STATE OF THE STATES 2023

Policies to Increase Teacher Diversity

JULY 2023

INTRODUCTION

State leaders have an opportunity and responsibility to support greater diversity in our nation's teacher workforce.

Teachers of color have a positive impact on all students and make a particularly pronounced difference in the lives of students of color. For students of color, having a teacher of color can increase academic achievement and advanced course-taking, reduce discipline incidents, improve attendance, increase high school graduation and college-going, as well as increase social-emotional outcomes like grit and sense of self-efficacy.[1] Recent research has also found that teachers of color produce additional positive academic, social-emotional, and behavioral outcomes for all students, regardless of race, compared to teachers' white peers.[2]

Yet the number of people of color (including Black, Hispanic, Asian American and Pacific Islander, multiracial, Native American and Alaska Native people) in teaching has not kept pace with the growing number of students of color in pre-K-12 schools, who constitute over 50% of all public school students, and yet are still taught by a workforce that is overwhelmingly (80%) white.[3]

At the same time, students in U.S. public schools are increasingly multilingual, with English language learners representing the nation's fastest-growing student demographic population.[4] Schools struggle to staff bilingual educator roles,[5] and still far too little is known about the

linguistic diversity of the current teacher workforce, making linguistic diversity of the educator workforce an emerging and increasingly urgent area for policymaking.

The national movement for teacher diversity—driven by both a national reckoning around racial injustice and mounting research on the positive impact that teachers of color have on students—is clearly ascendant. This is a policy area that will require sustained commitment from states to achieve progress and increase the number of teachers of color in the workforce. So to what extent is this commitment reflected in state policies and funding? In NCTQ's first comprehensive scan of state teacher diversity policies, we take stock of key trends across 50 states and the District of Columbia.

Figure 1.
Severity of gap in teachers of color compared to students of color, by state
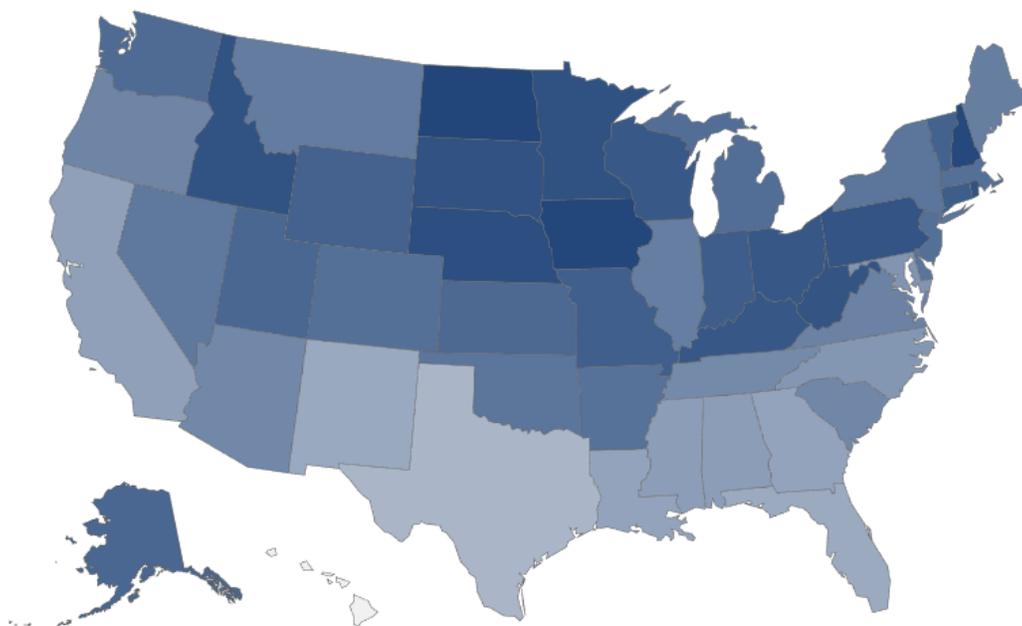
Caption: *Every state and the District of Columbia has a higher percentage of students of color than teachers of color in public K-12 schools. In the above map, we show the relative gap (or percent difference) between teachers of color and students of color in each state, compared to the population of students of color, with darker blue colors indicating larger gaps. For example, in Maine, 4% of public school teachers identify as people of color and 13% of Maine's public K-12 students identify as people of color. While the percentage point gap is -9 percentage points, the relative gap is 66.2%[6], showing that Maine has three times more students of color than teachers of color. States with a larger relative gap often have a less diverse teacher workforce to start with and so may face greater challenges in building a more representative workforce, indicated by a darker blue color in the map. For more details on each state's overall gap between the average percent of students of color and percent of teachers of*

Data suggests there is a profoundly leaky pipeline of potential teachers of color into the classroom, with candidates leaving the pipeline at every point from high school through teacher preparation.[7] States can slow the leak by shoring up the pipeline at each point where potential teachers of color slip through: Ensure more students of color see teaching as a viable profession; support more candidates of color to enter higher education and complete teacher preparation programs; incentivize districts to attract and hire candidates of color to fill teaching roles; and give schools the supports they need to retain teachers of color.

Across the nation, we found that:

- Most states have created and invested in various pathways to recruit teachers, while a smaller proportion are explicitly using these strategies to attract a more diverse workforce. Programs meant to cultivate new teachers locally (such as apprenticeships, residencies, and Grow Your Own programs) are clearly popular; of these approaches, states are most likely to use high school pipeline and Grow Your Own programs to increase teacher diversity.
- Many states are pursuing policies and program investments to grow and sustain their teacher workforces in general, while some states have gone further by providing specific incentives or supports for teachers of color and linguistically diverse teachers.
- Only a handful of states have set public goals for increasing the diversity of their teacher workforce; further, few states collect and publish data on teachers disaggregated by race and linguistic diversity, making it difficult for states to assess their challenges and progress.

Below, we lay out state policies organized around the following areas:
Building the pipeline of future teachers of color
Offering incentives to attract candidates of color
Supporting, retaining, and developing teachers of color
Using data to set goals and track progress

Our findings are followed by recommendations for state action.

