrators to meet the challenges faced by districts such as Fresno Unified. The university has contributed significantly each year since 2010 to the 100Kin10 goal of preparing 100,000 excellent STEM teachers over a decade. It is a major contributor to the California State University 100Kin10 commitment to prepare (a) 1,500 new secondary math and science teachers annually, 50% of whom will teach in high-need schools and (b) 600 new K-6 STEM teachers each year, increasing through 2019. However, given the changing needs and demographics of the Fresno region, the campus has identified the need to enhance its teacher programs to attract, educate and retain effective teachers for the highest need schools in the region. Specifically, the campus needs a graduate program for both elementary teachers and secondary STEM teachers, which combines the teaching credential with a Master's degree in Education. Proven strategies exist that are not at this time being fully deployed in the collaboration between Fresno State and Fresno Unified. Approaches need to be

implemented that ensure continuous improvement as a feature of a partnership in preparing new teachers. The partnership needs to develop and sustain a strategy for introducing new teachers to research on the best practices of high achieving schools.

***Existing Model for Teacher Preparation.*** The current teacher preparation is based upon the decades old 5th year model, where students experience education courses and field placements in schools only after they have completed a traditional Bachelor's degree. This model grew out of California's Master Plan for Education that does not permit baccalaureate degrees in Education. While the Master Plan was devised on the premise that all teachers should have a degree in something before getting their credential, it failed to recognize the importance of early and frequent field experience in schools. Over the past decade, the California Commission on Teacher Credentialing (CTCC) has acknowledged this failure and implemented "blended" credential standards, where a teacher candidate can blend content coursework in their degree with education coursework needed for their credential. Fresno State capitalized on this shift and developed a blended Liberal Studies Multiple Subject (elementary) degree and credential program that can be completed in four years.

More recently, the campus developed a blended Single Subject (secondary) teaching credential in the degree areas of math, biology, geology, chemistry and physics. In addition, Fresno State has alternative routes to credentialing through a Teacher Internship Program and CalState Teach, an online elementary teacher preparation program. Most recently, Fresno State developed a program that blends a Master's degree with an education specialist (SPED) teaching credential, thus paving the way for similar work in the Fresno Teacher Residency Program.

***Annual Survey Results.*** The need for innovation becomes more evident as the data are analyzed. The California State University (CSU) system annually surveys its teacher graduates and their employers (after one year of teaching) on their preparedness for the teaching profession. While

Fresno State fares well overall, the data reveal several primary areas in which graduates and their principals considered they were not well prepared that include: (1) reading in the content areas; (2) working with “At Risk” students; (3) working with special needs student in inclusive settings; and (4) classroom management. Just as the trend toward “blended” graduate degree and teaching credential programs serve as catalyst for the priorities of this project, the data further inform our priorities and goals which are highlighted in the next section.

The CSU system annual survey of its graduates between 2001 and 2009 identified meeting the needs of ELs as one of the primary areas in which graduates of Fresno State and their principals considered they were not well prepared. Close to 29% of graduates indicated that they were not adequately prepared to work with ELs and 23% of principals agreed with the assessment. Between 2009-2013, Fresno State implemented several strategies to improve teacher preparation for ELs including targeted professional development for faculty in Sheltered Instruction Observation Protocol (SIOP), classroom visits to schools with high EL populations, and video conferences on EL strategies with sister California State University (CSU) campuses. As a result, graduate satisfaction with their preparation for working with ELs improved by 16%. Principals’ ratings improved as well, but, only slightly (Beare et al, 2013). Faculty continue to identify teaching EL students as a targeted need. They also have identified the need for candidates to have greater conceptual understanding of STEM areas. Consequently, a primary goal of the FTRP is to significantly improve the preparation of teacher candidates in curricula, instructional strategies, and assessment practices for ELs, in content mastery (STEM), and in differentiated instruction that are aligned with State Common Core Standards and English Language Development Standards.

***Exceptional Approach to Priorities – Absolute Priority.*** Given the urgent needs laid out in the section above, FTRP proposes to transform teacher preparation in the Central Valley of California. To accomplish this transformation of teacher preparation, FTRP will design and

implement multiple Teacher Residency Programs (TRPs) (UTRU, 2010). The programs are necessary to meet the growing need for “classroom ready” teachers in Fresno. Therefore, FTRP proposes to initiate Absolute Priority 2, a Partnership Grant for the Establishment of Teacher Residency Programs with a focus on STEM and College and Career-Readiness academic standards.

***Competitive Preference Priorities.*** In order to address the district’s greatest needs in teacher effectiveness, FTRP proposes implementing two key Competitive Preference Priorities (CPP): 1) Promoting STEM education; and 2) Implementing College and Career Ready (CCR) elementary and secondary academic standards through rigorous teacher preparation course design and training activities in the TRP. Through the establishment of the TRP, both Fresno State and Fresno Unified will significantly increase opportunities for high quality preparation of teachers in STEM subjects. Additionally, FTRP seeks to increase the number of individuals from traditionally underrepresented groups STEM such as minorities, individuals with disabilities, and women as new teacher residents to better align to our student population and community.

Fresno State and Fresno Unified will expand our institutional collaboration to develop innovative strategies based on quality research models for program improvement. Residents will develop STEM teaching foundations through courses that build strong content knowledge. Experiences will include hands-on and inquiry based STEM learning for teacher residents to develop pedagogical instructional skills bridging subject matter acquisition to STEM instructional effectiveness.

The TRP will be designed to support the implementation of K-12 College and Career Academic Standards and Next Generation Science Standards. Fresno Unified and Fresno State have completed the first year of training and implementation of the state adopted common core standards and are in a good position to advance the second year of CCSS. Therefore, FTRP provides the strategic opportunity to develop and implement strong teacher resident preparation

programs aligned to the new academic content standards. This initiative provides the opportunity to transform CCR and CCSS into quality best practices in the classroom where teacher effectiveness directly impacts student achievement.

***Project Goals, Objectives and Outcomes.*** The overarching goal of this project is to improve student academic achievement in math and science by recruiting, training, and retaining highly effective individuals to the teaching profession. The FTRP will address three program objectives: 1) Recruitment and selection of diverse talent into the Fresno Teacher Residency Programs; 2) Fresno Unified and Fresno State faculty collaboratively reform the K-12 curriculum to train high effective teacher residents; and 3) Induction and retention of highly trained new teachers at Fresno Unified School District.

***Objective 1: Recruitment and selection of diverse talent into the Fresno Teacher Residency Programs***

***Outcomes:***

- 300 well-qualified Teacher Residents will enroll in the credential program at Fresno State through the teacher residency program.
- 65% of teacher residents will be diverse members of underrepresented groups.
- 365 new credentials in Multiple Subject, Foundational Math or Science, or Single Subject through the teacher residency program (some candidates earning two credentials).

***Objective 2: Fresno Unified and Fresno State faculty collaboratively reform the K-12 curriculum to train high quality teacher residents***

***Outcomes:***

- Fresno State faculty and Fresno Unified will revise curriculum design and content measured by completed new course scope and sequence.
- Co-teaching by Fresno State faculty and Fresno Unified will occur in 100% of teacher residency course programs.
- 100% of teacher residents will be provided early clinical field experiences. Teacher residents will begin co-teaching under the guidance of mentor teachers on the first day of school instruction.
- 100% of teacher residents will experience hands-on and inquiry based STEM training (including research or laboratory experiences, STEM discipline pedagogical instruction, and develop interdisciplinary connections between learning sciences and STEM instruction).
- *Graduation.* 90% of teacher residents will attain initial certification/licensure by passing all credential level coursework and attain a master's degree (18 month residency program) within two years of beginning the program. In CA, the majority of assessments have to be completed prior to enrolling in a credential program.
- *Improved Scores.* 98% of teacher residents will pass required assessments (California Subject Examinations for Teachers & Reading Instruction Competence Assessment) for California credentialing as set by the California Commission on Teacher Credentialing.
- *Achievement for all prospective and new teachers.* Teacher residents will demonstrate an average of a 15% improvement on mean scores of the Teacher Performance Assessment (TPA), Fresno Assessment of Student Teachers (FAST), required for all initial State certification in California.
- 98 % of teacher residents will effectively integrate technology into the curricula and instruction, including principles of universal design for learning.
- 98 % of teacher residents will effectively use technology to collect, manage, and analyze

data to improve teaching and learning in the classroom.

***Objective 3: Induction and retention of highly trained new teachers at Fresno Unified School***

***District***

***Outcomes:***

- 100% of teacher residents will be provided induction support at Fresno Unified.
- *Employment.* 100% of highly effective teachers from the teacher residency program will be hired by Fresno Unified.
- 100% of highly effective teachers hired (resident graduates) by Fresno Unified will teach in at least one of the high need academic subject areas (such as Science, Technology, Engineering, and/or Math).
- 100% of highly qualified teachers from the teacher residency program will teach in high need schools disaggregated by the elementary and secondary school levels.
- *Employment Retention (short term).* 98% of beginning teachers will be retained in teaching in Fresno Unified one year after being hired.
- *Employment Retention.* 95% of beginning teachers will be retained in teaching in Fresno Unified three years after being hired and after successful completion of state induction requirements.
- *Student Learning.* 80% of students will demonstrate improved aggregate learning outcomes of students (growth) taught by new teachers as measured by annual standardized assessments (Smarter Balanced Assessments), district benchmark testing (Math, Science, and English Language Arts), California English Language Development Test (CELDT), and attainment of Individualized Education Program (IEP) goals.

