Board Office Use: Legislative File Info.				
File ID Number 19-0099				
Introduction Date	2/13/2019			
Enactment Number	19-0240			
Enactment Date	2/13/2019 lf			



# Memo

**To** Board of Education

**From** Kyla Johnson-Trammell, Superintendent

Tara Gard, Deputy Chief Talent Officer, Talent Division

**Board Meeting** 

Date Subject February 13, 2019

#### Acceptance of Teacher Residency Expansion Grant

## Action Requested

Acceptance by the Board of Education of Grant Award No. TRE 4 from the California Commission on Teacher Credentialing, year-1 funding of the five year grant in the amount of \$240,000 for the development and support of a Teacher Residency Expansion Grant, pursuant to the terms and conditions thereof, for the period December 17, 2018 through June 30, 2020.

#### **Background**

A one paragraph explanation of the the MOU.

Grant agreement for OUSD Talent Division for 2018-2019 fiscal year were submitted for funding as indicated in the chart below. The Grant Face Sheet and grant application packets are attached.

Backup Document Included	Туре	Recipient	Grant's Purpose	Time Period	Funding Source	Grant Amount
Yes	Application	Talent Division	This grant will support aspiring STEM teachers with a BA interested in a funded residency teacher preparation pathway.	12/17/18 - 6/30/20	California Commission on Teacher Credentialing	240,000

#### **Discussion**

One paragraph summary of the MOU.

The district created a Grant Face sheet process to:

- Review proposed grant project at OUSD Talent Division and assess their contribution to sustained student achievement
- Identify OUSD resources required for program success

OUSD completed a grant application for the program listed to be hosted in the Talent Division.

#### Recommendation

Acceptance by the Board of Education of Grant Award No. TRE 4 from the California Commission on Teacher Credentialing, year-1 funding of the five year grant in the amount of \$240,000 for the development and support of a Teacher Residency Expansion Grant, pursuant to the terms and conditions thereof, for the period December 17, 2018 through June 30, 2020.

## Fiscal Impact

The total amount of the grant will be provided to OUSD by the California Commission on Teacher Credentialing and is contingent on annual or further State appropriation(s) over the next four years.



## **Attachments**

- Teacher Residency Expansion Grant Face Sheet
- **Grant Application**
- Copy of Grant Award LetterGrant Award Certificate
- Special Terms and Conditions

## **OUSD Grants Management Face Sheet**

Title of Grant: California Commission on Teacher Residency Capacity Grant	Funding Cycle Dates: 2018-2019
Grant's Fiscal Agent: Funded Programs, Fiscal and Business Services Commission on Teacher Credentialing 1900 Capitol Avenue Sacramento, CA 95811-4213	Grant Amount for Year-1 funding of the five year grant in the amount of \$240,000 for the development and support of a Teacher Residency Expansion Grant for the period December 17, 2018 through June 30, 2020.
Funding Agency: California Commission on Teacher Credentialing	Grant Focus: Support aspiring STEM teachers with a BA interested in a funded residency teacher preparation pathway.

List of Departments to be Served:

Talent Division (Recruitment & Retention, Programs for Exceptional Leaders and Programs for Exceptional Children)

Information Needed	School or Department Response	
How will this grant contribute to sustained student achievement or academic standards?	This grant will support aspiring STEM teachers with a BA interested in a funded residency teacher preparation pathway. Aspiring Special Education teachers will have an opportunity to earn their Preliminary Ed Specialist credential before they begin teaching.	
How will this grant be evaluated for impact on student achievement?	Our proposed process for measuring success has been aligned to three longer-term objectives that we would like to see achieved by 2023:  1. Demonstrate increased effectiveness more likely to remain in teaching  2. Demonstrate increased effectiveness facilitating the growth of early STEM teachers who are leaders in STEM teacher mentoring in Oakland.  3. Sustainable, high-quality, and high retention	
Does the grant require any resources from the district? If so, describe.	This Grant will require up to 25% time from the Retention & Employee Development Team.	

contractor paid through an OUSD contract or MOU?	
Will the proposed program take students out of the classroom for any portion of the school day?	No.
Who is the contact managing and ensuring grant compliance?	Sarah Glasband, Manager of Retention & Employee Development Talent Division 1000 Broadway, Suite 295 510-879-1355

## **Applicant Obtained Approval Signatures**

Entity	Name(s)	Signature	Date
Deputy Chief Talent Officer	Tara Gard	Yanfa D	01/16/19
Staff Attorney	Amy Brandt	10/22	01/26/19

Sime	Eng	2/14/2019

Aimee Eng

President, Board of Education

**H** 2/14/2019

Kyla Johnson Trammell
Secretary, Board of Education

**Application Cover Page** 

1. Name of LEA:	Oakland Unified School District		
Mailing Address:	1000 Broadway, Suite 295 Oakland, CA 94607		
CD/CDS Code:	Oakland Unified School District 01 61259 0000000		
2. Contact Person:	Sarah Glasband, Manager of Retention & Employee Development		
Telephone:	510-517-7414		
Email:	sarah.glasband@ousd.org		
Fax:	510-879-0228		
3. Fiscal Agent for	the Program:		
Name:	Ryannon Nguyen		
Agency:	Oakland Unified School District, Office of the Controller		
Mailing Address:	1000 Broadway, Suite 450 Oakland, CA 94607		
Telephone:	(510) 879-8886		
Email:	ryannhon.nguyen@ousd.org		
Fax:	510-879-3687		
4. Administrative A	Approval from the Superintendent or Authorized Administrator of :		
Name:	Dr. Kyla Johnson-Trammell		
Title:	Superintendent, Oakland Unified School District		
Signature:	0469		
Date:	November 14, 2018		

## **Table of Contents**

1.	Overview of the Current Operational Teacher Residency Partnership between the Applicant LEA and the Collaborating IHEs	5
2.	Local Need for STEM Teachers	9
3.	The Expanded Teacher Residency Program to be Implemented	12
4.	Key Program Personnel and Shared Program Governance	14
5.	Data Collection and Evaluation Reporting	16
6.	Budget and Budget Narratives	19
7.	Statutory Priority Points	22

## **Teacher Residency Expansion Grant Summary**

## 1. Residents to be Served by the Residency Expansion Grant Program: 2019-20

Residency Area	Special Education	Special Education with Bilingual Auth.	STE M	STE M with Bilin gual Auth.	Multiple Subject with Bilingual Auth.	Single Subject non-STEM with Bilingual Auth.
# of Residents	0	0	12	0	0	0
Amount of Grant Funds to Serve these Residents	\$0	\$0	\$240, 000	\$0	\$0	\$0
Amount of Local Funds to Serve these Residents	\$0	\$0	\$494, 023	\$0	\$0	\$0

## 2. LEA(s) and Schools Where the Expansion Grant Program Residents Will Be Placed

LEA	School to be Served	Type of Residents
OUSD	Edna Brewer Middle School	STEM
OUSD	Roosevelt Middle School	STEM
OUSD	United for Success Academy (MS)	STEM
OUSD	Fremont High School	STEM
OUSD	Oakland High School	STEM
OUSD	Oakland Technical High School	STEM
OUSD	Skyline High School	STEM

## 3. Partner IHE(s) for the Teacher Residency Expansion Grant

IHE	Number of Residents	Type of Residents
CSU East Bay	3-4	STEM

UC Berkeley	8-9	STEM
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### **Project Description**

#### 1. Overview

We are in the midst of a crisis in teacher education that has a critical effect on how prepared our students are to have access to and be successful in the sciences: up to half of all teachers leave the profession within the first five years, and this rate is highest for math and science positions and schools serving our most vulnerable populations of students (NCES, 2015; Goldring et al, 2014; Fantilli & McDougall, 2009; Kelly, 2004). Furthermore, the Common Core State Standards for Mathematics and the Next Generation Science Standards demand more of all teachers than ever before. Beginning teachers are more likely not to enact effective practices when they begin their teaching careers (National Center for Analysis of Longitudinal Data in Education Research, 2010) and, in the highest-need schools and districts, are unlikely to develop expertise enacting effective practices over time (e.g., Banilower et al., 2013; Markow et al., 2013).

We know that there when beginning teachers are provided effective preparation and ongoing support, however, their effectiveness in facilitating student learning and the likelihood they will remain teaching increases over time. In particular, targeted mentoring by experienced teachers – especially as part of a long-term arc of teacher learning – has a dramatic impact on a new teacher's beliefs, practices, effectiveness, reflectiveness, satisfaction, and likelihood to stay in the profession (Ingersoll & Strong, 2011; Oh, Ankers, Llamas, & Tomyoy, 2005; Ronfeldt & Reininger, 2012; Walkington, 2005), and ultimately affects student achievement (Strong, 2006; Strong, Villar, & Fletcher, 2008). This is especially critical and impactful in a teacher's pre-service year before entering the classroom full-time, and in his or her first few years of teaching (Freedberg, 2014). Of particular relevance to STEM teaching and learning, we know effective teacher mentoring is the primary impactor on the development of "ambitious teaching practice," or pedagogy that "aims to get all kinds of students—across ethnic, racial, class, and gender categories—not only to acquire, but also to understand and use knowledge, and to use it to solve authentic problems" (Grossman, Compton, Igra, Ronfeldt, Shahan, & Williamson, 2009).