METHODS

While there are many dimensions to diversity, this report specifically focuses on racial and ethnic diversity, and where applicable, linguistic diversity. This focus is grounded in the well-documented positive impact of teachers of color on all students but particularly on students of color, who make up over half of our nation's public school students,[8] and the importance of increasing access to multilingual educators for multilingual learners, who make up a rapidly growing share of our nation's students.[9]

NCTQ collected data from 50 states and the District of Columbia in the spring and summer of 2022, including state policies and investments in areas relevant to teacher diversity. We submitted the data we collected and our review of the data to states for verification, giving states the opportunity to add to or correct our initial findings. This scan captures state-level policy and funded programs, so it is not necessarily reflective of district and community-based teacher diversity efforts that are neither 1) reflected in state policy, nor 2) funded with state money.

BUILDING THE PIPELINE OF FUTURE TEACHERS OF COLOR

Many states have created and invested in pathways to recruit teachers, while a smaller proportion are explicitly using these strategies to attract a more diverse workforce.

In this section:
- **High school pipeline programs**
- **Post-baccalaureate teacher residencies**
- **Teacher apprenticeships**
- **Teacher preparation through minority-serving institutions**

There are many pathways—both traditional and nontraditional—that aspiring candidates of color may complete in order to become a teacher. Traditional preparation programs play a central role in preparing teachers for the workforce. Increasingly, states are turning their attention to building a pipeline of teachers using more nontraditional routes: putting high school students on track to a career in teaching, offering post-college students on-the-job teacher residency programs, and/or providing paid training for current paraprofessionals and other working adults to become licensed teachers (Grow Your Own programs). IHEs often play a role in partnering with districts to administer Grow Your Own programs, residencies, or apprenticeships, which we explore in further detail below.

In some cases, states explicitly state that the purpose or priority of these investments is to increase racial and linguistic diversity of the teacher workforce. In our analysis, states were far more likely to explicitly name racial and linguistic diversity as the intent of high school pipeline programs and Grow Your Own initiatives than they were for other pathways.

Grow Your Own, Registered Apprenticeships, and Teacher Residencies: What's the difference?

Across the country, there is significant overlap among types of nontraditional teacher pipeline programs. It can be difficult for teacher candidates, policymakers, or the public to understand what options exist. Without singular definitions or rigidly defined program models, some overlap across approaches is likely inevitable. Below, we lay out the common definitions and distinctions across these approaches: Grow Your Own programs, registered apprenticeships, and residencies.

★ **Grow Your Own:** New America defines a Grow Your Own program as "partnerships between educator preparation programs, school districts, and community organizations that recruit and prepare local community members to enter the teaching profession and teach in their communities."[10]

Generally designed with the goal of reaching people who are already part of or in close proximity to the school community, Grow Your Own programs are often designed specifically for community members, current school staff (such as aides, paraprofessionals, etc.) who are not yet fully licensed, and/or high school students and recent graduates of the district.

When compared with residencies or apprenticeships, Grow Your Own programs cover a broader umbrella of program designs, and are more specifically focused—by design—on recruiting and supporting the populations they seek to help become licensed teachers. Grow Your Own models tend to bring a specific focus (that may or may not always be part of other pipeline programs) on increasing access to teaching for underrepresented populations. To help tackle systemic barriers that may make participants less able to participate (such as access to child care, affordable transportation, etc.), these programs often offer a range of wraparound services.

Depending on the type of Grow Your Own program model, participants may or may not earn a wage or stipend for their classroom-based work.

★ **Registered Apprenticeships:** Apprenticeships follow a "learn and earn" model of workforce development. Teacher apprentices learn the skills for a job through a combination of coursework and time spent learning on the job under the supervision of a mentor teacher, all while earning an hourly wage that increases as apprentices gain skills, along with a credential (usually a license, but sometimes also a degree). Apprenticeships are designed as partnerships between an employer, an education partner, and a sponsor.

Registered Apprenticeships are vetted and recognized by either 1) the United States Department of Labor (USDOL), or 2) a USDOL-recognized state apprenticeship agency, meaning they have met the Department's standards for rigor and quality. A Registered Apprenticeship confers a nationally recognized credential for apprentices, along with worker protections like minimum pay rules, and unlocks state and federal workforce dollars to help fund the program, among other benefits. Registered Apprenticeships distinguish themselves from other models through additional benefits for apprentices and the program as a whole.

Residencies and Grow Your Own programs often include many, but not all, of the core components of a Registered Apprenticeship. For instance, a residency program may provide on-the-job learning in a classroom while working toward a teaching credential, but not pay, for example. Or a program may provide participant stipends, but not wages that increase over time—a required feature of Registered Apprenticeships.

Like both Grow Your Own and residency programs, apprenticeships are a sheltered learning experience under the supervision of a mentor. Under this model, apprentices should not serve as the teacher of record.*

The first federally Registered Apprenticeship for teachers, in **Tennessee,** was born out of the state's existing Grow Your Own program network statewide, which has since been converted to a Registered Apprenticeship model across the state's 73 participating districts.

★ **Teacher Residencies:** While there is no singular definition of a teacher residency, residencies generally involve a yearlong pre-service experience working in a classroom alongside a mentor teacher, all while receiving additional coursework aligned to residents' classroom experience.

For the purposes of this publication, we explore only post-baccalaureate residency programs; however, teacher prep institutions also sometimes use residency models during undergraduate teacher preparation experiences.

Programs called "residencies" by states may have some significant overlap with Grow Your Own programs or apprenticeships, as detailed above. Unlike apprenticeships, residencies do not necessarily require that participants be paid a wage, though they may receive a stipend.

*Several states, including **Colorado** and **Alabama**, have specifically designed their programs to have apprentices serve as the teacher of record during the apprenticeship.*

High school pipeline programs

Young people of color often report that they were not encouraged to go into teaching during their K-12 schooling, or were influenced by negative experiences at school that meant they did not wish to return to school as educators.[11] Given this pattern, coupled with the low number of high school graduates of color who enter into and graduate from teacher preparation programs, students of color may particularly benefit from structured opportunities to prepare for a career in teaching as early as middle and high school.