### Logic Model for the Fresno Teacher Residency Programs (FTRP)

Inputs	Outputs	Program Delivery	Outcomes		
			Short	Long	Ultimate Impact
<p><b>Fresno Unified School District (FUSD)</b></p> <ul style="list-style-type: none"> <li>•Planning and development for FTRP through a Bechtel Foundation grant</li> <li>•Experience from Transition to Teaching grant</li> <li>•Investments in K-12 College and Career Readiness that support implementation of Common Core State Standards (CCSS)</li> <li>•Identification of new teachers' gaps in knowledge, skills, and abilities</li> <li>•Transformative principals</li> <li>•Exemplary mentor teachers</li> </ul>	<p><b>Reform K-12 Curriculum and Course Offerings</b></p> <ul style="list-style-type: none"> <li>•Redesigned jointly by FUSD and Fresno State</li> <li>•Address district needs and incorporate district initiatives</li> <li>•Integrate content and pedagogy in science, technology, engineering, and mathematics (STEM) subject areas with field experiences</li> <li>•Modifications to instruction delivery by integrating technology</li> <li>•Prepare teachers to use research and data to improve classroom instruction, teach in ways consistent with essential components of reading instruction, and integrate STEM into curricula and instruction</li> </ul> <p><b>Leadership Committee and Content and Design Team</b></p>	<p><b>Residents</b></p> <ul style="list-style-type: none"> <li>•65% of residents will be from under-represented groups</li> <li>•365 new credentials</li> <li>•90% of residents will attain initial certification/licensure and a Master's degree within two years</li> <li>•98% of residents will pass required assessments</li> <li>•Residents will improve 15% (on average) on the Teacher Performance Assessment (TPA) Fresno Assessment of Student Teachers (FAST)</li> <li>•100% of residents will be hired by the high-need local education agency (LEA) and high-need schools</li> <li>•100% of residents will be hired to teach in high-need academic subject areas</li> <li>•98% of residents will be retained in the high-need LEA after one year</li> <li>•Residents will be more knowledgeable about subject areas and pedagogical strategies</li> <li>•Residents will be immersed in the culture of schools</li> </ul>	<p><b>Residents</b></p> <ul style="list-style-type: none"> <li>•95% of teachers will be retained in teaching in the high-need LEA after three years</li> <li>•98% of teachers will be able to integrate technology effectively into curriculum</li> <li>•98% of teachers will be able to use technology effectively to improve instruction</li> <li>•Residents will demonstrate competency in meeting the needs of ELs and special needs students</li> </ul>	<p><b>FUSD</b></p> <ul style="list-style-type: none"> <li>•A new teacher residency program</li> <li>•A critical mass of highly effective teachers who will help to transform high-need schools</li> <li>•Economic revitalization of Fresno</li> </ul>	
<p><b>California State University (CSU), Fresno (Fresno State)</b></p> <ul style="list-style-type: none"> <li>•Track record of preparing teachers and administrators for high-need districts</li> <li>•Developed a blended Liberal Studies Multiple Subject degree and credential program</li> <li>•Developed a blended Single Subject teaching credential program</li> <li>•Developed a program for a blended Master's degree and education specialist credential</li> <li>•Experience from alternative teacher credentialing programs</li> <li>•Implemented strategies to improve instruction for English Learners (ELs)</li> </ul>	<p><b>Recruitment of Residents</b></p> <ul style="list-style-type: none"> <li>•Target underrepresented groups, individuals with content expertise, and midcareer professionals</li> <li>•Specific advertising/media and outreach to college graduates</li> </ul> <p><b>Selection of Residents</b></p> <ul style="list-style-type: none"> <li>•Adheres to California Commission on Teacher Credentialing (CCTC) and CSU Chancellor's office admission requirements</li> <li>•Multifaceted selection process after initial review</li> </ul> <p><b>Selection of Mentors</b></p> <ul style="list-style-type: none"> <li>•Rigorous process with a formal application, recommendations from site administrator, paper screening, oral and written interviews, classroom observation and/or practicum</li> </ul> <p><b>Classroom Residency</b></p> <ul style="list-style-type: none"> <li>•Placement as a co-teacher in mentor's classroom across the week for one full school year and two summers</li> <li>•Training for residents and mentors on co-teaching strategies</li> <li>•Mentors coach, observe, and provide feedback</li> <li>•Research projects and integration of technology</li> </ul> <p><b>Coursework</b></p> <ul style="list-style-type: none"> <li>•56 units of study leading to a Master of Arts in Education and California Teaching Credential</li> <li>•Delivered by Fresno State and FUSD faculty</li> </ul> <p><b>Cohorts</b></p> <ul style="list-style-type: none"> <li>•Four or more residents placed at each residency site</li> <li>•Residents attend weekly seminars to reflect on their teaching</li> </ul> <p><b>Induction Support</b></p> <ul style="list-style-type: none"> <li>•Support provided by BTSA instructional coaches</li> <li>•Continues as residents are hired as teachers of record</li> </ul> <p><b>Provision of Stipends</b></p> <ul style="list-style-type: none"> <li>•████████ stipend with Fresno State Health Center coverage</li> </ul>	<p><b>Residents</b></p> <ul style="list-style-type: none"> <li>•65% of residents will be from under-represented groups</li> <li>•365 new credentials</li> <li>•90% of residents will attain initial certification/licensure and a Master's degree within two years</li> <li>•98% of residents will pass required assessments</li> <li>•Residents will improve 15% (on average) on the Teacher Performance Assessment (TPA) Fresno Assessment of Student Teachers (FAST)</li> <li>•100% of residents will be hired by the high-need local education agency (LEA) and high-need schools</li> <li>•100% of residents will be hired to teach in high-need academic subject areas</li> <li>•98% of residents will be retained in the high-need LEA after one year</li> <li>•Residents will be more knowledgeable about subject areas and pedagogical strategies</li> <li>•Residents will be immersed in the culture of schools</li> </ul>	<p><b>All Students</b></p> <ul style="list-style-type: none"> <li>•Increased achievement on Smarter Balanced Assessments and district benchmark testing</li> </ul> <p><b>EL Students</b></p> <ul style="list-style-type: none"> <li>•Increased achievement on Smarter Balanced Assessments and district benchmark testing</li> </ul> <p><b>Special Needs Students</b></p> <ul style="list-style-type: none"> <li>•Increased rates of attainment of Individualized Education Program (IEP) goals</li> </ul>	<p><b>Fresno State</b></p> <ul style="list-style-type: none"> <li>•A transformed Master's degree in Education program</li> <li>•Reformed teacher credential coursework</li> <li>•Partnerships between the university and local school districts</li> </ul>	
<p><b>Beginning Teacher Support and Assessment (BTSA)</b></p> <p><b>California Office to Reform Education (CORE)</b></p> <p><b>Local Control Funding Formula (LCFF)</b></p>	<p><b>Program Delivery</b></p>				

## **PROGRAM DESIGN**

Fresno Teacher Residency Program (FTRP) has selected to address TQP Absolute Priority 2 as both the school district and the university consider improved student achievement their absolute priority and believe that teacher residency programs hold great promise for positively impacting both teacher preparation and the achievement of students.

***Teacher Residency Program.*** The residency program will be the cornerstone of a larger human capital framework in the district that includes the hiring and assessing of teachers, their on-going school based support and professional development, and collaboration with Fresno State to improve teacher preparation (Berry, Montgomery, Rachel, Hernandez, Wurtzel, & Snyder, 2008). The program will be built upon and integrate a school district instructional reform agenda that is internally coherent and has aligned assessments and professional development.

***Course of study.*** Residents will participate in an 18-month program that combines a classroom residency (full school year, plus two summer school placements) with university coursework resulting in a Master of Arts in Education with focus on curriculum and instruction and a California Teaching Credential in 56 units of study.

### **Total Teacher Candidates: 300**

- 2014/15 - 25 Grades 4-8
- 2015/16 – 25 Grades 4-8, 25 Grades K-3
- 2016/17 – 25 Grades 4-8, 25 Grades K-3, 25 Grades 9-12
- 2017/18 – 25 Grades 4-8, 25 Grades K-3, 25 Grades 9-12
- 2018/19 – 25 Grades 4-8, 25 Grades K-3, 25 Grades 9-12

In year one, the focus will be creating a Master's program, that will work cohesively with our pilot in grades 4-8 multiple subject (elementary) and foundational math or science credential programs. Fresno State faculty and Fresno Unified staff will reform curriculum design and content by revising courses and program. The Fresno Unified's Continuum of Standards for the Teaching Profession which is aligned with the California Standards for the Teaching Profession (CSTP) and the California Teaching Performance Expectations (TPEs) will drive all coursework for residents. Activities and key assignments will produce rigorous academic content preparation that is tailored to the Fresno Unified pedagogy, initiatives and culture. A completed scope and sequence will be developed and implemented. A closely aligned graduate course of study and Fresno Unified professional learning will enhance the residents' deep understanding of common core, the tenets of professional learning communities and the expectation to raise student achievement as defined by the CORE waiver and the requirements of the university to receive a credential and a master's degree.

