



NXTGEN TEACHER PREPARATION

Closing the Achievement Gap in
Urban and Rural Colorado

Teacher Quality Partnership

FY 2014

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The NxtGEN Teacher Preparation Project (NxtGEN) is a partnership between the University of Colorado Denver (UCD) School of Education and Human Development (SEHD), College of Liberal Arts & Sciences (CLAS), College of Engineering and Applied Science (CEAS), Denver Public Schools (DPS), 24 high-need rural districts represented by three Boards of Cooperative Educational Services (BOCES), and several community-based and educational agency partners. The aim of NxtGEN is to close Colorado’s achievement gap by creating the “*next generation of teacher education*” that strategically *recruits local diverse talent*, provides highly supported, clinically-intensive *customized pathways* for urban and rural school settings, and supports new teachers through *innovative, differentiated induction*. Specifically, NxtGEN will *recruit, prepare, and retain 340 diverse next generation teachers* for the highest need urban and rural school settings aligned with district partners’ hiring priorities, with a clear focus on improving academic student achievement and diversifying the teacher workforce.

NxtGEN addresses Absolute Priority 1 (AP-1) and Competitive Preference Priorities 1 (CPP-1) and 2 (CPP-2) through carefully coordinated systems of infrastructure, personnel, and NxtGEN curricular approaches delivered through key partnerships. The work is conceptualized and described as a set of six goals with aligned objectives and detailed activities (see Appendix H-1 for full table) designed to ensure high quality sustained programs of training that will lead the way in the field’s next generation of teacher education. The goals are highlighted in Table 1 and will be fully described in the project design beginning on page 10.

Table 1. NxtGEN Goals
<ul style="list-style-type: none">• Goal 1: Create a 4-year undergraduate, urban teacher residency (4Y-UGR) to recruit, support, prepare, and retain 220 diverse teachers for DPS aligned with district hiring priorities AP-1• Goal 2: Create the Teacher Preparation for Rural Education Partnership (T-PREP) to determine needs and deliver customized services and support for 5th year initial licensure, induction, and ongoing professional development of 120 teachers in 24 rural districts within 3 BOCES to meet their teacher workforce development needs AP-1

- **Goal 3:** Align SEHD’s outcome-based assessment and evaluation system with new teacher effectiveness frameworks of district partners to support continuous improvement *AP-1*
- **Goal 4:** Develop a next generation, differentiated approach to teacher induction *AP-1*
- **Goal 5:** Leverage Learning Assistants (LAs) program in partnership with CLAS to improve STEM content preparation for all teacher candidates and to recruit STEM candidates into SEHD secondary STEM preparation program *CPP-1*
- **Goal 6:** Serve as model IHE with state education agencies to implement national and state level reforms including alignment with the college-and career-ready elementary and secondary academic standards within the Common Core *CPP-2*

RESPONSE TO THE COMPETITIVE PREFERENCE PRIORITIES (CPPs)

Although the CPPs are woven into and described in-depth as part of the project design beginning on page 25, they are pulled out and briefly highlighted here.

I. CPP-1: Promoting STEM Education

Goal 5: Leverage Learning Assistants (LAs) program in partnership with the College of Liberal Arts and Sciences (CLAS) to improve STEM content preparation for all teacher candidates and to recruit STEM candidates into SEHD secondary STEM teacher preparation program	
Obj. 5.1	Recruit and support 100 additional STEM Learning Assistants (20 per year) to support the STEM general education content courses taken by all teacher candidates.
Obj. 5.2	Collaborate with LA program to recruit and enroll more STEM majors and successful LAs into clinically-rich CLAS/SEHD Teacher Prep program in secondary STEM Ed

Based on a successful national model (Otero, 2013) and initiated at UCD in 2012, the STEM Learning Assistants (LAs) program was designed to improve university student learning and support pedagogical reform efforts in undergraduate science and math courses as well as give high performing STEM students an opportunity explore STEM teaching as a career choice. LAs are undergraduate students, recruited by STEM faculty based on their demonstrated success in STEM studies, who support large-enrollment general STEM university courses through infusion of student-centered, inquiry-oriented approaches to teaching. LAs learn about these approaches while simultaneously enrolled in a STEM pedagogy course. NxtGEN will recruit 100 additional LAs to serve in STEM general education courses that all teacher candidates are advised to take,

significantly enhancing the content knowledge of our preservice teachers (Otero et al. 2006). NxtGEN will also strategically recruit and enroll successful LA’s and STEM majors into the joint CLAS/SEHD clinically-rich STEM educator preparation program at UCD.

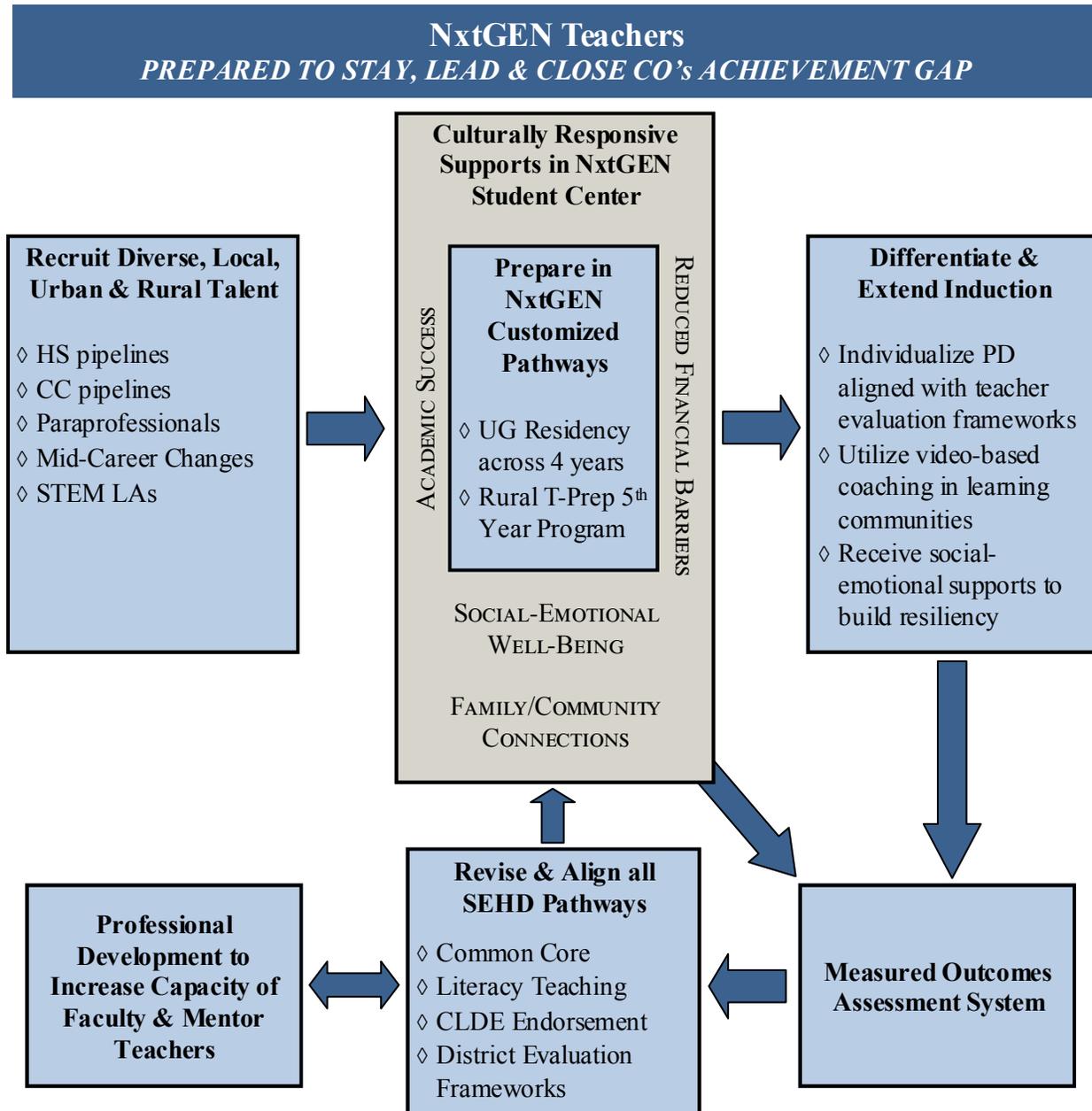
II. CPP-2: Internationally benchmarked, College- and Career-Ready Standards

Goal 6: Serve as model IHE with state education agencies to implement national and state level reforms including alignment with the college- and career-ready elementary and secondary academic standards within the Common Core	
Obj. 6.1	Develop faculty and partner educators’ capacity across all pathways for implementing state and national level reforms
Obj. 6.2	Align teacher education curriculum with college- and career-ready elementary & secondary academic standards within Common Core
Obj. 6.3	Develop faculty capacity to implement curricula that address state and national reforms, especially in working with diverse students and students with disabilities
Obj. 6.4	Create a University Teacher Education Coordinating Council (UTECC) to coordinate and support ongoing continuous improvement in teacher education and ensure strong content preparation
Obj. 6.5	Collaborate with the State-wide ECE Professional Development Committee (of CO’s Race-to-the-Top Initiative) to align statewide systems and advocate for ECE policy.

In spring 2014, the SEHD was identified by the CO Department of Education (CDE) and CO Department of Higher Education (DHE) as a high quality teacher education institution and invited to collaborate as the single IHE to develop and pilot processes for implementing national and state level education reforms and share successful approaches to inform other preparation programs. NxtGEN will build the capacity of SEHD and CLAS faculty and district partners for infusing reforms with primary attention to internationally benchmarked, college- and career-ready elementary and secondary academic standards within the Common Core and alignment of these standards within multiple preparation pathways at SEHD, including the 4Y-UGR and T-PREP. NxtGEN will also address additional reforms including increased preparation for literacy teaching and the Colorado READ Act, the preparation of teachers for cultural, linguistic, and ability diverse students, educator evaluation that encompasses teacher effectiveness frameworks and student growth measures, and ECE statewide system alignment and policy advocacy.

Figure 1 depicts the interconnected relationships among key components in the NxtGEN model.

Figure 1. NxtGEN Model



I. PROJECT SIGNIFICANCE

I. Addressing Colorado’s Widening Achievement Gap and Teacher Diversity Gap

NxtGEN creates a model and infrastructure for the intentional preparation of “next generation” teachers to address the needs of children in Colorado’s highest need schools in urban

communities as well as remote rural areas. We face two significant trends in Colorado— a large and persistent achievement gap between students of color and White middle class students in general, and a surge in low-income, Latino/a students in particular. In Denver Public Schools, the majority of students are of color (79%), with 58% Latino/a, and 36% identified as English Language Learners (CDE, 2013). In our rural partner districts, school-age Latino/a children are the fastest growing demographic (Colorado State Demography Office, 2012). Yet, the achievement gap for Colorado’s Latino/a students continues to widen. Colorado ranks **39th** out of 50 states in closing the composite score difference between White students and Latino/a students, reported to be on average two grade levels behind and in some subjects three grade levels behind (UCD Center for Education Policy Analysis, 2006). Preparing teachers for the specific strengths and needs of urban and rural contexts requires attention to district and community levels, as well as attention to the needs and strengths of the teacher candidates who are being prepared to work there. This is a core principle in the NxtGEN model.

The SEHD faculty is particularly suited to participate in the delivery of customized preparation that keeps language and cultural diversity at the forefront. Almost 50% of our faculty are themselves bilingual in Spanish; our special educators work at the intersection of special education and culturally and linguistically diverse education (CLDE), and our language and literacy faculty work at the intersections of reading, writing, special education and CLDE. Linguistic, cultural, and ability diversity is a prominent through-line in all preparation pathways. ***Need to recruit, and prepare a diverse teaching workforce who will stay in the field.*** Denver Public Schools, like most large urban districts, finds it hard to hire teachers who stay— facing high teacher turnover each year with nearly 21% of the district’s 5000+ teaching positions needing to be filled this year (See Appendix A). Many of those who leave are teachers who no

longer wish to serve in an urban setting or who choose to leave the profession altogether. Rural districts face attrition too, but are even more challenged to recruit teachers given issues related to remoteness, lower pay, and distance from a teacher preparation program. NxtGEN’s rural partners have attrition rates ranging from 17 to over 50%. (See Appendix A).