High school pipeline programs can take multiple forms that often overlap, from career and technical education programs (where students take skills-focused courses for high school credit), to dual or concurrent enrollment (where students enroll in college credit-bearing courses).[12]

To increase their overall teacher workforce, 46 states have established or funded high school pipeline programs, while 21 of these states have done so with the goal of explicitly increasing teacher workforce diversity. Since 2021, those 21 states have spent roughly $74 million on high school pipeline programs.

While little evidence has been published on how well these programs do at producing future teachers,[13] there is a body of evidence suggesting that high school career programs—particularly those that link students to college credit-bearing courses—can improve overall student outcomes, including high school grades, graduation rates, college enrollment, and college completion. In many cases, research has found these effects are even more pronounced for students of color.[14]

Yet these programs are often less available to students of color.[15] While less is known about inequities in access to high school career pathways for future teachers, federal data on career and technical education (CTE) can shed some light. Analysis of students in CTE programs that concentrate in 'Education and Training' shows that students of color are underrepresented in this CTE pathway in many states. (For more detailed state information see Appendix B).

In 2021, **Colorado's** state legislature funded the Teacher Recruitment Education and Preparation (TREP) program, which creates the opportunity for qualified high school students in an educator high school career pathway to continue their formal educator pathway into college by enrolling in tuition-free postsecondary educator preparation courses for the two years after 12th grade. Objectives are to increase the percentage of students who participate in postsecondary educator preparation programs, especially among low-income and traditionally underserved high school students, and to create a more diverse teacher workforce to reflect the ethnic diversity of the state. While the program is too new to have outcomes data, it served a total of 50 students in its first year, with an anticipated cohort of roughly 400 for the following 2023-2024 school year, and 21 new districts indicating they would participate.[16]

In 2017, **Washington**'s legislature expanded the state's Recruit Washington Teachers Initiative to include the Bilingual Educators Initiative (BEI). BEI is a high school career academy program designed for bilingual high school students to prepare to become certified bilingual educators in the state. Funded at $1 million in 2022, the program currently disburses grants to seven district grantees.[17]

Grow Your Own programs

States may have an untapped pipeline of adult professionals who are more diverse than the general teacher pipeline and who would make effective teachers. Grow Your Own programs are

generally designed to attract these adults, recruiting community members (often current or recent district graduates, or current unlicensed school staff like paraprofessionals) to become licensed teachers. While exact program models vary considerably, participants generally earn a teaching license (and sometimes a degree), while earning a wage or stipend.

Half of states (26) have codified and/or funded Grow Your Own programs at the state level, most (20) with the explicit goal of diversifying the teacher workforce.[18] Since 2021, those twenty states have spent roughly $591 million on Grow Your Own programs.[19] **Illinois**, an early adopter of the Grow Your Own model, put roughly $2.5 million toward Grow Your Own programming in 2020 to fund its current programming, which works across five programs and roughly 200 candidates.[20]

While Grow Your Own is a popular approach with states and local communities hoping to increase teacher diversity, there is as yet little concrete evidence from current programs on their progress toward achieving this goal, such as how many people begin teaching through these programs, the programs' retention rates, or participants' effectiveness in the classroom.[21] States investing in Grow Your Own programs would do well to simultaneously invest in the data infrastructure needed to understand (at minimum) completion and persistence data for candidates, disaggregated by race, ethnicity, and linguistic status, as well as data on the outcomes for students.

States vary in their requirements for Grow Your Own participants to return to the district in which they completed their program: 16 states require participants to return to the district, while nine do not. Though including a requirement to return after completion could help districts ensure that GYO programs have their intended impact locally, it remains to be seen how these requirements or lack thereof impact districts' efforts to attract and retain teachers of color.[22]

Post-baccalaureate teacher residencies

Post-baccalaureate residencies are another approach that states commonly use to attract prospective teachers with bachelor's degrees but without the coursework or clinical experience to teach. States have spent a range on post-bacc residencies, which researchers have noted often come at a relatively high cost per candidate.[23] In 2021, **California** allocated $350 million over five years to fund teacher residency programs. Despite this large investment, residency

programs funded by the state have struggled to enroll candidates, as many reportedly could not live on the small cost-of-living stipends provided.[24]

Residents teach full time in a school alongside a mentor teacher, who is the teacher of record. To become licensed, they receive concurrent instruction throughout the year from a partner institution in the content area for which they are working. Often, there is a commitment to teach for several years in the school or district where the candidate completed the residency.[25] Residents are sometimes, but not always, paid a stipend. Some evidence suggests that residency programs may attract high percentages of teachers of color: One data point from 2016 found that 45% of all residency program participants nationwide were people of color.[26]

Six states fund post-baccalaureate residencies, with only three—**Louisiana, Mississippi,** and **New York**—explicitly using the strategy as part of their efforts to increase teacher diversity.

New York, for example, funded the Empire State Teacher Residency Program at $30 million beginning in 2022. The grant program is designed for candidates who are enrolled in a registered residency program that leads to a masters degree, and partners IHEs with public school districts to provide teacher education candidates with reduced or free tuition, aiming to "prioritize diversity among teacher residents and partnering mentors and will place an emphasis on both high-need subject areas and geographic locations with teacher shortages."

Teacher apprenticeships

While apprenticeship has a long history in other industries, formal teaching apprenticeships are quite new: The first Registered Apprenticeship for teaching, spearheaded by Tennessee, was recognized by the U.S. Department of Labor in 2022.

Currently, 23 states have taken steps through state policy to establish teacher apprenticeships as a strategy to increase the teacher workforce overall. At the time of this publication, 18 states have been approved to offer Registered Apprenticeships, with others currently taking steps toward or actively applying to offer a registered program.

