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Connecticut Educator Insights on Building a More Effective, Diverse Educator Workforce

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CONNECTICUT EDUCATOR INSIGHTS ON BUILDING A MORE EFFECTIVE, DIVERSE EDUCATOR WORKFORCE

MARCH 2023



About CPRL

The Columbia University Center for Public Research and Leadership (CPRL) is an education research, leadership, and policy center housed at Columbia Law School. Since its founding in 2011, CPRL has trained over 600 future leaders, all of whom have staffed CPRL's research and consulting projects conducted on behalf of systems seeking to provide each and every student exceptional learning experiences. CPRL's emphasis on broad community and family participation and collaborative problem-solving ensures that its recommendations, supports, and tools leverage diverse perspectives and strengths, are customizable to local communities, and promote equity and lasting change.

CPRL's launch and facilitation of the CT Innovation Cohort is a continuation of a decade of work throughout the state of Connecticut.

About the CT Innovation Cohort

The CT Innovation Cohort, launched by CPRL in Summer 2021, is a group of Connecticut school systems and advisory partners committed to advancing system transformation that enables schools and educators to equitably serve students. Over the past 18 months—in partnership with a Cohort Advisory Council composed of education, educator preparation, business, policy, and community experts throughout the state—CPRL and Cohort members have collaborated with staff, students, communities, and one another to reimagine the ways in which local systems and the state can support exceptional learning experiences for each and every student.

The Cohort's local system transformation efforts reveal that the state's educator preparation and certification framework impedes schools' and systems' ability to hire, deploy, and retain effective, diverse faculty. To inform broader policy recommendations, the Cohort sought a more systematic understanding of individuals' lived experiences navigating the current laws and regulations. This report captures the ensuing research that CPRL conducted with input from Cohort members.

Acknowledgments

This work would not have been possible without the insights and experiences that Connecticut pre-service educators, current teachers, and administrators shared in interviews and focus groups.

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Introduction

Teachers are the strongest school-based determinant of student success.¹ Yet at the start of the 2022-23 school year, across the state of Connecticut, over 1,200 certified staff member positions were vacant.² The educator shortage was particularly acute in upper-level math and science, special education, and bilingual education.³

Despite growing demand for educators in those subject areas, the number of pre-service educators pursuing those endorsements has generally remained constant or decreased between 2015-2021, suggesting that absent meaningful change, shortages will persist.⁴

Traditionally under-resourced districts, including the state's urban centers, that serve a high proportion of Connecticut's students living in poverty and the state's Black and Latino/a/e students, face more acute staffing challenges. Not only do these districts report a higher number of unfilled positions across shortage areas, but they also report a higher student-teacher ratio in traditional shortage areas such as science.⁵

The state's staffing challenges extend beyond sheer numbers. In the midst of an overall shortage of effective educators, the state has struggled to diversify its educator workforce despite a rapidly transforming student population. Black and Latino/a/e students made up over 41% of Connecticut's student population during the 2021-2022 school year. Yet only 9% of the state's educators identify as Black or Latino/a/e. Additionally, 42% of the state's school districts employ five or fewer Black educators and over half of the districts employ five or

fewer Latino/a/e educators. Asian students meanwhile made up over 5% of the state's student population during the most recent school year. But just over 1% of Connecticut educators identify as Asian.⁷ This lack of educator diversity threatens the quality of learning opportunities that students across the state receive, as research finds that increases in educator diversity benefit all students in both the short- and long-term.⁸

Educators, administrators, and policymakers hypothesize that the state's current educator preparation and certification process contributes to the state's twin challenges of addressing its educator shortage and diversifying its educator workforce. This study explores that hypothesis, investigating the qualitative effects of the state's current educator preparation and certification processes on aspiring and current educators and on education leaders seeking to deploy their staff to best meet student needs.

The study is organized around three lines of inquiry:



How and to what extent does Connecticut's current approach to educator preparation and certification pose a barrier to building and sustaining an effective and diverse workforce?



How and to what extent has the current educator shortage impacted schools' ability to meet each and every student's needs?



What design features do
Connecticut classroom teachers and
administrators recommend should
be present in a modernized statewide
educator workforce strategy?

To answer these questions, CPRL conducted an introductory set of over 100 stakeholder conversations to gain a better understanding of Connecticut's education preparation and certification framework and its effects on current and aspiring educators, as well as a systematic review of the educator certification literature and of the current rules and regulations. CPRL then conducted targeted interviews and focus groups with 60 stakeholders, including pre-service educators, current teachers, and school- and system-level administrators to understand their lived experiences navigating the state's educator preparation and certification requirements.