Table 2 indicates that diversifying the teacher workforce is an effective strategy to this end:

Table 2. Research on Diversifying the Teacher Workforce
<ul style="list-style-type: none"> • There are higher retention rates for teachers of color teaching in schools with high numbers of culturally and linguistically diverse children (Adams, 1996; Horng, 2005; Scafidi et al., 2007) and teachers who are from the communities in which they teach are more likely to stay or seek positions in places like those where they grew up (Boyd et. al., 2005). • Having minority teachers as role models is one explanation for minority students’ increased academic outcomes (Clewel et al., 2005; Haycock, 2001; Klopfenstein, 2005; Pitts, 2007). • Student learning is positively affected when teachers understand and/or share their student’s backgrounds (culture, language, SES) & can interpret & mediate school context in culturally responsive ways (Jones, 2006; Hicks, 2002; Ladson-Billings, 2009; Villegas & Irvine, 2009).

Though the positive benefits of diversifying the teaching force are well known, the field nationwide, and in Colorado, remains primarily White, female, and middle-class (Malhoit, 2005; Suitts, Sabree, & Dunn, 2013). An analysis by the Center for American Progress (Boser, 2014) indicates that **Colorado is ranked among the top 10 states with the largest teacher diversity gap** with 43% students of color and only 12% teachers of color. In DPS, the gap is *overwhelming*: 79% students of color and only 15% teachers of color (CDE, 2013).

Recruiting and retaining diverse teachers has been a major challenge in Colorado and across the U.S. One major recruitment issue is *access*: a disproportionate percentage of individuals within minority and rural communities live in lower socioeconomic circumstances and are often first generation college students (Terenzini et al., 1996; Zalaquett, 1999). Financial challenges prevent many from enrolling and/or graduating from college (Ishitani, 2006; Terenzini et al., 1996), and many experience a lack of fit between the higher education institutional culture and local family/community culture (Cabrera et al., 2005; Kuh & Love, 2000).

Need to prepare teachers for specific district and community contexts. Research demonstrates the need for context-specific preparation where candidates have extensive experience across time in order to learn, “content essential knowledge about a district and its children, including community and neighborhood histories, district curricula, and policies that must inform teaching and learning” (Matsko & Hammerness, 2014, p. 128). Data indicate that teachers prepared in such approaches, (e.g., urban residencies) are far more likely to stay in high-need schools and enter teaching with more knowledge of how to work with economically, culturally, and linguistically diverse students (Matsko & Hammerness, 2014; Urban Teacher Residency United-UTRU, 2014). Few teachers, however, experience such preparation leaving them ill-prepared to teach diverse students (Ray & Bowman, 2003; Ryan et al., 2004) and reformers have called for transforming teacher preparation based on lessons learned from urban teacher residencies (UTRU, 2014; Berry et al., 2008). NxtGEN addresses the call by expanding the 1-year, graduate residency model in two ways: 1) designing it for undergraduates; and 2) threading it through all four years of a BA. In the first three years, candidates serve as teaching assistants 20 hours per week in newly designed paid positions called paraprofessional interns (PPIs) and in the fourth year they are full-time residents co-teaching with a mentor teacher.

In contrast, Colorado’s rural areas present challenging demographic and geographic landscapes. Some rural areas are more homogenous while others are culturally and linguistically diverse. Some districts have very small numbers of children and combined levels of schooling in buildings, while other small towns have more students and more differentiated school structures. Some rural contexts are relatively close to larger towns and cities, while others are much more remote, with access to resources constrained by distance and mountains. Poverty significantly impacts all of our rural partners, reaching as high as 61% (Appendix A). This diversity requires

a differentiated, flexible approach to supporting each rural community's needs. NxtGEN will create T-PREP, a consortium of rural partners in which NxtGEN will co-construct customized solutions that are responsive to each community's needs for preparation and induction.

Need for better support for new teachers. The national turnover rate for teachers in urban and rural contexts has reached a major crisis with 30% of new teachers leaving before three years and 50% before five years, long before they become highly skilled (Ingersoll & Perda, 2010). Often, highly qualified teachers, especially in hard to fill positions, who do make the choice to work in high need schools end up leaving because of lack of resources that would help them adjust, grow, and build relationships within the schools and communities (Rowland & Coble, 2005).

The NxtGEN model provides significant support from the very beginning of the pathway into teaching and all the way through the first two years, post hire. Results show that new teachers who receive no induction are twice as likely to leave after their first year as those who receive strong induction support which includes ongoing mentorship from a teacher in the same field, collaborating regularly with other teachers, and being part of an external network of teachers (Ingersoll & Strong, 2011). Recently, research has also demonstrated that attention to the social and emotional needs of teachers in the highly pressurized, stressful, and often emotionally-exhausting, first years of teaching in high need schools is critical (Jennings & Greenberg, 2009).

II. Building Capacity to Improve & Expand Services to Urban & Rural High Need Schools

NxtGEN is not just a project, but the next step in SEHD's commitment to next generation teacher education that is flexible, differentiated, customized, delivered in partnerships with districts and communities and designed to recruit and prepare diverse teachers for high needs, hard to staff diverse schools and communities. The SEHD has been at the forefront of transformational teacher preparation for the past 20 years: we have one of the longest standing

partnership models of professional development schools where current teacher candidates experience year-long, intensive, clinically-rich internships; general and special educator preparation are merged (Sobel et al., 2007); and faculty engage in continuous renewal and program redesign to meet the needs of an increasing population of cultural, linguistic, and ability diverse students who are impacted by poverty (Sobel et al., 2011). Over the past five years, SEHD and its partners have focused on the design and implementation of multiple high quality pathways into the field for diverse audiences (e.g., early deciders who enroll in a BA, mind-changers with BAs in other disciplines, and career changers coming from other fields in pathways to 5th year licensure). Most recently, SEHD has developed a new pathway for a BA in Teaching, Learning, & Development leading to licensure in ECE, ELEM, and SPED; it is in this pathway that we will situate the 4-Year Undergraduate Residency. In addition, the SEHD has recently created a highly innovative, online 5th year licensure program called ASPIRE, that will be flexibly leveraged to support the T-PREP rural partnership. Lastly, in 2010 SEHD designed and implemented one of CAEP's (Council for Accreditation of Educator Preparation) first approved Transformation Initiatives (with successful accreditation review in 2013) focused on a measured outcomes-based assessment and evaluation system for all of our educator preparation pathways. We will use this system to align and measure the outcomes of the NxtGEN pathways.

III. NxtGEN Focuses on Systems Change for Improvement

NxtGEN operates as a part of a coherent system focused on graduating highly prepared teachers to close Colorado's achievement gap. All systems that touch the NxtGEN project will contribute to its success and in turn will experience systems change for improvement. The NxtGEN Student Support Center, a new infrastructure, will provide culturally responsive

academic, social & emotional support services for students to ensure their success. This structure will be integrated with several relevant SEHD structures listed in Table 3.

Table 3. Systems Leveraged & Improved by NxtGEN

Recruitment

- The Office of Outreach & Recruitment will extend outreach program to develop pipelines for diverse & first generation teacher candidates for NxtGEN
- The Office of Partnerships will create new human capital networks in communities

Preparation

- The Office of Partnerships will integrate NxtGEN into the network of district partnerships across all SEHD pathways
- The Office of Diversity & Inclusion will work to integrate NxtGEN candidates into the wider inclusive SEHD culture and systems
- The PAR²A Center will provide leadership and training resources for the development of the 3-year paraprofessional internships
- The Teacher Education Leadership Team, a SEHD faculty leadership & administrative team will provide oversight & leadership for the NxtGEN pathways and revision of curriculum
- DPS’s Office of Teacher Preparation Pathways will integrate the 4-Year Undergraduate Residency into their portfolio of district-specific preparation programs

Induction

- The EDÜ Center is a new educator development organization within SEHD that offers flexible, differentiated professional development opportunities and will integrate NxtGEN induction model and literacy training online modules into their menu of services

IV. Preparing Diverse Teachers for Shortage Areas

With DPS hiring over 1,000 teachers this year, their needs are immense in all areas. Of highest need are bilingual teachers in all content areas (NxtGEN’s numerous local-talent recruitment pipelines within Denver are well-suited to meet this need), secondary math, and special education particularly for their center programs. In addition they have a high geographic priority to staff schools in their far northeast region. These are all areas we will target with the 4Y-UGR. For our rural partners, we must be flexible as their needs are more diverse shifting from year to year; T-PREP is well situated to flexibly adapt to these needs.

II. QUALITY OF PROJECT DESIGN

I. NxtGEN is Supported by Strong Theory

Grounded in the existing literature described in detail in the significance section, the conceptual rationale used to design NxtGEN is laid out in Table 4. In addition a comprehensive logic model that guides the design and evaluation of NxtGEN is found in Appendix H-6, and Figure 1 (see pg. 4) shows the interconnected relationships among all components in the model.

<i>NxtGEN Approach</i>			<i>Results</i>
<p><i>Recruit & retain diverse urban & rural teachers</i></p> <ul style="list-style-type: none"> • Recruit local talent – people who live and will stay in community • Recruit from diverse pipelines including local high schools, CCs and mid-career changers • Retain with culturally responsive academic, social, & emotional supports • Relieve financial barriers through district-paid paraprofessional internships and paid teacher of record 	<p><i>Prepare teachers in customized pathways</i></p> <ul style="list-style-type: none"> • Provide extensive clinical experiences through 4Y-UGR and 5th yr T-PREP • Customize, context-specific curriculum to address strengths/needs of district and students • Integrate coursework and clinical experience in reciprocal, tightly connected delivery • Increase emphasis on strategies for teaching cultural, linguistic, & ability diverse students 	<p><i>Differentiate induction support</i></p> <ul style="list-style-type: none"> • Individualize PD plans for induction related to teacher effectiveness evaluation • Offer range of self-directed PD options first 2 years of induction through EDU Center • Utilize multi-day video coaching with mentors & colleagues • Support teacher social & emotional health to build persistence & resiliency 	<p><i>Teachers remain in district and become highly skilled teachers & leaders</i></p> <p><i>Strong teaching leads to increased achievement of diverse students</i></p>

II. NxtGEN’s Quality and Intensity Constitute a Coherent, Sustained Program of Training

NxtGEN’s work is conceptualized through six goals, aligned objectives, and detailed activities designed to ensure sufficient quality, intensity, and duration to lead to improvements in the recruitment, preparation, and retention of diverse teachers for urban and rural contexts.

GOAL 1: Create a 4-year undergraduate, urban teacher residency (4Y-UGR) to support, prepare, and retain 220 diverse teachers for DPS aligned with district hiring priorities.	
Obj. 1.1	Develop connected systems & strategies to recruit diverse candidates
Obj. 1.2	Create NxTGEN Student Center to deliver full range of academic, social and emotional support services in order to retain high quality, diverse candidates

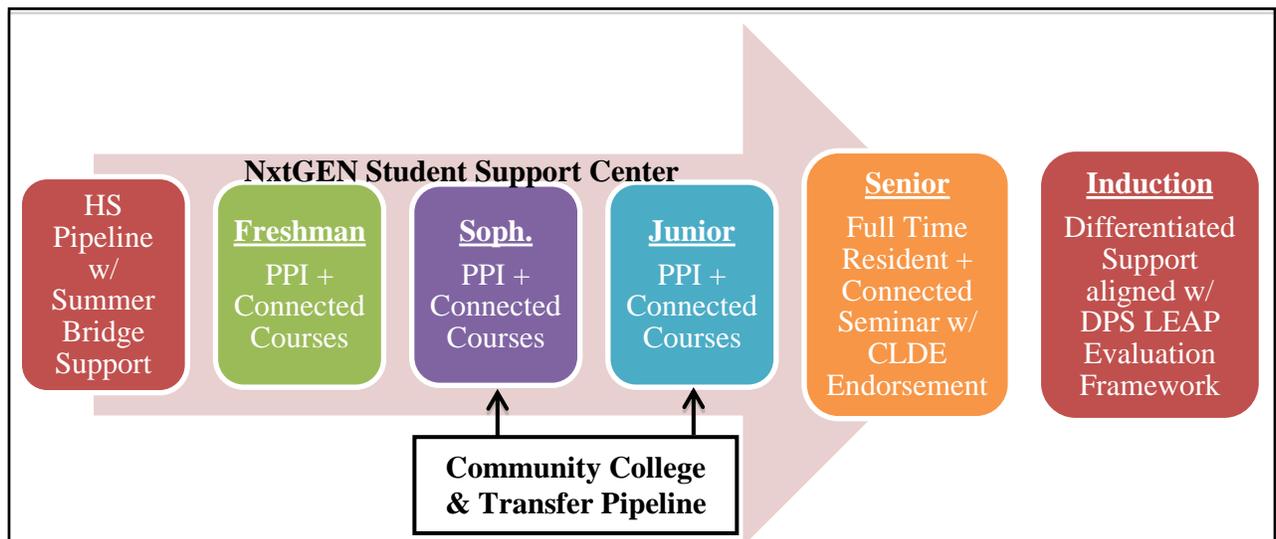
Obj. 1.3	Create rigorous selection and admissions process
Obj. 1.4	Revise undergraduate curriculum and clinical experiences to integrate paraprofessional internships, residency year, and CLDE added endorsement
Obj. 1.5	Provide high quality mentors for candidates in carefully selected residency schools

Whereas current residency models have only been implemented at the graduate level, NxtGEN will create a first of its kind, *four-year* undergraduate residency (see Figure 2) intentionally designed to mediate the financial and social/cultural barriers that prevent diverse students from entering and finishing degree programs while enabling undergraduates to develop rich contextualized practice in the district’s context over *four full years*. Key features include:

Table 5. Key Features of the Undergraduate Residency over 4 Years

- Multiple recruitment pipelines for local talent with flexible entry at different stages of 4Y-UGR
- Comprehensive NxtGEN Student Support Center, including HS summer bridge experience, to address the academic, social, and emotional needs of diverse, first generation college students
- Newly designed three, year-long, half-time, district paid paraprofessional internships (PPIs) with significant support and coaching from the university and school
- Integration of coursework and clinical experience within a context-specific curriculum
- Full, final year residency with DPS-specific curriculum and *additional* preparation leading to the CO Cultural and Linguistically Diverse Education added endorsement (CLDE)
- Differentiated induction, based in part on the resident’s performance on the DPS evaluation framework at the end of the residency, provided by the UCD EDÜ Center (see Goal 3, pg. 21).