The state of training and ongoing support for mentoring work is an equally critical and impactful problem (Ganser, 2002). Though new California standards for teacher preparation are now requiring teacher preparation programs to provide training to teacher mentors, teacher preparation programs have no additional faculty, resources, or professional support to do so (CTC, 2016). Cooperating teachers agree to mentor on top of existing teaching workloads, and mentoring work is often up to the mentor to design and implement (Koerner, 1992; Grimmett & Ratzlaff, 1986). Furthermore, few mentors working with any early-career teacher participate in any professional community of mentors and are as siloed in mentoring work as teachers can be in teaching (Hudson, Hudson, Gray, & Bloxham, 2013). The mentor trainings and communities that do exist are often content-agnostic in focus; while math and science teachers can certainly learn much from any veteran teacher, there are arguably components to teaching math and science that are fundamentally different from teaching other subjects, especially when it comes to ambitious STEM teaching practices.

The rationale for this proposal is that our existing teacher residency partnership is ready to expand its work at existing school sites and to welcome a new university partner and two new schools into the consortium. The existing partnership — consisting of three school districts, two universities, and a local non-profit, Trellis Education — is embedded in a larger teacher residency

partnership across the San Francisco Bay Area that includes four university-based teacher preparation programs and seven school districts in all. The existing teacher residency partnership is defined by all critical factors and components of effective residency approaches within a collaborative partnership defined by the CTC Teacher Residency Grant Program RFP and includes an explicit focus on long-term, STEM-specific teacher mentoring that spans five years of each resident's entry into the profession (see Figure 1).

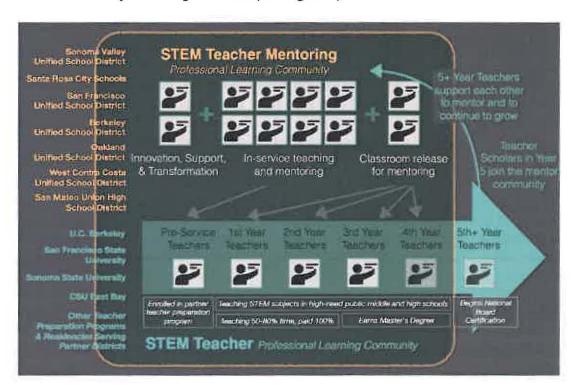


Figure 1. Overview of the overlapping professional learning communities in focus in the existing teacher residency consortium.

#### Oakland Unified School District

The Oakland Unified School district serves over 36,000 students, a majority of whom qualify for free and reduced lunch services and are People of Color. Fewer than half of the teachers across the districts are People of Color, and new teachers are particularly likely to be White. Oakland Unified School District has teacher attrition rates that are among the highest in the state of California (Amsterdam et al, 2016; NCES, 2016), and more than half of new teachers entering the district enter in pre-credential pathways. Communities of teachers in the existing teacher residency partnership teach and/or mentor teachers at Edna Brewer Middle School, United for Success Academy, Oakland Technical High School and Fremont High School.

#### Trellis Education

Trellis Education is an organization working in service of creating and sustaining more cohesive and effective pathways for California math and science teachers as they enter and progress in the profession. In this consortium it acts as the residency "glue" across university teacher preparation program and school district partners. As part of its work with teacher

preparation programs and school districts, Trellis is committed to creating and retaining more Teachers of Color and in particular to ensuring the Trellis mentoring and resident communities are more and more representative of the students of California and the students they serve over time.

All applicants accepted into Trellis' partner, university-based teacher preparation programs are invited to supplementarily apply to be a resident with Trellis, or "Trellis Teacher Scholar." If they choose to apply to Trellis and are accepted, they are provided the full, six-years of financial and professional support (costs shared across Trellis and partner school districts) conditional on a long-term commitment to teaching in partner schools and districts and meeting or exceeding ongoing milestones for professional growth defined by the State of California, their school district, and Trellis.

In the pre-service year, Trellis, the teacher preparation programs, and the local school districts work together to ensure Trellis Teacher Scholars (TTSs) are placed in the classrooms of Trellis Mentor Fellows, instead of with STEM teachers who have volunteered to mentor or who have been asked by their administrators to mentor. As TTSs emerge from teacher preparation programs and seek jobs in local schools, the consortium partners support TTSs to secure jobs locally, incentivizing them to choose jobs in particular schools in which there is an existing and growing community of Trellis mentors and teachers. TTSs receive four, additional years of mentoring support from Trellis that support them to clear their teaching credential (Years 1 and 2 in the classroom) and earn National Board Certification for AYA Math or Science (Year 5). All TTSs are provided a pathway into the Trellis Mentor Fellow community as an apprentice mentor (Year 4) and become a Trellis Mentor Fellow formally in Year 5.

In this residency partnership, the primary boon of Trellis to university teacher preparation programs and school districts is in the support and growth of the Trellis Mentor Fellow professional learning community. These experienced mentor teachers are in-service math and science teachers who have deep STEM content and pedagogical content knowledge, who work collaboratively to develop expertise in long-term, content-agnostic and STEM-specific mentoring practice, and who are developing, enacting, and iterating on mentoring practices and tools that facilitate early career teachers developing and tracking growth in ambitious, effective teaching practice. The work of the Trellis Mentor Fellow PLC is based on best practices from the New Teacher Center - a national expert in content-agnostic mentoring - and involves cross-district, regional, and site-specific, STEM-specific teacher mentoring workshops and learning opportunities facilitated by Trellis teacher educators. Trellis Mentor Fellows from OUSD and from nearby West Contra Costa and Berkeley Unified school districts, compose the East Bay Mentoring PLC, who work together to support teachers emerging from university-based teacher preparation programs to learn to teach and choose to teach in East Bay schools.

#### U.C. Berkeley Educators for Excellence and Equity (BE3)

The U.C. Berkeley single-subject credential programs in secondary science and mathematics are part of the Berkeley Educators for Equity and Excellence (BE3) program in the U.C. Berkeley Graduate School of Education. The credential program at UC Berkeley recently relaunched itself as BE3 to recommit itself to naming and interrupting systems of oppression and centering the knowledges, values, and experiences of marginalized communities. This shift aligns with OUSD's core values of students first and equity, as well as our work to

institutionalize Grow Our Own programs in OUSD that help to diversify and localize our teacher workforce. The programs primarily prepare and credential teachers to work in WCCUSD, BUSD, and OUSD, and currently credential between 12-15 math and science teacher candidates per year. The 12-month program includes a full-year co-teaching clinical placement with an experienced mentor teacher in which candidates spend a minimum of 6 hours per week in classrooms, and emerging teachers have earned a preliminary teaching credential and a Master's of Education degree.

BE3 is a full partner with Trellis Education and for the past three years a majority of teacher candidates in the program apply for and are accepted as Trellis Teacher Scholars. Trellis teacher educators and BE3 faculty have collaborated to transform the Curriculum and Instruction courses that are a critical part of the credential program to be fully site-based. This means all math and science teacher candidates in BE3 visit a Trellis partner school site in OUSD or in the East Bay each week to observe, discuss, and approximate core STEM teaching practices together. These efforts are facilitated collaboratively by Trellis Mentor Fellows, UC Berkeley faculty and staff, and Trellis teacher educators. The success of the transition of this course from being based in a university setting to being based in schools and classrooms is in partly due to the fact that the design follows emerging best practices in site-based methods coursework and practice-based teacher education from leading researchers and institutions across the country (e.g., Kastberg, Tyminski, Lischka, & Sanchez, 2017). Additionally, this model has influenced Trellis' other university partners - San Francisco State University and Sonoma State University – to create similar models in partnership with Trellis mentors and teacher educators.

#### CSU East Bay

The CSU East Bay single-subject credential programs in secondary science and mathematics primarily prepare and credential teachers to work in districts largely in Alameda County and West Contra Costa County. Currently (2018-19), there are 20 secondary math candidates and 26 secondary science candidates in the program. These candidates are now placed in 13 different districts. Overall, 42% of all math and science candidates are placed in OUSD (18%), in BUSD (2%), and in WCCUSD (22%). The remaining math and science candidates are in San Lorenzo (6%), San Leandro (6%), New Haven (6%), Fremont (9%), Pleasanton (5%), Castro Valley (6%), Livermore (6%) and Hayward (14%). The 12-month program includes a full-year co-teaching clinical placement with a an experienced mentor teacher and emerging teachers have earned a preliminary teaching credential.

Because OUSD already works with both Trellis Education and CSU East Bay, there is collective desire to collaborate in recruiting, preparing, and supporting STEM teachers together. The districts see this grant as an opportunity to expand the residency program that exists through their work with Trellis in part by bringing CSU East Bay into the consortium formally. For the next four years, CSU East Bay, Trellis and OUSD will work together to encourage CSUEB credential students to apply to the Oakland Trellis Teacher Scholar program and to commit to learning to teach and to teaching in East Bay schools for five years. CSUEB and Trellis will work together to implement site-based methods courses for STEM credential students a la Trellis' partnership with existing teacher preparation partners, and will engage in ongoing university partnership meetings with Trellis leadership and faculty from UC Berkeley, San Francisco State, and Sonoma State, toward learning with and from each other about best practices in the development of an effective teacher residency partnership.