Key findings include:

Connecticut's educator preparation and certification processes contribute to the state's educator shortage and pose barriers to diversification of the educator workforce.

Time and costs associated with educator preparation and certification affect individuals' decisions and ability to enter the teaching profession, dissuading some from pursuing a teaching career and preventing other promising candidates from obtaining certification. Pre-service coursework and required exams lack alignment with the knowledge and skills educators need to be successful in the classroom. Additionally, amidst a rapidly diversifying student population, barriers including cost and too few diverse mentors hamper state efforts to diversify the educator profession.

The current educator shortage inhibits student learning, worsening existing inequities.

The state's current educator shortage limits the quantity and quality of students' access to supports needed to learn and thrive. Shortages disproportionately harm subgroups of students that have been traditionally underserved, including Black and Latino/a/e children, children who are English language learners, children with disabilities, and children living in lower-income urban communities.

Educators and administrators have a clear, compelling vision for change.

Recommendations for improving the educator preparation and certification process include (i) building streamlined, flexible pathways into the profession; (ii) enabling in-service educators to broaden their scope of practice to meet more students' needs; (iii) holding educator preparation programs (EPPs) accountable for both the quality of training experiences and outcomes for candidates; (iv) creating improved data transparency regarding the state's distribution of educators and educator vacancies and accountability for remedying observed inequities; and (v) strengthening statewide commitments to treating educators as professionals and lifelong learners who deserve and need access to high-quality professional learning and mentorship throughout their careers.

Background

Educator preparation and certification regulations dictate every step of the educator training, onboarding, deployment, and advancement processes through mandates regarding (i) the courses and assessments pre-service candidates must complete, (ii) how educators can advance from initial certification to more advanced levels of certification, and (iii) how leaders can deploy their staff, among other topics.

Last overhauled in 1998 and elaborated over 150 pages, the certification regulations stipulate that "no teacher, supervisor, administrator, special service staff member or school superintendent shall be employed in any of the schools of any local or regional board of education unless such person possesses an appropriate state certificate." Exceptions include (i) time-limited emergency orders issued by the governor and (ii) short-term substitute permits. Also, up to 30% of a charter school's educator workforce may hold a Charter School Educator Permit (CSEP) in lieu of a standard state-issued certificate. It

In addition to an initial set of temporary certificates, there are three tiers of longer-term certification: (i) the Initial Educator Certificate; (ii) the Provisional Educator Certificate; and (iii) the Professional Educator Certificate. To obtain an initial certification, pre-service educators must complete a state-approved planned program of general academic and professional education at a regionally accredited college or university.

Along with 15 traditional EPPs, the Connecticut State Board of Education has also authorized four alternative certification providers. ¹⁴ These alternative providers typically offer an accelerated program of study and may offer hybrid courses to allow pre-service educators to balance course requirements with other obligations such as employment and childcare. Each Connecticut educator preparation program establishes its own admission and program requirements above and beyond state regulations which may include a minimum undergraduate course cumulative grade point average above that mandated by the state.

Pre-service educators must also complete several assessments, which include:

- A Reading, Writing, and Mathematics Competency
 Examination: Applicants in all content areas must take
 a basic competency examination to be admitted to an
 educator preparation program. Applicants may satisfy this
 requirement by taking the three Praxis Core exams or one
 of the other State Board-approved equivalent assessments;
 however, EPPs may choose only to accept Praxis Core tests.
- Subject-Specific Exams: Applicants must pass approved subject area assessment(s) appropriate to the applicant's certification endorsement(s). These exams, which include Praxis II, test content knowledge and teaching skills in specific subject areas.
- edTPA: Applicants must also pass edTPA, a performance-based, subject-specific assessment intended to measure and support the skills and knowledge that teachers need from Day 1 in the classroom. edTPA covers various topics including instruction planning, engaging students in learning, assessing learning, and supporting academic language development; it also requires the submission of artifacts (i.e., lesson plans, videos, and student work).

Advancing from an Initial Certificate to a Provisional Certificate generally requires, with some exceptions, completion of ten school months of "successful" service under the Initial Certificate and completion of the Teacher Education And Mentoring (TEAM) Program. Detaining a Professional Certificate requires 30 school months of "successful" service under the Provisional Certificate and the earning of a master's degree from a regionally accredited college or university.

Research Design

Key Research Questions

Between September 2022 and January 2023, CPRL sought to answer the following research questions:

- How and to what extent does Connecticut's current approach to educator preparation and certification pose a barrier to building and sustaining an effective and diverse workforce?
- How and to what extent has the current educator shortage impacted schools' ability to meet each and every student's needs?
- What design features do Connecticut classroom teachers and administrators recommend should be present in a modernized statewide educator workforce strategy?