In year two, the TRP will focus on a multiple subject credential with an emphasis in Early Childhood (K-3) and with focus on math and science that will be differentiated to meet the needs of students in those grades. They will also earn an embedded MA degree. STEM subject areas provide rich linguistic experiences for young children when the focus is based on inquiry and hands-on experiences. Common Core provides a unique opportunity to engage students in critical thinking, academic language and concept development through an integrated approach to reading, writing and speaking. Residents in the K-3 cohort will have the option of a Program Certificate in Math or Science education or the Foundational credential in math or science.

In year three, a single subject (secondary) credential program will be revised to emphasize STEM subject areas, Linked Learning (career pathways), and to include an embedded MA degree. Linked Learning strategies (Linked Learning Alliance, 2014) and CCSS/NGSS will be used to provide relevant and problem-based learning in STEM pathways. One strategy will be to identify

mid-career professionals with a background in STEM professions as residents to enhance the content and rigor in STEM fields and to support College and Career Readiness Pathways. In years four and five, the programs will be replicated in the K-12 grade level span and will begin to support newly hired residents in their induction program.

The coursework will be jointly developed and delivered by Fresno State and Fresno Unified faculty and be designed to address needs identified by the district, incorporate district initiatives, and adopt researched-based practices to support the residency program through the use of action research projects, portfolios, and analysis of student outcomes. The coursework will prepare new teachers with effective pedagogical skills, including: using research and data to modify and improve classroom instruction, implementing literacy programs consistent with the essential components of reading instruction, integrating STEM effectively into curriculum and instruction, and differentiating instruction so all students achieve.

The 18-month classroom residency experience will pair teacher residents, one to one, with experienced and exemplary mentor teachers at residency sites to learn teaching skills first hand. Residents will work in the mentor's classroom throughout the week with graduate seminars held during designated times. Co-Teaching will be the predominant strategy within the classroom to give residents the greatest number of opportunities to teach (Heck, & Bacharach, 2010). Co-teaching shows improved student achievement results, when using eight research based practices, including: One Teach/One Observe, One Teach/One Assists, Station Teaching, Parallel Teaching, Supplemental Teaching, Alternative/Differentiated Teaching, and Team Teaching (Cook & Friend, 1995; Bacharach, Heck & Dahlberg, 2010). Residents and mentors will be trained on co-teaching strategies (Murawski & Swanson, 2001) in a collaborative setting, so that they learn and plan together. Mentors will guide each resident through the coaching cycle which will include observation, co-teaching, and debriefing. Residents will increasingly take on greater responsibility

for the class as the school year progresses. By the fourth quarter of the year, residents will be assuming responsibility for 100% of the classroom instructional time with continued coaching and feedback from the mentor, following the co-teaching model.

Research projects, which are part of the MA program, will be embedded in the TRP and facilitated by the mentor teacher and graduate faculty. In addition to classroom time, the mentor and resident will meet outside of class for a minimum of two hours per week to reflect on practice, review the ongoing FAST/TPA assessment process, analyze student work/data and plan instruction. Residents will be fully accepted into the school culture and will be included in all faculty meetings, grade level/content area Accountable Communities (Fresno Unified's version of Professional Learning Communities), and will participate in school-based, district, and university sponsored professional development activities provided to other teachers at the school. The Mentor will use the Fresno Continuum of Standards for the Teaching Profession, Student Teacher Observation Tool and FAST to evaluate the residents' progress towards learning objectives and to provide continuous feedback. This system holds residents, mentors and site administrators responsible for collecting and analyzing performance data and providing feedback relevant to the resident's growth.

FTRP graduates will be taught to integrate of technology to improve instructional practice. Both residents and mentors will be expected to utilize swivel/flip cameras to video their teaching practice. Utilizing Fresno Unified's partnership with The Teaching Channel, they will use a technology platform called TeachTeams to upload their videos and invite others to observe and provide feedback on their lessons. This also allows for reflection of their own teaching practice when reviewing the footage.

Residents will be provided training focused on the knowledge and skills required by teachers to work effectively with ELs and special needs students. It will address the most current research in language development strategies, differentiation, curriculum and instruction, and

assessment methodologies. Research-based instructional strategies that are effective in raising achievement among ELs include: front-loading of essential background knowledge and vocabulary prior to accessing content, developing academic language proficiency, teaching and reviewing strategies for vocabulary, explicit teaching of expository text structures, visual scaffolding of concept and terms, and many others (Vogt & Echeverria, 2007).

Fresno Unified has an established partnership with WestED in the area of English Learner Support. For the last year, WestED has trained Instructional Coaches (support providers) in teaching EL students, using the ELA/ELD Frameworks, so that they can support new teachers in meeting the needs of diverse populations. The existing preparation programs have a course dedicated to EL which infuse these practices. The specific training for students with special needs will address the current research in areas including, applied behavior analysis (behavior supports), differentiated instruction, universal design, Response to Intervention (RtI), role in IEP meetings (Werts, Mamlin, & Pogoloff, 2002) and the use of assistive technologies (Marino, Marino, & Shaw, 2006). Faculty will be provided technical assistance in integrating these methodologies in their content and pedagogy. The existing preparation programs have a course dedicated to differentiated instruction and classroom management which infuse these practices.

Fresno is now in its fourth year of implementation of Professional Learning Communities called Accountable Communities (AC). Accountable Communities are the vehicle for providing academic intervention to student populations that have identified needs (DuFour, DuFour, Eaker, & Many, 2006). A successful AC answers four questions: What do we want students to learn? How will we know they've learned it? What will we do if they don't? What will we do if they already know it? This process provides professional learning that allows teachers to deeply understand formative assessment, data disaggregation and analysis, and allows for strong collaboration while lesson planning. Efforts to strengthen Response to Intervention (RtI) support and training will

include addressing the needs of our EL and SPED population. (Burns & Senesac, 2005) The TQP grant will allow our residents this extended learning in RtI as each resident will be included in ACs, and through their field experiences connect teacher effectiveness to student learning.

The BTSA Induction Program is a two-year professional teacher induction program designed to support the development of newly-credentialed beginning teachers in meeting the district's mission of preparing Career Ready Graduates. The induction program utilizes the New Teacher Center (NTC) Formative Assessment System (FAS) which is a plan, teach, reflect, apply model designed to assist participating teachers and support providers as they focus on teacher effectiveness, student learning, and improved student achievement (Gardiner, 2011). The Master's degree program will provide an Early Completion Option for the Fresno BTSA (Beginning Teacher Support and Assessment) Induction program.

Through the use of a variety of FAS tools, participating teachers complete four Inquiry Cycles (IQ) over the course of two years that focus on the CSTPs and the BTSA Induction Standards 5 and 6: Pedagogy, English Learners, Equity, and Special Populations. The IQs are designed to be embedded in and reflective of the day to day practice of the teachers in order to form natural, ongoing habits of mind and to ensure the cultivation and retention of highly qualified, effective teachers.

Residency program coursework will be delivered at host residency sites. Residency seminars held during the week will provide opportunities to link university coursework with site-based residency activities to reflect on learning. The program faculty from Fresno State and Fresno Unified faculty will be selected based upon their in-depth understanding of scientifically-based-research regarding best instructional practices for providing all students with universal access (i.e., SPED, ELs, gifted and talent student, students with reading and language deficits, students from poverty, etc.), ability to model these strategies into classrooms by incorporating them into their

classroom, and understanding of the issues impacting a large urban school district serving primarily socio-economically disadvantaged students. In addition, Fresno Unified’ teachers with expertise in the areas of math and science will facilitate the teaching and learning of the residents.

***Cohorts to facilitate professional collaboration.*** A minimum of four teacher residents will be placed at each TRP residency site. Participating sites will be identified through piloting efforts based upon having transformative principals who can promote collaboration, integrate resident learning with school reform efforts, have a comprehensive understanding of Fresno Unified initiatives, and are capable and willing to create an accepting and nurturing environment for residents.

Another criterion for **selecting FTRP residency sites** will be that they have the necessary number of excellent teachers who can act as strong mentors. Setting high expectations for the schools and classrooms that will serve as residency sites is critical to ensuring program quality. The principal at each residency site will ensure that teacher residents are fully included in the culture of the school and treated as regular teachers. The FTRP Teacher on Special Assignment assigned to the program will serve as the facilitator for bringing together mentors and residents in a PLC/AC at each site. All the residents and mentors at each site will have an opportunity to meet together at least twice per month.