Figure 2. An Undergraduate Urban Teacher Residency Model over 4 Years (4Y-UGR)



The 4Y-UGR will benefit from lessons learned in DPS’s highly successful district-led graduate residency, Denver Teacher Residency (DTR). Since inception in 2009, DTR boasts a 90% retention rate for graduates teaching in the district and, on average, graduates out-perform all other district novice teachers on the DPS LEAP Framework for Effective Teaching (See DTR at a Glance, Appendix H-2). The 4Y-UGR will prepare ECE, ELEM, and SPED teachers from our new BA, targeting the district’s hiring priorities outlined earlier, and STEM teachers will be recruited from our joint pathway with CLAS to seek admission to the residency year. Table 6 demonstrates that over the life of the grant, NxtGEN will enroll 220 students; 130 will graduate within the grant period and 90 will still be in the program. The growth in numbers for the PPIs (freshmen through juniors) assumes recruitment from high school pipelines (HSP), existing UCD students, community college/transfer students, as well as continuing students from the previous year(s). The growth in senior residents assumes recruitment from the existing undergraduate pathways until the PPI pipeline is robust enough in later years of the grant.

Table 6. Overview of the 4-year Residency Enrollment Projections					
	Yr 1: 2014-15	Yr 2: 2015-16	Yr 3: 2016-17	Yr 4: 2017-18	Yr 5: 2018-19
PPIs	5 (2 from HSP)	20 (10 from HSP)	30 (10 from HSP)	60 (20 from HSP)	90 (30 from HSP)
Residents	10	15	30	30	45
Graduates	10	15	30	30	45

Goal 1 Objectives and Activities

OBJ.1.1: DEVELOP STRATEGIES AND SYSTEMS FOR RECRUITMENT. NxtGEN will build on the success of multiple, existing high school, community college, and community-based pipelines within the SEHD to recruit a diverse pool of teacher candidates through the following activities.

Activity 1.1.a: Conduct context-specific needs assessment. NxtGEN will hire an urban recruiter (UR) with knowledge and experience in urban communities and DPS. The UR will take the lead in partnering with DPS to conduct a context-specific needs assessment, including analysis of

partner districts' teacher retention data, to determine unique local initiatives that can be leveraged for recruitment of diverse candidates who address the district's needs.

Activity 1.1b: Partner with SEHD Office of Outreach and Recruitment. The UR will partner with the current enrollment management team (EMT) in the Office of Outreach and Recruitment to link successful practices for recruiting diverse students from multiple pipelines at UCD and extend and improve these pipelines for the benefit of the project.

Activity 1.1c: Deepen support for high school pipelines. Several pipelines currently exist for supporting and recruiting diverse candidates from DPS and other metro area districts. The *Pathways2Teaching Program-P2T* (www.pathways2teaching.com) is offered at five DPS high schools to attract and support students of color into a career in education. This program provides a concurrent enrollment course (Intro to Urban Education), mentoring, family engagement, and college advising. Of the 200+ participants in P2T since inception, over 50% are males, 98% are students of color, and 100% have graduated from high school. In another pipeline program, *Rising Leaders in Education*, DPS faculty nominate high-achieving high school sophomores, juniors, and seniors who have potential for careers in education. They are recognized, along with their families at an event hosted by UCD and provided a scholarship. SEHD also partners with the *Colorado Teacher Cadet Program* as well as UCD's robust pre-collegiate summer program to offer the Intro to Urban Teaching concurrent enrollment course. Lastly, NxtGEN will partner with *Colorado I Have a Dream Foundation* (CIHAD) that mentors diverse Denver students from elementary through high school and provides college scholarships.

Activity 1.1d: Deepen existing community college pipelines. The SEHD has strong relationships with several local community colleges (CCs) that include state-level transfer articulation agreements allowing students to bring 60 credits of community college coursework into the BA

in Teaching, Learning and Development. NxtGEN will partner with each CC to develop tailored, 2+2 articulation agreements into the BA for ELEM, SPED, and ECE program tracks.

Activity 1.1e: Strengthen paraprofessional pipelines: The Paraprofessional Resource and Research (PAR²A) Center at UCD has an 18 year successful history of partnering with numerous districts and community colleges across the state to support the transition of paraprofessionals to teachers. NxtGEN will leverage these relationships to recruit paraprofessionals in the 4Y-UGR.

OBJECTIVE 1.2: CREATE NxtGEN STUDENT SUPPORT CENTER (NGSSC). Designed to provide tailored support for new students recruited from diverse community pipelines and at different stages in their program, the NGSSC will provide services to support the admission, retention, and graduation of the undergraduate residents. The duties of a 4Y-UGR Project Coordinator (PC) will include the coordination of the NGSSC services.

Activity 1.2a: Create summer bridge program. First generation college students are often “lost” during the summer between high school and college entry (Cabrera et al., 2005). The NGSSC will create a summer bridge program to provide students recruited from high school pipelines with advising and mentorship, opportunities to take 1-2 university core-courses, and preparation for the interviewing and hiring process required for their paraprofessional internships in DPS.

Activity 1.2b: Deliver comprehensive set of support services. The NGSSC will provide the infrastructure for coordinating academic, social, and emotional supports (e.g., academic tutoring, cohort mentoring, transfer student support, licensure exam preparation, family and community events). The NGSSC will work with SEHD Advising Office, Financial Aid Office, and UCD Office of Student Life, to coordinate/deliver these supports and build new ones when needed.

OBJECTIVE 1.3: CREATE RIGOROUS SELECTION AND ADMISSIONS PROCESS. DPS and SEHD faculty will establish rigorous selection and admissions processes at two points of the 4Y-UGR:

1) for PPIs and 2) for senior residents. Both written applications and interview processes will be embedded at both admission points. Admissions criteria will be aligned with qualities of successful urban teaching based on the rigorous selection and admission processes already in place for DTR and SEHD's preparation pathways. This includes demonstrated perseverance, resiliency, academic success, willingness to collaborate, self-reliance, and a sense of responsibility for ensuring that every student achieves academic proficiency. Selection of candidates will be prioritized to align with DPS hiring priorities. Additionally, admission to the senior residency year will include a minimum 2.75 GPA, successful completion of state content knowledge exams, as well as recommendations from SEHD and K-12 faculty involved with the residents' earlier experiences.

OBJECTIVE 1.4: REVISE UNDERGRADUATE PREPARATION CURRICULUM FOR 4Y-UGR. The current UCD undergraduate pathways include extensive field experience and emphasis on working with cultural, linguistic and ability diverse students. Appendix H-3 provides an extensive overview of the empirically-based practices and scientifically valid research on teaching and learning embedded in the program and related to the required reforms outlined in the General Program Requirements and Absolute Priority 1. NxtGEN will maintain these pedagogical approaches with a revised curriculum customized to the DPS context.

Activity 1.4a: Conduct strength and gap analysis for customization. The Teacher Education Leadership Team (TELT) will work with DPS to conduct a strength and gap analysis of existing coursework and clinical curriculum based on: a) a needs assessment regarding novice teacher needs in DPS; b) a crosswalk of district teacher effectiveness evaluation tools from objective 3.1; and c) local, state, and national reforms. Analysis will be used to customize curriculum.

Activity 1.4b: Design paraprofessional internships. DPS has difficulties hiring and keeping well-qualified, part-time paraprofessionals. The NxtGEN team will design and clarify the new, part-time paraprofessional internships (PPIs), which are modified paraprofessional positions, paid for by DPS, with a focus on enhancing instructional time for students to increase learning. PPIs run across three full years to dramatically extend the teacher candidates’ experience in classrooms and provide an extensive introduction to the DPS context. Key features of the PPIs include:

Table 7. Key Features of Para-professional Internships (PPIs)
<ul style="list-style-type: none"> • Paraprofessional training using modules from the PAR²A Center • A PPI mentor who is a teacher within the building trained to support and coach the PPIs • PPI cohort supervision by a university supervisor who will also meet regularly with them across the year to connect their classroom experiences with concurrent coursework • Opportunities to work across multiple age and ability groups in diverse school settings • Contribute to increased student learning in Residency Schools

Activity 1.4c: Finalize design of residency year. The 4Y-UGR students complete most of their preparation coursework prior to their final year, at which point they become full-time residents, spending 4 days per week co-teaching with a trained mentor in a residency school and attending a full-day seminar co-designed by DPS residency staff and UCD faculty. Key features include:

Table 8. Key Features of Senior Year Residency
<ul style="list-style-type: none"> • Seminar addressing remaining course content through a district-specific lens (Appendix H-4) • Customized, hybrid delivery of CLDE added endorsement paid for by DPS. • Coaching and evaluation using the DPS LEAP Framework for Effective Teaching (http://leap.dpsk12.org/), to further customize preparedness for DPS • Weekly formal observations (built off successful DTR model) and written feedback by DPS residency field managers, residency school-site coordinators, and the mentor teacher. • Use of innovative multi-day online video coaching • Contribute to increased student learning in Residency Schools

Activity 1.4d: Develop Multi-day, Online, Teaching/Learning Video Coaching Cycle. NxtGEN will design an innovative technology-enhanced approach to coaching using an online video observation and feedback tool, e.g., Edthena, in order to increase observation and feedback and

improve candidate’s reflection on their teaching practices. This multi-day cycle includes three consecutive instructional lessons, enabling coaches to see how residents implement a sequence of instruction, the decisions they make from lesson to lesson, and how they facilitate an inclusive, responsive classroom community. The video platform creates a community of practice among the resident and multiple coaches (e.g., mentor teacher, site coordinator, field manager, peer residents, faculty) who provide direct feedback at specific moments in the video.

OBJECTIVE 1.5: PROVIDE QUALITY MENTORS IN CAREFULLY SELECTED RESIDENCY SCHOOLS.

Activity 1.5a: Define process for selecting residency schools and quality mentors. District Instructional Superintendents will recommend residency schools for participation based on Title I status, strong principal leadership, and demonstrated strong performance on the School Performance Framework accountability measures. Strong schools in the far northeast region of the district will be targeted, as this is a regional hiring priority for the district. Schools then engage in a rigorous application and selection process. The principal will also nominate mentor teachers within each residency school based on their proven ability to improve student achievement. Teachers submit an application, and are observed and interviewed before being selected. Each residency school will have a site coordinator who provides support to increase the capacity of mentor teachers and serve as a coach for residents.

Activity 1.5b: Design mentor training eligible for graduate level credit. Mentors for residents and PPIs will receive ongoing support and training, modeled on the successful DTR approach, including monthly professional learning community meetings. UCD and district staff will revise the mentor curriculum to reflect new local, state, and national reforms and train mentors to utilize the online video-coaching platform. This training will simultaneously enhance the mentor’s skills to coach, co-teach, and support resident learning while also deepen the mentor’s

instructional practices across all content areas, their use of data and assessment, and their leadership in school-wide improvement. Mentors can enroll to receive graduate credit for this training and have the option to continue on to take the remaining two courses to complete the graduate *Teacher Leadership Certificate* in the SEHD.