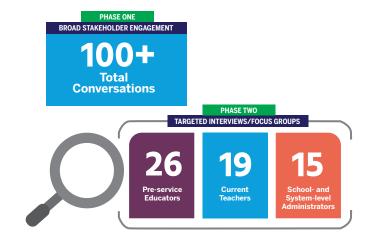
Methodology

To answer these questions, CPRL conducted two phases of interviews and focus groups. The first phase included over 100 conversations with educators, PK-12 administrators, EPP personnel, non-profit and advocacy organization leaders, national researchers, and former and current Connecticut State Department of Education (CSDE) employees to gain a better understanding of Connecticut's education preparation and certification framework. These conversations helped CPRL to refine interview questions, to posit hypotheses meriting further exploration, and to identify stakeholders for more targeted data collection.

CPRL then conducted targeted interviews and focus groups with 60 stakeholders, including pre-service educators, current teachers, and school- and system-level administrators to understand their lived experiences navigating the state's educator preparation and certification requirements.

In the second phase, CPRL identified participants using snowball sampling,¹⁷ beginning with individuals identified by CT Innovation Cohort participants¹⁸ and additional educational organizations throughout the state.

Figure 1. Study Participants



Prior to beginning interviews and focus groups, CPRL conducted a systematic review of research on educator certification, on barriers to the educator profession, and on the impact of educator shortages on students. CPRL also reviewed Connecticut's current statutes, regulations, and government-issued guidance pertaining to educator preparation and certification. CPRL then generated questions for phase 1 study participants. Based on phase 1 conversations, CPRL generated a streamlined set of questions for phase 2 interviews and focus groups. During both phases, the research team's sampling strategy targeted stakeholders representative of diverse geographies, diverse races and ethnicities, and diverse experiences working in traditionally well-resourced and traditionally under-resourced schools and systems.

To analyze data collected from interviews and focus groups, the team reviewed interview notes and recordings, and coded the data into categories derived from the literature review. The team also triangulated what was learned through both phases of stakeholder interviews and focus groups with the results of the desktop research described above. Final themes, overall structure, and the relative pertinence of each finding emerged from deliberation throughout this process.

Research Findings

SNAPSHOT OF KEY TAKEAWAYS

CPRL's research revealed the following:

Connecticut's educator preparation and certification processes contribute to the state's educator shortage and pose barriers to diversification of the educator workforce.

Time and costs associated with educator preparation and certification affect individuals' decisions and ability to enter the teaching profession, dissuading some from pursuing a teaching career and preventing other promising candidates from obtaining certification. Pre-service coursework and required exams lack alignment with the knowledge and skills educators need to be successful in the classroom. Additionally, amidst a rapidly diversifying student population, barriers including cost and too few diverse mentors hamper state efforts to diversify the educator profession.

2

The current educator shortage inhibits student learning, worsening existing inequities.

The state's current educator shortage limits the quantity and quality of students' access to supports needed to learn and thrive. Shortages disproportionately harm subgroups of students that have been traditionally underserved, including Black and Latino/a/e children, children who are English language learners, children with disabilities, and children living in lower-income urban communities.

3

Educators and administrators have a clear, compelling vision for change.

Recommendations for improving the educator preparation and certification process include (i) building streamlined, flexible pathways into the profession; (ii) enabling in-service educators to broaden their scope of practice to meet more students' needs; (iii) holding educator preparation programs accountable for both the quality of training experiences and outcomes for candidates; (iv) creating improved data transparency regarding the state's distribution of educators and educator vacancies and accountability for remedying observed inequities; and (v) strengthening statewide commitments to treating educators as professionals and lifelong learners who deserve and need access to high-quality professional learning and mentorship throughout their careers.

Connecticut's educator preparation and certification processes contribute to the state's educator shortage and pose barriers to diversification of the educator workforce.

The time and costs associated with educator preparation and certification pose a formidable barrier for many dedicated, promising candidates.

Nearly every pre-service educator interviewed by CPRL cited cost as one of their primary concerns both before embarking on their pre-service training and throughout their completion of pre-certification requirements. Many current teachers noted that the costs associated with training almost prevented them from obtaining their certification altogether. Financial considerations that pre-service and current teachers cited as particularly burdensome include: (i) the cost of taking (and retaking) required exams, (ii) the lack of payment for student teaching (a mandatory prerequisite for certification), and (iii) tuition for educator preparation programs as compared to teachers' starting salaries.