Evidence of the Success of the Teacher Residency Program To Date

There are currently 7 Trellis Teacher Scholars in the residency program as in-service or pre-service teachers in OUSD ("Oakland Trellis Teacher Scholar Program"). School and district administrators are working with Trellis Education to expand the work into new schools over the next few years. This academic year, all 4 pre-service Trellis Teacher Scholars placed as student teachers in schools in OUSD are on track to pass their EdTPA and earn their preliminary, single-subject teaching credential for math or science. All 3 in-service Trellis Teacher Scholars employed by OUSD have earned probationary teaching credentials and have exceeded or show clear evidence of exceeding milestones for clearing their credentials by OUSD's induction program in collaboration with Trellis. These in-service teachers all report being likely or very likely to continue teaching in the same school next year and beyond. Additionally, Trellis Education has compelling data about the growth of all Teacher Scholars in the residency community in terms of enactment of core STEM teaching practices, including short- and long-term data from mentors' observations of Teacher Scholars' teaching.

#### 2. Local Need for STEM Teachers

The need for qualified, highly-supported STEM teachers in OUSD is critical. This need is both about ensuring more beginning teachers with high-quality, extended clinical preparation are entering the workforce, but also to ensuring they stay. As broken down by school and discipline in Table 1, 10.4% of all current, secondary STEM teachers across OUSD are serving students on less than a preliminary teaching credential (emergency credential or mis-assigned), despite widespread research that teachers who enter the profession with more effective support and preparation are more likely to be effective and more likely to stay teaching.

Table 1. Secondary STEM Teachers Currently Serving on Less than a Preliminary Teaching Credential

School	Total Emergency Permits & Mis-assignments #/% (of total teachers at school)	Math Emergency Permits & Mis-assignments #/%	Science Emergency Permits & Mis-assignments #/%
Edna Brewer MS	4 / 9.3%	3 / 7.0%	1 / 2.3%
Roosevelt MS	2 / 5.4%	2 / 5.4%	0
United For Success MS	0	0	0
Fremont HS	0	0	0
Oakland HS	7 / 7.8%	5 / 5.6%	2 / 2.2%
Oakland Tech HS	3 / 2.9%	1 / 1.0%	2 / 1.9%
Skyline HS	3 / 2.9%	2 / 1.9%	1 /1.0%

Total Math/Science	46 / 10.4%	25 / 10%	21 / 10.9%

It is the goal of this expansion grant to ensure there are 1-2 new residents in each school over the next four years. As the Oakland Trellis Teacher Scholar Program continues to be successful in supporting STEM teachers to stay in the classroom over time, these pre-service teacher residents will be surrounded and ultimately join the ranks of Trellis Teacher Scholars and Trellis Mentor Fellows working collaboratively at the target sites, creating true professional learning communities of pre-service, beginning, accomplished, and mentor math and science teachers working in consistent and substantive ways together. Table 2 shows target numbers of new, secondary STEM residents across OUSD between 2019 and 2023.

Table 2. Target Number of New, Secondary STEM Residents by School, Each Year

School	Current	2019-20	2020-21	2021-22	2022-23
Edna Brewer Middle School	1	2	2	2	2
Roosevelt Middle School	0	2	2	2	2
United for Success Academy (Middle School)	1	1	1	2	2
Fremont High School	0	2	2	2	2
Oakland High School	0	2	2	2	2
Oakland Technical High School	1	1	2	2	2
Skyline High School	0	2	2	2	2
OUSD Total	3	12	13	14	14

Communities of teachers in the existing teacher residency partnership teach and/or mentor teachers at Edna Brewer Middle School, United for Success Academy, Oakland Technical High School and Fremont High School. The original schools and proposed expansion sites were chosen based on need as defined by: majority % of low-income students and/or Students of Color, STEM opportunity gap, numbers of uncertified and/or beginning teachers, number of teaching vacancies, and high % of teacher turnover. There was also an assessment of school leadership interest and the availability of at least one or two master teachers with capacity to mentor new teachers into the school/department. Many of these sites were also identified for the SPED Teacher Residency in partnership with LMU and we will be intentional about creating opportunities for community across Residents and mentor teachers in each program. Table 3 provides student demographic and performance data at the proposed target schools, and Table 4 provides information on staffing.

Table 3. Student Demographic and Performance Data at Identified Target Schools

School	% FRL	% EL	% SpEd	% M/E ELA	% M/E Math
Edna Brewer Middle School	62.9%	8.7%	15.3%	55.4%	44.5%
Roosevelt Middle School	93.6%	33.6%	15.8%	24.2%	20.7%
United for Success Academy (Middle School)	95.3%	38.4%	10.9%	12.5%	7.3%
Fremont High School	94.0%	53.9%	11.5%	15.5%	2.8%
Oakland High School	87.3%	25.3%	12.4%	40.4%	19.8%
Oakland Technical High School	48.5%	5.9%	12.9%	59.3%	28.4%
Skyline High School	74.1%	14.3%	16.3%	49.2%	13.5%

Table 4. Staffing at Identified Target Schools

School	Total Teachers	# of Current Vacancies	# of Temp Teachers	# of Intern Teachers	# of Prob. (Y1) Teachers	# of Prob. (Y2)
Edna Brewer Middle School	43	0	6	3	2	4
Roosevelt Middle School	37	0	5	8	2	4
United for Success Academy Middle School	21	1 (Math)	2	2	2	4
Fremont High School	49	0	15	4	6	4
Oakland High School	90	0	10	14	2	8
Oakland Technical High School	103	0	7	7	6	10
Skyline High School	103	0	13	6	8	9

Subject	Total Math/Sci Teachers	Total Current Math/Sci Vacancies
OUSD Math	250	2
OUSD Science	192	3

The existing Oakland Trellis Teacher Scholar Program has focused to date on building highly-supportive pathways for math and science teachers into the profession that serve as models for developing and retaining highly-effective STEM teachers in high-need schools. As stated above, Trellis Education works with teacher preparation programs and school districts to build long-term pathways that meet or exceed all outlined factors and components of effective residency approaches within a collaborative partnership, as defined in the RFP for this proposal. Thus, the Oakland Trellis Teacher Scholar Program has made an explicit choice to keep resident numbers small as the model was initially implemented and the financial sustainability of the model is being studied and maximized. Over the next five years, with the addition of CSU East Bay to the consortium, we are poised to increase the number of new, secondary STEM residents at target school sites across Oakland and the East Bay, in addition to continuing to support those residents as they take jobs in partner districts and develop as professional educators. Ultimately we believe this collaboration can transform the math and science departments at the identified target school sites, then use these efforts as models for developing new grades 6-12 STEM teacher pathways across the district.

#### 3. The Expanded Teacher Residency Program to be Implemented

In 2019-20 the Oakland Trellis Teacher Scholar Program will target applicants to the UC Berkeley BE3 and CSU East Bay single-subject credential programs in math and science who are committed to learning to teach and to taking jobs in OUSD. The existing teacher residency program does not require teachers to remain in a single school or district while they receive support from Trellis Education; rather, they must commit to remaining in the consortium. OUSD understand that, especially as numbers grow over time, a teacher they might "lose" to another district in the consortium will be neutralized by gaining a teacher from outside their district at the same time. We believe this flexibility contributes to teachers feeling empowered to teach in communities and schools they are most excited to commit to longer term.

BE3 and CSUEB faculty will ensure applicants to their programs are aware of the Oakland Trellis Teacher Scholar Program and what is expected of and offered to them as part of it. Both programs will reach out to each applicant between January and March 2019, and current Trellis Teacher Scholars will host info sessions during that time frame at each university to answer questions and offer insights about the opportunity. Newly-admitted BE3 and CSUEB teacher candidates who are interested in applying to be an Oakland Trellis Teacher Scholar will be invited to attend the Trellis UnConference – an annual event open to anyone in the San Francisco Bay Area – in April 2019 to meet mentors, teachers, and administrators in the community. The first phase of application materials to the Oakland Trellis Teacher Scholar Program is due one week later, and includes a statement about why they are applying to be an Oakland Trellis Teacher Scholar, and an argument – in any medium – for why STEM learning is a civil right and why STEM teachers are activists for social justice. Based on a review of these

materials by Trellis Mentor Fellows, each applicant may be invited to participate as a finalist in a Design Challenge with other applicant finalists from the San Francisco and North County Trellis Teacher Scholar Programs, held each year at the Exploratorium in San Francisco. This event is facilitated by Trellis Mentor Fellows and teacher educators from Trellis and partner universities, and is designed to engage applicant finalists in a collaborative design challenge that reflects their willingness to collaborate and be creative, their responsiveness to feedback, and the depth of their learning stance. 12 of these finalists will be selected as 2019 Oakland Trellis Teacher Scholars, and will be notified of a conditional acceptance upon agreeing to learn to teach (Year 0) and work as a teacher (years 1-5) in the Oakland consortium of partner schools. The focus of the Oakland Trellis Teacher Scholar Program – and of all Trellis Teacher Scholar Programs – will continue to be on secondary STEM, indefinitely.