***Recruitment.*** Recruitment of highly effective Teacher Residents will focus on three distinct groups of candidates: underrepresented ethnicities in an effort to more closely reflect the demographics of District students; recent graduates who can support the content shortage areas (math, science, SPED, ELs, etc.); and mid-career professionals who have made a commitment to using their skills and expertise in the teaching profession.

Data from the Transition to Teaching program indicates that personal contact from a credible individual is a proven strategy that has produced viable candidates. Strategies will include:

coordinating with the Fresno Unified Transition to Teaching pipeline teacher training programs; Fresno Unified's Everyone a Recruiter! internal communication to employees; presentations at faculty and administrator meetings; presentations and booths at university and community college fairs; development of promotional print materials (e.g., brochures, posters, etc.) that will be distributed throughout the state; use of electronic job boards, and ethnic and mainstream media (print, radio and television) in a strategic manner. In addition to local recruitment strategies, recruitment for the teacher residency program will include outreach to graduates from colleges and universities regionally and nationally, with a particular focus on minority serving institutions and schools that have a record of graduating outstanding students in science, technology, engineering and math.

***Selection of Residents:*** An eligible candidate will be: a recent graduate of a four-year institution of higher education or a mid-career professional with an interest in and strong content knowledge in an area of STEM. The FTRP adheres to the admission requirements established by the CCTC and by the CSU Chancellor's office. Initial selection criteria for the program will include completing an online application with Fresno Unified and meeting the research based multiple measures used in the hiring process. The Teacher Resident candidate must submit an application for admittance into the graduate and credential program at Fresno State. In addition to these requirements, candidates must pass both the CBEST and CSET tests prior to admission to the program. Secondary candidates may meet the program subject matter competency requirement by completing a state-approved subject matter program or by passing the CSET in their subject area.

***Selection Process:*** Candidates who pass the initial screening will participate in a multifaceted selection process that is modeled after the Boston TRP (Soloman, 2009). They will be observed participating in a group problem-solving activity designed to show their ability to work cooperatively as a member of a group, be observed conducting a short lesson and interacting with a

group of students, and be interviewed by a panel. A practicum demonstrating the candidate's ability to read, analyze and write a response to an article is also a component of the selection process. A final determination will be made by a selection committee, made up of Fresno State and Fresno Unified faculty/staff and FTRP Mentors, who utilizing a rubric will review all elements of the applicant's portfolio. Applicants who do not meet the requirements, for example a GPA below the minimum or failure to meet the subject matter competency requirement, can submit a request for "Special Considerations."

*Mentor teachers* will be identified through a rigorous selection process and will receive training and ongoing support to help them coach and mentor the residents. Mentors act as teacher-educators helping residents identify, practice, analyze, and develop the knowledge and skills they need to be effective classroom teachers. Mentors and residents will be paired one-on-one for the 18 month program. Mentors will be provided with supplemental pay and release days for the additional responsibilities associated with mentoring residents.

Mentors will serve as the primary link between the residency and program coursework and many may serve as co-instructors for university coursework. Mentors will all meet together a minimum of twice per month to share experiences, reflect on their learning and the learning of their assigned residents, and map out coaching instructional strategies. This will ensure that teacher resident classroom work and mentor coaching activities are aligned with university coursework and that a PLC/AC that supports continued growth and reflection is maintained.

Mentors will participate in a 35-hour training, provided by Fresno State faculty and Fresno Unified's Teacher Development Department, prior to being assigned a resident and will participate in ongoing training during their twice-monthly meetings. Trainings will ensure that mentors can effectively coach in the following areas: cognitive coaching, essential components of reading instruction, effective use of technology, use of data to improve instruction, and research-based

strategies for meeting the needs of ELs and students with special needs, the New Teacher Center mentoring modules (Pask & Joy, 2007), all with an emphasis on the integration of STEM subject matter. Mentors will also provide continuous feedback to the program and help to inform its improvement.

***Criteria for the selection of exemplary mentor teachers:*** Mentors must have a minimum of three years teaching experience in a high need school, possess a clear credential, hold a Cross-Cultural Language Development certificate or equivalent, have knowledge of adult learning, demonstrate the ability to raise student achievement, be committed to working with others at their site within a PLC/AC, and possess a critical combination of knowledge, skills/abilities, and beliefs. Ability to raise student achievement will be documented by student growth during a school year on Fresno Unified benchmark assessments that are given a minimum of three times per year. They must be able to: model effective instructional practices in Math, Science, Technology and Literacy, reflect on their own teaching and articulate the rationale for their strategies, assess the impact of their instructional choices on student learning, and reflect on their work as a professional. They must have an understanding of the needs of new teachers, a positive educational philosophy, a commitment to ongoing personal professional growth and personal reflection, and an understanding of a culturally diverse learning community. They must also have strong pedagogical knowledge and skills, deep content knowledge, excellent verbal and written communication skills, exemplary interpersonal skills and the ability to model professional behavior.

Mentors will be chosen through a rigorous selection process that includes: a formal application to the program, recommendations from their site administrator, paper screening, oral and written interviews, classroom observation and/or practicum, and final selection by an interview panel consisting of a balanced representation of site and district administration, teacher leaders, and IHE faculty.

When hired, Fresno Unified will place graduates of the FTRP in cohorts at school sites. This will provide them with opportunities to work together within grade level and/or content area teams at their respective schools and to continue to implement the STEM strategies that were learned in the residency program. This will also provide a critical mass of highly effective teachers who will help to transform high need schools within a region and create a culture of collaboration and reflective learning.

***Provision of Stipends and Repayments:*** Grant funds will be used to provide residents with a [REDACTED] stipend/living wage during their training period and with Fresno State Health Center medical coverage. Prior to enrollment in the FTRP, participants will be required to sign a contract to ensure FTRP completion indicating that they commit to teach in a high need school within Fresno Unified for at least three years after completing the residency program and that they will repay any stipends received during their residency on a prorated basis if they do not complete the three year commitment. Participants will also be provided with support in identifying and applying for grants, loans and scholarships. The Robert C. Noyce Scholarship Program provides forgivable loan opportunities of up to \$5,000 per year. Residents will have the opportunity to be employed by the District during summer school while taking courses to increase their income.

***Management Plan.*** The program will be implemented in three phases of curriculum development and teacher residency placement. **Phase I (2014-2015)** will focus on revisions to existing credential coursework in grades 4-8, the development of a Master's Degree, and the planning of a K-3 program. **Phase II (2015-2016)** will include modifications to the 4-8 program, implementation of the K-3 program, and planning of the 9-12 program. **Phase III (2016-2017)** will include refinement of the 4-8 program, modifications to the K-3 program, and implementation of the 9-12 program. This three-phase approach is being used to create a program that will produce effective teacher candidates in the shortest amount of time, while paving the road for credential/MA

programs and expansion through K-12.

***Fresno Teacher Residency Program 2014-2019***

<b>Activities</b>	<b>Date</b>	<b>Benchmarks</b>	<b>Responsibility</b>
Review and revise coursework in the teacher credential programs (elementary & secondary) – <b>Phase I curriculum K-3</b>	10/1/14 – 12/31/14	All revisions completed by 1/31/15	Project Co-Directors and Content Design Team
Begin designing Master’s program for TRP Cohort I Residents, Mentors and FUSD faculty	10/1/14- 12/31/14	Design a Master’s of Curriculum and Instruction specifically for TRP Mentors and Cohort I Residents.	Project Co-Directors and Content Design Team
Determine Professional Learning Schools: Cohort I K-3 and Cohort III 4-8	10/1/14 – 12/31/14	Between 8 to 10 professional development schools will be identified by 12/31/14	Leadership Committee, Project Co-Directors, and Advisory
Quarterly Leadership Committee Meetings	Aug, Nov, Feb, & May of each year 2014-2019	Quarterly meetings will begin in November of 2014. Group will meet quarterly to ensure alignment of work, review evaluation findings, provide access to problem solving, refine work, etc.	Fresno Unified & Fresno State Leadership Committee, Project Co-Directors, Faculty
Conduct regular evaluations of program and report quarterly to the Leadership Team <ul style="list-style-type: none"> <li>• Student Achievement</li> <li>• Surveys</li> <li>• Retention Data</li> <li>• Evaluations</li> </ul>	Sept, Nov, Feb, & May of each year 2015-2019	Evaluation reports completed quarterly two weeks prior to Leadership Committee meetings	Project Co-Directors, Research, Evaluation, and Assessment Team, WestED
Refine marketing materials and procedures for participant recruitment	10/1/14 – 10/31/14	Recruitment materials available for distribution by 11/4/14	Fresno Unified Recruitment Coordinator
Schedule and implement 3-way conferences to gauge Resident growth (3 X’s/year)	End of Quarter 1, 2 and 3 yearly	Fresno Unified /Fresno State faculty meet with Resident and Mentor to monitor progress academically and pedagogically	Residency Coordinator and Fresno State supervisor
Recruit <b>Cohort I</b> candidates for the TRP (including initial screening) K-3 and Cohort III 4-8	10/1/14 - 3/30/15	Potential applicant pool for Cohort I established by 4/1/13	Fresno Unified Recruitment Coordinator and Fresno State Credential Coordinator
Graduate Cohort I TRP 4-8	12/20/14	Residents will be credentialed, hired by Fresno Unified and placed in Spring 2015 assignments	Fresno Unified Project Director and Human Resources