"I'm putting in lots of hours tutoring every single week just so I can afford to go grocery shopping. I find myself saying 'I have a chem degree in my back pocket, what am I doing trying to get my teaching certification?' and I don't want to have to think like that. My passion is with teaching and kids but getting across the finish line has been hard."

- Pre-service Educator

Several teachers and administrators noted that the requirements for teachers to obtain cross-certification (i.e., a certification in a subject area other than the one in which the teacher obtained their initial certificate) are both logistically and financially impractical. "We have classroom teachers who would like to pursue becoming

special ed teachers, but the state requires them to go back and do a practicum experience in special ed, which means they have to walk away from their teaching job," one administrator noted. Enabling teachers to more easily cross-certify in special education should be a priority given that it has been a consistent shortage area in the state, the administrator emphasized.

Additionally, time and cost requirements make it challenging to recruit "career changers," or individuals with in-demand skillsets interested in pivoting to the classroom. One administrator described interviewing a candidate with an MD/PhD for a biology position. "[S]he was only allowed to be a substitute teacher for \$75 a day," the administrator shared. "She would have had to go back to school after completing her PhD and medical degree to teach high school biology—we lost her."

Questions exist regarding the level of alignment between preservice coursework and required exams, on the one hand, and the knowledge and skills educators need to be successful in the classroom, on the other.

Most current teachers and administrators interviewed noted that, in hindsight, their preparation program coursework was not well-connected to what they needed to know in order to be effective early-stage teachers. One experienced educator even asserted that she perceived "no connection" at all between what she learned in her training and her classroom responsibilities. Many pre-service educators shared that the pedagogical theory they learned in their pre-service classes often felt disconnected from and/or overshadowed "the actual teaching component" of their training. They

"A lot of the strategies we learn from our professors are kind of outdated, because they haven't been in classrooms themselves for quite some time. Then, when we go to our student-teaching, our host teachers say that the strategies we're using are outdated and won't work."

- Pre-service Educator

lamented insufficient opportunities to apply theory in simulated and real-world settings and to receive feedback on ways to improve their practice. Other pre-service educators expressed concern that EPP curricula has not kept up with innovative approaches to teaching, especially those aimed at supporting traditionally underserved students and achieving equitable student outcomes.

In large part due to the concerns noted above, the majority of teachers interviewed expressed that they felt unprepared for their first year of teaching. Some teachers further explained that the stress of their first classroom placement caused them to reconsider their decision to become an educator and impacted their enthusiasm for teaching for several years. "I was so unprepared [during my first year of teaching] and it was so difficult—by my second year I was so burnt out," one teacher noted.

Stakeholders expressed concern that certification exams do not accurately measure classroom readiness and thus can prevent would-be effective educators from entering the profession.

Teachers and administrators shared a wide range of views on the appropriateness and predictiveness of the suite of exams currently required to teach in Connecticut. Multiple stakeholders expressed skepticism as to whether research supports the use of these exams (e.g., Praxis II and edTPA) as a gating mechanism to the profession, explaining that the exams do not always evaluate the knowledge or skills that teachers need in order to be effective in the classroom. "It's just an activity, it's a business," one administrator said about the certification exams. "It's a moneymaker ... it's a huge, lucrative business." Questions about the predictiveness of these exams are mirrored in the national evidence base. While some researchers have found correlations between certification exam scores and student learning, others conclude that the exams, at best, may be weak signals of teacher effectiveness.

Echoing concerns raised by some researchers, many stakeholders view the exams as particularly problematic because they perceive them as disproportionately keeping qualified Black and Latino/a/e teacher candidates out of the classroom, ²¹ and several interviewees cautioned that edTPA performance may be a stronger indicator of

school and school system organizational quality than of candidates' classroom readiness. Better-resourced schools often have strengthened leadership and organizational structures and routines in place that facilitate the type of instruction required to achieve a high score on edTPA as compared to under-resourced schools.²²

Several pre-service educators also noted that the amount of time they must dedicate to preparing for and completing certification exams ultimately takes time away from the students they are aiming to support during their student teaching. "I feel like the kids [I'm student-teaching] have been short-changed because I have had to put so much effort into the edTPA and don't have enough left over to spend on them," one candidate shared. "I am excited for it to be done so I can take the time I need to be a better teacher."

At the same time, several interviewed stakeholders expressed worry that elimination of the exams altogether—without finding other ways for the state and/or local leaders to assess classroom readiness—could potentially weaken teacher caliber. "Solving the question of how we know if teachers are ready to get out there in front of kids—that has to be a priority," one administrator noted.

Significant challenges remain in recruiting and retaining diverse educators amidst a rapidly diversifying statewide student population.

At present, Connecticut continues to struggle to diversify its educator workforce despite a rapidly transforming student population.