States support apprenticeships in a variety of ways, including approving apprenticeship programs through approved state labor agencies, acting as a teacher apprenticeship program sponsor, funding individual programs, or passing policies that allow educators to become

licensed using an apprenticeship model. Because teacher apprenticeship is a very new strategy, it remains to be seen how well it may work to sustainably diversify teaching in the states where it is being used or how apprentices will impact student learning.

Teacher preparation through minority-serving institutions

Minority-serving institutions (MSIs) produce a significant share of the nation's teachers of color, making investment in their teacher preparation programs a potentially important strategy for increasing the number of new teachers of color.[27] As of 2013, MSIs prepared 38% of the nation's Black teachers, 51% of Hispanic teachers, 51% of Native Hawaiian and Pacific Islander teachers, and nearly 35% of all American Indian/Alaskan Native teachers.[28]

Despite their impact, many of these institutions have also faced disproportionately lower rates of investment from states relative to other public colleges and universities,[29] making additional investment a potential correction to long-standing inequities.[30] In recent years, the federal government has made new investments in teacher preparation programs at historically Black colleges and universities (HBCUs) and MSIs through the Augustus F. Hawkins Centers of Excellence program, funding $8 million in grants to preparation programs at MSIs for FY 2022. [31]

Still, only four states—**Alabama, Maryland, North Carolina,** and **Virginia**—have invested their own additional funds in minority-serving institutions' teacher preparation programs.

Some states are also providing specific incentives to MSI graduates. **Connecticut**, for instance, has a unique program designed to support teachers of color to achieve home ownership, with down payment assistance and an interest rate reduction for any teacher who graduated from a historically Black college or university or a Hispanic-serving institution.[32]

OFFERING INCENTIVES TO ATTRACT CANDIDATES OF COLOR

Few states use financial incentives to explicitly attract teachers of color.

In this section:
- **Scholarships and loan forgiveness**
- **Additional pay for teachers in hard-to-staff schools**

Less than half of states are investing in financial incentives like scholarships or loan forgiveness to increase the number of teacher candidates of color in traditional preparation programs. While roughly half of all states utilize financial incentives as a recruiting mechanism for teachers in general, few states use financial incentives to attract teachers of color explicitly.

Figure 2.
2010-2020: Change in the share of enrollees of color into teacher preparation programs
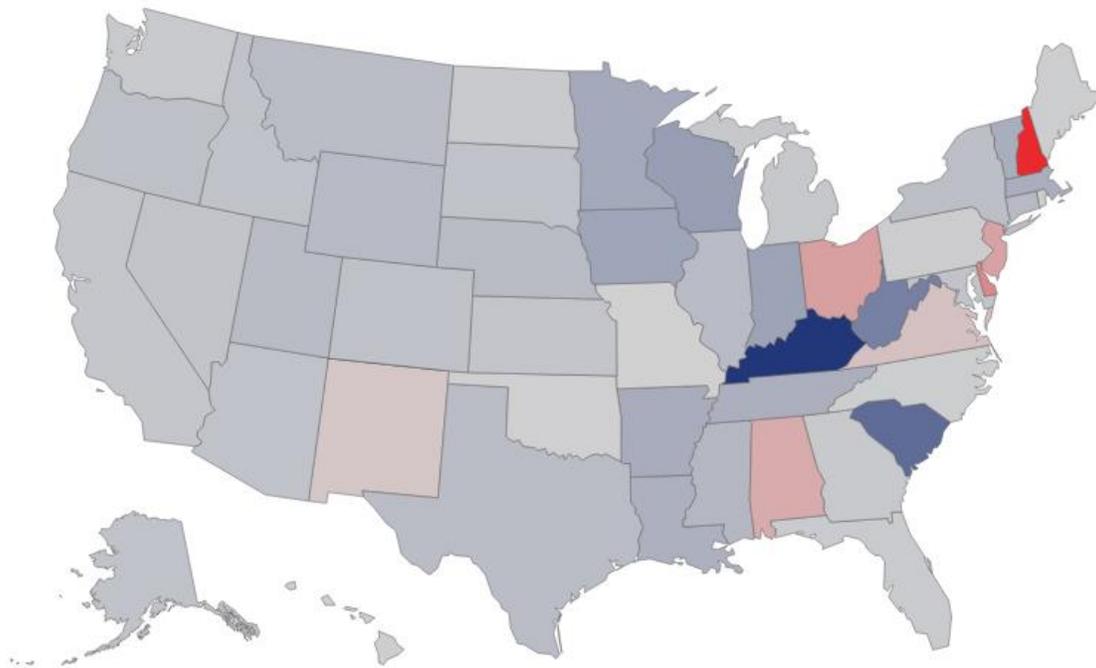
Caption: *The figure above shows changes in the diversity of enrollment in traditional teacher preparation programs over the last 10 years. Darker red indicates greater declines in the diversity of enrollment while darker blue indicates greater increases in the diversity of enrollment. In this time, enrollment appears to have increased across most states, with dramatic exceptions in several states, where enrollment has dropped precipitously.*

Scholarships and loan forgiveness

As the national conversation around the high cost of college continues to gain traction, states may consider using strategies that lower the cost of a degree in education, or help teachers of color to pay down college loan debt once they've entered the classroom. People of color hold higher levels of student debt compared with white college attendees, and are more likely to struggle to repay.[33] College graduates of color who trained as teachers are also more likely to have taken on student loan debt than their white counterparts.[34]

This high debt burden may push aspiring teachers of color to take another job with higher pay than teaching. Research has documented that taking on higher levels of debt can impact college graduates' early career decisions, pushing them away from lower-paid "public interest" jobs and into higher-salaried roles;[35] Black students in particular are more likely to report changing their career plans because of student loan debt.[36] This may be a particularly acute problem

when teacher candidates of color are faced with teaching in districts where the cost of living is high, and they may especially struggle to pay the high price of housing.[37]

Evidence from other professions suggests that financial incentives are effective in recruiting professionals to work in underserved areas and harder-to-staff roles.[38] Both scholarships and loan forgiveness programs can act as effective incentives, though at least one study has found that service scholarships (funds provided to cut tuition costs) may have a greater influence on college students' future job choices than the prospect of loan forgiveness.[39]

Scholarships

Currently, 34 states fund scholarships for teacher candidates in general, and over half of those (17) fund scholarships with the stated goal of increasing teacher diversity. **West Virginia**'s state legislature, for example, allocated $628,349 in FY 2023 for the Underwood-Smith Teaching Scholar program for recent high school graduates who are "students from low-income backgrounds, ethnic or racial minority students, students with disabilities, and women or minority students who show interest in pursuing teaching careers in mathematics and science and who are under-represented in those fields." Recipients receive up to $10,000 per year for up to four years. Underwood-Smith Teaching Scholars commit to teach in critical-need subject areas (math, science, elementary,[40] or special education) for five years after graduation.