<b>Activities</b>	<b>Date</b>	<b>Benchmarks</b>	<b>Responsibility</b>
Obtain approval through the university governance structure of all course changes – <b>Phase I K-3</b>	1/1/15 – 4/30/15	Approved courses	Fresno State Project Director
Develop coursework for blended credential/MA program. <b>Phase II curriculum K-3</b>	10/1/14 to 6/30/15	Coursework completed by 6/30/15	Project Co-Directors and Content Design Team
Recruit and Select necessary Mentor Teachers and interviews	1/1/15 - 5/15/15	20 Mentor Teachers identified by 5/15/15	Fresno Unified Residency Coordinator
Final screening of <b>Cohort I</b> TRP candidates (including group panel discussion, mock department meeting with student data analysis, and interview)	3/1/15 - 3/30/15	Final applicant pool established by 4/1/15	Fresno Unified Residency Coordinator, Fresno State faculty and Recruitment Coordinator
Initial Mentor dinner meeting with returning Mentors and new Mentors.	4/1/15 - 5/31/15	Review expectations and realities of the Residency program. Revisit <u>Teach like a Champion</u> techniques	Advisory, Leadership Committee, Co-Directors and Residency Coordinator, Site Administrators, Faculty
Schedule monthly Mentor meetings with Mentor input	Yearly	Mentors will determine dates for monthly meetings	Fresno Unified Residency Coordinator and Mentors
Final selection and offers of enrollment made to <b>Cohort I K-3 and Cohort III 4-8</b> TRP candidates	4/30/15	First cohort of 20 teacher residents enrolled K-3	Fresno State and Fresno Unified Co-Directors, Recruitment Coordinator, Residency Coordinator
Finalize faculty assignments and course meeting schedule	4/30/15	Program faculty identified prior to end of the school year	Fresno State and Fresno Unified Co-Directors
Match <b>Cohort I/III</b> residents and mentors	4/30/15- 8/5/15	Residents and mentors teamed 1:1 by initial Fresno Unified professional learning meetings	Residency Coordinator
TRP <b>Cohort I</b> begins program	5/18/15	Includes 2 semesters and 2 summer institutes	Fresno State and Fresno Unified Co-Directors, Residency Coordinator
Graduate Cohort II 4-8	6/10/15	Newly credentialed Residents may teach Fresno Unified summer school and interview for fall placements as Teachers-of-record	Summer School Director, Human Resources
Plan Mentor professional learning	8/1/15	Develop sequence of topics for professional learning and calibration	Residency Coordinator
Ongoing coursework and program revisions based on evaluation input and cycle of continuous improvement	7/1/14 – and ongoing	Quarterly review feedback from program evaluation and make adjustments as appropriate	Content Design Team

<b>Activities</b>	<b>Date</b>	<b>Benchmarks</b>	<b>Responsibility</b>
Introduce all Cohort Residents to Mentors, Fresno Unified and Fresno State leadership during professional learning	8/7/15	Co-teaching professional learning with all Residents and Mentors	Residency Coordinator
Begin supporting Cohort I with BTSA credential completion	8/12/15	Support providers will be strategically chosen and assigned to transitioning Cohort I Residents	Fresno Unified Project Director, FUSD Project Coordinator, and BTSA TSA
Determine and develop professional learning for Cohort III 4-8 and Cohort I K-3	8/1/15-ongoing	Design, schedule and coordinate biweekly professional learning for all Residents	Fresno Unified Project Director, Fresno State faculty, Fresno Unified Co-teacher input
Begin monthly Mentor meetings	8/7/15-year long	Dinner meetings for professional learning and calibrating expectations	Residency Coordinator
Recruit new group of candidates for the TRP (including initial screening) K-3, 4-8, 9-12	9/1/15-2/28/16	Potential applicant pool for Cohort II K-3, Cohort IV 4-8, Cohort I 9-12	Recruitment Coordinator, Manager and Residency Coordinator
Begin coursework revisions with Fresno State Single Subject credential faculty in math and Science and Master's redesign option for Single Subject.	9/1/15 to 2/15/15	Begin redesign of Phase I, II and III coursework for math and science using CCSS and NGSS	Project Co-Directors and Content Design Team
Quarterly meetings to coordinate progress and communication among partners	9/2015-ongoing	Meeting with Fresno Unified /Fresno State faculty and leadership to continue assessing and refining program components	Fresno Unified and Fresno State Project Directors
Begin stakeholder conferences to monitor progress of all Residents	10/1/15-year long	Fresno Unified coordinator, FS faculty, Mentor and Resident meeting to monitor progress of participant	Residency Coordinator, FS faculty
Resident application screening	ongoing	Online applications routinely screened and contact made with qualified applicants.	Residency Coordinator, Human Resources Manager, Recruitment Manager
Interview protocol for all Cohort Residents	1/6/16-2/28/16	Interview protocol consists of Written practicum, Panel discussion on an article on equity in education, mock department meeting with student data analysis, individual interviews	All stakeholders
Notification of final Resident selection	4/1/16	All applicants will be notified of interview	Fresno Unified Project Director

<b>Activities</b>	<b>Date</b>	<b>Benchmarks</b>	<b>Responsibility</b>
		results	
Graduate and credential <b>Cohort III 4-8 and Cohort I K-3 Residents</b>	5/15/16	Graduate up to 20 participants	Entire Team
Make offers of employment to <b>Cohort Teacher Residents</b>	5/16	Early offers of employment will be made contingent upon completion of the program – 20 participants	Fresno Unified Project Director, Human Resources
Cohort IV, II and I begin summer session	5/16	4-8 Cohort IV, K-3 Cohort II and 9-12 Cohort I begin credential and master's coursework.	Fresno Unified Project Director and Fresno State faculty
Employ and place Cohort I and III at high need schools	6/16	Up to 20 Cohort I and III participants placed at high need schools	Recruitment Manager
Coursework and summer placement observations	June and July 2016	Observations of students interacting in classrooms and participation in coursework	Fresno Unified Project Director and Fresno State faculty
Determine Resident/Mentor partnerships	August 2016	Using Learning Styles assessment and observations, partnership will be determined	Residency Coordinator
Fresno Unified professional Learning before meeting Mentors	August 2016	Fresno Unified specific pedagogical learning and Fresno State approved seminars provided to prepare Residents for FUSD planning	Residency Coordinator
Monthly Mentor dinner meetings to collaborate, plan, and calibrate	August-May 2016 yearly	Mentors meet monthly to refine program expectations and provide vertical articulation K-12	Residency Coordinator, Mentors
Co-teaching training with Resident/Mentor partners	August 2016 yearly	Fresno Unified Leadership provides Co-teaching training to set expectations for field work	Residency Coordinator and Teacher Development Department
Resident/Mentor partnerships begin working on site	August Yearly	Partners use two days before school resumes to set up classroom and plan instruction	Mentors
Fresno State coursework begins	August Yearly	Phase II of credential/Master's work begins	Fresno State faculty
Fresno Unified professional learning begins	Biweekly, year long	Fresno Unified specific professional learning is designed and provided using FUSD	Residency Coordinator

<b>Activities</b>	<b>Date</b>	<b>Benchmarks</b>	<b>Responsibility</b>
		leadership and TRP director	
Begin recruitment for all grade level cohorts	September Yearly	Recruitment information meetings, travel and presentations	Fresno Unified Project Director and Recruitment Manager
Resident progress conference	3 Xs yearly End of Q 1,2, and 4	Resident, Mentor, Coordinator meet to review progress. Plan for Improvement developed if sufficient progress is not apparent	Residency Coordinator
K-8 Residents switch Mentors	October 2016 Yearly	All Residents receiving a Multiple Subject credential will switch Mentors for alternate grade level experience	Residency Coordinator
Applicant paper screening	Ongoing yearly	All applicants are screened and contacted	Residency Coordinator and Recruitment Manager
Interview qualified applicants	December-March yearly	All Cohort applicants participate in the approved interview protocol	Residency Coordinator
Residents determine grade level preference for final student teaching	December 2016 Yearly	All Residents K-8 will determine if they want a K-3, 4-6 or 7-8 placement for final student teaching	Residency Coordinator
Final student teaching placement	January 2017/yearly	Final Student teaching at TRP sites begins	Residency Coordinator
Final Cohort Resident selection	March 2017 Yearly	All interviews complete and Residents selected, pending Fresno State acceptance	Fresno Unified Project Director and Recruitment Manager, Fresno State leadership
Tracking of CBEST/CSET results	December-June yearly	All required exam results tracked for Fresno State acceptance and final student teaching	Residency Coordinator
Cohort Resident exit interviews	May-June 2017 and yearly	All Residents participate in exit interview with Fresno Unified, Fresno State and Mentor	Residency Coordinator
Cohort Residents graduate	June 2017 Yearly	Residents who successfully complete all Fresno Unified and Fresno State requirements graduate from TRP program	Stakeholders
Cohort Residents Hired as teachers of record Fresno Unified	Upon completion	All Residents successfully completing TRP will be	Human Resources Fresno Unified

