

in classrooms where they offer a rich set of collaborative, well-supported experiences for students who are carefully observed and assessed to foster their growth and development.

Bank Street teachers are known for their deep knowledge of children, their highly personalized approach, and their strong outreach to families and connections to communities. Bank Street teachers are highly regarded by principals, with 90 percent of employers who responded to a recent survey noting that Bank Street graduates are well or very well prepared as teachers.<sup>24</sup> Moreover, on our Learning Policy Institute (LPI) survey of Bank Street candidates who were completing the program, over 95 percent report feeling “well” or “very well” prepared to do the following: use instructional strategies that promote active student learning, understand how factors in students’ environment outside of school may influence their life and learning, plan instruction based on how children develop, engage students in cooperative group work as well as independent learning, relate classroom learning to the real world, choose teaching strategies for different instructional purposes and needs, develop students’ questioning and discussion skills, and develop curriculum that helps students learn content deeply so they can apply it in new situations.

### CU Denver

The University of Colorado at Denver (known as CU Denver) is also a large teacher preparation program, serving approximately 750 teacher candidates in five distinct, but interrelated, pathways that accommodate diverse students. These pathways vary in their structure, pace, and timing of preparation to attract and support teacher candidates from a wide range of backgrounds and experiences. However, the faculty strongly consider the various pathways to constitute one program and have organized them around common standards and experiences. They all embody CU Denver’s commitment to developing in teacher candidates the knowledge, skills, and dispositions that deeper learning and social justice teaching require, as well as the wherewithal to change the structures and practices that make such teaching so challenging in schools located in communities of poverty.

In 2015–16 the five distinct pathways served (1) 350 traditional undergraduate students; (2) forty-three first-generation undergraduates who participated in an innovative residency (NxtGEN) that employed them as paraprofessionals while they were taking classes, as one way to provide much-needed financial and other supports to navigate college and licensure; (3) fifty graduate students training as residents for employment in the Denver Public Schools (Denver Student Teaching Residency); (4) fifty

full-time preservice graduate students training in professional development schools; and (5) more than two hundred uncertified bachelor’s degree holders, including many Teach for America (TFA) corps members, who were employed as teachers in area school districts and charter schools and who pursued licensure through alternative routes (Aspire to Teach).

The large number of alternative-route candidates is the result of a state education policy context that encourages free-market strategies for teacher education and schooling. This context further complicates the task of preparing teachers to provide historically underserved students equitable access to deeper learning. The CU Denver faculty and their school partners have responded in extraordinarily creative ways to this difficult environment, including creating new pathways into teaching for nontraditional teacher candidates that preserve their commitment to high-quality teacher preparation.

For all pathways, in both courses and clinical placements, teacher candidates’ learning is guided by a common set of essential questions and anchor experiences, and their knowledge and skills are demonstrated through common performance assessments. These program elements enable teacher candidates to form strong and supportive teaching-learning relationships with university faculty, teachers and leaders in their placement sites, and their peers—all of which are key to their becoming well-prepared professionals.

Four essential questions serve as a frame for teacher candidates as they move through the program, and for instructors as they design their courses:

- *Essential question 1: What do I know and believe about myself, my students, their families, and their communities within the larger social context?*
- *Essential question 2: How do I act on these beliefs to create inclusive and responsive learning opportunities and transform inequities?*
- *Essential question 3: How do I enact principles of social justice and equity, inclusiveness, cultural and linguistic responsiveness, learning theory, and discipline-specific pedagogy within my pedagogical practices to plan, revise, and adjust curriculum, instruction, and assessment to ensure success and growth for all my students, always acting as a critical urban educator to advocate for my students?*
- *Essential question 4: How do I reflect upon principles of social justice and equity, inclusiveness, cultural and linguistic responsiveness, learning theory, and discipline-specific pedagogy within my pedagogical practices in order to further plan, revise, and adjust curriculum, instruction, and assessment to ensure success and growth for all of my students, always acting as a critical urban educator to advocate for my students?*