Stakeholders expressed a multitude of views as to the most pressing factors and conditions preventing Black and Latino/a/e educators from entering and remaining in Connecticut's classrooms.

Several stakeholders highlighted a lack of flexible, affordable pathways into the profession and the fact that, as discussed above, state-mandated certification exams often serve as a barrier. Interviewees also cited a lack of diverse, high-quality mentors during pre-service and in-service years who personally understand diverse educators' experiences and can help them navigate challenges as a key factor standing in the way of the state's educator diversification efforts. Research confirms that early-stage teachers who have a mentor of the same race often develop strengthened skills and increased attachment to the

profession through relationship-building opportunities and identity-related processes.²³ Research has also found that Black teachers who receive support from other Black educators in their building are more likely to report job satisfaction and stay in the profession.²⁴

The current educator shortage inhibits student learning, worsening existing inequities.

The state's educator shortage limits students' access to supports needed to learn and thrive.

Students bear the brunt of the educator shortage crisis. All study participants from districts experiencing current educator vacancies reported that their students were negatively impacted as a result of the tactics schools must rely on to contend with widespread vacancies. For instance, schools have increased class sizes and teacher workload. They have also assigned teachers based on vacancies rather than expertise. Other schools have had to rely on long-term substitute teachers, some of whom lack qualifications to teach assigned grades and/or subject matters. In November 2022, two families filed a lawsuit against a CTECS high school, alleging that their children and over 100 other geometry students were "babysat" for two months by a substitute teacher who lacked qualifications to teach math.²⁵

"The shortage is not just one of numbers. It's of quality as well ... we are really struggling to provide the highest quality [of education] that our kids deserve."

- School System Superintendent

As a result, teachers in short-staffed schools unanimously reported an inability to support every student's learning and growth, especially those students performing behind grade level, with disabilities, and who are English language learners. As schools have assigned teachers additional responsibilities to account for staff shortages, educators are often unable to support students. For example, several educators shared that due to vacancies, special education and English language learner teachers (also referred to as teachers certified in TESOL (Teaching English to Speakers of Other Languages)) often must leave their own classes to cover general education courses. As

a result, they are unable to serve the students who most urgently require their specialized set of skills.

Additionally, due to added coverage responsibilities, general education teachers often lack time to engage in collaborative planning alongside interventionists. "As a general education teacher, [I] lack capacity to even know which students have [individualized education plans] in the first place after class sizes grew quickly as a result of the shortages," one teacher noted. "There is no time for teachers and support staff to discuss individual students and collaborate to help them learn and progress."

"Even though TESOL and [special education] are shortage areas, we end up covering a lot of vacancies ... maybe twice or three times a week [and] when we do, we just don't see our students that day."

- TESOL Teacher

Several teachers also flagged that current shortages have contributed to a feeling of "burnout" that directly impacts teachers' ability to support students, especially those performing below grade level and/or in need of additional scaffolding. "We are tired and overwhelmed—I feel like we've been teaching for six months now, though it's only month two, technically," one teacher noted in October. "I'm teaching two extra classes now ... and filling in during my off period. I have no time to [prepare] at all"

Shortages disproportionately affect the quantity and quality of learning time for students in traditionally under-resourced districts.

Building and system leaders noted that the state's urban centers face unprecedented challenges in both the hiring and retention of effective teachers. One building leader noted that it often seems like there are "two different Connecticuts"—one in which teachers actively apply for openings, and the other in which schools struggle to attract sought-after applicants. Several stakeholders from urban districts reported that many of their best teachers have left for higher paying, suburban districts.

"Where does the shortage really exist? It's normally in urban settings that provide teaching to Black and Brown students ... We have to call the big elephant in the room what it is."

- School System Administrator

As of Fall 2022, over 71% of the state's 1,200+ teacher vacancies are in one of the state's 36 Alliance Districts (which serve approximately 44% of the state's students and represent 18% of the total number of districts in the state). Alliance Districts are those identified by the Connecticut State Department of Education (CSDE) as districts with the most significant opportunity for improvement in student outcomes. These districts historically and presently serve a high percentage of the state's Black and Latino/a/e students, low-income students, and English language learners.²⁶

Not only do Alliance Districts report a higher number of unfilled positions across shortage areas, but they also report a higher student-teacher ratio in traditional shortage areas such as science. We all know that when the student-teacher ratio goes up, our kids' quality of learning goes in the opposite direction, one teacher noted. And it's the kids who need [individualized support] the most and whose families can't get them private tutoring who are the worst off.

Educators and administrators have a clear, compelling vision for change.