By design, the Oakland Trellis Teacher Scholar Program builds from existing work of the U.C. Berkeley and CSU East Bay teacher preparation programs and supports these programs to prepare the strongest possible beginning STEM teachers for success and retention in East Bay schools. In fact, one of the guiding principles of the Trellis Education residency model – as emphasized by the critical factors and components of effective residency approaches defined by the CTC Teacher Residency Grant Program RFP – is a collaborative partnership across existing teacher preparation and school district pathways. Two powerful components of the existing residency program are (1) the transition of math and science methods courses into school-site-based learning and rehearsal experiences co-facilitated by university faculty and Trellis Mentor Fellows, and (2) the work of the Trellis Mentor Fellow professional learning community to learn and improve their STEM-specific teacher mentoring practice.

There are currently 3 Mentor Fellows across 7 of the identified target school sites, and the consortium intends to add up to 10 new mentors next year and strategically add a few more each subsequent year, depending on two critical targets: maintaining a 1-to-1 ratio for mentors of pre-service Trellis Teacher Scholars, and maintaining a 1-to-5 max ratio for mentors of in-service Trellis Teacher Scholars (Table 5). These projections account for a 90% or better retention rate of all new and continuing residents in OUSD schools from year to year.

Table 5. Target Number of New, Secondary STEM Residents Each Year

Projected Residents & Mentors	Current	2019-20	2020-21	2021-22	2022-23
Pre-Service Oakland Trellis Teacher Scholars (OTTSs) (i.e. New Residents; see Table 2))	4	12	13	14	14
In-Service OTTSs (i.e. Continuing Residents)	3	5+	15+	25+	35+
Oakland Trellis Mentor Fellows	4	13	16	19	21

Trellis Education will continue to take primary responsibility for assuring consistency and coherence of residency work across the identified target sites. At each site, growing teams of math and science teachers will work together to support pre-service and early in-service OTTSs using Trellis tools and processes that are designed to align with university- and induction

program-specific mentoring work and beginning teacher support. District and school administrators sign annual MOUs with Trellis and the partner teacher preparation programs that specify cost-sharing agreements and how professional and structural supports will be shared and sustained over the long term. These MOUs also include data sharing that is critical to the continuous improvement of the partnership. Additionally, the East Bay Mentoring PLC meets regularly to share videos and examples of STEM-specific mentoring practice, to rehearse mentoring with one another, and to discuss data reflecting changes in their mentees' growth over time. These meetings are currently facilitated by the Trellis Director of Mentoring, Krista McAtee, who works with all mentor-mentee pairs in the organization. In fact, each year Trellis Mentor Fellows spend an average of 60 hours engaged in professional preparation and learning in support of their development and effectiveness as a mentor. This far exceeds the 10 hour "cooperating teacher" training requirement for pre-service teacher mentors defined by the CTC, and mentors of in-service teachers attend additional county and district induction trainings. Additionally, all Trellis Mentor Fellows and Teacher Scholars participate in ongoing regional and all-Trellis collaborative visits to partner school sites in order to maintain the bonds across the community and support all teachers seeing and talking about exemplary teaching practice.

One change we will make to the currently operating residency program is to hire a part-time "regional" Director of Mentoring who supports just the mentors and residents at the identified target schools in this proposal. This person will ideally come from the OUSD community. This will increase the consistency and coherence of mentoring work even more, and ensure that all mentor-resident pairs have just-in-time and long-term support engaging in ongoing inquiry cycles about practice.

#### 4. Key Program Personnel and Shared Program Governance

Table 6. Key Program Personnel and Shared Governance

Org.	Name, Title, FTE	Grant Role	Responsibilities
CSU East Bay	Michele Korb Associate Professor, Science Education 0 FTE (Paid)/ 0.2 FTE (In-Kind)	IHE Manager (CSUEB) of the Oakland Trellis Teacher Scholar Program	<ul> <li>Work with Trellis Education and the school districts to recruit, select, and place new residents</li> <li>Teach CSUEB Science Education Curriculum &amp; Instruction courses, and pilot site-based coursework in identified target schools</li> </ul>
U.C. Berkeley	Jake Disston STEM Pathway Director 0 FTE (Paid)/ 0.2 FTE (In-Kind)	IHE Manager (UCB) of the Oakland Trellis Teacher Scholar Program	Teach fully-site-based UCB Math and Science Education Curriculum & Instruction courses in identified target schools
OUSD	Sarah Glasband Manager, Retention & Employee Development 0 FTE (Paid)/ 0.2 FTE (In-Kind)	LEA Manager (OUSD) of the Oakland Trellis Teacher Scholar Program	Work with Trellis Education to hire new residents in OUSD and assure them financial and structural support     Ensures coherence across Residency programs and OUSD mentoring community

OUSD	TBA Coordinator, Oakland Residency Programs 1.0 FTE (Paid)	LEA Coordinator of OUSD Teacher Residency Programs	<ul> <li>Support the recruitment of Trellis scholars in collaboration with UC Berkeley and Trellis Education</li> <li>Supports mentor training, recruitment, and ongoing coaching and professional development for Trellis scholar residents</li> <li>Ensures coherence across residency programs for Special Education and STEM</li> </ul>
OUSD	Ryannon Nguyen Controller 0 FTE (Paid)/ 0.2 FTE (In-Kind)	Fiscal Manager of the Oakland Trellis Teacher Scholar Program	Provides fiscal management and oversight of the program
Trellis Education	Karin Little Chief Strategy Officer 0 FTE (Paid)/ 0.2 FTE (In-Kind)	Trellis Fiscal and Partnership Manager of the Oakland Trellis Teacher Scholar Program	<ul> <li>Assures that the program functions as a consistently shared responsibility among the districts, university partners, and Trellis</li> <li>Develops annual MOUs across partners</li> <li>Facilitate ongoing meetings among the various project managers to ensure fidelity and continuous improvement</li> </ul>
Trellis Education	TBD (New Hire) Regional Director of Mentoring, Oakland 0.3 FTE (Paid)/ 0.1 FTE (In-Kind)	Lead Manager of the Oakland Trellis Teacher Scholar Program	<ul> <li>Provide ongoing, site-based support to all Oakland Trellis Mentor Fellows and Teacher Scholar mentees</li> <li>Work with university partners to bring coursework into identified school sites</li> <li>Plan and facilitate regional         Collaborative Learning Events at identified school sites     </li> </ul>
Trellis Education	Wendy Yau Data Analyst 0.0 FTE (Paid) / 0.2 FTE (In-Kind)	Program Data Lead	<ul> <li>Provide consistent data reports to mentor-resident pairs and to Regional Director of Mentoring, Oakland about short- and long-term change in teacher practice</li> <li>Provide multi-month snapshots of growth and impact to all partnership project managers</li> </ul>

## Other Key Staff

Brenda Tuohy, (STEM Director, OUSD; 0 FTE (Paid) / 0.2 FTE (In-Kind)) will support implementation and ensure Mentor Teachers and Residents are adequately supported and adhering to OUSD STEM specific initiatives and curriculum. Courtney Ortega (Math Specialist, OUSD; 0 FTE (Paid) / 0.2 FTE (In-Kind)) and Herberta Zulueta (Science Specialist, OUSD; 0 FTE (Paid) / 0.2 FTE (In-Kind)) will support implementation as well as support selection of Mentor Teachers. Lisa Rothbard (Induction Manager, OUSD, 0 FTE (Paid) / 0.2 FTE (In-Kind))

will ensure coordination of Residency with New Teacher Support during their first and second year of teaching. Julie McNamara (Assistant Professor, Math Education, CSU East Bay Graduate School of Education; 0 FTE (Paid)/ 0.2 FTE (In-Kind)) will teach the CSUEB Math Education Curriculum & Instruction courses, and pilot site-based coursework in identified target schools in alignment with Michele Korb, the University Manager for the project for CSUEB and the faculty member teaching the equivalent courses for science teacher candidates. Krista McAtee (Director of Mentoring, Trellis Education; 0 FTE (Paid)/ 0.2 FTE (In-Kind)) will support the Regional Director of Mentoring hired for this project in his/her/their work leading the program and providing just-in-time support to Oakland mentor-resident pairs working in the 6 target school sites. Krista will also incorporate the Oakland Director of Mentoring into the Trellis Regional Leads group, consisting of regional mentoring leads from North County, San Francisco, San Mateo, and for induction and equity across Trellis, and will formally supervise and support the position. OUSD Trellis Mentor Fellows, as described above, will be critical in shepherding the Residents into the OUSD teaching community by hosting teacher candidates and providing ongoing mentoring to in-service teachers. These teachers are empowered to drive their own learning - both in pushing their teaching and mentoring practice.

#### Shared Program Governance

OUSD will ensure the convening of a residency advisory group, represented by IHE partners, labor union members, and Trellis Education to ensure the efficacy of the Oakland Trellis Teacher Scholar Residency. The LEA and IHE project managers are already meeting with Trellis at least three times each year, including once in summer to co-create goals and outcome measures for each school year and mid-year to assess effectiveness of the residents (Oakland Trellis Teacher Scholars) and mentors. Trellis takes responsibility for tracking progress toward these goals by gathering and summarizing data related to the articulated outcome measures. This governance will continue and now include monitoring the goals and reflecting on progress specific to this grant.