More research is needed to understand the impact of the size of a given scholarship and its influence on whether a candidate ultimately goes into the classroom and stays. Still, at least one study—of **Florida**'s Critical Teacher Shortage Program—found that loan forgiveness payments reduced teacher attrition from jobs in shortage areas, and had an increased impact when payments were more generous, though this data was not specific to teachers of color.[41]

Since 2021, states have spent nearly $39 million on targeted scholarships to increase teacher diversity.

Loan Forgiveness

At present, 27 states use loan forgiveness as a recruitment and retention strategy for educators in general, and nine of these use loan forgiveness programs with the explicit goal of increasing teacher diversity. **Wisconsin,** for example, has established a statewide Minority Teacher Loan program, which funds student loans for teacher candidates enrolled in a Wisconsin college or university preparation program and preparing to become certified in a teacher shortage area. Recipients agree to teach in a Wisconsin school district serving 40% or more low-income

students and, in turn, have their loans forgiven at a rate of 25% per year.[42] Since 2021, states have spent an estimated total of $71 million on teacher loan forgiveness.

Additional pay for teachers in hard-to-staff schools

Teachers of color are more likely to work in schools that struggle to attract and retain teachers—often called hard-to-staff schools.[43] Frequently, the schools struggling most to attract and retain teachers tend to serve larger proportions of students of color and students living in poverty—two groups of students that would benefit tremendously from a more diverse and effective cohort of teachers. Given this, states looking to increase and diversify their teacher workforce should consider additional strategies to attract and retain teachers already working in these schools, many of whom are people of color.

One incentive that works to attract and retain teachers in hard-to-staff roles? Additional pay. Indeed, one study from the RAND Corporation found that higher pay lowered attrition for teachers overall, and this effect was even more pronounced in urban schools (where again, teachers of color are more likely to work). It estimated that every $1,000 increase in pay lowered teacher attrition by 6%.[44] More recent research also demonstrates that differential pay (particularly when targeted to the most effective teachers) can attract effective teachers into lower-performing (and frequently harder-to-staff) schools, and have immediate and dramatic impact on student achievement. [45] While not specific to teachers of color, this policy would have an immediate impact on those educators (who are more likely to be people of color) already working in schools with the highest need.

Currently, 24 states provide differentiated pay for hard-to-staff schools.[46] **Tennessee** requires, through law and state board policy, districts to adopt and implement a differentiated pay plan to aid in staffing hard-to-staff subject areas and schools with highly qualified teachers. Others, like **Kentucky,** explicitly allow districts to provide differentiated pay, but do not support initiatives at the state level.

States take a variety of approaches to incentivizing teachers to teach in hard-to-staff schools. Some, like **Washington**, provide stipends ($5,000 per year in addition to the salary). Others provide non-salary incentives, like **Georgia,** which provides $3,000 five-year income tax incentives for teachers in hard-to-staff schools. In the states that provide state-level incentives, amounts range from $3,000 to $10,000.[47] **Louisiana, Mississippi, Ohio,** and **Pennsylvania** have

created programs to provide additional pay or other incentives for hard-to-staff schools, but they have gone unfunded. (Of note, **Mississippi** does currently fund several non-pay incentives for hard-to-staff schools, including grants for moving expenses and assistance with home purchase closing costs for teachers who teach in geographic areas with critical teacher shortages).

When planning to utilize these hard-to-staff school incentives with a secondary goal of targeting diverse educators, state policymakers can start by looking carefully at their school-level data to understand how teacher diversity trends look across their hardest-to-staff schools and roles. By collecting school-level data on teacher diversity, policymakers can give themselves the tools to be strategic about differentiating pay based on goals for teacher diversity.

Policymakers may also find it valuable to consider how incentives for the hardest-to-staff *roles* (as distinct from hardest-to-staff *schools)* could help bridge diversity gaps. For instance, a state may be able to increase linguistic diversity in the teacher workforce by providing incentives for bilingual educator roles, which are often very hard to staff. Or, states can consider working to increase racial/ethnic representation in specific hard-to-staff subject areas. Special education, for instance, is a perpetually hard-to-staff role, which also tends to be less diverse than other subject areas.[48]

SUPPORTING, RETAINING, AND DEVELOPING TEACHERS OF COLOR

While the majority of states have funded or established state-level initiatives to support educator retention in general, less than half have done so with an explicit focus on teacher diversity.

In this section:

- **Retention and support programs**
- **Publishing retention data**

Retention and support programs

Long-term change in the diversity of the teacher workforce requires retaining teachers of color. While bringing more teachers of color into the classroom in the first place is critical, those efforts count for little in the long run if schools cannot retain these teachers. National annual turnover of teachers of color has been somewhat higher (19%) than that of white teachers (15%).[49]

The majority (36) of states have funded or established state-level initiatives to support educator retention in general, with 14 having established retention initiatives with an explicit focus on teacher diversity. Since 2021, states have spent an estimated total of $343 million on retention initiatives.

Many of these programs provide general funds for retention programs without specifying one specific approach. Those that offer specific strategies for retention primarily focus on mentorship and affinity groups (where teachers can connect and find support among peers who share a salient characteristic, such as racial/ethnic identity). **Minnesota**'s "Due North Education Plan" priorities include the development of a statewide mentor program to support the retention of teachers, and specifically retain and support teachers of color and Indigenous teachers. The program was funded at nearly $3 million beginning in FY 2024.