Activities	Date	Benchmarks	Responsibility
		placed in high needs schools in Fresno Unified	
Summer School placement	June 2017 yearly	Cohort Residents offered summer school placements Fresno Unified	Summer School department
Residents paired with BTSA Support Provider	August 2017 yearly	BTSA Support Providers strategically chosen to work with TRP Residents	BTSA TSA
Instructional Coach support	August-June 2017-19 and yearly	Residents will be introduced to Fresno Unified Instructional Coaches to provide additional support and strategic planning	Administrator of Teacher Development (Fresno Unified Co-Director)
Networking reunion meetings	End of each Quarter 2017 yearly	All former TRP Residents will be invited to attend quarterly networking meetings	Residency Coordinator
Fresno Unified and Fresno State- Ongoing school visitations & calibrations	Monthly 2014-2019	Leadership Committee & Project Directors visit TQP school sites	Leadership Committee, Project Co-Directors
Maintain Leadership Committee and Content Design Meetings	Quarterly 2017-2019	Leadership Committee & Project Directors meet to review progress	Leadership Committee, Project Co-Directors, Content Design Team

### ***Project Staff Information***

The project staff represents a team with broad expertise from Fresno State and Fresno Unified.

Fresno State has identified Dr. Colleen Torgerson, Partnership Coordinator, as the Co-Project Director to work for the FTRP. The Fresno Unified Co-Project Director, Teresa Morales, Fresno Administrator for Teacher Development will serve as the direct liaison with the university faculty (both regular faculty and FUSD teachers/leaders who are functioning as adjunct faculty.). Together they will guide the development and implementation of coursework redesign, reforms, and oversee the classroom residency work.

Dr. Colleen Torgerson has taught in both general and special education in classrooms from

preschool to the university level; 22 years in public school districts and 15 years as a university professor. She holds a BA in Communicative Disorders, a M.A. in Deaf Education, and an Ed.D. in Educational Leadership. Colleen has authorizations in elementary, special education (deaf and learning disabilities), as a behavior intervention case manager, and educational administration. Dr. Torgerson has held leadership positions as a Program Coordinator/Director in special education where she supervised Special Education Programs in Fresno Unified – Infant to 22 years and staff including program specialists, school psychologists, speech and language specialists, and classified staff. At the university she served as the Associate Dean in Education and as the interim Associate Vice President and Dean of Undergraduate Studies. Responsibilities: monitor and advise credential and master's programs, chair NCATE unit meetings and report preparation, evaluate staff, assist with the budget, develop reports, policies and catalog copy, monitor enrollment and work with admissions, coordinate facilities, assist with the School assessment system, support recruitment projects, review grant proposals, develop and/or support submissions to CCTC, represent the school and university, and development. Currently Dr. Torgerson is the co-lead on the pilot residency supported by Bechtel, the Partnership Coordinator for Kremen School establishing and supporting 8 partnerships in five districts, and lead on Linked Learning. She has been the PI on many grants, a lead on the recent NCATE review, and has 15 publications in the last seven years. She recently was selected to serve on the state panel, the Teacher Advisory Panel (TAP), that met across two years and made recommendations to CCTC related to the elementary and secondary credentials in California.

Teresa Morales Young has over 16 years of professional experience in education. She is a member of the Association for Supervision and Curriculum Development and the Association of California School Administrators. Ms. Morales Young has gained expertise, honors, and certifications in numerous Professional Development topics such as Common Core Institute

Blackbelt Training, Skillful Leader/Skillful Teacher, California Early Literacy Training among other recognized programs. Prior to joining district leadership in 2007, Ms. Morales Young was a successful teacher for ten years at Fresno Unified. She holds a Masters of Arts in Education Curriculum and Instruction and Bachelors of Arts from Fresno State.

Dr. James Marshall is Associate Dean of the Kremen School of Education and Human Development at California State University, Fresno. Prior to his tenure at Fresno State, Dr. Marshall worked as a field biologist for the Florida Game and Freshwater Fish Commission and taught science at both the high school and the elementary school level. Having earned a BS in Wildlife Ecology, an MA in Biology and Science Education and a Ph.D. in Science Education, Dr. Marshall serves as the Director of the Central Valley Science Project. As such, he works extensively in providing professional development opportunities for K-12 teachers. He is also Director of the Doctoral Program in the Educational Leadership and serves on numerous dissertation committees. He has published over 25 articles in professional journals and textbooks and has made numerous presentations to state, national, and international audiences.

Cynthia Quintana is an Administrator in Human Resources/Labor Relations overseeing recruitment, diversity and coordination of teacher preparation programs with universities for Fresno Unified School District. Ms. Quintana holds a Masters of Arts degree in Communicative Disorders, and an administrative credential. She has worked for Fresno Unified for 24 years as a school site and district office administrator. Ms. Quintana has overseen the implementation of the Transition to Teaching grant for the last five years. Through the efforts of the Transition to Teaching grant pipeline programs focusing on “growing our own” have been developed to increase the diversity of certificated and management employees. Ms. Quintana is actively involved in sustaining and maintaining relationships with Fresno Unified’s IHE partners and understands the challenges and

opportunities presented through this work.

Dr. Carol Fry Bohlin is a professor of Mathematics Education at Fresno State since 1990. She teaches credential and graduate courses and directs the Mathematics and Science Teacher Preparation Initiative (MSTI). Dr. Bohlin acquired her doctorate in 1987 from Ohio State University in K-12 Mathematics Education. She serves as special assistant to the Provost for STEM initiatives. Dr. Bohlin has extensive experience in securing, advising, and managing federal and state grants for over 24 years. She is recognized for presenting over 100 national and international presentations, state or regional presentations on K-12 mathematics education, teacher networks, math teacher preparation, and professional development in education. Dr. Bohlin has earned many awards and recognition in the field of higher education and research.

Tracey Taylor holds a Master's Degree in Education, Administrative credential, and a Bachelor's degree in Kinesiology from Fresno State. She plans and implements district professional learning. Ms. Taylor is experienced in the coordination of grants, projects, and reporting as a manager in the Human Resources and teacher Development Department. She has served as a teacher on special assignment and served in the education field since 2004 at Fresno Unified.

Gayle Spencer is a graduate of Fresno Pacific University achieving a graduate degree in mathematics education since 2004. She holds supplemental authorizations in mathematics and CLAD credentials. Her undergraduate studies include child development and K-12 education. Ms. Spencer first began as a teacher in 1977 in elementary education and later served as a teacher on Special Assignment for K-8 mathematics and science. She served as a school improvement specialist focusing on math instruction and served as a mathematics coach in middle school. Ms. Spencer has been a key member coordinating the district's recent TRP pilot work in 2013.

The project team has been planned to ensure leadership roles among individuals in each of the partner organizations who have the institutional authority for achieving significant and sustained reform in the preparation and support for new teachers. The primary staff and their roles are described in Table 2.

**Table 2. Staff Roles and Responsibilities**

<b>Primary Staff</b>	<b>Role</b>	<b>Responsibility</b>
Michael Hanson, Superintendent (Fresno )	Advisory	Support project implementation district-wide
Paul Beare, Dean, School of Education (Fresno State)	Advisory	Support project implementation university-wide
Kim Mecum, Associate Superintendent Human Resources/Labor Relations (Fresno )	Advisory/Leadership Committee	Co-leader of Leadership Team, Oversee district operations of TQP
James Marshall, Associate Dean (Fresno State)	Leadership Committee	Serve on Leadership Committee, Liaison with partner colleges within the university,
Rosario Sanchez, Assistant Superintendent (Fresno )	Advisory/Leadership Committee	Serve on Advisory/Leadership Committee, Liaison with other District departments
Colleen Torgerson, Partnership Coordinator (Fresno State)	Co-Project Director, Co-Curriculum Director, Advisory/Leadership Committee	Co-Leader of Leadership Team, oversee university operations of TQP, Curriculum Design Team, Recruit students, Facilitate credentialing Convene Content Design Team
Julie Severns, Assistant Superintendent Professional Learning (Fresno )	Leadership Committee	Serve on Leadership Committee, Liaison with other District departments
Teresa Morales-Young, Administrator, Teacher Development (Fresno )	Co-Project Director, Co-Curriculum Director	Oversee district implementation of TQP, Curriculum Design Team, Supervise and support work of the Residency Coordinator and Recruitment Manager, Oversees Induction Program
Cyndy Quintana, Administrator Human Resources (Fresno )	Recruitment Coordinator	Member of Content Development Team, Recruit project participants and mentor teachers, Facilitate Accountable Communities, Support Residency Co-Directors, Support Residency Coordinator and Manager in Human Resources