Stakeholders expressed concern that the educator shortage will intensify in the absence of targeted policy change. They see the shortage as more than a pandemic issue, and posit it will likely worsen over time, especially for underserved students, in the absence of coordinated state-level action. Several system and school leaders noted that absent policy change, the state will be ill-prepared to replace "baby boomer educators" who will likely retire in the next five to ten years on top of filling existing vacancies. One administrator predicted that as the shortage worsens, class sizes will get larger, so well-resourced families will hesitate to enroll their children in public schools, which will further drain funding and other resources from students who need them the most.

Interviewees almost unanimously noted that there are steps Connecticut can take to ensure it recruits and sustains an effective, diverse educator workforce.

The recommendations that grew out of educators' and administrators' vision are set forth on the following page.

Key recommendations provided by educators and administrators are set forth below.

Build streamlined, flexible pathways into the educator profession.

Stakeholders expressed frustration, and in some cases, heightened exasperation regarding the lack of accessible on-ramps for all out-of-state educators, career changers interested in transitioning from non-education professions into the classroom, and paraprofessionals who in many cases have built valuable skillsets and knowledge through years of supporting students' learning and growth.

Concrete suggestions regarding how to make current pathways more accessible include (i) addressing financial barriers to training (including, in some instances, missing undergraduate coursework), (ii) creating a dedicated pathway for career changers and/or paraprofessionals that recognizes candidates' expertise, and (iii) empowering local leaders (i.e., superintendents) to exercise more autonomy to waive certain requirements based on demonstrated mastery.

Enable in-service educators to broaden their scope of practice to meet more students' needs.

Stakeholders shared several examples of instances in which school and system leaders were unable to deploy educators in ways best suited to students' needs because of state regulation denying them that autonomy. This inability to implement student-centered staffing practices is exacerbated by the lack of flexible opportunities for educators to obtain qualifications across content areas and grade levels.

In response, several stakeholders expressed support for broadening the scope of initial certificates to allow educators to cover broader subject areas. For example, many current educators and administrators suggested that Connecticut expand its current elementary certificate, which currently covers grades 1-6, to also include kindergarten. Others suggested combining existing science specializations into one broader science certificate to expand the pool of candidates for these positions.

Hold educator preparation programs accountable for both the quality of training experiences and outcomes for candidates.

Both pre-service and in-service educators noted that it was challenging to assess the relative quality of educator preparation programs prior to enrolling and so they often relied exclusively on cost factors and location when choosing where to enroll. Additionally, several interviewees noted that preparation programs that do not graduate "classroom ready" educators should face consequences, with ideas ranging from mandatory disclosures regarding first-time passage rates on exams to temporary forfeiture of accreditation.

Create improved data transparency regarding the state's distribution of educators and educator vacancies and accountability for remedying observed inequities.

As noted above, one building leader shared that it often seems like there are "two different Connecticuts"—one in which teachers are applying for openings, and the other in which schools lack funding to attract sought-after applicants. Yet several interviewees noted that the state has failed to disseminate the data needed to implement informed policy and/or programmatic changes, such as first-time exam passage rates disaggregated by EPP or up-to-date information regarding the concentration of educator vacancies by school system and student sub-group.

Strengthen statewide commitments to treating educators as professionals and lifelong learners who deserve and need access to high-quality professional learning and mentorship throughout their careers.

Almost every stakeholder noted, to varying degrees, that recent waves of education reform have deprofessionalized the field of teaching and have left teachers demoralized, consumed by bureaucratic requirements, and devalued. Teachers and administrators alike emphasized that any attempt to modernize the state's approach to preparation and certification must create both formal and informal opportunities for educators to deepen and broaden their practice at every stage of their career.

Looking Forward & Recommended Next Steps

These findings suggest a clear path toward a modernized educator preparation and certification framework that would support a robust, diverse, effective educator workforce and enable Connecticut school systems to efficiently welcome and onboard candidates just starting their careers, looking to make a career change, or relocating to Connecticut. This new framework can expand upon effective practices already in place in the state while also leveraging lessons learned from educators' lived experiences navigating educator preparation and certification requirements.

Meeting those evidence-based policy objectives will require:

- Avoidance of requirements that are overly broad or burdensome, including by considering whether the intended regulatory objectives may be obtained through less burdensome, non-regulatory means;
- Consideration of a requirement's costs and benefits, including by analyzing (i) what research tells us about how predictive each of the state's current requirements is with respect to classroom effectiveness, (ii) what we can learn from stakeholders' experiences with the current requirements, and (iii) the effect current requirements have on educator supply and efforts to increase educator diversity;
- Reduction of instances in which requirements pose a barrier to workforce mobility; and
- Commitment to tight coupling between requirements (including those related to coursework, training experiences, and certification) on the one hand, and what research demonstrates educators need to know and be able to do when they enter the classroom, on the other.