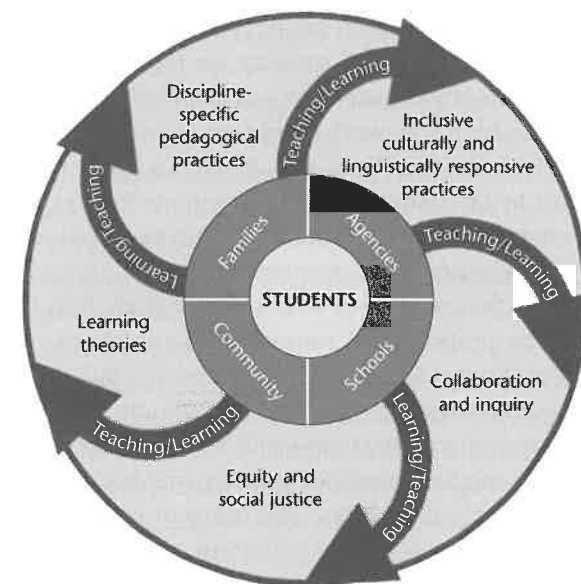
Candidates experience a curriculum focused on deepening their subject-matter knowledge, on instructional practices that reflect the science of learning, and on social and racial justice for students attending urban schools in high-poverty neighborhoods. University coursework engages the teacher candidates in the deeper learning pedagogy that they are being taught to use. Intensive and well-articulated clinical placements in professional development schools (PDS) in neighborhoods of concentrated poverty provide apprenticeships with teachers who themselves teach for deeper learning.

This PDS strategy began in the early 1990s when CU Denver was one of the earliest members of the National Network for Educational Renewal, a group of university teacher education programs that were dedicated to the simultaneous renewal of schools and the institutions that prepare teachers. The PDSs were intended to engage the faculty of the school together with university partners in an ongoing process of improving the education provided to the preK–12 students attending the schools and, at the same time, provide high-quality clinical settings in which future teachers could learn to teach and become part of a professional community. The PDSs became and continue to be core partners in CU Denver's teacher preparation program as they focus increasingly on deeper learning and social justice. We discuss this partnership strategy more fully in chapter 10.

A major goal of all the CU Denver pathways is to have every graduate ready to teach in urban schools with linguistically, racially, and socioeconomically diverse populations. Accordingly, CU Denver aligns its program to a set of deeply held and shared values that include basing instruction on what we know about learning and on the centrality of language, culture, and identity. In addition, deep knowledge of, and relationships with, communities and families inform deeper learning experiences that are rigorous and relevant. These merge in the program's conceptual framework, depicted in figure 2.1, which shows the various dimensions of teaching and learning that must be considered in such contexts and their connections to one another. This framework guides the candidates as they develop their teaching practice as well as experience being learners themselves. When teacher candidates conceptualize and plan for student learning, they place K–12 students at the center of the framework. When faculty are focused on candidates' learning, the teacher candidates are themselves in the center.

As a result of this approach, 96 percent of CUD candidates reported on our LPI survey that they feel "well" or "very well" prepared to teach students from diverse racial, ethnic, and linguistic backgrounds, and more than 80 percent report being "well" or "very well" prepared to teach students

FIGURE 2.1 CU Denver conceptual framework



from a multicultural vantage point, to teach in ways that support English learners, to understand how factors in students' environment outside of school may influence their life and learning, and to teach in ways that support students' social, emotional, physical, and cognitive development.

Employers give CU Denver alums high marks as well. A 2015 survey of employers administered by a faculty member found that more than 90 percent judged CU Denver alums to be "very well" or "well" prepared to teach their content areas, to use technology and assessments to support learning, and to establish classrooms with respectful relationships and a focus on learning. More than 80 percent of employers found alums to be "well" or "very well" prepared to support critical thinking and to deepen students' understanding of concepts, to use performance-based assessments, and to support social, emotional, and cognitive development—that is, to enable deeper learning.<sup>25</sup>

#### High Tech High

High Tech High School (HTH), launched in September 2000, offers a project-based learning environment infused with technology that aims to provide

students with deep, engaging, and relevant learning experiences aligned with four key design principles: equity, personalization, authentic work, and collaborative design. The HTH model is designed to integrate technical and academic education, prepare students for future education, and create a sense of community engagement and responsibility. HTH has grown from one high school to a network of thirteen charter elementary, middle, and high schools in the San Diego area. It offers a teacher education program, accredited by the California Commission on Teacher Credentialing, that prepares educators to teach in the HTH network as well as in seventeen other schools that partner with the program.