Interestingly, none of the state retention initiatives put forth by states was specifically designed to improve one key factor in teacher retention: school climate and leadership. While school climate and principal leadership are important to the retention of all teachers, research demonstrates that both are particularly important for teachers of color.[50]

While outside the scope of this data collection, schools may face another barrier to retention that state policymakers can help to dismantle: layoff policies that disproportionately harm teachers of color. Recent evidence suggests that current state policies governing teacher layoffs could wipe out gains in teacher workforce diversity. Layoffs based on teacher seniority, known as "last in, first out," or LIFO, still exist in many states. Twelve states currently require LIFO in the event of layoffs, while another 19 leave the decision to districts, many of whom have codified LIFO into contract language.[51, 52] LIFO, already known to hurt student learning, also

tends to disproportionately impact teachers of color, who are more likely to be early career teachers.[53]

Figure 3.
Do states fund teacher retention initiatives?

● Yes, with focus on diversity ● Yes ● No
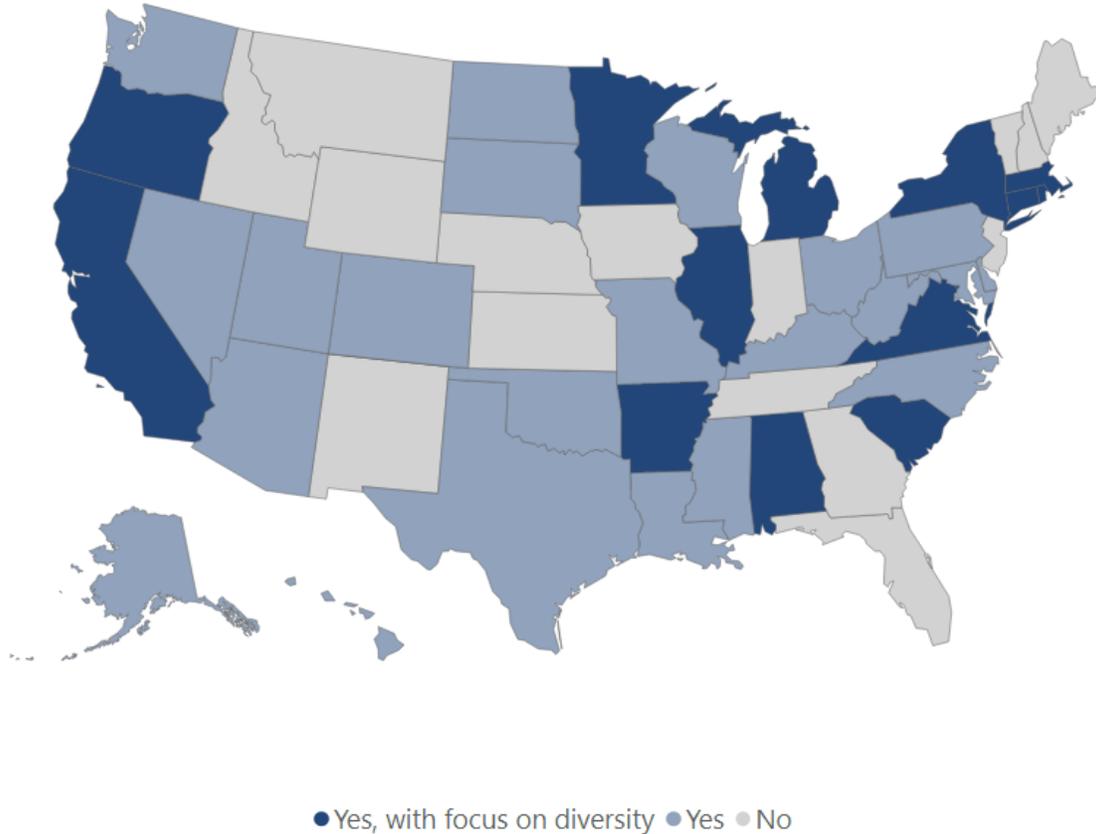
Publishing retention data

To know whether states' policies are progressing toward the goal of retaining teachers of color, they need data on retention rates. Very few states publish the data they need to understand whether schools are retaining their teachers of color: Only nine states and the District of Columbia publish data on teacher retention, disaggregated by race, with most states publishing this data at the district or state level (though not the school level, which would give important

insight into teachers' experiences). Of these nine states and D.C., only **Delaware** posts school-level data on teacher retention, disaggregated by race, on the state's website.

As part of its district reporting requirements around the recruitment and retention of a diverse teacher workforce, **Arkansas** requires districts to set numeric goals around recruiting and retaining teachers and school leaders of color. Districts must submit to the state detailed data on their progress meeting these goals (including, among other metrics, racial/ethnic demographics of the teacher and administrator hiring pool, current teachers/administrators, and attrition data) as part of detailed plans on how they will ensure schools retain teachers of color. Districts are required to post plans to their websites, and subsequently submit plans to the Arkansas Department of Education, where they are reviewed by multiple offices based on a shared rubric.[54, 55]

USING DATA TO SET GOALS AND TRACK PROGRESS

While many states collect some teacher diversity data, few set goals and track progress publicly.

In this section:
- **Setting goals**
- **Collecting and publishing data**
- **Publishing teacher preparation data**
- **Publishing teacher licensure pass rates**
- **Publishing current teacher workforce diversity data**

Setting goals

Setting goals provides a long-term vision along with short-term motivation. States have an opportunity to demonstrate their commitment to diversifying the workforce by setting goals and then tracking progress toward these goals. While the national movement to increase teacher diversity is growing, only seven states (**Connecticut, Illinois, Mississippi, North Carolina, Oregon, Pennsylvania,** and **Virginia**) currently have a numeric, public goal to diversify their teacher workforce.[56] These states published their goals, which included a number or percentage increase and were time-bound. States have set goals using a number of mechanisms—some by state task force or advisory council recommendation, others with legislation, state board resolution, or a state education agency goal.