#### 5. Data Collection and Evaluation Reporting

Our proposed processes for collecting, analyzing, reporting, and using data regarding the outcomes of the current and expanded Oakland Trellis Teacher Scholar Program align to three, longer-term objectives:

- By 2023, we will support a community of at least 35 STEM teachers in Oakland who can demonstrate increased effectiveness enacting core STEM teaching practice and who are more likely to remain in teaching over time than other teachers.
- 2. By 2023, we will support a community of at least 21 STEM teacher mentors in Oakland who can demonstrate increased effectiveness facilitating the growth of early-career STEM teachers and who are leaders in STEM teacher mentoring in Oakland.
- 3. By 2023, we will codify the "DNA" of the implementation of sustainable, high-quality, and high-retention pathways into STEM teaching in Oakland that begin with a full-year clinical placement and along which new, secondary STEM teachers progress, and thrive in the teaching profession.

In the first grant-funded year, we will engage in data collection and evaluation reporting activities that support our progress toward these long-term objectives. Our foci with respect to

Objective 1 are teacher growth, effectiveness, and retention. Our foci with respect to Objective 2 are mentor growth, effectiveness, and leadership. Our foci with respect to Objective 3 are program sustainability, program quality, and teacher retention. Table 7 outlines program activities, data collection, and evaluation efforts aligned to each objective for 2019-20.

Table 7. Overview of 2019-20 Program Activities, Data Collection and Evaluation Aligned with

the Long-Term Objectives of the Oakland Trellis Teacher Scholar Program

Obj.	2019-20 Prog. Activities	2019-20 Data Coli.	2019-20 Evaluation
1	Provide mentoring, financial, and structural support to 6 new pre-service Oakland Trellis Teacher Scholars (OTTSs) and to at least 5 existing in-service OTTS  Gather, organize and analyze data to support ongoing inquiry cycles about how OTTSs are developing expertise enacting core STEM teaching practices, meeting teaching performance standards for the State of California, and about how likely they are to remain in the profession  Engage Trellis, university, and district program managers in ongoing analyses of data to adapt mentoring, financial, and structural supports for OTTSs	Bi-weekly, monthly, multi-month, mid-year and annual reports showing change in practice reflected by evidence checklist data for each OTTS and for the community of teachers as a whole  8+ videos per OTTS depicting enactment of core STEM teaching practices  Mid-year and end-of-year survey data about type(s) of support provided/received, perceptions of impact of support, and for OTTSs, likelihood they will remain in the profession	Teacher Growth: 100% of OTTSs will have met or exceeded relevant performance standards for the State of California:  • Year 0 (pre-service year) = cleared their single-subject teaching credential  • Year 1 (1st year teaching) = authorized to continue working toward clearing their single-subject teaching credentials  • Year 2 = earned a probationary single-subject teaching credential  Teacher Growth + Effectiveness: At least 90% of OTTSs will have reached or passed growth milestones for effective core STEM teaching practice enactment as evident in evidence checklist data and videos of classroom teaching  Teacher Growth + Retention: At least 90% of OTTSs will agree or strongly agree that mentoring, financial, and structural supports from their participation in the Oakland Trellis Teacher Scholar Program are significantly impacting their growth, effectiveness, and likelihood to remain in the profession
2	Provide differentiated professional learning opportunities and support - in whole group, regional, school specific, and virtual forms - to 3 new and 4 existing OTMFs	4+ self-assessments on the Trajectory of STEM Teacher Mentoring Practice  4+ videes per OTMF depicting enactment of core STEM teacher	Mentor Growth + Effectiveness: 100% of OTMFs actively mentoring an OTTS will have demonstrated improvement in their effectiveness enacting change in their mentees' teaching practice as reflected by (a) evidence of their development along the Trajectory of STEM Teacher Mentoring

	Gather, organize and analyze data about how OTMFs are improving their mentoring practice with respect to facilitating OTTSs' growth, effectiveness, and retention  Engage Trellis, university, and district program managers in ongoing analyses of data to adapt financial and structural supports for OTMFs	mentoring practice  30+ Interaction Logs completed weekly by OTMFs reporting ongoing foci, form, and frequency of mentoring work and weekly focal core STEM teacher mentoring practice	from self-assessments and videos of mentoring and (b) the growth, effectiveness, and retention of their Teacher Scholar mentees (described above)  Mentor Leadership: OTMFs design and facilitate regional Collaborative Learning Events at the 5 target school sites and co-teach weekly, site-based clinical experiences for pre-service OTTSs in the UC Berkeley and CSU East Bay teacher preparation programs
3	Prioritize development of STEM teacher pathways at 5 target school sites, including placing all new OTMFs at these sites  Improve and expand recruitment efforts for new OTTSs and support for existing OTTSs to find and secure jobs in the consortium  CSU East Bay pilots and UC Berkeley continues to conduct site-based methods coursework in collaboration with OTMFs at 5 target school sites  Program managers draft key components ("best practices") of implementing a three-year arc of a long-term, STEM-specific teacher preparation and development program in the Oakland, including factors promoting or hindering implementation and lessons learned for improving the work	In addition to survey data described above—  Mid-year data collection of:  Projected # of OTTSs expected to apply to the UC Berkeley and CSU East Bay program for 2020-21  Demographic data of existing OTTSs  End-of-year data collection of:  # of OTTSs passing EdTPA, earning a preliminary teaching credential, and securing jobs in the 5 target schools or elsewhere in the LEA consortium  # of new OTTSs applying to enter the program in 2020-21  Demographic data of new OTTSs	Residency Quality + Sustainability:  At least 25% increase in # of applicants to the OTTS program from 2018-19 to 2019-20  Draft key components of implementing a three-year arc of a long-term, STEM-specific teacher preparation and development program in the Oakland include decision rules related to recruitment, placement, site-based communities of practice, and fiscal management  Residency Sustainability:  OUSD is able to assume at least 25% of the total financial responsibility for supporting the Oakland Trellis Teacher Scholar Program in 2020-21  At least 50% of advancing OTTSs are guaranteed a release period and full pay as part of their full-time contract with OUSD or East Bay  Residency Quality + Teacher Retention:  Members of the Oakland Trellis Teacher Scholar community (i.e. numbers of OTTSs and OTMFs) increase at all 5 target sites  Increase in how members of the OTTS community racially reflect East Bay students  By spring 2020, 100% of advancing OTTSs secure teaching positions in OUSD or in the East Bay, and at least 50% of these are in the 5 target school sites

## 6. Budgets and Budget Narratives for the First Program Year, including Matching Funds

75% of the \$20,000 budget will go directly to teachers, with 60% going to the Teacher Residents (in the form of a tuition reimbursement of \$4k and a stipend of \$8k) and 15% going to Mentor teachers (\$3k stipend from the grant plus \$2k matched from Trellis). The remaining amounts include training for the Mentor Teachers (15%) which the majority is being spent on a part-time regional director of mentoring who will also come from the Oakland community; four release days for Mentor Teachers (4%); and a small amount to pay for the Teacher Resident's TPA fee (1%). The budget also reflects the suggested amount for program administration (5%).

Tuition, fees and books is estimated to be \$10,000 for CSU East Bay Teacher Candidates and \$30,000 for UCB's BE3 Teacher Candidates. \$4,000 to be applied towards tuition with the Teacher Candidate matching the remaining amount. Estimating 4 Residents from CSU East Bay and 8 Residents from BE3 = \$270k total for tuition, fees and books. The \$8k stipend per Resident could be applied toward tuition, books and fees or room and board.

Budget Overview Form, Program Year 2019-20

Program Component	# of Residents	Grant Funds Amount	LEA Matching Funds Amount	IHE and Trellis Matching Funds Amount	Total
Master/Mentor Teacher Professional Development / Training	12	\$36,000		\$8,000	\$44,000
Master/Mentor Teacher Stipend	12	\$36,000	\$0	\$24,000	\$60,000
Master/Mentor Teacher Release Time	12	\$8,400	\$0	\$0	\$8,400
Teacher Preparation Costs (Tuition, Fees, Books, etc.)	12	\$48,000	\$0 \$0		\$270,000*
Salary/Stipend for Residents	12	\$96,000	\$0	\$0	\$96,000
Faculty Stipends	12	\$0	\$0	\$50,748	\$50,748
Faculty Release Time	12	\$0	\$0	\$0	\$0
TPA fee for Residents	12	\$3,600	\$0	\$0	\$3,600
Induction Support for Residents who Complete the Program	NA for 2019-20	\$0	\$0	\$0	\$0
Program Administration	12	\$12,000	\$48,000	\$13,275	\$73,275
Other (describe below)					
Staff time (OUSD)	12		\$300,000		\$300,000
Staff time (Trellis)	12			\$50,000	\$50,000
GRAND TOTALS	12	\$240,000	\$348,000	\$146,023	\$734,023 (+234k covered by residents)

Budget Form and Narrative for Matching Funds Teacher Residency Expansion Grant Program Year 2019-20