Established to train educators who embrace High Tech High's design principles and the project-based learning (PBL) approach, the two-year, school-embedded teacher preparation program consists of three separate tracks: a single-subject track for grades 6–12, a multiple-subjects track for self-contained elementary classrooms and some middle school subjects, and the education specialist track for teachers working with students who have mild to moderate disabilities. The program operates alongside the High Tech High Graduate School of Education (GSE), established in 2006. The HTH GSE includes two MEd degree programs, one focused on teacher leadership and the other on school leadership, and is adding a teacher residency program.

High Tech High's internship teacher preparation program is accredited to prepare California K–12 teachers through intensive fieldwork, mentorship, and project-based coursework aligned to state standards. In California, regulations governing intern pathways into teaching require that candidates complete an approved program of teacher education coursework and supervised clinical work that allows them to meet the same competencies as those who are prepared in traditional preservice routes. This includes receiving intensive mentoring and supervision while learning to teach and passing all the licensure tests and a state-approved teacher performance assessment.

Unlike programs that admit and train candidates who are then hired by schools, the High Tech High program admission process begins with the HTH schools' hiring process. Candidates go through the same intensive interview process as any teacher hired by HTH. Depending on their qualifications, candidates may be admitted either as intern teachers responsible for their own classrooms or—if they lack prior teaching experience—as apprentices, who will work side by side with veteran teachers until they are ready to take on their own class.

Interns and apprentices assume full or partial teaching or coteaching duties while participating in the program and take courses in the evenings. These courses are most often taught by experienced, veteran teachers and administrators of HTH schools. Because so many instructors come from the ranks of HTH educators, HTH program faculty model the type of instruction that interns will be expected to use in their K–12 classrooms, using the same design principles and methods used in HTH schools. The expectation is that intern teachers will use HTH's principles in the classroom while simultaneously experiencing them in their teacher training—a feature that makes for strong alignment between preparation and practice.

For example, contextualization of learning in real-world work, student engagement, and personalization are important practices that intern teachers are learning to provide to their students, just as their preparation program provides these opportunities to them. Similarly, comparable structures exist between HTH's K–12 schools and the intern program, as illustrated in "High Tech High: Matching Program to Principles."

Coursework and clinical work are tightly linked and reinforce one another. In their courses, candidates learn about development and learning, teaching methods, assessment strategies, and supports for student learning in ways that take theory and "Put It to Practice." Known within the program as PITP, Put It to Practice is a common course assignment structure where interns learn about a new concept or practice in a course, apply it in their own classrooms, and then come back to the course to reflect on that application.

Being fully embedded in the work of their schools means that HTH intern teachers receive mentoring from a close advisor for two years and have many opportunities to get to know their students and to engage with the work of their schools. They participate in family conferences, Individualized Education Plan (IEP) meetings, collaborative planning with faculty, and other activities outside their own classrooms. Some of these activities, such as Family Collaborative Nights, student advising, and home visits are features of the HTH network. All of these experiences connect interns to the students and families that the schools serve, helping to build on their coursework and develop their knowledge of community.

Not surprisingly, given the many connections between coursework and fieldwork, 100 percent of HTH candidates report experiencing collaborative learning and group work frequently in both their courses and their clinical work, and 90 percent or more also say that they *often* have opportunities to engage in assessments of their knowledge that require them to demonstrate