GOAL 2: Create Teacher Preparation for Rural Education Partnership (T-PREP) to deliver customized services to rural partners	
Obj. 2.1	Identify strengths & challenges of rural BOCES to prepare & support teachers
Obj. 2.2	Match opportunities to address the licensure, induction, and professional development needs of rural partners

NxtGEN rural partners face a diverse array of challenges including teacher shortages, teachers who are teaching outside of their subject areas, and limited options for induction and ongoing professional development due to location and limited resources. Designing and delivering a one-size-fits all model of support to rural districts for the preparation and ongoing development of new teachers is non-productive. NxtGEN proposes a different solution through the creation of the **Teacher Preparation for Rural Education Partnership (T-PREP)**. The T-PREP Coordinator will work closely with individual rural partners and SEHD’s Rural Recruitment and Networking Specialist to establish strengths and needs and create a menu of customized options to delivering 5th year licensure, induction, and ongoing professional development. This enables our rural partners to maintain important local control, while significantly enhancing high quality preparation and support of teachers.

OBJ. 2.1: IDENTIFY STRENGTHS AND CHALLENGES FOR PREPARING AND SUPPORTING TEACHERS.

Activity 2.1a: Conduct a strengths and needs assessment and partnership map. The T-PREP Coordinator will meet with each T-TREP partner to assess the strengths and needs of their licensure efforts, induction programs and ongoing professional development strategies.

NxtGEN will create a partnership map of strengths and needs in order to gain a fuller understanding of the state as a whole and consider how partners can support one another.

OBJECTIVE 2.2: MATCH OPPORTUNITIES WITH IDENTIFIED NEEDS.

SEHD’s robust opportunities have strong potential to support our rural partners:

Table 9. SEHD Support for 5th Year Licensure, Induction, & Prof. Development	
5th Year Licensure Support	<ul style="list-style-type: none"> • <i>ASPIRE licensure program</i> - Serves individuals with undergraduate degrees who are pursuing careers as K-12 teachers in elementary, special education, and secondary education; program length is tailored to individual’s educational goals and life circumstances and content is delivered via fully online, self-paced learning modules; ALI Instructors review work and provide feedback/coaching online and face-to-face. • <i>ASPIRE modules</i> – Districts with their own alternative licensure may supplement their program with select ASPIRE modules to address candidates’ individual needs. • <i>Online video-coaching</i> – Rural districts may choose to have support from general and content specific mentors who deliver coaching & feedback in an online, video platform. • <i>Mentor training</i> – Online mentor training modules that enhance the mentor’s skills to coach, co-teach, and deepen their own teaching practices and school-wide leadership.
Induction & Prof. Development Support	<ul style="list-style-type: none"> • <i>EDÜ Center at SEHD</i> – The EDÜ Center at SEHD provides a customized approach to induction and professional development that includes attention to teachers’ individual needs as indicated by the state’s teacher evaluation framework and teacher quality standards as well as the social/emotional needs of new and experienced teachers. With expert <i>EDÜ Center</i> staff support, teachers select differentiated, as-needed services facilitated by skilled, experienced education professionals, both face to face and online through high quality learning designs (See Appendix H-5) • <i>Online integrated literacy teaching modules</i> – NxtGEN will develop and disseminate online integrated, literacy teaching/learning modules with district partners, literacy, CLDE, SPED, and ECE faculty (see Goal 4, Obj. 4.4).

NxtGEN will leverage this diverse array of options as well as *identify new responses* to the T-PREP rural partners’ needs in a flexible, customized approach through the following activities.

Activity 2.1a: Develop new services to support T-PREP needs. Where gaps in services exist,

NxtGEN will work with SEHD faculty to design new services for T-PREP partners.

Activity 2.1b: Create customized services to meet needs of each T-TREP partner. Each year of

the grant, the T-PREP Coordinator will work with T-TREP partners to create a customized plan for services related to licensure, induction and/or professional development for that year.

Activity 2.1c: Coordinate the delivery of the services. NxtGEN, working with identified T-TREP partners, will coordinate and facilitate the delivery of services across the year.

GOAL 3: Align SEHD’s measured outcome-based assessment and evaluation system with new teacher effectiveness frameworks of district partners to support continuous improvement	
Obj. 3.1	Align UCD and district teacher evaluation frameworks and tools
Obj. 3.2	Develop systems and infrastructure for partners to engage in continuous improvement cycles based on candidate performance and other outcome data.

In 2010 the SEHD designed a CAEP Transformative Initiative to develop a comprehensive measured outcomes-based assessment and evaluation system for all of our educator preparation pathways (<http://sehd.ucdenver.edu/caepaccreditationoutcomes/>). SEHD then developed a robust set of tools to assess candidates’ performance across all educator preparation programs and received an outstanding, ‘no improvements needed’ recommendation during the CAEP review, Fall 2013, along with the recommendation that this be used as a national model.

NxtGEN will build upon this system to align and measure the outcomes of these new pathways.

OBJECTIVE 3.1: ALIGN UCD AND DISTRICT TEACHER EVALUATION FRAMEWORKS AND TOOLS.

Senate Bill 10-191 led to the development of the *Colorado Teacher Quality Standards* (CTQS) and a *State Model Teacher Evaluation System*. Large districts, including DPS, have chosen to create their own district-specific frameworks and tools, while many smaller districts have chosen to use the state’s model and tools. NxtGEN will align UCD’s assessments with partnering district tools in order to better prepare candidates in both the 4Y-UGR and T-PREP for the contexts in which they will teach and be evaluated. This will also enable NxtGEN to work with districts to gather growth data across preparation and into induction.

OBJECTIVE 3.2: DEVELOP SYSTEMS FOR CONTINUOUS IMPROVEMENT.

NxtGEN will implement a continuous improvement process of ongoing, short-cycle data analyses and shift practice based on candidate performance and outcome data.

Activity 3.2a: Create once a semester continuous improvement process. NxtGEN will bring partnership faculty together once a semester to analyze performance data. This analysis will engage both trends and specific questions from program evaluation frameworks to guide the process and to identify adjustments in program delivery, create action steps, and collect additional data to provide a full picture of performance from preservice into induction.

Activity 3.2b: Create a system to receive teacher retention data. SEHD’s Executive Director of Accreditation and Program Effectiveness will work with partner districts to create a system to obtain district-specific teacher retention data and track teachers prepared through NxtGEN.

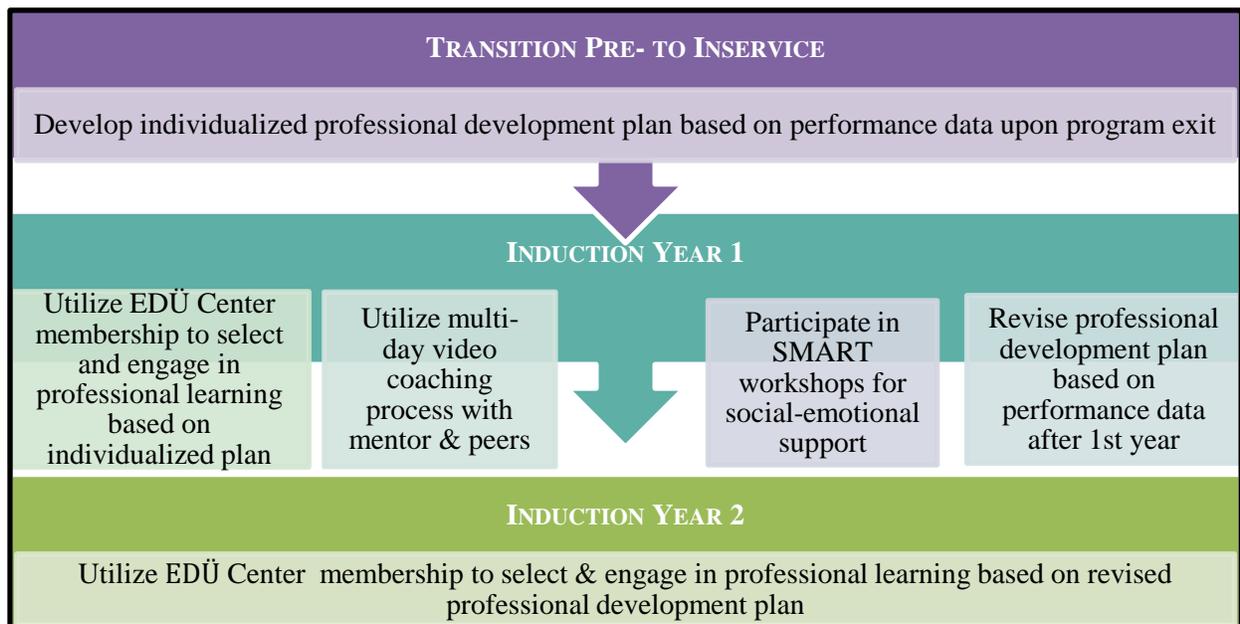
Activity 3.2c: Create and disseminate NxtGEN teacher preparation tool kit. The NxtGEN project will provide many opportunities to identify and refine highly successful recruitment, preparation, and retention strategies. This information will be gathered, analyzed, and shared in a NxtGEN Teacher Preparation tool kit that will be disseminated through local, state-level, and national forums (e.g., CDE, AACTE, Colorado Council of Deans of Education).

GOAL 4: Develop a next generation, differentiated approach to teacher induction	
Obj. 4.1	Develop system of induction that addresses individual professional development needs generated by teacher effectiveness evaluation frameworks.
Obj. 4.2	Develop mentors’ ability to provide ongoing coaching and feedback
Obj. 4.3	Develop system of induction that supports the social-emotional needs of teachers
Obj. 4.4	Provide professional development resources to strengthen literacy teaching in essential elements of instruction, assessment, intervention, and integration across content that is responsive to linguistic, cultural and ability diversity

The new *CO State Model Teacher Evaluation System* places the responsibility on each individual teacher to seek professional development in order to meet effectiveness standards based upon their evaluations comprised of 50% observations of teaching, and 50% student growth and achievement. In this context, the traditional “one-size fits all” models of induction will not meet the differentiated needs of NxtGEN teachers. Instead, NxtGEN creates an

innovative, **differentiated model of induction** that utilizes the SEHD’s new EDÜ Center to provide a *range of professional development options* aligned with the CTQS and Colorado Academic Standards (CAS). In addition, EDÜ Center provides *continued observation and coaching with expert mentors and peers in a community of practice*, as well as critical *social-emotional support for teachers* working in high needs schools.

Figure 3. NxtGEN Induction Model



OBJECTIVE 4.1: DEVELOP INDUCTION TO ADDRESS INDIVIDUAL NEEDS.

Activity 4.1a: Create individualized professional development plans. NxtGEN teachers nearing the end of preparation will develop individualized professional development plans with district mentors, targeting growth areas based on their performance data as they exit preparation.

Activity 4.1b: Collaborate with the EDÜ Center to provide professional development options. The EDÜ Center at UCD will provide in-person and online professional learning opportunities, tools, networks and resources. NxtGEN teachers will choose from differentiated, as-needed services designed by EDÜ Center to empower P-12 educators and offer choice and collaboration

in a supportive community of practice (e.g., facilitated teacher study teams; workshops; book studies; webinars; in-person and virtual instructional coaching; mentoring; and career services).

After the first year of induction, teachers will work with EDÜ Center staff to revise their individualized professional development plans based on data from their teacher evaluations.

OBJECTIVE 4.2: DEVELOP MENTORS' ABILITY TO PROVIDE ONGOING COACHING AND FEEDBACK.

Activity 4.2a Train mentor teachers to use multi-day video coaching cycle. The multi-day, video coaching cycle, an established pedagogy within each of the NxtGEN preparation pathways, will be extended in induction. As part of their EDÜ Center membership, 3-5 NxtGEN teachers will be paired with an expert mentor to continue to engage in the multi-day, video coaching cycle. Grounded by their districts' teacher effectiveness frameworks, this extended community of practice will enable NxtGEN teachers to both share their own practice and receive feedback from the mentor and other residents. Video coaching will be required of all NxtGEN teachers during year one, while during year two it is provided as needed.

OBJECTIVE 4.3: DEVELOP INDUCTION TO SUPPORT THE SOCIAL-EMOTIONAL NEEDS OF TEACHERS.

The EDÜ Center currently partners with Passage Works, an organization that provides professional development based on Stress Management and Relaxation Techniques in Education™ (SMART). SMART is an evidenced-based personal renewal program designed especially for educators in order to re-connect with personal and professional meaning and purpose, find balance, cultivate emotional intelligence, and improve mental and physical health. SMART workshops will be provided to NxtGEN teachers both face-to-face and online.

OBJECTIVE 4.4: PROVIDE PROFESSIONAL DEVELOPMENT TO STRENGTHEN LITERACY TEACHING.