Working within these parameters, Connecticut has an opportunity to overhaul its approach to educator preparation and certification—grounded in a commitment to educators as professionals and lifelong learners—to ensure that every Connecticut student has access to the effective, diverse educators that they need and deserve.

Endnotes

- See, e.g., Raj Chetty, John N. Friedman, and Jonah E. Rockoff, "Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates," The American Economic Review 104, no. 9 (September 2014): 2593–2632, http://dx.doi.org/10.1257/aer.104.9.2593; Steven G. Rivkin, Eric A. Hanushek, and John F. Kain, "Teachers, Schools, and Academic Achievement," Econometrica 73, no. 2 (March 2005): 417–58, http://www.jstor.org/stable/3598793; Jonah E. Rockoff, "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data," The American Economic Review 94, no. 2 (May 2004): 247–52, http://www.jstor.org/stable/3592891.
- 2 CSDE annual vacancy survey, as shared at the Sept. 7, 2022 State Board of Education meeting.
- For example, half of the schools in Bridgeport, Connecticut's second largest district, lack enough special education teachers to meet all students' needs.
- Boston University Wheelock College of Education & Human Development, Staffing Shortage Areas in Connecticut Public Schools, January 2023, https://edsight.ct.gov/relatedreports/WEPC_CT_Shortage_Report_January_2023.pdf.
- 5 Id
- Over the past decade, while the number of students who identify as Black, Latino, Asian, or Two or More Races has risen to 50%, Connecticut's educator workforce remains almost 90% White. See "Students Enrollment Dashboard," EdSight, Connecticut Department of Education, accessed February 15, 2023, https://public-edsight.ct.gov/Students/Enrollment-Dashboard; "Educator Diversity Dashboard," EdSight, Connecticut Department of Education, accessed February 15, 2023, https://public-edsight.ct.gov/educators/educator-diversity-dashboard.
- 7 All data calculated based on publicly provided EdSight information.
- See, e.g., Seth Gershenson, Michael Hansen, and Constance A. Lindsay, "How we rise: Prioritize educator diversity to address racial injustices," Brookings, February 28, 2022, https://www.brookings.edu/blog/how-we-rise/2022/02/28/prioritize-educator-diversity-to-address-racial-injustices (finding that Black and Latino/a/e students' access to same-race educators improves student outcomes both in the short term (e.g., test scores and suspensions) and the long term (e.g., high school graduation and college aspirations), and that all students, including White students, benefit from access to diverse classroom educators by gaining opportunities to collaborate with individuals with different backgrounds and experiences; David Blazar, "How and Why Do Black Teachers Benefit Students?: An Experimental Analysis of Causal Mediation" (EdWorkingPaper: 21-501, Annenberg Institute at Brown University, 2022), https://doi.org/10.26300/jym0-wz02 (finding that all students, including White students, develop improved self-efficacy when taught by a Black or Latino/a/e teacher as compared to students randomly assigned to a White teacher).
- 9 Conn. Gen. Stat. Ann. § 10-145.
- 10 See, e.g., Conn. Agencies Regs. 10-145d-421.
- 11 Conn. Gen. Stat. Ann. § 10-66dd; "What is a charter school educator permit?," Connecticut State Department of Education, Bureau of Certification, June 17, 2022, https://portal.ct.gov/sdecertification/Knowledge-Base/Articles/School-Districts/What-is-a-charter-school-educator-permit?
- 12 Conn. Gen. Stat. Ann. § 10-145(b).
- In addition to the 15 EPPs, Connecticut has also authorized 4 alternative certification providers. For additional information, see "Educator Preparation Providers (EPPs) and Programs in Connecticut," EdSight, Connecticut Department of Education, accessed February 15, 2023, https://portal.ct.gov/SDE/Certification/Educator-Preparation-Providers-EPPs-and-Programs-in-Connecticut.
- The four alternative certification providers include CT Office of Higher Education Alternate Route to Certification (ARC)
 Program, Area Cooperative Education Services (ACES), Capitol Region Education Council (CREC), and Charter Oak State College.
- The Teacher Education And Mentoring (TEAM) Program "pairs every new classroom teacher with a trained mentor who provides support to the beginning teacher through the first years in the classroom."
- 16 Conn. Gen. Stat. Ann. § 10-145b(g).
- Robert Stuart Weiss, Learning from Strangers: The Art and Method of Qualitative Interview Studies (New York: Simon & Schuster, 1995); David L. Morgan, "Sample," in The SAGE Encyclopedia of Qualitative Research Methods, ed. Lisa M. Given (Three Oaks, CA: SAGE Publications, 2008).