<b>Primary Staff</b>	<b>Role</b>	<b>Responsibility</b>
Traci Taylor, Manager, Human Resources & Teacher Development (Fresno )	Recruitment, selection, & diversity manager	Under the guidance of the Administrator of Teacher Development and Administrator of HR, Coordinate outreach, recruitment, selections and support of teacher residents
Gayle Spencer Teacher on Special Assignment, (Fresno )	Residency Coordinator	Under the guidance of the Administrator of Teacher Development and Administrator of HR, coordinate placement of residents and selection of mentor teachers, liaison with district teacher development staff and grant implementation
Laura Alamillo, Coordinator Multiple Subject Program, EL Faculty (Fresno State)	Course Development	Co-Team Leader Content Design Team
Lisa Nyberg, Science Ed Faculty(Fresno State)	Course Development	Content Design Team
Jean Behrend, Math Ed Faculty (Fresno State)	Course Development	Content Design Team
Nancy Akhavan, Coordinator Single Subject Program (Fresno State)	Course Development	Content Design Team
Cathy Yun, Coordinator MS/ECE Program (Fresno State)	Course Development	Content Design Team
Janine Quisenberry, Director Field Experience (Fresno State)	Field Placement	Content Design Team
Carol Fry Bohlin, MSTI Director, (Fresno State)	Professional Development STEM	Advisory and Professional Development
Fresno teachers and Fresno State faculty to be determined	Course Development	Develop credential courses, curriculum, and schedule
Site Principals and Teacher Academy students (Fresno )	Advisory	Serve as Advisory to provide district-wide perspective and input as stakeholders

### **Collaboration of Partners to Maximize the Effectiveness of Services**

The following partners will support the effectiveness of the Fresno Teacher Residency Program:

#### **Fresno School District**

- Human Resources

- Professional Learning
- Teacher Development

### **California State University Fresno**

- Kremen School of Education and Human Development – Major partner to design and implement TQP
- Lyles College of Engineering – Advisory to STEM initiatives
- College of Science and Math - Advisory to STEM initiatives
- Graduate Division – Advisory to the approval process for the MA programs

### ***Quality of Project Evaluation***

WestEd will serve as the evaluator for the FTRP project. Our evaluation approach will be objective- and performance-driven and mixed-methods (i.e., utilizing quantitative and qualitative data). We will collect and analyze quantitative data on GPRA, HEA, and FTRP project performance measures; on proposed FTRP goals, objectives, and outcomes; and for a quasi-experimental design (QED) assessing whether FTRP results in improved teacher and student outcomes relative to traditional teacher preparation programs. We will compare findings on performance measures for FTRP participants with national and state standards, as well as to the outcomes of other preparation programs. The CSU Center for Teaching Quality (CTQ) will provide CSU teacher candidate comparison group data for the QED. Fresno Unified will provide achievement, demographic, and IEP data for the student-level analyses for the QED. We will collect and analyze qualitative data to explicate quantitative findings and maintain all data in a longitudinal database to allow for within- and cross-cohort comparisons. WestEd will provide annual summaries of the outcome measures described above, including the GPRA and HEA performance measures. We will report progress on

measures and evaluative findings to multiple audiences, including ED and program stakeholders, via Annual Performance Reports (APR), narrative reports, and timely memoranda and presentations to the project management team.

The impact of teacher residency programs on teacher quality and student achievement is important not only to Fresno State and Fresno Unified but also to the CSU Chancellor's Office. Our evaluation plan fits into a broader context for investments in teacher preparation programs in the 23 campus CSU system. Several CSU campuses have submitted proposals for TQP grants. The CTQ, hosted by the CSU Chancellor's office, has put in place longitudinal data collection on all CSU teacher candidates. For this reason, our plan fits into a natural analytic frame that allows contrasts to be examined both within and across campuses. After the TQP awards are made, WestEd will collaborate with SRI International, also a proposed evaluator on several CSU TQP applications, to identify opportunities to examine program contrasts and further data collection efficiencies that might be enabled through the TQP program.

To facilitate acquisition of comparison teacher data we will develop a data sharing MOU with the CTQ. Beginning in early 2014, the CTQ began developing an integrated data collection system that consolidates several existing but previously unconnected data collection efforts across all 23 CSU campuses. The CTQ is implementing a longitudinal data system that compiles measures of professional educator practice as well as evidence of improved student learning into a coherent, centralized system. Data elements in the expanded CTQ database include many of the same elements we propose to collect via project surveys and program documents and archives. We will use CTQ data to verify survey data, while relying on survey data to provide timely findings and feedback to FTRP with quick turnaround. CTQ data elements are: (1) CSU program applicant data (e.g., undergraduate institution and GPA; California Subject Examinations for Teachers [CSET] results; demographic information); (2) CSU program completer and credential data; (3) school

placement data; (4) CSU Teacher Preparation Exit Evaluation results; (5) teacher retention data; (6) teacher performance assessment data; (7) annual Survey of First-Year CSU Teaching Graduates results; and (7) annual Survey of School Principals and Supervisors of First-Year CSU Teaching Graduates results.

**Recruitment and Selection.** To gauge progress on recruitment and selection, we will assess project measures on recruitment targets; selection rates; candidates from underrepresented groups; individuals who can support the content shortage areas (math, science, SPED, ELs, etc.); midcareer professionals; GPA; CSET results; declared subject matter preparation area and certification; motivations for selecting preparation via FTRP and teaching as a career; and attitudes and beliefs about teaching STEM subjects. These data will be collected from program documents and from candidates via annual surveys.

**Teacher Preparation.** Measures assessed related to teacher preparation include GPRA *Short-Term Performance Measure 1: Persistence: the percentage of program participants who were not scheduled to graduate in the previous reporting period and persisted in the postsecondary program in the current reporting period.* Data for the measure will be collected via FTRP archival program data. Project measures regarding teacher preparation will also assess candidates' specific subject matter preparation area; similarity of mentor-candidate certification; quality of preparation; candidate progression in teaching responsibility, as measured by time spent teaching and breadth and depth of instruction (e.g., lesson planning and teaching versus unit planning and teaching); and teaching practices learned as measured by pedagogical methods employed (e.g., instructional practices aligned to the Common Core or Next Generation Science Standards). Data on these measures will be collected via review of preparation program documents, surveys of residency candidates and mentors, and mentor-candidate logs documenting residency activities.

**Graduation and Certification.** GPRA and HEA each require measures related to

graduation and certification. We will assess GPRA *Performance Measure 1: Graduation: the percentage of program completers who (1) attain initial certification/ licensure by passing all necessary certification/licensure assessments and attain a master's degree within two years of beginning the program (90% target)* by obtaining from FTRP archives data on degrees and specific teaching certifications (including authorized subject matter and grade spans) obtained by candidates and dates awarded, in order to gauge whether they were obtained within the measure-specified timeframe. We will verify data on degrees and certifications obtained with those from the CTQ. To assess passing of initial and necessary certification/licensure assessments for GPRA *Performance Measure 3: Improved Scores: the percentage of grantees that report improved scaled scores on assessments for initial State certification or licensure of teachers* and the HEA measure, *improvements in the pass rates and scaled scores for initial state certification or licensure of teachers*, we will obtain teacher preparation candidates' scores on the state licensure exams, the CSET examinations, both directly from FTRP program documents (as the programs are responsible for verifying passing of assessments) and verify the scores with those archived by the CTQ. HEA also requires a measure on *achievement for all prospective and new teachers, as measured by the eligible partnership*. To assess achievement for prospective teachers, we will collect results from the Fresno Assessment of Student Teachers (FAST) directly from the preparation program.

**Placement.** As noted above, HEA requires a measure on *achievement for all prospective and new teachers, as measured by the eligible partnership*. For new teachers we will collect results from teacher evaluation protocols compiled by Fresno Unified human resources (HR) department (e.g., the New Teacher Center Formative Assessment System), a process which will be formalized with a data sharing MOU between WestEd and Fresno Unified. HEA also requires measures regarding hiring, subject areas taught, and placement in high need areas and schools. Specifically we will assess the percentage of highly qualified teachers (1) *hired by the high-need LEA*

*participating in the eligible partnership (100% target); (2) who are members of underrepresented groups (65% target); (3) who teach high-need academic subject areas, such as Science, Technology, Engineering, and/or Math (100% target); (4) who teach in high-need areas (100% target); and (5) who teach in high-need schools disaggregated by school levels (100% target). All data related to these measures will be collected annually from the preparation program and surveys of its graduates and will be verified with data obtained directly from Fresno Unified and the CTQ.*

**Retention.** We will assess measures of retention, specifically, *teacher retention in the first three years of a teacher's career*, an HEA measure, and three GPRA measures: (1) *Short-Term Performance Measure 2: Employment Retention: the percentage of beginning teachers who are retained in teaching in the partner high-need LEA one year after being hired by the LEA (98% target); (2) Performance Measure 2: Employment Retention: the percentage of beginning teachers who are retained in teaching in the partner high-need LEA three years after being hired by the high-need LEA (95% target); and (3) Efficiency Measure: Employment Retention: the cost of a successful outcome where success is defined as retention of the teacher in the partner high-need LEA three years after the teacher is hired by the high-need LEA.* We will calculate annual retention rates using the initial number of graduates per cohort, not the number of teachers remaining in the cohort in the prior year. Annually we will collect directly from the Fresno Unified HR department data on all FTRP schools and teaching placements to determine FTRP teachers retained in teaching from each cohort. We will also gather information on which teachers resigned a teaching position or obtained a non-teaching position and what new position within or outside the district the former teacher assumed. Analyzing these data will yield findings for all retention measures. Budget reporting of both grant and in-kind expenditures in APRs will provide the fiscal data necessary to determine the cost per successful outcome (i.e., a per capita cost of teacher retention for three years after initial employment).