Children's literacy learning is situated in the context of their linguistic, cultural, ability and socio-economic diversity, as well as their schooling. NxtGEN will address improvement in

literacy teaching at the intersection of language, culture, ability and socio-economics by designing online professional development for understanding literacy learning, assessment, instruction, and intervention for all children using an integrated model.

Activity 4.4a: Design online literacy modules. NxtGEN will partner closely with building level literacy experts (e.g., literacy coaches, highly effective literacy teachers) in our Residency Schools and the SEHD faculty in literacy, CLDE, SPED, and ECE in the design and development of online literacy modules that focus on: (1) the essential components of reading instruction for all learners; (2) the use of integrated assessment and diagnostic tools to determine all students’ literacy needs and provide instruction; (3) strategies for providing individualized literacy instruction for struggling readers; (4) literacy teaching across content areas; and 5) literacy teaching with language, culture, ability and socio-economics in mind.

Activity 4.4b: Coordinate opportunities for district mediated use of modules. The EDÜ Center and district partners will coordinate a process for district-mediated use of the modules (e.g., by Literacy Coaches or if needed, by providing a mediator)

Goal 5: Leverage Learning Assistants (LAs) program in partnership with the College of Liberal Arts and Sciences (CLAS) to improve STEM content preparation for all teacher candidates and to recruit STEM candidates into SEHD secondary STEM teacher preparation program	
Obj.5.1	Recruit and support 100 additional STEM Learning Assistants (20 per year) to support the STEM general education content courses taken by all teacher candidates.
Obj.5.2	Collaborate with LA program to recruit and enroll more STEM majors and successful LAs into clinically-rich CLAS/SEHD Teacher Prep program in secondary STEM Ed

Based on a successful national model (Otero, 2013) and initiated at UCD in 2012, the Learning Assistant Program at CU Denver recruits, competitively selects, and prepares talented undergraduate STEM students for an innovative role in large enrollment (50-300) STEM core courses to improve student learning, support pedagogical reform efforts, and explore STEM teaching as a career choice. The Learning Assistants (LAs) work with faculty to integrate and

facilitate interactive and student-centered teaching and learning into their courses (e.g., experiential methods, peer tutoring and increased student discourse during lecture time). Work with students takes place during lectures, recitations, and outside of class using a variety of curricular and instructional strategies. LA's must demonstrate high levels of content knowledge as well as motivation to excel as science educators. LAs enroll in a paired STEM Ed pedagogy course where they explore learning theory, STEM-specific teaching strategies, and STEM learners' conceptions, all in the context of their LA work. LAs are different from Teaching Assistants in that they are undergraduate students who recently took the class (i.e., are "near peers") and they work on course innovation as well as help with instruction.

The LA program, nationally and locally, has strong data to show it as a promising approach for secondary teacher recruitment as well as strengthening the preparation of all students in basic science courses (Ortero et al 2006; Ortero 2013; Talbot in press).

Table 10. Learning Assistant Research & Data

- Students' learning gains in LA-supported courses are significantly higher than those of students in non-LA supported courses. By spring 2014, a cohort of 37 LAs impacted over 1,700 undergraduate students in 8 university core STEM courses on the UCD campus.
- Many LAs stay in the program for multiple semesters, and some decide to pursue secondary teaching licensure based on their LA experiences. Data from CU Boulder shows a marked increase in students pursuing secondary licensure. In just 2 years of implementation at CU Denver, 10% of LAs express interest in or are pursuing secondary science licensure.
- LAs who enter the STEM teaching fields have experienced extended, additive, high-quality STEM teacher preparation as a result of their participation in the LA program, including hands-on and inquiry-based STEM experiences, laboratory experiences, STEM discipline-specific pedagogical instruction, and explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction as outlined in CCP-1.

OBJECTIVE 5.1: RECRUIT 100 LAs TO SUPPORT STEM CONTENT COURSES TAKEN BY CANDIDATES.

NxtGEN will recruit and place an additional 20 LAs per year (100 total) in UCD general education core STEM courses that undergraduate pre-service teachers are advised to take. Many diverse students from high need schools, as well as first generation college students that NxtGEN

will prepare, express a lack of confidence in STEM courses and in teaching science and mathematics. Critical to improving the math and science achievement of students in P-12 schools is preparing more confident teachers with strong content and pedagogical knowledge.

OBJECTIVE 5.2: RECRUIT AND ENROLL MORE LAs/STEM MAJORS INTO STEM PREPARATION.

Activity 5.2a: Create recruitment initiatives that target LAs and incentivize entry into licensure.

The urban recruitment and retention specialist will partner with the LA Program to conduct information sessions, arrange STEM teacher shadow days, and create other initiatives to recruit LAs into our joint CLAS/SEHD preparation pathway for secondary STEM majors.

Activity 5.2b: Create support structures for STEM teachers in NxtGEN Student Center. The NxtGEN Project Coordinator will work with STEM faculty to identify STEM candidates’ needs and create targeted support structures.

Goal 6: Serve as model IHE with state education agencies to implement national and state level reforms including alignment with the college- and career-ready elementary and secondary academic standards within the Common Core	
Obj. 6.1	Develop faculty and partner educators’ capacity across all pathways for implementing state and national level reforms
Obj. 6.2	Align teacher education curriculum with college & career-ready elementary & secondary academic standards within Common Core
Obj. 6.3	Develop faculty capacity to implement curricula that address state and national reforms, especially in working with diverse students and students with disabilities
Obj. 6.4	Create a University Teacher Education Coordinating Council (UTECC) to coordinate and support continuous improvement in and ensure strong content preparation
Obj. 6.5	Collaborate with the State-wide ECE Professional Development Committee (of CO’s Race-to-the-Top Initiative) to align statewide systems and advocate for ECE policy.

In spring 2014, the SEHD was identified by Colorado’s Department of Education (CDE) and Department of Higher Education (DHE) as a high quality teacher education institution and invited to serve as the single IHE to develop and pilot processes for implementing national and state level education reforms. NxtGEN will build capacity for infusing reforms with primary attention to internationally benchmarked, college- and career-ready elementary and secondary

academic standards within the Common Core. The CDE adopted the Common Core State Standards (CCSS) in 2010 and soon after released the Colorado Academic Standards (CAS), which incorporated the entire CCSS while maintaining unique aspects of earlier Colorado standards. Other reforms NxtGEN will address include increased preparation and support for literacy teaching and the Colorado READ Act, the preparation of teachers for cultural, linguistic, and ability diverse students, educator evaluation focused on teacher effectiveness frameworks and student achievement, and ECE statewide system alignment and policy advocacy.

OBJECTIVE 6.1: DEVELOP CAPACITY FOR IMPLEMENTING STATE AND NATIONAL LEVEL REFORMS.

Activity 6.1a: Create a plan for providing professional development. NxtGEN personnel will work with CDE/DHE to create a strategic, well-supported plan and time line for providing professional development to faculty and district partners in order to systematically build understanding for incorporating state and national reforms into the teacher education curriculum.

Activity 6.1b: Offer professional learning opportunities for faculty and partners. NxtGEN will use a survey developed by CDE/DHE to identify gaps in faculty knowledge of key reforms and will: (1) use existing webinars on key state reforms including the CO READ Act; CAS; CTQS and the State Model Teacher Evaluation System; (2) develop customized professional development to deepen capacity around these reforms.

OBJECTIVE 6.2: ALIGN CURRICULUM WITH COMMON CORE/CO ACADEMIC STANDARDS.

SEHD teacher education faculty have already incorporated the CAS within different courses. NxtGEN will enable faculty to consider alignment through the following activities.

Activity 6.2a: Analysis of CAS. NxtGEN will support faculty and district partners to examine program curriculum to see how and where the CAS have been integrated to build coherence ensuring candidates graduate able to effectively plan instruction around the CAS.

Activity 6.2b: Deepen faculty knowledge of CAS curriculum development. NxtGEN will work with CDE/DHE to provide workshops and opportunities for SEHD teacher education faculty to explore CAS curriculum being developed by teachers across the state in order to better understand how they might support this work and leverage it in the teacher education curriculum.

Activity 6.2c: Systematically embed and align CAS across syllabi. NxtGEN will support a cross-walk of CAS with existing syllabi to ensure that there is: 1) a coherent introduction; 2) opportunities for exploration; and 3) multiple opportunities for planning instruction around CAS to intentionally build candidates ability to use CAS in their teaching.

Critical to the success of this objective is our existing, well-developed structures for teacher education faculty and partners to engage in professional development, curricular alignment and revision work. The Teacher Ed Leadership Team (TELT) will primarily be responsible for leading these initiatives with faculty during in-depth monthly teacher education faculty workdays and quarterly day-long meetings with school and district partners.

OBJECTIVE 6.3: DEVELOP FACULTY CAPACITY TO ADDRESS OTHER STATE AND NATIONAL REFORMS, ESPECIALLY IN WORKING WITH CLD STUDENTS AND STUDENTS WITH DISABILITIES.

Several reform agendas have special significance for Colorado including measuring teacher effectiveness, ensuring solid preparation in literacy teaching, and preparing teachers for the state's large culturally and linguistically diverse student population. A number of key activities help develop faculty capacity for working with and supporting these reforms.

Activity 6.3a: Develop professional learning and curricular revision process around Student Learning Objectives (SLOs) to address educator evaluation demands. As states implement educator evaluation systems that include measures of student growth, one of the challenges they face is identifying valid measures. SLOs incorporate student growth measures in the evaluation

process, but more importantly, they are a means for improving instructional practice. The use of SLOs in Denver found that rigorous and high-quality growth objectives correlated with higher student achievement (Community Training and Assistance Center, 2004). NxtGEN will partner with the UCD Center for Transforming Learning and Teaching (CTLT) to develop professional learning opportunities around SLOs and support a curricular revision process for faculty and school partners to ensure that candidates are prepared to use SLOs to increase student learning and provide evidence of their effectiveness in their annual evaluations.

Activity 6.3b: Revise literacy curriculum to strengthen candidates' literacy teaching skills.

NxtGEN will engage district partners, CLDE, SPED, ECE, and literacy SEHD faculty in a comprehensive review and revision of literacy teaching content/experience across the teacher education curriculum in all pathways to with special attention to Common Core, the essential components of reading, and use of multiple assessments for targeted instruction.

Activity 6.3c: Design new competency-based model for state CLDE endorsement. NxtGEN will engage CLDE faculty in designing a new hybrid, competency-based delivery model for the state CLDE endorsement for the 4Y-UGR. This model will be expanded to other teachers/districts to support greater numbers of teachers across the state to improve their teaching for CLD students.

OBJECTIVE 6.4 CREATE UNIVERSITY TEACHER EDUCATION COORDINATING COUNCIL (UTECC).

Secondary teacher education in SEHD is offered in partnership with the College of Liberal Arts and Sciences (CLAS) where students get a firm grounding in discipline-specific content knowledge in CLAS majors. In addition, all ELEM, ECE and SPED majors in SEHD take their content courses through the general education curriculum in CLAS. Lastly, we are forging a new relationship with the College of Engineering and Applied Science (CEAS) to increase pipelines of engineering majors who may want to pursue a career in STEM teaching.

Activity 6.4a: Develop a model for faculty participation and coordination. NxtGEN will facilitate regular meetings of the UTECC to create processes for: 1) communicating candidate performance; 2) deepening content preparation; 3) strategically leverage recruitment pipelines; and 4) ensuring that national and state level reforms receive attention in the discipline-specific preparation that teacher candidates receive.

Activity 6.4b: Review teacher preparation content across SEHD and CLAS. UTECC will provide the vehicle for facilitating an analysis of syllabi across SEHD and CLAS to ensure inclusion of state and national reforms including attention to the Colorado Academic Standards.

OBJECTIVE 6.5: ALIGN ECE STATEWIDE SYSTEMS AND ENGAGE IN ECE POLICY ADVOCACY.

Colorado has established a statewide ECE Professional Development Committee as part of the state's Race-to-the-Top Initiative. This Committee is co-chaired by the SEHD Dean who will facilitate the following activities through this statewide committee.

Activity 6.5a: Align state systems to integrate CO Competencies for Early Childhood Educators.

In SEHD, our ECE licensure curriculum is aligned with Colorado's Competencies for Early Childhood Educators. However, at a systems level, the core competencies are not connected with the P-3 licensure competencies. NxtGEN will work with the statewide ECE Professional Development Committee to streamline the human services regulations for teacher workforce and connect them to state licensure requirements in ECE.

Activity 6.5b: Policy advocacy for ECE Increased Compensation. Through the statewide ECE Professional Development Committee, NxtGEN will work to influence policy that increases compensation for ECE teachers who attain an associate or baccalaureate degree in ECE.