Beyond setting overarching goals to increase overall workforce diversity, some states are getting more granular. For example, spurred by an executive order and resulting task force, **North Carolina** now sets interim progress measures and percentage goals at multiple points along the teacher pipeline. These include: the percentage of candidates of color admitted to the state's educator preparation programs, the cohort completion rate for candidates of color, and the percentage of those who pass initial licensure exams on the first attempt. The state sets a goal of 95% retention for teachers of color in schools each year[57] and publishes data on all of the goals listed above in a detailed public dashboard.

Some states have already seen progress toward their goals for increasing teacher diversity: In 2017, **Connecticut**'s State Board of Education set a short-term goal to increase the percentage of teachers of color in its teacher workforce to 10%—roughly 1,000 teachers. By 2021, the state had nearly doubled its goal, hiring over 1,900 teachers of color.[58]

Of the 24 states that have a large gap (over 30%) between the number of students of color and the number of teachers of color, only five (**Connecticut, Illinois, North Carolina, Pennsylvania,** and **Virginia**) have set an explicit, numeric goal for diversifying their state's teacher workforce.

Figure 4.

State has specific teacher diversity goals and collects teacher diversity data
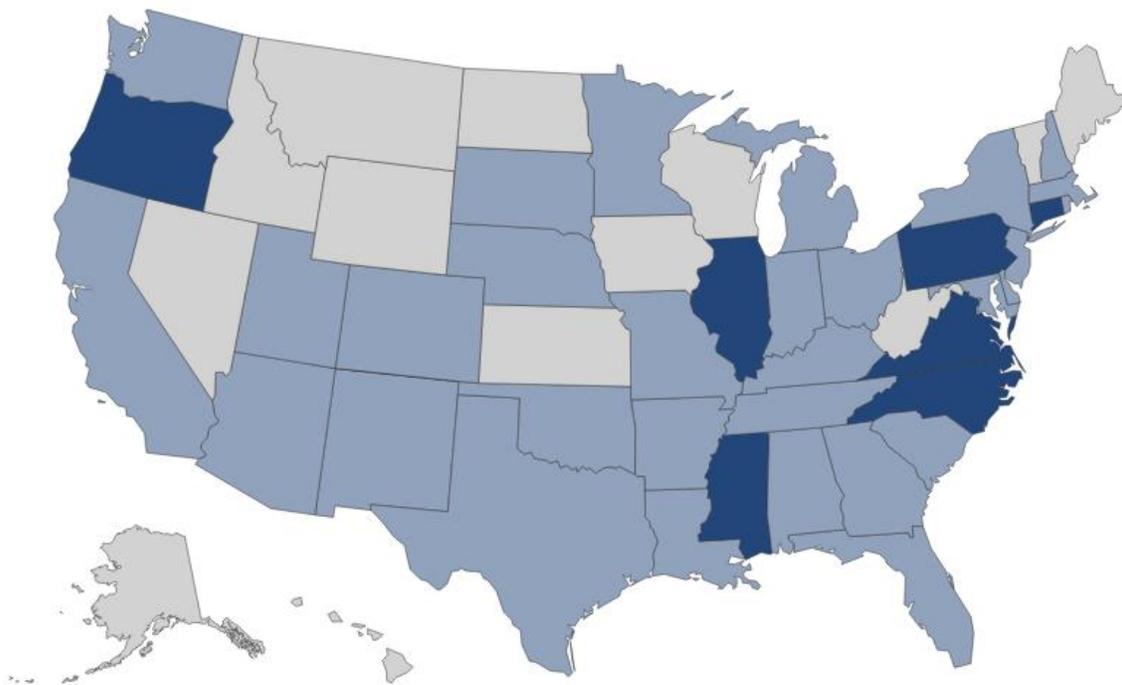
Sets goal and collects diversity data
Does not set goal, but collects diversity data
Neither sets goal nor collects diversity data

Collecting and publishing data

To make progress on their teacher diversity goals, states must understand the current baseline diversity of their teacher workforce and incoming teacher pipeline. With this data, they can identify where gaps exist, track progress, and identify opportunities to shore up the leaky teacher pipeline.

Several states publish their teacher diversity data in a format that can be easily accessed and analyzed by the public. To match its detailed goals for teacher diversity in educator preparation programs, **North Carolina** publishes a dashboard that includes, among other measures: teacher candidate enrollment in teacher preparation programs, GPA, licensure pass rates, and reported satisfaction and sense of being well prepared for all teachers, including the data for teachers of

color. Importantly, the dashboard is able to follow candidates into the classroom, showing candidates' impact on student achievement and their employment and retention in teaching jobs within North Carolina. Using this dashboard, policymakers and members of the public can track the state's progress toward its teacher diversity goals.

Massachusetts publishes an online dashboard that allows the public to see data on key metrics for teacher preparation candidates, such as enrollment, program completion, licensure test pass rates, and license type, all broken down by race and ethnicity.

In general, states vary widely in the level of detail they provide in their teacher data disaggregated by race. For example, policymakers in **Pennsylvania** can see the racial/ethnic composition of educators by the grade spans they are certified to teach, but not what pathway these educators took into the classroom. Few states provide a full picture of the demographics of their teacher workforce. (For more on what states should collect, see below.)