Budget Category	Actual Funds Total In-Kind		Total Costs		
Master/Mentor Teacher Professional Development/ Training	\$36,000	\$8,000	\$44,000		
Master/Mentor Teacher Stipend	\$36,000	\$0	\$60,000		
Master/Mentor Teacher Release Time	\$8,400	\$0	\$8,400		
Teacher Preparation Costs (Tuition, Fees, Books, etc.)	\$48,000	*	\$270,000*		
Salary/Stipend for Residents	\$96,000	\$0	\$96,000		
Faculty Stipends	\$0	\$50,748	\$50,748		
Faculty Release Time	\$0	\$0	\$0		
TPA fee for Residents	\$3,600	\$0	\$3,600		
Induction Support for Residents who Complete the Program	\$0	\$0	\$0		
Program Administration (five percent (5%) cap on grant funds used for this purpose; no limit on matching funds used for this purpose)	\$12,000	\$61,275	\$73,275		
Other (describe below)					
Staff time (OUSD)		\$300,000	\$300,000		
Staff time (Trellis)		\$50,000	\$50,000		
GRAND TOTALS	\$240,000	\$494,023	\$734,023 (+222k covered by residents)		

## 7. Statutory Priority Points

Statutory Priority Criterion	YES	If YES, Provide the Name, Location and CD/CDS Code of the Qualifying School			
1. Applicant LEA or consortium has a school where fifty percent (50%) or more of the enrolled pupils are eligible for free and reduced price meals	Yes	Edna Brewer MS Roosevelt MS United for Success Academy MS Fremont HS Oakland HS Skyline HS			
2. Applicant LEA or consortium has a school where at least five percent (5%) of the teachers are misassigned, as determined by the commission, or working on a short-term staffing permit, a provisional intern permit, or a waiver	Yes	Edna Brewer MS Roosevelt MS United for Success Academy MS Fremont HS Oakland HS Oakland Tech HS Skyline HS			
B. Applicant LEA or consortium has a school that is located in either a rural location or a densely populated region  The second region are selected in either a region are selected from the selected region are selected from the selected region are selected from the selected region are selected region.		Roosevelt MS United for Success Academy MS Fremont HS Oakland HS Oakland Tech HS			
4. Applicant LEA or consortium has a school with a cumulative voluntary teacher attrition rate that exceeded twenty percent (20%) over the three preceding school years	Yes	Edna Brewer MS Roosevelt MS United for Success Academy MS Fremont HS Oakland HS Skyline HS			

#### References

Grimmett, P. and Ratzlaff, H.C. (1986). Expectations for the cooperating teacher role. *Journal of Teacher Education*, 37, 41-50.

Achinstein, B., & Athanases, S. Z. (Eds.). (2006). Mentors in the making: Developing new leaders for new teachers. Teachers College Press.

Ambrosetti, A., Knight, B. A., & Dekkers, J. (2014). Maximizing the Potential of Mentoring: A Framework for Pre-service Teacher Education. *Mentoring & Tutoring: Partnership in Learning*, 22(3), 224-239.

Amsterdam, R., Franklin, M., Herriot-Hatfield, J., Leathers, K., Lukanuski, H., Rudnick, J., & Torney, R. (2016). Improving new teacher supports in Oakland: Recommendations from current teachers. A report of the GoPublicSchools GO Teacher Policy Fellowship.

Ball, D. L., & Cohen, D. K. (1999). Developing practice, developing practitioners: Toward a practice-based theory of professional education. *Teaching as the learning profession: Handbook of policy and practice*, 1, 3-22.

Loewenberg Ball, D., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. *Journal of teacher education*, 60(5), 497-511.

Banilower, E. R., Smith, P. S., Weiss, I. R., Malzahn, K. A., Campbell, K. M., & Weis, A. M. (2013). Report of the 2012 National Survey of Science and Mathematics Education. *Horizon Research, Inc.* 

Borko, H. & Putnam, R. T. (1996). Learning to teach.

Borko, H., Frykholm, J., Pittman, M., Eiteljorg, E., Nelson, M., Jacobs, J., Koellner-Clark, K., & Schneider, C. (2005). Preparing teachers to foster algebraic thinking. *ZDM*, 37(1), 43-52.

California Department of Education (2012). Greatness by design: Supporting outstanding teaching to sustain a golden state. A report of the California State Superintendent of Public Instruction Tom Torlakson's Taskforce on Educator Excellence.

Clarke, A., Collins, J., Triggs, V., Nielsen, W., Augustine, A., Coulter, D., ... & Weil, F. (2012). The Mentoring Profile Inventory: an online professional development resource for cooperating teachers. *Teaching Education*, 23(2), 167-194.

CTC (2016). Educator Preparation Program Standards. California Commission on Teacher Credentialing.

Darling-Hammond, L. (2008). Teacher learning that supports student learning. *Teaching for intelligence*, 2(1), 91-100.

Darling-Hammond, L., & Berry, B. (2006). Highly qualified teachers for all. *Educational Leadership*, 64(3), 14.

DuFour, R., & Eaker, R. (Eds.). (2009). On common ground: The power of professional learning communities. Solution Tree Press.

DuFour, R. (2004). What is a" professional learning community"?. Educational leadership, 61(8), 6-11.

Freedberg, L. (2014). Preparing Effective Teachers. A report of EdSource.

Evertson, C. M., & Smithey, M. W. (2000). Mentoring effects on proteges' classroom practice: An experimental field study. *The Journal of Educational Research*, 93(5), 294-304.

Fantilli, R. D., & McDougall, D. E. (2009). A study of novice teachers: Challenges and supports in the first years. *Teaching and teacher education*, 25(6), 814-825.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *The Teachers College Record*, 103(6), 1013-1055.

Ganser, T. (2002). Building the capacity of school districts to design, implement, and evaluate effective new teacher mentor programs: Action points for colleges and universities. *Mentoring and Tutoring*, 10(1), 47-55.

Giebelhaus, C. R., & Bowman, C. L. (2002). Teaching mentors: Is it worth the effort?. The Journal of Educational Research, 95(4), 246-254.

Goldring, R., Taie, S., Riddles, M., & Owens, C. (2014). Teacher attrition and mobility: Results from the 2012-13 teacher follow-up survey. *Institute of Education Sciences (IES)*.

Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education.

Grossman, P., Compton, C., Igra, D., Ronfeldt, M., Shahan, E., & Williamson, P. (2009). Teaching practice: A cross-professional perspective. *Teachers College Record*, 111(9), 2055-2100.

Hall, K. M., Draper, R. J., Smith, L. K., & Bullough Jr, R. V. (2008). More than a place to teach: Exploring the perceptions of the roles and responsibilities of mentor teachers. *Mentoring & Tutoring: Partnership in Learning*, 16(3), 328-345.

Hirsh, S. A., & Hord, S. M. (2008). Role of professional learning in advancing quality teaching and student learning. MM Kennedy, 21st century education: A reference guide, 337-351.

Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and teacher education*, 25(1), 207-216.

Hudson, P. (2013). Mentoring as professional development: 'growth for both' mentor and mentee. *Professional development in education*, 39(5), 771-783.

Hudson, P., Hudson, S., Gray, B., & Bloxham, R. (2013). Learning about being effective mentors: professional learning communities and mentoring. *Procedia-Social and Behavioral Sciences*, 93, 1291-1300.

Ingersoll, R., & Kralik, J. (2004). The impact of mentoring on teacher retention: What the research says. Denver, CO: Education Commission of the States.

Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers a critical review of the research. *Review of educational research*, 81(2), 201-233.

Jonson, K. F. (Ed.) (2008). Being an effective mentor: How to help beginning teachers succeed. Corwin Press.

Kelly, S. (2004). An event history analysis of teacher attrition: Salary, teacher tracking, and socially disadvantaged schools. *The Journal of Experimental Education*, 72(3), 195-220.

Kloser, M. (2014). Identifying a core set of science teaching practices: A delphi expert panel approach. *Journal of Research in Science Teaching*, 51(9), 1185-1217.

Koerner, M. E. (1992). The cooperating teacher: An ambivalent participant in student teaching. *Journal of teacher education*, 43(1), 46-56.

Lampert, M., Franke, M. L., Kazemi, E., Ghousseini, H., Turrou, A. C., Beasley, H., ... & Crowe, K. (2013). Keeping it complex using rehearsals to support novice teacher learning of ambitious teaching. *Journal of Teacher Education*, 64(3), 226-243.

Markow, D., Macia, L., & Lee, H. (2013). The MetLife survey of the American teacher: Challenges for school leadership. New York, NY: Metropolitan Life Insurance Company.

McDonald, M., Kazemi, E., & Kavanagh, S. S. (2013). Core Practices and Pedagogies of Teacher Education A Call for a Common Language and Collective Activity. *Journal of Teacher Education*, 64(5), 378-386.

Moir, E. (2008). Quality induction: Mentoring and support. Building a quality teaching force: Lessons learned from alternative routes, Upper Saddle River, NJ: Pearson/Merrill Prentice-Hall.

Moir, E. (2009). Accelerating Teacher Effectiveness: Lessons Learned from Two Decades of New Teacher Induction: The Best Induction Programs Blend Support for Novice Teachers with Expertise from Veteran Teachers, Creating Collegial Groups That Benefit All Teachers and All Students. *Phi Delta Kappan*, 91(2), 14.

National Center for Analysis of Longitudinal Data in Education Research. (2010) The Impact of Teacher Experience: Examining the Evidence and Policy Implications. (Brief 11). Retrieved from http://www.urban.org/sites/default/files/alfresco/publication-pdfs/1001455-The-Impact-of-Teacher-Experience.PDF National Center for Education Statistics (2017).