NxtGEN Project Outcomes. Table 11 overviews outcomes associated with all NxtGEN goals:

Table 11. NxGEN Project Outcomes	
Goal 1	220 students recruited for 4Y-UGR; 40% of recruits are from diverse, 1 st gen communities; 15% are bilingual Spanish/English in years 1-3; 20% years 4-5; 220 students receive comprehensive support from NxtGEN Student Center; 130 graduate with license and CLDE added endorsement; 90 still in pipeline; 100 residency mentor teachers trained in online video-based multi-day coaching; 90% graduates hired in DPS; graduates will outperform all other novice teachers in the district on 80% of evaluation framework indicators; each year, graduates will increase proficiency scores of 10% of students as measured by district/state assessments over the students' previous year scores
Goal 2	120 T-Prep candidates, 100% receive differentiated services as needed; 90% from rural communities; 90% hired by rural LEAs
Goal 3	Align 100% of SEHD assessment and outcomes system with district and state frameworks; train 100% of teacher ed faculty on state/district frameworks & SLOs
Goal 4	100% of hires receive induction support years 1 & 2; 100% in year 1 receive online video-based multi-day coaching; 100% of EDÜ Center mentors trained for video-based coaching; EDÜ Center will distribute literacy modules to 50% of CO districts
Goal 5	100 STEM LAs recruited; 20% of STEM LAs enroll in Secondary prep program; 60% of candidates receive their content prep with LAs
Goal 6	100% of SEHD programs revised and aligned with state and national reforms; tool kit resources distributed to 80% of state's IHEs; expand competency-based CLDE endorsement to 2 additional districts

III. NxtGEN Involves Collaboration of Multiple Partners for Maximizing Effectiveness

NxtGEN partners have a long history and a commitment to working together during and after the grant. NxtGEN will invite individuals representing our many partners as well as other policy and community leaders to form a NxtGEN Advisory Council (AC) that will be convened twice a year by the SEHD Dean. The AC's role will be to provide guidance and feedback about NxtGEN's goals, but also to establish a broader, state-wide teacher education agenda in order to design and influence policy. Teacher education can no longer be understood or implemented as a universal or general endeavor. NxtGEN, and the work of the AC, will be to promote sustained innovation in response to the constant and rapidly changing contexts in which teachers teach and for which they need to be prepared in Colorado. This goal is ambitious and calls for the support and insight of many stakeholders from many contexts.

Table 12. Commitment of Partners During and After Grant			
Partner	Primary Role	4Y-UGR	T-PREP
UCD School of Education & Human Dev.	Oversight of NxtGEN, customized pathways for 4Y-UG & T-PREP; assess candidate outcomes; provide customized CLDE endorsement; participate in districts’ induction & PD.	X	X
Denver Public Schools	Primary LEA partner; continue to provide 3 years of paid paraprofessional positions; drive 4Y-UGR and induction	X	
UCD Liberal Arts & Sciences	Fund LA program; participate in UTECC, promote recruitment of STEM Ed teachers; partner in content areas	X	
UCD College of Engineering	Participate in UTECC; promote recruitment of STEM Ed teachers	X	
PAR ² A Center	Collaborate on rural recruitment; revise training materials to support PPIs in 4Y-UGR	X	X
Rural BOCES	Collaborate on recruitment, preparation, and induction		X
CO Dept. of Ed	Provide ongoing consultation around new state reforms	X	X
CO Dept. of Higher Educ.	Support initiatives to align state reforms into program	X	X
Center for Transforming Lrng & Tchg	Provide training for all stakeholders on use of Student Learning Outcomes as an accountability measure	X	X
The EDÜ Center	Provide individualized PD options for induction	X	X

IV. NxtGEN’s Sustainment Beyond the Length of the Grant

NxtGEN will be tightly integrated into SEHD’s organizational structures in order to continue.

Table 13. Integration of NxtGEN Initiatives into SEHD Infrastructure
<ul style="list-style-type: none"> • The NxtGEN Student Center will be a line item in SEHD budget and will work in close connection with the existing Office of Diversity and Inclusion and the PAR²A Center • The Office of Partnerships will work with other metro and urban districts partners to build similar 4Y-UGR models (e.g. Aurora and Adams 50) • Funding for paraprofessional internships will continue with DPS • SEHD and DPS have developed a shared cost model for the senior residency year and CLDE added endorsement • The PAR²A Center and T-PREP will work with other rural districts to join the partnership to offer a menu of services for licensure, induction, and ongoing support • The recruitment and retention specialist will become a line item in the Office of Outreach and Recruitment in order to continue to build and support diverse students in NxtGEN pathways • The Teacher Education Leadership Team will assume responsibility for oversight of the two NxtGEN pathways • The EDÜ Center is a permanent part of SEHD and will continue to offer professional development opportunities for all local teachers

V. QUALITY OF MANAGEMENT PLAN

I. Responsibilities, Timelines for Accomplishment of Project Goals/ Objectives:

Table 13: NxtGEN Management Team		
Name	Role	Primary Responsibilities
Barbara Seidl	Principal Investigator – PI	Overall direction and coordination for curriculum enhancements, reforms & third party evaluation
Cindy Gutierrez	Co-PI	Overall direction and coordination with partners, clinical practice customization; 4Y-UGR
Ritu Chopra	Project Director – PD	Overall project management including oversight of the NxtGEN Support Center (SC), and budgets
Shelley Zion	Exec. Dir. – EDUCenter	Oversee the T-PREP and induction support options
Laura Summers	T-PREP coordinator	Overall coordination of T-PREP program activities including needs assessment and program planning
Michael Gallegos	Rural Recruitment & Networking (RR)	Rural district relations and recruitment of T-PREP candidates
TBH	Proj.Coord 4Y-UGR (PC)	Point person for enrolled 4Y-UGR candidates, DPS and individualized support services for candidates
TBH	Urban Recruiter (UR)	Outreach & recruitment in urban communities & high schools
Shannon Hagerman	Project Director, DPS	Overall direction of the 4Y-UGR for the partner LEA
Sarah Flanders	Program Manager, – 4Y-UGR – DPS	Coordinate all project activities within DPS & the 4Y-UGR program on the district side
Nita McAuliffe	Exec. Dir., San Luis Valley BOCES	Coordination of T-PREP program delivery, mentor supports and induction services on the BOCES-side
Dana Lambert	Dir., Ed. Effectiveness South Central BOCES	Coordination of T-PREP program delivery, mentor and induction supports for member district

Several other SEHD positions will support NxtGEN as indicated in Table 14. Appendix F contains the CV of the key personnel and brief bios of other personnel involved in NxtGEN.

Table 14. Additional SEHD Positions in Support of Management Team	
<ul style="list-style-type: none"> • Asst. Dean, Office of Diversity & Inclusion • Director, Office of Outreach & Recruitment • Exec. Director of Assessment & Accreditation • Teacher Education Leadership Team (TELT) • SEHD Enrollment Management Team (EMT) • NxtGEN Advisory Council (AC) 	<ul style="list-style-type: none"> • SEHD faculty (CLDE, ECE, SPED) • SEHD academic advisors • Center for Transforming Learning & Teaching (CTLT) • District/BOCES Supervisors, Site Coordinators & Mentor Teachers

	Project Objective	Personnel	Major Tasks	YEAR				
				1	2	3	4	5
GOAL 1	1.1: Develop Strategies and Systems for Recruitment	PIs, PD, UR, EMT	Hire recruiter, project coord. for 4Y-UGR					
			Conduct needs assess. with district partners.					
			Collaborate with existing systems pipelines and pathways within SEHD, DPS					
	1.2: Create NxtGEN Student Support Center (NCSSC)	PD, SEHD, DPS	Create & refine summer bridge program					
			Deliver comprehensive academic, social-emotional supports.					
	1.3: Create selection and admissions process	DPS, SEHD	Develop applications and interview processes					
	1.4: Revise and reframe UG preparation curriculum-integrating practice-rich, clinically intensive 4 year curriculum	PIs, DPS, SEHD	Conduct strength and gap analysis for customization					
			Design & refine paraprofessional internships.					
			Design and refine final residency year.					
	1.5: Provide candidates high quality mentors in carefully selected residency schools	PD, DPS, EDU	Define process for selecting residency schools and high quality mentors					
Design & deliver mentor training and connect to opportunities for graduate level credit								
GOAL 2	2.1: Identify the diverse strengths and challenges of rural BOCES for preparing and supporting teachers	EDU, BOCES, RR	Conduct a strengths & needs assessment					
			Analyze and map the strengths and needs of T-PREP partners					
	2.2: Identify a menu of opportunities to address the licensure, induction, and professional development needs of rural partners	T-PREP Coord., EDU, BOCES, RR	Develop new services to support T-PREP needs					
			Create a customized set of services to meet the unique needs of each T-TREP					
GOAL 3	3.1: Align UCD and district teacher evaluation frameworks and tools	DPS, SEHD, PIs, PD	Conduct strength and gap analysis to revise/assess framework.					
	3.2: Dev. systems for faculty and partners to engage in performance and outcomes-based continuous improvement cycles	PD, SEHD, DPS, BOCES	Create & engage in once a semester continuous improvement process					
			Create system to receive tchr retention data.					
GOAL 4	4.1: Dev. induction that addresses individual professional dev. needs generated by teacher evaluation frameworks		Create individualized professional develop plans					
			Collaborate with the EDU Center to provide professional development options.					

	4.2. Develop an induction system for ongoing feedback	EDU, PD, PIs, DPS, BOCES	Train EDU mentors to engage and use the multi-day video coaching cycle to support new teachers in induction					
	4.3.Dev. induction supports that address social-emotional needs		Provide professional development that addresses social-emotional needs					
	4.4.Provide prof. dev. activities to strengthen literacy teaching		Design online literacy modules.					
			Work with district/BOCES partners to coordinate opportunities for district mediated use of the course					
GOAL 5	5.1: Recruit and support 100 additional STEM LAs	PIs, CLAS, SEHD, CLAS	Recruit and support additional 20 STEM majors each year as LAs					
	5.2: Collaborate with LA Program - recruit, enroll & support students in joint CLAS/SEHD prep program		Create recruitment initiatives that target LAs and incentivize entry into licensure					
			Create unique support structures related to LA/STEM students					
GOAL 6	6.1: Develop faculty capacity to implement curricula that address state and national reforms.	PI, SEHD, Other IHE, SEHD, CTLT, CDE, CDHE	Create a plan for providing professional development					
			Offer professional learning opportunities for faculty and partners					
	6.2: Align curriculum with college and career-ready elementary and secondary academic standards within Common Core.		Conduct analysis of CAS					
			Deepen faculty knowledge of CAS curriculum development					
			Systematically embed and align CAS across syllabi					
	6.3 Develop faculty capacity to address other state and national reforms, especially in working with CLD students and students with disabilities.		Develop professional learning and curricular revision process around Student Learning Objectives (SLOs) to address educator evaluation demands					
			Revise literacy curriculum to strengthen candidates' literacy teaching skills					
			Design new competency-based model for state CLDE endorsement.					
	6.4 Create a University Teacher Education Coordinating Council (UTECC).		PIs, CLAS, SEHD, Other IHE's	Develop and engage a model for faculty participation and coordination				
				Review teacher preparation content across SEHD and CLAS				
6.5: Engage State-wide ECE Professional Development Committee to align systems and ECE policy advocacy		Align state systems to integrate CO Competencies for Early Childhood Educators						
		Policy advocacy for ECE Increased Compensation.						

II. Qualifications, including relevant training and experience, of key project personnel.

NxtGEN brings extensive professional expertise, content knowledge and management capacity to the project. Qualifications of the key personnel are below and vita are found in Appendix E.

SEHD: Dr. Barbara Seidl, PI. Dr. Seidl received her PhD in Urban Education from the University of Wisconsin-Milwaukee where she focused on multicultural teacher education. On the Ohio State University faculty for 16 years, she co-directed the Early Childhood/ Elementary MEd program for many years. She has extended experience in teacher education curriculum design, specifically for preparing urban teachers, and was a Co-PI on the OSU ASPIRE TQP (Award # U336S090049) where she coordinated a year-long urban education seminar for the residents and worked with district partners on the transition from preparation to induction. Dr. Seidl is currently an Associate Dean in the SEHD where she supports multiple teacher education pathways for undergraduates and several advanced teacher MA programs. Her extensive scholarship focuses on preparing teachers for working in diverse cultural contexts and on community-based teacher education.