- 18 See "About the CT Innovation Cohort" for additional information.
- See, e.g., Goldhaber, D. (2007). Everyone's doing it, but what does teacher testing tell us about teacher effectiveness? Journal of Human Resources, 42(4), 765-794 (finding a positive relationship between some teacher certification exams and teacher effectiveness) and Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2007). Teacher credentials and student achievement: Longitudinal analysis with student fixed effects (concluding that educator certification exams were one factor positively affecting student achievement).
- See, e.g., Angrist, J., & Guryan, J. (2005). Does Teacher Testing Raise Teacher Quality? Evidence from State Certification Requirements. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.673481 (finding no evidence of an increase in teacher quality following the imposition of state-mandated educator exams) and Buddin, R., & Zamarro, G. (2009). Teacher qualifications and student achievement in urban elementary schools. Journal of Urban Economics, 66(2), 103-115 (finding no relation between teacher success in the classroom and teacher certification exam scores).
- 21 National data show, for example, that Black test-takers were approximately 40% less likely to pass the Praxis I than White peers while Latino/a/e test-takers were approximately 20% less likely to pass as compared to White candidates. Praxis II exams, which cover specific content areas, have similar passage rate gaps between racial groups. See Linda Tyler, Toward Increasing Teacher Diversity: Targeting Support and Intervention for Teacher Licensure Candidates, Educational Testing Service, January 2011, 8, 14-16, https://www.ets.org/Media/Research/pdf/ETS-NEA-2011-01.pdf. On edTPA, meanwhile, White candidates' mean score on the assessment is 44.69 while Black candidates' mean score is 42.74. Although some researchers suggest that a one- or two-point difference is not large enough to be concerning, others reject that assertion and point out that this small difference has problematic consequences given that edTPA serves as a mandatory gating mechanism in many states. See John A. Williams III, Laura C. Hart, Bob Algozzine, "Perception vs. reality: edTPA perceptions and performance for teacher candidates of color and White candidates," Teaching and Teacher Education 83 (July 2019): 120-133, https://doi.org/10.1016/j.tate.2019.04.006. While Connecticut publishes "Licensure Assessment Pass Rates" disaggregated by educator preparation program, assessment type, and candidate racial identity, the pass rate represents "best attempt" rather than the first-time pass rate; this eliminates transparency into any racial gaps in actual scores or first-time passage rate." See Indicator 4: Licensure Assessment Pass Rates," Educator Preparation Provider Quality Measures Report, EdSight, Connecticut Department of Education, accessed February 15, 2023, https://public-edsight.ct.gov/educators/ educator-preparation-provider-quality-measures-report.
- Deborah Greenblatt and Kate E. O'Hara, "Buyer Beware: Lessons Learned from EdTPA Implementation in New York State," Teacher Education Quarterly 42, no. 2 (August 2015): 57–68, https://eric.ed.gov/?id=EJ1072124.
- See, e.g., Jeannine E. Dingus, "I'm Learning the Trade": Mentoring Networks of Black Women Teachers," Urban Education 43, no. 3 (May 2008): 261–377, https://doi.org/10.1177/0042085907311794.
- See, e.g., Center for Public Research and Leadership, Recruitment and Retention of Black Educators: Promising strategies at eight U.S. teacher residencies, July 2022, https://nctresidencies.org/wp-content/uploads/2022/07/Recruitment-and-Retention-of-Black-Educators-Full-Report-FINAL-July-2022.pdf; Travis J. Bristol, "To Be Alone or in a Group: An Exploration Into How the School-Based Experiences Differ for Black Male Teachers Across One Urban School District," Urban Education 53, no. 3 (March 2017): 334–354, https://doi.org/10.1177/0042085917697200.
- Lisa Backus, "Families sue administrators of Wilcox Tech High School in Meriden over lack of a geometry teacher," CT Insider, November 11, 2022, https://www.ctinsider.com/news/article/Families-sue-administrators-of-Wilcox-Tech-High-17577750.php.
- 27 "Letterhead," Connecticut Association of Public School Superintendents, accessed February 20, 2023, https://resources.finalsite.net/images/v1582129170/capss/mwoxml7lqcnktdvmktt5/CAPSSAllianceDistrictNarrative1-2-2020_003.pdf.
- Boston University Wheelock College of Education & Human Development, Staffing Shortage Areas in Connecticut Public Schools, January 2023, https://edsight.ct.gov/relatedreports/WEPC_CT_Shortage_Report_January_2023.pdf.