National Center for Education Statistics (2016). Characteristics of Public Elementary and Secondary Schools in the United States: Results From the 2015–16 National Teacher and Principal Survey.

New Teacher Center (2009). California Continuum of Mentoring Practice.

Oh, D. M., Ankers, A. M., Llamas, J. M., & Tomyoy, C. (2005). Impact of pre-service student teaching experience on urban school teachers. *Journal of Instructional Psychology*, 32(1), 82.

Peske, H. G., & Haycock, K. (2006). Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality: A Report and Recommendations by the Education Trust. *Education Trust*.

Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? Teaching and Teacher Education, 28(8), 1091-1106.

Strong, M. (2006). Does new teacher support affect student achievement. Research Brief, 6(1), 1-4.

Strong, M. (2009). Effective Teacher Induction and Mentoring: Assessing the Evidence. Teachers College Press. 1234 Amsterdam Avenue, New York, NY 10027.

Strong, M., Villar, A., & Fletcher, S. (2008). An investigation of the effects of variations in mentor-based induction on the performance of students in California. *The Teachers College Record*, 110(10), 2271-2289.

Vygotsky, L. (1978). Interaction between learning and development. Readings on the development of children, 23(3), 34-41.

Walkington, J. (2005). Becoming a teacher: Encouraging development of teacher identity through reflective practice. Asia-Pacific Journal of Teacher Education, 33, 53–64. Wang, J., & Odell, S. J. (2002). Mentored learning to teach according to standards-based reform: A critical review. Review of Educational Research, 72, 481–546.

Zeichner, K. (2012). The turn once again toward practice-based teacher education. *Journal of Teacher Education*, 63(5), 376-382.





November 9, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

Please accept this letter of commitment from Skyline High School to host a cohort of STEM teacher residents from U.C. Berkeley's BE3 credential program and California State University, East Bay. We understand that those residents will continue to be supported by Trellis Education and a mentor community within Oakland Unified School District.

We are excited to expand the work that is already happening in Oakland Unified and welcome the opportunity to transform our math and science departments. We believe this residency will improve the retention and effectiveness of our math and science teachers in service of ensuring our students - and specifically our Students of Color, low-income students, immigrant students receive the critical skills and knowledge to be successful in STEM in high school and beyond.

Sincerely,

Nicole A. Pierce-Davis, M.Ed.

Co-Director

Bianca D'Allesandro, Ed.D.

Co-Director





## **Edna Brewer Middle School**

3748 13th Ave. Oakland, CA 94610 (510) 531.6600 www.ednabrewer.net

November 9, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

Please accept this letter of commitment from Edna Brewer Middle School to host a cohort of STEM teacher residents from U.C. Berkeley's BE3 credential program and California State University, East Bay. We understand that those residents will continue to be supported by Trellis Education and a mentor community within Oakland Unified School District.

We are excited to expand the work that is already happening in our school and welcome the opportunity to transform our math and science departments. We believe this residency will improve the retention and effectiveness of our math and science teachers in service of ensuring our students - and specifically our Students of Color, low-income students, immigrant students - receive the critical skills and knowledge to be successful in STEM in high school and beyond.

Sincerely,

Aubrey Layne

Principal



Site: (510) 535-3880 - Fax: (510) 535-7139 Website: http://www.ousd.org/ufsa

November 9, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

Please accept this letter of commitment from United for Success Academy to host a cohort of STEM teacher residents from U.C. Berkeley's BE3 credential program and California State University, East Bay. We understand that those residents will continue to be supported by Trellis Education and a mentor community within Oakland Unified School District.

We are excited to expand the work that is already happening in Oakland Unified and welcome the opportunity to transform our math and science departments. We believe this residency will improve the retention and effectiveness of our math and science teachers in service of ensuring our students - and specifically our Students of Color, low-income students, immigrant students - receive the critical skills and knowledge to be successful in STEM in high school and beyond.

Sincerely,

Marcos Garcia



November 9, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

Please accept this letter of commitment from Roosevelt Middle School to host a cohort of STEM teacher residents from U.C. Berkeley's BE3 credential program and California State University, East Bay. We understand that those residents will continue to be supported by Trellis Education and a mentor community within Oakland Unified School District.

We are excited to expand the work that is already happening in Oakland Unified and welcome the opportunity to transform our math and science departments. We believe this residency will improve the retention and effectiveness of our math and science teachers in service of ensuring our students - and specifically our Students of Color, low-income students, immigrant students - receive the critical skills and knowledge to be successful in STEM in high school and beyond.

Sincerely,

Cliff Hong Principal

Roosevelt Middle School

OAKLAND TECHNICAL HIGH SCHOOL 4351 Broadway Oakland, California 94611 (510) 450-5400 + FAX (510) 540-5409

November 9, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

Please accept this letter of commitment from Oakland Technical High School to host a cohort of STEM teacher residents from U.C. Berkeley's BE3 credential program and California State University, East Bay. We understand that those residents will continue to be supported by Trellis Education and a mentor community within Oakland Unified School District.

We are excited to expand the work that is already happening in our school and welcome the opportunity to transform our math and science departments. We believe this residency will improve the retention and effectiveness of our math and science teachers in service of ensuring our students - and specifically our Students of Color, low-income students, immigrant students - receive the critical skills and knowledge to be successful in STEM in high school and beyond.

C

In Unity,

Staci Ross-Morrison



College of Education and Allied Studies
Department of Teacher Education
25800 Carbs Bee Boulevard, Hayward, CA 94542
510.885.3027 (phone) • 510.885.4632 (fix) • www.csucasabay.edu/reach

November 5, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

We, the CSU East Bay Graduate School of Education, in partnership with the West Contra Costa Unified School District, Berkeley Unified School District, Oakland Unified School District, U.C. Berkeley's BE3 credential program, and *Trellis Education*, are working to implement high quality STEM residency pathways to increase the effectiveness and retention of beginning STEM teachers in high-need public middle and high schools in the East Bay.

We recognize that the existing work among UC Berkeley, East Bay School Districts (OUSD, WCCUSD, BUSD), and Trellis Education is a model teacher residency pathway and we are eager to forge a partnership with this existing consortium.

We are committed to working closely with project staff over the four years of the grant-funded work to develop structural and financial support systems that make the most sense for our single-subject credential programs in math and science and that are scalable and sustainable in the long-term. We understand our role in this project is to work with Trellis Education to identify and select CSU East Bay credential students who will have the opportunity to apply to be Trellis Teacher Scholars and commit to teaching in WCCUSD, BUSD, or OUSD for five years. We will ensure all teacher candidates accepted as Trellis Teacher Scholars are placed in the schools identified in this proposal. Furthermore, we will work with Trellis Education to pilot site-based methods coursework in partnership with Trellis Mentor Fellows at these same sites, following the work U.C. Berkeley has done with Trellis to bring methods coursework into schools and be more practice-based.

Respectfully,

Dr. Eric Engdahl, Ph.D., Chair, Teacher Education

Dr. Julie McNamara, Ph.D., Math Education

Dr. Michele A. Korb, Ph.D., Science Education



Thomas M. Philip
Associate Professor
Director of Teacher Education
Graduate School of Education

2121 Berkeley Way, #4206 Berkeley, CA 94720 tmp@berkeley.edu



November 6, 2018

Dear Teacher Residency Grant Proposal Selection Committee:

We, the Berkeley Educators for Equity and Excellence (BE3) program at the UC Berkeley Graduate School of Education, in partnership with the Oakland Unified School District, CSU East Bay, and *Trellis Education*, are working to implement high quality STEM residency pathways to increase the effectiveness and retention of beginning STEM teachers in high-need public middle and high schools in the East Bay.

We believe the existing work among UC Berkeley, East Bay School Districts (OUSD, WCCUSD, BUSD), and Trellis Education is a model teacher residency pathway and we are eager to expand the work at specific target school sites with this existing consortium and a new partner in CSU East Bay. We understand that this particular proposal will target coordinated expansion of the work in OUSD, but that the existing work will continue to cross and be coordinated among the West Contra Costa and Berkeley Unified school districts in the East Bay, and four other districts in the San Francisco Bay Area.

We are committed to working closely with project staff over the next year of the grant-funded work and indefinitely as collaborators in a long-term partnership to develop structural and financial support systems that make the most sense for our single-subject credential programs in math and science and that are scalable and sustainable in the long-term. We understand our role in this project is to work with Trellis Education to identify and select BE3 credential students who will have the opportunity to apply to be Trellis Teacher Scholars and commit to teaching in the East Bay for five years. We will ensure all BE3 teacher candidates accepted as 2019-25 Oakland Trellis Teacher Scholars are placed in the schools identified in this proposal with Trellis Mentor Fellows as experienced mentor teachers for the 2019-20 school year. Furthermore, we will continue to offer site-based methods coursework in partnership with Trellis Mentor Fellows at these same sites.

Sincerely,

Thomas M. Philip, Ph.D.