Dr. Cindy Gutierrez, Co-PI. Cindy Gutierrez, PhD is the Director of the Office of Partnerships at the SEHD. For the past 8 years, she has led the Professional Development School Network comprised of 24 urban schools across six Denver metro area districts collaborating with SEHD faculty to support high quality teacher preparation and the renewal of P-12 settings. She also served as director of teacher education for UCD from 2006-2012. She earned her doctorate in Educational Leadership and Innovation focused on partnership-based teacher education from the University of Colorado Denver. She served the Institutional PI for several grants supporting TLINC: Teachers Learning in Networked Communities as a specialized demonstration project for the National Commission on Teaching and America's

Future (NCTAF) and is currently the Co-PI of an NPD project, eCALLMS, funded by the US Department of English Language Acquisition focused on innovative online professional development to accelerate academic language learning, especially in math and science, for ELLs.

Dr. Ritu Chopra, Project Director. Dr. Chopra is the Executive Director of The PAR²A Center at the SEHD. She earned her PhD in Educational Leadership and Innovation at UCD. She has been responsible for grant administration, training, research, and fiscal management of the PAR²A Center for the last 18 years. She has served in the capacity of Principal Investigator on 15 state and federally funded projects including two large-scale Transition to Teaching (TTT) projects funded by the Office of Innovation and Improvement (Award #s U350B070331 and U350B090027). These projects have focused on curriculum, professional development, innovative pipelines and pathways for teachers, service providers and paraprofessionals, and non-traditional students in schools and human services. Through these projects, she has long standing relationships with state education agencies, high-need rural and urban districts and BOCES, other universities and colleges, several community colleges and Community-Centered Boards in Colorado.

Dr. Shelley Zion, EDÜ Center Representative. Dr. Zion is the Executive Director of SEHD's Continuing Professional Education and of the EDÜ Center, an innovative center for educator development. Our alternative 5th year licensure program, ASPIRE is located in the EDÜ Center. She teaches in the EdD program, conducts research on topics related to student voice, school reform, and social justice. She is the founder of the CRUE center, which provides training to schools who are working to address issues of equity. She is Co-PI on two funded projects focused on youth voice and empowerment for students of color in grades 6-12: the Critical Civic Inquiry Project (Spencer Foundation) and the Compugirls Project (NSF). She is the

co-chair of the Grassroots Youth and Community Organizing for School Reform SIG, and is the 2013 recipient of the AERA Leadership for Social Justice Teaching Award and University of Colorado Rosa Parks Faculty Diversity Award.

Dr. Laura L. Summers, T-PREP coordinator. Dr. Summers is Director of Educator Effectiveness at the EDÜ Center. She earned her doctorate in Instructional Design with an emphasis in Online Learning and a doctoral minor in Applied Statistics and Research Methods from University of Northern Colorado. She also holds her principal and superintendent's licenses and served as a district administrator who collaborated in the design and implementation of a unified professional learning & teacher evaluation system focused on student learning outcomes. Dr. Summers is a state-certified evaluator for Colorado's effective teaching model and has spent 25 years evaluating, designing and facilitating professional learning for educators nation-wide in rural and urban school districts. She is also a SEHD faculty member teaching action research, instructional coaching, online teaching, and professional learning design, facilitation, and evaluation.

Michael Gallegos, Rural Recruitment and Networking Specialist (RR). Mr. Gallegos currently serves as the recruitment, networking, and community outreach specialist for the PAR²A and EDÜ Centers. A 31-year educator, he has spent the majority of his career in rural Colorado as a teacher, coach, and school administrator. He is the former Executive Director of Equity and Minority Student Success for the Mesa County Valley School District #51 in Grand Junction, CO. He has played a pivotal role in the statewide recruitment and community outreach efforts of Dr. Chopra's TTT projects. Mr. Gallegos holds a Master of Arts degree in Secondary Education and a CO K-12 Principal License.

TBH, Project Coordinator 4Y-UGR (PC). Concerted effort will be made to hire a strong candidate with the qualifications of an MA (required) Ph.D. (preferred) in education or related field with leadership experience in project coordination, student support services, and advising. Candidates with knowledge of resources for social, academic, and financial supports for underrepresented students in higher education will also be preferred.

TBH, Urban Recruiter. This position will be filled by a candidate who is bilingual in Spanish and English, has substantial experience in recruitment, and already has a professional network in the Denver Metro Area.

DPS: Dr. Shannon Hagerman, DPS Program Director. Dr. Hagerman, an experienced teacher, principal, and teacher educator is currently the Director of Teacher Preparation Pathways for DPS. She is responsible for overseeing the design and implementation of urban teacher residencies for preparing highly effective teachers. Prior to joining her current position, she served as the Executive Director and Instructional Superintendent of Innovation schools where she supervised a network of 9 schools. Dr. Hagerman holds a master's degree in Curriculum and Instruction from the University of Colorado, Boulder and a PhD in Educational Administration and Policy Studies from the University of Denver.

Sarah Flanders, DPS program manager. Ms. Flanders currently serves as the field manager for the Denver Teacher Residency/MA program. In this role, she is responsible for providing an array of supports to the residency candidates along with teaching in the program and collaborating with multiple partners at residency sites, mentor teachers, and adjunct professors. Ms. Flanders earned a master's degree in special education at University of Northern Colorado and her administrative license from University of Denver. She has been a coordinator, administrator, teacher, and parent in DPS for over 20 years.

BOCES: *Nita McAuliffe, San Luis Valley BOCES*. Ms. McAuliffe, is the Executive Director of the SLV BOCES, and oversees induction, alternative licensure, and migrant education and special education programs. She works closely with the Superintendent's Advisory Council (SAC) in identifying and meeting the needs of 13 member districts; 12 of which are among the poorest districts in the state. She is responsible for monitoring and advising member districts in matters relating to compliance with federal and state regulations to ensure appropriate instructional programs for all students with. Under Ms. McAuliffe's leadership, SLV BOES has partnered with many rural initiatives of the SEHD including the TTT projects.

Dr. Dana Lambert, South Central BOCES, Dr. Lambert is the Director of Educational Effectiveness at SC BOCES. She leads the strategic planning for all professional development initiatives for SC BOCES member districts. Dr. Lambert's role involves collaborating with superintendents, principals and teachers to ensure outcomes and assessment data are evaluated, analyzed and reviewed to identify future professional development needs. She also holds a licensed professional counselor certificate.

III. Procedures for Feedback and Continuous Improvement in Management Plan

NxtGEN utilizes multiple processes and mechanisms for ongoing feedback and continuous improvement. Implementation of NxtGEN will involve extensive collaboration and communication among the NxtGEN management team at the SEHD, the project director and manager in DPS, and leadership at rural BOCES and the Evaluation Center at UCD, which serves as the external evaluator. During regularly scheduled meetings, NxtGEN management team will review progress as well as timelines and discuss changes to the management plan to ensure accomplishment of project activities. As a built in continuous improvement mechanism, activities under Objective 3.2 require (see page 21) NxtGEN partners to come together once a

semester to review candidate performance and outcomes data and determine whether any adjustments to program delivery and other related aspects are needed to ensure candidate success. The NxtGEN Advisory Council (AC) is also responsible for providing feedback and recommendations for improvements on an ongoing basis. Additional continuous quality improvement (CQI) efforts in the form of formative evaluation by the Evaluation Center are described in the next section.

VI. QUALITY OF PROJECT EVALUATION

I. NxtGEN Evaluation Approach

The Evaluation Center (TEC), an autonomous, not-for-profit affiliate of the School of Education and Human Development (SEHD) will provide the external evaluation. A number of distinct features characterize the Evaluation Center’s proposed approach:

Table 15: Distinguishing Features of the NxtGEN Evaluation	
<ul style="list-style-type: none"> • A <i>robust research/evaluation model</i> informed by a meta-analysis of the literature on key factors that have been shown to shape academic and career persistence among under-represented teacher candidates; • A <i>rigorous mixed methods approach</i> to enhance the validity and reliability of the data collected and conclusions drawn; and, • A unique <i>team of professional evaluators</i> who collectively and individually represent breadth and depth in terms of relevant content and methods, as well as local knowledge;. 	
Research/eval. Model	The extensive logic model (presented in its entirety in Appendix H-6) explicates the chain of causality by which the NxtGEN model will impact student learning through the achievement of key program outcomes.
Mixed Methods Approach	Used to address key evaluation questions (Table 16 below) & document outcomes; methods include, but are not limited to, the use of student growth models & multivariate analyses to assess teacher performance & student learning; geocoding to document statewide reach; social network analysis to document partnership development & capacity building for collective impact; & policy analysis.
Potent Evaluation Team	Professional evaluators with knowledge of & experience in higher education, teacher prep, professional development & school reform including: cross-disciplinary work, program evaluation, P-20 education, counseling & mentoring, STEM fields, community-based participatory research, community organizing, applied anthropology & public policy. (TEC Qualifications, Appendix H-7)

Key evaluation questions. Key questions that guide the evaluation are aligned with each of the NxtGEN TQP goals. Methodological approaches are presented later.

Table 16: Evaluation Questions Organized by NxtGEN Goals	
Goal	Evaluation Questions
All	What is the evidence that the NxtGEN model promotes the recruitment, preparation, & retention of diverse teacher candidates in ways that leverage strengths & address gaps (e.g., curriculum, teacher preparation, workforce, including STEM)? How do the various program components contribute to the recruitment, preparation & retention of effective teachers?
1	What is the evidence that the NxtGEN 4 yr. UGR effectively promotes academic & career persistence? How do retention rates among program graduates compare to state and district rates?
2	What evidence that T-PREP ‘s customized services and support for licensure, induction, & ongoing PD in rural districts meets local needs? What is the effectiveness of online learning in preparation & induction of teachers? How do retention rates among participants compare to state and district rates? Do teachers’ evaluations improve?
3	Are 4Y-UGR & T-PREP participants more effective in raising student test scores than other CO teachers with same level of experience trained through other routes?
3	To what degree does NxtGEN demonstrate continuous quality improvement?
1, 2, 4	What is the evidence that the induction model is responsive to individual teachers’ professional growth & social emotional needs? Is NxtGEN approach associated with increased effectiveness & persistence?
5	What is the evidence that partnership with the Learning Assistants (LA) program enhances recruitment, preparation, & retention of STEM teacher candidates? How does LA program enhance STEM preparation for candidates in all fields? What is the evidence that LAs thrive academically in the program? How do retention rates compare to state & district STEM retention rates?
6	How does the NxtGEN model increase the capacity of faculty & partner educators to implement national & state-level standards-based reforms & serve as a model with CDE, DHE, & other partner districts?

Outcomes and benchmarks linked to goals and objectives of project plan. The outcomes and performance measures used to determine the success of NxtGEN are presented across three benchmark stages in Table 17. The linkages between resources that the initiative will leverage, proposed activities and measures and outcomes have been explicitly delineated in a detailed logic model, in Appendix H-6. A timeline of evaluation activities is in Appendix H-8.

Table 17: Immediate, Intermediate & Long-term Outcomes & Benchmarks		
Short-Term (1-2 years)	Intermediate (3-4 years)	Long-Term (5+ years)
<p>NxtGEN Models:</p> <ul style="list-style-type: none"> • Enhance recruitment, support, preparation & induction • Reflect understandings of urban/rural contexts • Are infused w/ practice-rich clinical experiences • Are responsive to strengths/needs/gaps • Mentors prepared to supervise teacher candidates • Mentor teachers prepared to coach novice teachers • Curric. & assessments aligned w/ teacher effectiveness frameworks, tools <p>4Y-UGR/T-PREP participants:</p> <ul style="list-style-type: none"> • Satisfaction; increased knowledge, skills, social, emotional support, & opportunities to learn <p>Faculty members:</p> <ul style="list-style-type: none"> • High satisfaction with PD • Broadened perspectives on curricula • Increased understanding of reforms & standards <p>Induction/PD support:</p> <ul style="list-style-type: none"> • Leaders collaborate • Provide menu of options for differentiated induction • Optimize resources & delivery • Induction aligned w/teacher effectiveness framework <p>Education Policy:</p> <ul style="list-style-type: none"> • Stakeholder engagement 	<p>NxtGEN Models:</p> <ul style="list-style-type: none"> • Continuous quality improvement (CQI) through documented improvements • Effective performance & satisfaction with graduates • Enhanced understanding of education reforms, stronger content-specific pedagogies • Higher quality content instruction in CLAS courses • Data guides coaching & instruction <p>4Y-UGR/T-PREP participants:</p> <ul style="list-style-type: none"> • Graduate • Pass Praxis/PLACE tests • Demonstrate skill & dispositions to differentiate instruction • Apply responsive pedagogy for diverse learners • Implement best practices • Greater confidence in choosing PD that supports their growth • Greater self-efficacy, academic hope, social-emotional health • Persist in teaching <p>Induction/PD support:</p> <ul style="list-style-type: none"> • Improved instructional practice from support & coaching • Increased social-emotional health, resilience & optimism • Stronger content preparation & better coordination <p>Education Policy:</p> <ul style="list-style-type: none"> • Stakeholders emerge as advocates for NxtGEN models & teacher prep programs, in general 	<p>NxtGEN Models:</p> <ul style="list-style-type: none"> • Broad array of stakeholders engaged in CQI & renewal • SEHD as a model IHE with CDE, DHE & partner districts <p>4Y- UGR/T-PREP participants:</p> <ul style="list-style-type: none"> • Diverse teachers who are well prepared for urban & rural contexts, & reform initiatives • Increased number of teachers implement best practices in LEA classrooms • Teachers persist in education profession & in diverse contexts • K-12 students demonstrate academic growth & achievement <p>Induction/PD support:</p> <ul style="list-style-type: none"> • Implement statewide • Responsive to individual PD needs • NxtGEN Tool-kit disseminated <p>Education Policy:</p> <ul style="list-style-type: none"> • Teacher preparation has strong legislative support in state • Policies reflect key learning from study

In addition to these outcomes, TEC will track key performance measures as indicators of success. These measures can be found in Appendix H-9.