**Technology.** WestEd will address the two HEA measures related to *integrating technology effectively into curricula and instruction* and *using technology effectively to collect, manage, and analyze data*. We will use or modify existing survey items or scales with documented validity and reliability to assess the teachers' integration and use of technology. We will also use any relevant existing data for the evaluation from Fresno Unified and the CTQ that address technology use and integration.

The TRP students are required to take instructional technology classes at Fresno State and each program course embeds technology for instructional management, reports, and class instruction. For example, a Multiple Subject credential course CI 175 requires students to stream videos, apply visual presentations, use technology and computers in instruction, a variety of software, and each resident will receive computer devices to support Smart Balanced Assessment, utilize smart boards, and computer labs for class instruction. Fresno Unified has made significant investments in technology such as purchasing over 15,000 tablets for students. Teacher residents will be trained to integrate technology throughout the TRP.

**Student and Teacher Outcomes QED.** In alignment with GPRA *Performance Measure 4: Student Learning: the percentage of grantees that report improved aggregate learning outcomes of students taught by new teachers* we will calculate the learning outcomes of students taught by FTRP graduates, as well as select teacher outcomes resulting from participation in FTRP, using a QED. In the final year of the evaluation, we will use the QED to address whether the FTRP model is more effective at preparing teachers than traditional teacher preparation programs. Waiting until the final year of the evaluation will allow us to pool data from all available appropriate cohorts to increase our sample size. The teacher outcome variables for the QED will be measures of teacher preparation drawn from the Survey of First-Year CSU Teaching Graduates and the Survey of School Principals and Supervisors of First-Year CSU Teaching Graduates (available through the CTQ, and offering a

basis for comparing FTRP teachers to teachers statewide in traditional programs), teacher performance as measured by the FAST, teacher placement in a high-needs school, and teacher retention. Student outcomes will include scores from valid and reliable achievement tests, including the English language arts (ELA) and mathematics Smarter Balanced Assessments, future science assessments to be used in California (e.g., assessments based on the Next Generation Science Standards), district benchmark testing (in Math, Science, and English Language Arts), and the California English Language Development Test (CELDT). An additional student outcome for the FTRP evaluation will be the attainment of IEP goals.

A central challenge in estimating the relationship between teacher residency programs and teacher and student outcomes is disentangling the effects of the program from the effect of participant selection. For example, does the program improve teacher instructional practice, retention in the profession, and student learning, or would the types of prospective teachers who apply and are admitted to the residency program exhibit these desirable outcomes no matter what type of preparation program they attended? To address this threat of selection bias, we propose to use a state-of-the-art matching algorithm to identify an appropriate sample of candidates from traditional teacher preparation programs.

The purpose of matching is to create groups that are equivalent on the observable pre-intervention variables known to be related to the outcomes of interest so that post-intervention differences can be causally attributed to the preparation program (Shadish, Cook, & Campbell, 2002). We propose to use scaled Euclidean distance matching because it works well with small sample sizes and can more heavily weight certain variables included in the matching (e.g., baseline achievement measures; Judkins, 2013). In addition, we will utilize a one-to-many matching strategy (i.e., each FTRP teacher will be matched to multiple comparison teachers), if possible, in order to improve the statistical power of the analyses (Shadish et al., 2002). Once we have obtained the data,

we will confirm that Euclidean distance matching is the most appropriate matching technique given the size and composition of the treatment group and pool of comparison teachers. We will also consider Mahalanobis distance matching and propensity score matching, which are other matching algorithms used frequently by researchers to identify comparison groups (Guo & Fraser, 2010; Stuart, 2010).

For teacher-level outcomes, we will identify teachers in traditional preparation programs as matches for FTRP teachers based on all available pre-treatment candidate background characteristics, financial information, and program information that are available from the CSU application process. For student-level outcomes, we will further restrict the pool of matched teachers by forcing exact matches on the grade level and subject of candidates' teaching placement and additionally matching on the aggregate demographic and prior achievement characteristics of teachers' placement classrooms and schools. For student outcomes, it is necessary to match on the characteristics of candidates' teaching placement because FTRP prepares new teachers in multiple subjects and grade levels, and the scaling of the Smarter Balanced Assessments and other achievement measures will necessitate limiting the pool of potential comparison teachers to teachers assigned to the same courses or grades as the program graduates. For example, comparison teachers assigned to Algebra I will be the only potential matches for FTRP graduates teaching the same course. Additionally matching on the aggregate demographic and prior achievement characteristics of teachers' placement classroom and schools will help to ensure baseline equivalence of student outcomes between students in FTRP and comparison teachers' classrooms.

Following the matching, we will calculate the standardized difference in the teacher-level means (i.e., the mean difference between the two groups divided by the pooled standard deviation) for each of the continuous achievement measures used in the matching process. This type of numerical balance diagnostic will determine the quality of the matches. In accordance with the

What Works Clearinghouse (WWC; U.S. Department of Education, 2014) guidelines for baseline equivalence, we will investigate identifying a different potential pool of comparison teacher candidates if the differences between the treatment and comparison teacher candidates on the achievement measures are greater than 0.25 standard deviations.

Teacher-level impact analyses will pool outcomes across grade levels and subject areas because the teacher outcomes (preparation, performance, placement, and retention) are measured consistently across teachers. We will compare outcomes for FTRP-prepared teachers to those of the matched sample using additional regression adjustment, controlling for key, pre-treatment, candidate-level characteristics. Since matching generally produces very similar, but not identical, treatment and control groups, analyzing the matched samples using regression models with additional controls helps minimize any bias due to inexact matching and is consistent with WWC guidelines (Rubin & Thomas, 2000; U.S. Department of Education, 2014).

For student outcomes, we will use hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) to account appropriately for the nesting of students within classrooms and schools. Given the research demonstrating that estimation problems with HLM are more likely to occur when the number of higher-level units (i.e., the number of classrooms) is below 30 (Maas & Hox, 2005), we may encounter difficulties with the proposed analyses for some of the courses or grade levels with fewer program graduates. If estimation problems occur using HLM, we will conduct regression analyses with a robust variance estimator that relaxes the assumption that the students' scores are independent within classes (White, 1980). The student-level impact analyses will be conducted separately for each course and grade level. The impact analyses will include all of the variables used in the matching algorithm to select the comparison groups as control variables. After conducting the individual student-level impact analyses, we will calculate effect sizes based on each analysis. To calculate the effect sizes, we will divide the differences between the means for the students taught

by FTRP graduates and comparison students over their respective pooled standard deviations (WWC, 2014). This standardization method means that each grade level difference will be based on standard deviation units, which allows the differences across the various achievement tests in the different courses and grades to be compared to one another. We will use meta-analysis to calculate an overall impact estimate by averaging the impact estimates across courses and grades (Lipsey & Wilson, 2001) to gauge progress on attainment of the following project measure: *annually, the difference between the mean achievement for students of FTRP-prepared teachers and matched students of matched comparison teachers will be equal to or greater than an effect size of 0.20 after accounting for control variables.* An effect size of 0.20 is equivalent to FTRP teachers moving their students from the 50th percentile to the 58th percentile while the comparison teachers kept their students at the 50th percentile (Lipsey et al., 2012). The analysis that compares the attainment of the students' IEP goals will likely be similar to the analysis of the achievement measures and will depend on the scoring of the goals (e.g., as counts or the percentage of goals attained).

**Project Implementation.** We will also collect data on program implementation, including the collaboration between Fresno Unified and Fresno State, the development of the new course scope and sequence, and the selection of mentor teachers. A clear understanding of FTRP will enable us to suggest ways in which outcomes may be related to specific FTRP program components, highlighting which components may be most critical, for whom, and under which conditions. Monitoring the implementation fidelity of an intervention requires a clear account of the model in theory, the particular context of implementation, and a nuanced and dynamic picture of what is actually happening. Our evaluation will attend to each of these three components. First, we will ground the evaluation in a well-articulated logic model (Logic Model page 15). Second, we will review program documents and interview key stakeholders to develop a meaningful picture of the FTRP context. Third, to assess the extent to which FTRP components are being implement, we will

interview mentors, residents, faculty, and staff, using protocols with both open- and closed-ended questions about how participants experience the program.