Associate Professor and Director of Teacher Education



## **Commission on Teacher Credentialing**

1900 Capitol Avenue Sacramento, CA 95811 www.ctc.ca.gov

December 17, 2018

Sarah Glasband Oakland Unified School District 1000 Broadway, Suite 295 Oakland, CA 94607

#### **Notification of Intent to Fund**

Teacher Residency Expansion Grant No. TRE 4

Year 1 Grant Award Amount: \$ 240,000

#### Dear Sarah Glasband:

The Commission on Teacher Credentialing (Commission) is pleased to notify you that your application for a one-time grant award pursuant to the *Request for Proposals Teacher Residency Expansion Grants Program* has been approved for funding. You will be expected to implement this grant in accordance with the narrative, related activities, and timeframe described in your grant application.

The project period for the funds allocated for this grant is up to five years, from 2018-19 through June 30, 2018, with annual reporting requirements. Funding is provided for an initial program year of 2019-2020, and is potentially renewable contingent upon availability of state funding and adequate yearly progress in program implementation. The grant funds are intended to cover expenses incurred for this program as described in your grant application and are non-renewable. Please note that this funding cannot be carried over for use beyond the 2023 school year. The grant funds must be administered in accordance with all provisions of state and local laws, regulations, and policies relating to the administration, use and accounting for public school funds, including, but not limited to, the Education Code of the State of California. The grant funds must be expended in accordance with the proposed budget provided in your grant application. You will be responsible for accounting for both the grant funds expenditures and the matching funds expenditures as indicated in the submitted budgets.

If you accept this grant award and agree to abide by the grant award conditions as indicated in the attached Grant Award Terms and Conditions document, please review the Certification of Acceptance (GAC) form and return three (3) copies with original signatures no later than **January 18, 2019** to the address provided on the attached GAC form. In addition, please also fill out and submit to <a href="mailto:contracts@ctc.ca.gov">contracts@ctc.ca.gov</a> the attached W-9 form or the STD 204 form, as applicable to your institution type. Please note that the Commission cannot release funds to your LEA without having the appropriate W-9 or STD 204 form on file. If you have any questions, please email

#### contracts@ctc.ca.gov.

In order to be eligible for potential renewal of grant funding after 2019-2020, the grantee will be expected to make appropriate yearly progress in implementing the residency model, resulting in an increase of teacher resident candidates and according to the operational plan provided in the funded application. Applicants should note that as a condition of receipt of this grant, the LEA grantee must agree to report outcome data as specified in the RFP

Funds will be distributed in two payments. The first payment will be 90 percent (90%) of the annual budget amount, and 10 percent (10%) of the annual budget will be held back, pending receipt of the required annual data report.

The report of outcomes of and lessons learned in implementing your Teacher Residency Expansion Grant will be due to the Commission as soon as you have completed all activities relating to this grant, or by **June 30, 2023,** whichever comes first. Further information on the outcomes reporting process will be provided at a later date.

We look forward to working with you on this important effort to promote recruit and retain teachers. Your efforts will help provide additional qualified teachers for California public schools to address the teacher shortage.

Yours truly,

Mary Vixie Sandy Executive Director



PROGRAM INFORMATION									
Program Oakland Unified School District						Grant Number TRE 4			
Program Director Sarah Glasband				Ph	Phone 510-517-7414				
Program Address		20 000000000000000000000000000000000000		Fa	× 510-	379-02	228		
1000 Broadway, Suite 295 Oakland, CA 94607				Em	Email sarah.glasband@ousd.org				
Substitution of the product of the substitution of the substitutio				Cou	County Alameda				
PROGRAM DIRECTOR SIGNATURE					DATE 1/15/19				
	AWARD INFORMATION								
TERM OF GRANT AGREEMENT	то	TAL GRANT	Pe	yment 1 (90%	6)	Payment 2 (10%)			
12/17/18 - 06/30/23	2	40,000		216,00	000 24			24,000	
PROGRAM CATEGORY (CODE & TITLE) 5397 - Educator Preparation			,	0.0000000000			REVENUE ACCOUNT 4524000		
пем 63602010-0001	AUTHORIZING STATUTE Education Code §44415			FISCAL YEAR 2018-2019					
COMMISSION PROGRAM CONSULTA			NUMBER		EMAIL ADDRESS TeacherResGrants@ctc.ca.gov				
Cara Mendoza, Ed.D.  I certify upon my own personal knowled expenditure stated within this section.	ge that the b		current b	udget year					
Commission on Teacher Credentialing Signature							DATE		
	FISC	AL AGENT IN	IFORN	ATION			er Aspen		
Fiscal Agent Marcus Battle			Title	hief B	usines	s Offi	cer		
Organization Name/Mailing Add	ress			Email	nail marcus.battle@ousd.org				
Oakland Unified School D	istrict, c/	o Marcus Batt	le	Phone	hone510-879-4248				
1000 Broadway, Suite 680									
Oakland, CA 94607									
daily operations Ofolio Poyon Chief Elegandial Officer			OF .	hone 510-879-1026					
daily operations Ofelia Roxas, Chief Financial Officer Email ofelia.roxas@ousd.org									
Signature below indicates acceptance of the grant award and an agreement to abide by the grant award conditions as described in the Grant Award Terms and Conditions Document. Throughout the duration of this grant term, questions can be directed to TeacherResGrants@ctc.ca.gov.									
FISCAL AGENT SIGNATURE	-170			Date —	lanu	ary	16	, 2019	

Return 3 completed forms with 3 original signatures to:

MAIL TO:

Funded Programs, Fiscal and Business Services

Commission on Teacher Credentialing

1900 Capitol Avenue

Sacramento, CA 95811-4213

#### **Commission on Teacher Credentialing**

# Teacher Residency Expansion Grant Program Special Terms and Conditions

December 2018

- 1. The Grantee must carry out its plan as indicated in the proposal and budget and as approved by the Commission (CTC). CTC staff will monitor evidence of progress in accordance with the funded proposal.
- 2. Project funds are for the amount indicated under the "Award Information" listed on the Grant Award Agreement Certification of Acceptance Form (GAC). All expenditures must be related to the activities in the approved proposal and budget. Any variation in budget categories that exceeds ten percent (10%) of what was submitted in the proposed budget requires prior approval from CTC.
- 3. All approved funds for this grant must be legally obligated or expended by June 30, 2023. All funds not legally obligated or expended by June 30, 2023 must be returned to the CTC at the address below no later than September 30, 2023.
- 4. The Grantee agrees to submit reports and other data as required by CTC. Further instructions regarding data collection and reporting will be provided by the CTC.
- 5. Expenditure reports will be used to account for and monitor funds expended within the program. A final expenditure report must be submitted as soon as all grant funds have been expended, but is due no later than September 30, 2023 to:

Commission on Teacher Credentialing

Fiscal and Business Services

Attn: Contracts

1900 Capitol Avenue

Sacramento, CA 95811-4213

- 6. Expenditures shall comply with all applicable provisions of federal, state, and local rules, regulations and policies related to the administration, use, and accounting for public school funds, including but not limited to, the Education Code of the State of California.
- 7. The Grantee shall comply with the Drug-Free Workplace Act of 1990 (Government Code section 8350 et seq.), Government Code sections 12990(a-f) and CCR, Title 2, Section 8103 (nondiscrimination for non-public entities, and Public Contract Code section 10295.3 (domestic partners).
- 8. The Grantee agrees to be subject to examination and audit by the State Auditor General for a period of three years after final payment under this agreement or until audited by the State, whichever occurs first, and all records shall be available for inspection or audit upon reasonable notice by the State Auditor General. The Grantee shall furnish detailed itemization of, and retain all records relating to, direct expenses paid to the Grantee hereunder and which are incurred during the performance of this grant agreement. Such records shall be maintained for a period of three years after final payment of this agreement or until audited by the state, whichever occurs first, and shall be available for inspection or audit upon reasonable notice by the State Auditor General.

9. The Grantee must sign three (3) originals of the Grant Award Agreement and Certification of Acceptance (GAC) and return to the CTC prior to issuance of the first funding allocation. State processing time is about four to six weeks. Send the signed agreement to:

Commission on Teacher Credentialing

Fiscal and Business Services

Attn: Contracts 1900 Capitol Avenue

Sacramento, CA 95811-4213

- 10. Ninety (90) percent of the grant award fiscal allocation total will be sent within three months following receipt of the three (3) signed original GACs returned to the CTC. The second (final) allocation will consist of ten percent (10%) of the grant award fiscal allocation and will be sent following receipt of the grantee's report of program outcomes.
- 11. Should the Grantee choose to terminate its participation in the program, a thirty (30)-day written notice is required. Final program and expenditure reports are due thirty (30) days after the program cessation. The Grantee agrees to return all unexpended funds upon receipt of the final expenditure report.
- 12. The Grantee warrants by execution of this Agreement, that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Grantee for the purpose of securing business. For breach or violation of the warranty, the state shall, in addition to other remedies provided by law, have the right to annul this Agreement without liability, paying only for the value of the work actually performed, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.
- 13. The Grantee certifies that it possesses legal authority to apply for the grant and that the person identified as the official representative of the applicant is authorized to act in connection with the application and to provide such additional information as may be required.
- 14. Budget Contingency Clause:
  - a. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the state shall have no liability to any funds to the Grantee, furnish any other consideration under this agreement, and the grantee shall not be obligated to perform any provisions of this Agreement.
  - b. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State or offer an agreement amendment to the Grantee to reflect the changes.