Evaluation methods. To evaluate outputs and outcomes in the logic model, this study relies on qualitative and quantitative data collection (see Table 18). Methods include interviews and focus groups; survey designs; analysis of partnerships; data analysis of teacher retention, performance and effectiveness; geocoding, and cost-benefit and policy analysis.

Table 18. NxtGEN Evaluation Methods	
<i>NxtGEN Initiatives</i>	<i>Methods</i>
Infrastructure in place to recruit, prepare, & retain diverse teacher candidates	<ul style="list-style-type: none"> • Needs assessment with urban & rural districts to determine local context that will inform the clinical experience • Interviews with staff (Recruitment Specialists) & stakeholders • Focus groups with members of advisory council • Partnership development rubric to assess the effectiveness of partnerships (e.g. governance structures, shared decision making) • Geocoding (GIS mapping) of teacher background, placement/persistence in partner districts/BOCES • Program graduates’ retention compared to state/district retention rates
4Y-UGR with DPS recruits, prepares, retains diverse pipeline	<ul style="list-style-type: none"> • Interviews with teacher candidates (over sample underrepresented minorities & STEM recruits) • Pre & post surveys with teacher candidates (validated scales: self-efficacy, standards-based differentiated instruction, academic hope) • Participant observations/focus groups with community members at collaborative engagement opportunities • Growth on DPS LEAP effective teacher evaluation framework; TLIC, QRC, & Professional Dispositions Assessments (compared to current SEHD undergraduate teacher preparation programs & current alternative teacher licensure programs) • Participant retention compared to state & district teacher retention rates • Program graduates’ retention rates compared to state & district secondary teacher retention rates
T-PREP customized services for licensure, induction, ongoing PD in rural districts, BOCES	<ul style="list-style-type: none"> • Analysis of scaled scores on teacher assessments for initial state licensure of teachers • ASPIRE: Growth on DPS LEAP effective teacher evaluation framework; TLIC, QRC, & Professional Dispositions Assessments (compared to traditional undergraduate teacher preparation programs & current alternative teacher licensure programs) • Graduation rates, course persistence (timely completion of core) compared to current SEHD undergraduate teacher preparation programs

	<ul style="list-style-type: none"> • Program graduates’ retention rates compared to state & district secondary teacher retention rates • Key informant interviews with stakeholders to explore local control
NxtGEN programs impact K-12 learning	<ul style="list-style-type: none"> • Analysis of K-12 student learning (using common district/state assessments) comparing program graduates with other teachers with the same level of experience within the same grade, subject area, & if possible, within the same school.
Continuous quality improvement	<ul style="list-style-type: none"> • Document & artifact review (e.g., syllabi, policies) • Observations of meetings (e.g., strategic planning & policy making) • Training offerings & agendas (e.g., how these evolve over time) • Work flow analysis
Induction model supports teachers’ professional growth & social emotional needs	<ul style="list-style-type: none"> • Growth on DPS LEAP effective teacher evaluation framework; TLIC, QRC, & Professional Dispositions Assessments (compared to traditional undergraduate teacher preparation programs & current alternative teacher licensure programs) • 1st & 2nd year teachers’ retention compared to state/district retention • Focus groups with teacher mentors regarding induction (social, emotional support & influence on instruction & persistence) • Focus groups with 1st & 2nd year teachers
Partnership with LA program enhances recruitment, preparation, & retention of STEM teacher candidates	<ul style="list-style-type: none"> • Review of data from program leaders & the institution on # of STEM LAs who teach in required teacher education STEM courses • Interviews/surveys with STEM LAs • Number of STEM LAs recruited through this method • Program graduates’ retention rates compared to state & district secondary STEM teacher retention rates

II. Extent Evaluation Methods Address the TQP Evaluation Requirements

Thorough, feasible and appropriate methods. The methods utilized for this evaluation will be *thorough, feasible and appropriate* to the goals, objectives, and outcomes of the proposed project. First, data will be triangulated through multiple sources (including focus groups, interviews, meeting observations, program and district data) and multiple perspectives (teachers, mentors, faculty, administrators, district leaders, and advisory council members) to ensure a *thorough* understanding and evaluation of the program. Second, because evaluators are independent, yet local, data collection (including observing meetings, reviewing program data, interviewing teachers) will be *feasible* within the scope of this evaluation. Finally, as many

individuals are invested in the success of this new initiative, collecting data from stakeholders at all levels is *appropriate* to the high stakes.

Valid and reliable performance data. The methods utilized for this evaluation provide *valid and reliable* performance data on relevant outcomes. *Validity* will be strengthened through the use of validated instruments. While in the program, teacher candidates will be evaluated using program and university assessments based on the CTQS. Surveys using validated scales of teacher efficacy and academic hope will be used to assess changes in candidates' beliefs over time. Upon graduation, teacher candidates will take the Praxis/PLACE assessments, a validated measure used throughout Colorado IHEs. Once graduates become teachers of record within schools, they will be evaluated on their effectiveness of the district specific CTQS measure and on their impact on student learning using validated measures used across districts. Triangulating data from multiple sources/stakeholders and employing widely used, validated scales will help ensure the external validity of the findings from the NxtGEN program to other teacher preparation programs. In terms of *reliability*, inter-item reliability will be assured by using multiple items within a survey or assessment to measure central concepts (e.g., teacher subject knowledge, self-efficacy) and internal consistency will be measured for all surveys and assessments annually over the course of the evaluation.

Data Analysis: This evaluation will analyze the relationships between the program and intended outcomes in the proposed logic model. Nonparametric and parametric analyses will be performed. To assess the impact of the program on K-12 student achievement, we will use student growth methods to compare student test scores among undergraduate residents and T-PREP participants with other teachers with the same level of experience in years 4 and 5. In our sample we will include residents who have become teachers of record, matched with other

teachers with the same level of experience within the same grade, subject area, and if possible, the same school. The outcome variable will be district/state assessments, which provide consecutive years of data on student learning in key subject areas. This analysis will control for teacher and student background as well as class and school characteristics in the model.

Annually, analysis of artifacts, focus group data, interviews, and observations will be coded using thematic analysis techniques. Themes will be verified through the participants’ narratives and "thick," detailed description from the field notes. Data displays, matrices, graphs, and charts will be created to help organize and structure data throughout the data collection and analysis process. Validity and reliability will be assured through the process of triangulation where data is collected through different sources to include interviews, observations, and document analysis to build justification for the themes identified (Creswell, 2013).

Table 19: Procedures for Data Collection & Analysis	
Method	Description
Needs Assessment	In collaboration with SEHD & urban & rural districts, evaluators will develop a survey of stakeholders to determine local context to inform the clinical experience, with particular attention to use of Standards & STEM supports.
Pre & post surveys with teacher candidates	Through pre-post surveys, the evaluation will collect background characteristics of participating students, explore program satisfaction, knowledge/skills gained, & change in self-efficacy, perceived ability to differentiate standards-based instruction, & sense of academic hope over time in the program. Because these same scales will be used in the Pathways to Teaching evaluation, it will be possible to compare participants in this 4-year UG program with undergraduates in the traditional UCTE teacher preparation program.
Faculty surveys	Surveys will assess: faculty member satisfaction with training & usefulness of training in curriculum review; whether involvement has broadened faculty perspectives on curricula/ preparation of teacher candidates & increased their understanding of state & national reforms; and the extent to which faculty members are engaged in continuous quality improvement & renewal.
Program data & artifacts	<ul style="list-style-type: none"> • Program data to determine whether program is demonstrating engagement in a CQI process (e.g. documented refinements/improvements to the program) • Program data on the number of STEM LAs recruited • Syllabi to examine whether changes are responsive to assessment findings • Training offerings & agendas to explore how documents evolve over time • Course persistence & graduation rates to assess timely completion & to compare rates with traditional undergraduate teacher preparation program

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Principal surveys	Surveys will assess principals’ satisfaction with program graduates, their perception of teacher effectiveness, & the role the program may have in filling specific positions at their school (e.g. hard to staff schools, STEM, positions working with multilingual learners & students with disabilities).
Staff, stakeholder & participant interviews	<ul style="list-style-type: none"> • The NxtGEN partners to explore the policies & practices that support teacher candidates during their 4 yr. Residency & T-TREP experience • Teacher candidates to explore students’ experience in the program, the support & mentoring they received, their recommendations for program improvement (oversample underrepresented minorities) • Community members at collaborative engagement opportunities to learn whether these individuals emerge as advocates for the NxtGEN model & for teacher preparation programs, in general • Learning Assistants to understand their recruitment & support in the program
Focus groups	<ul style="list-style-type: none"> • Members of the NxtGEN Advisory Council • Teacher mentors to explore their approach to mentoring, the infrastructure for induction in the program, & whether they feel more prepared to supervise teacher candidates • Teacher candidates during the course of program (oversample underrepresented students) • 1st & 2nd year teachers who graduated from programs
State & district databases	<ul style="list-style-type: none"> • Compare program participant retention rates with state & district teacher retention rates (including STEM teacher retention rates). Also, using a non-randomized quasi-experimental design, this evaluation will control for all known variables (collected through application & pre-survey data) to assess differences in graduation & retention between 4-year UG residents in the traditional UCTE teacher preparation program. • Assess K-12 student growth & achievement comparing students of ASPIRE graduates with students of teachers in the same district using CDE data.
Observations	Meetings to be observed include the Teacher Education Council, NxtGEN Advisory Board, & State Advisory Board on early childhood education
Partnership rubric	Evaluators will use the partnership development rubric to assess the effectiveness of partnerships (e.g. governance structures, shared decision making), particularly with NxtGEN leaders.
Geocoding	Evaluators will use geocoding (GIS mapping) to map the diversity of teacher backgrounds, graduates’ placement sites across state, & track their persistence in partner districts/BOCES.
Participant assessments & evaluations	Assess teacher candidates’ ability to demonstrate learning in instructional practice (measured through growth on DPS LEAP effective teacher evaluation framework; TLIC, QRC, & Professional Dispositions Assessments) compared to traditional UG teacher preparation programs & current alt. lic. programs. These measures explore teacher candidates’ skills, knowledge, & dispositions to differentiate instruction; apply responsive pedagogy for diverse learners; & implementation of instructional best practices. Evaluators will analyze scaled scores on assessments for initial state certification or licensure.

Performance Feedback, Periodic Assessment of Progress. Program evaluation, like continuous quality improvement (CQI), is guided by a commitment to helping organizations achieve desired outcomes, such as enhanced quality, customer satisfaction, and cost-effectiveness and both utilize many of the same methods/approaches to support the achievement of goals, such as stakeholder engagement, logic model development and process mapping. Both also share a commitment to building organizational capacity and utilizing data to support improvements.

TEC will support CQI by strategically aligning it with the efforts of the NxtGEN Advisory Council and Teacher Education Leadership Team (TELT), and University Teacher Education Coordinating Council (UTECC) to achieve systems-level change. This strategic alignment will permit the experts on these leadership/management teams, who collectively possess the necessary social and political capital, to move change initiatives forward. In the annual cycle of CQI, evaluators identify strengths and gaps (i.e., opportunities for improvement) within NxtGEN using needs assessments (conducted in Years 1 and 4), stakeholder interviews, document reviews, policy analysis and ongoing performance measures tracking. NxtGEN personnel and the NxtGEN Advisory Board members can, in turn, leverage their leadership positions to garner the buy-in of stakeholders (e.g., faculty) for rapid cycles of assessment and refinement. The annual cycle will come full circle as the evaluation team ascertains the effects/results based on indicators of quality, effectiveness and satisfaction.