### High Tech High: Matching Program to Principles

Design principle	Attributes of the school/intern program
<b>Equity:</b> High Tech High schools are intentionally diverse and integrated, enrolling students through a zip code-based lottery aimed at creating schools that are reflective of the communities they serve.	<ul style="list-style-type: none"> <li>• Student population is diverse; program aims for increasing intern diversity.</li> <li>• A variety of teaching approaches are used to accommodate diverse learners.</li> <li>• Technical and academic learning are integrated across the curriculum.</li> </ul>
<b>Personalization:</b> High Tech High schools foster student engagement by knowing students well, tapping into students' experiences and interests, and building a strong sense of community.	<ul style="list-style-type: none"> <li>• Small learning community structure allows teachers to know students well.</li> <li>• Advisory program for all students includes individual advisors (mentors) for candidates</li> <li>• Projects reflect students' interest and passions.</li> <li>• Integrated support services are available for students with special academic and/or social and emotional needs.</li> </ul>
<b>Authentic Work:</b> All students engage in community-based learning, collaborating with adults on meaningful work that extends beyond the walls.	<ul style="list-style-type: none"> <li>• Students connect their studies to the world through fieldwork, internships, and consultation with outside experts.</li> <li>• Projects integrate hands and minds and incorporate inquiry across multiple disciplines.</li> <li>• Students have one-on-one relationships with adults in field placements.</li> </ul>
<b>Collaborative Design:</b> High Tech High teachers collaborate to design curriculum and projects, lead professional development, and participate in hiring, while seeking student experience and voice in each of these areas.	<ul style="list-style-type: none"> <li>• Teaching staff includes experienced master teachers, recent university graduates, and professionals from the world of work.</li> <li>• Curriculum is designed by teachers in collaboration with students, and reflects both teacher and student interests.</li> <li>• Teachers meet in teams for at least one hour daily for planning and staff development.</li> </ul>

Source: Adapted from High Tech High, "About High Tech High," <https://www.hightechhigh.org/about-us/>.

and apply their learning and to revise their work in response to feedback. At least 90 percent report often experiencing culturally responsive practices that draw on students' experiences and/or community knowledge in both their coursework and their clinical placements. Since the program is based on HTH's design principles, it is also unsurprising, though still remarkable, that 90 percent or more feel well prepared to design effective project-based instruction; develop curriculum that builds on students' experiences, interests, and abilities and helps students learn content deeply so they can apply it in new situations; create interdisciplinary curriculum; teach students

from diverse ethnic, linguistic, and cultural backgrounds; and teach in ways that support English learners as well as students with special education needs. Also in line with the design principles, 100 percent feel well prepared to relate classroom learning to the real world.

### Montclair State University

Like CU Denver, Montclair State University (MSU) provides an extraordinary example of a large, diverse program that prepares teachers for deeper learning at scale while including a variety of pathways into the profession. MSU produces a large share of New Jersey's teachers: between 2010 and 2012, 1,418 certified educators completed the program, and 657 of them (46 percent) were employed in New Jersey public schools the following school year.<sup>26</sup> (Many graduates also go to nearby New York or Pennsylvania, or return to their state of residence after completing their program at MSU.)

Located just across the George Washington Bridge from New York City, Montclair State University was established as the New Jersey State Normal School at Montclair in 1908. The institution became a state college in 1958, gained university status in 1994, and received Carnegie designation as a Research Doctoral Institution in 2016. Through all these changes, teacher preparation has remained a central focus. In the 1990s, the college initiated the Montclair State University Network for Educational Renewal (MSUNER), a partnership between Montclair State and thirty-one member school districts. As was the case at CU Denver, the Montclair partnership is part of the National Network for Educational Renewal, which ushered in many of the practices, policies, and structures that enable the extraordinary work it undertakes. The university has long had a special commitment to nearby Newark Public Schools, the largest school district in New Jersey.

To meet the various needs of those wanting to enter the profession, the Teacher Education Program includes multiple pathways into teaching, including undergraduate, graduate, and postbaccalaureate programs, two residency programs, and dual teaching/special education certification pathways, one focusing on inclusive STEM education. Although the program structures differ and the pathways draw from disparate candidate pools, all are intentionally housed within and linked through the Center of Pedagogy and the National Network for Educational Renewal, which share a common vision. All pathways feature serious clinical practice in a partner school, a focus on inquiry, an emphasis on child and adolescent development, and attention to social justice and teaching for equity in urban settings.