Further, many states have a gap between what they collect and what they make public. **Colorado, Minnesota, Mississippi, New Hampshire, Pennsylvania, Rhode Island,** and **Utah** all collect at least some data on teachers of color that they either have not yet published or do not plan to publish.[59] While states may be challenged by capacity in this area, regularly publishing all available data is an important, low-lift way for states to increase transparency and provide actionable data to policymakers and the public.
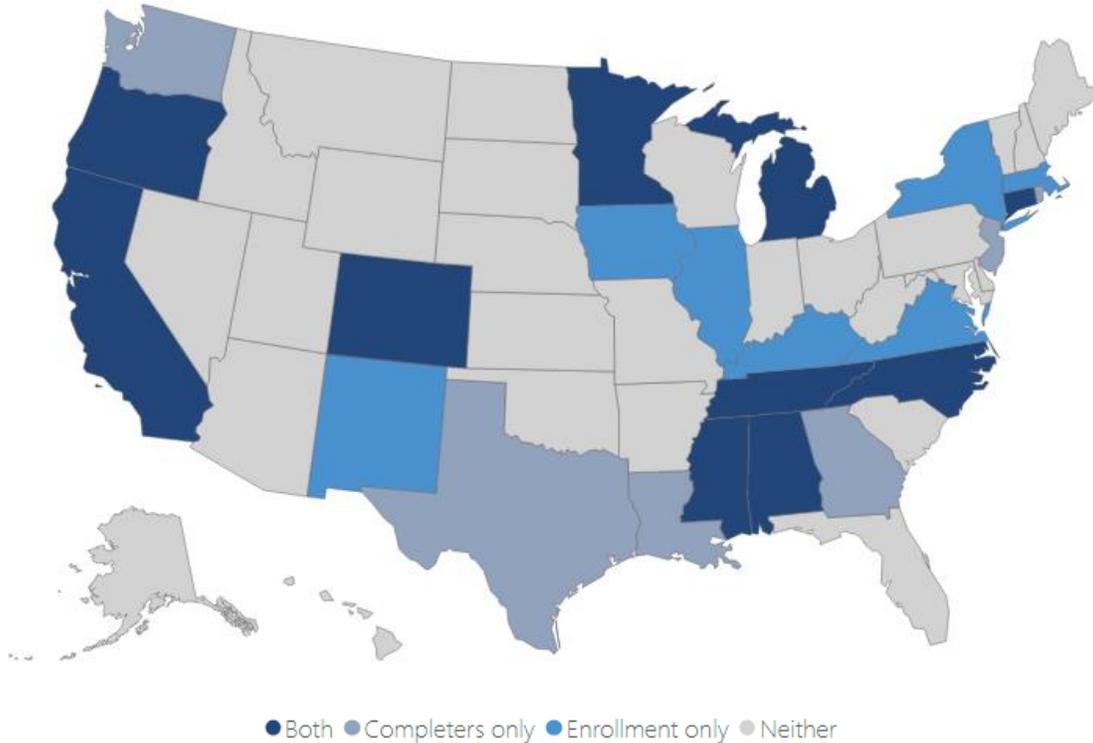

Publishing teacher preparation data

Aspiring teachers of color often exit the teacher pipeline before they even enter classrooms.[60] For this reason, data that illuminates teacher preparation enrollment and completion patterns for candidates of color is crucial in order to successfully build the pipeline of teachers of color.

Still, few states publish data on the diversity of teacher candidates enrolled in their teacher preparation programs. Eighteen states publish educator preparation enrollment data disaggregated by race/ethnicity, while 17 states publish program completer data disaggregated by race. Currently, all states are required to collect and submit this data to the federal government as part of requirements under Title II of the Higher Education Act, but most do not take the additional step to publish on their own websites, missing an opportunity to make this data easily accessible to the public within their state.

Figure 5.

Does the state publish teacher preparation enrollment and completion data disaggregated by race and ethnicity?

● Both ● Completers only ● Enrollment only ● Neither

Connecticut publishes detailed data on both teacher candidates and current teachers, disaggregated by race and ethnicity. **Illinois'** state teacher preparation data dashboards provide easy-to-interpret data on teacher candidate enrollment and completion, disaggregated by race and ethnicity. Programs are given report card scores comparing their share of diverse teacher candidates and completers relative to the rest of the state.

Publishing teacher licensure pass rates

It is also critical that states understand how well candidates, particularly candidates of color, are being prepared to pass licensure tests, as this may be a point at which many candidates exit the teacher pipeline. These tests measure the content and skills that states have deemed necessary for beginning teachers, but recent NCTQ research found disparities in pass rates for aspiring teachers of color compared with white test takers. Nationwide, 30% of all test takers of

color who fail their elementary content licensure test (or the most challenging subtest in that exam) on the first attempt do not retake the test in the three-year window analyzed.[61] The same research has [found wide variation](#) across teacher prep institutions in how well their aspiring teachers perform on licensure tests, with some institutions helping their aspiring teachers of color achieve first-time pass rates that are above the state average, with little or no disparity between test takers of color and white test takers at the institution.[62]

Licensure exams are critical measures of both individual teachers' content knowledge and the quality of preparation they received. States can play a role in ensuring that teacher candidates of color receive access to the support they need to not only pass licensure exams, but also build a strong foundation in the knowledge they will be expected to teach their students. States can support this effort through publishing institution- and program-level pass rate data, disaggregated by race/ethnicity, to help identify stronger programs and those that need more support. States can also use this data informally in conversations with teacher prep programs to help them identify areas for improvement. Based on this and other sources of data, policymakers can identify promising practices from institutions that better support their aspiring teachers of color and can scale these practices across institutions (via collaboratives, targeted funding, or other strategies).

But few states have the data they need to intervene. Only 11 states currently publish licensure test pass rate data disaggregated by race/ethnicity. **Colorado,** for example, publishes an [interactive data tool](#) that includes each preparation program's candidate pass rates (both first and best attempt), disaggregated by race and ethnicity. **North Carolina**'s dashboard also includes information about candidate pass rates by race based on number of test-taking attempts.

Publishing current teacher workforce diversity data

States can better understand the diversity of their current teacher workforce by collecting data across multiple areas, including: the racial demographics of the teaching workforce, geographic and subject areas where there are particularly acute diversity gaps, and patterns of attrition.

Thirty-two states and the District of Columbia publish race/ethnicity demographics of their teacher workforce. At a more detailed level, only eight states publish teacher demographics by the grade spans and subject areas that they are certified to teach. Only three states (**Colorado,**

Connecticut, and **Michigan**) publish disaggregated data based on preparation route, such as traditional undergraduate preparation or alternative entry. Without this data, many states may be missing patterns in the routes that candidates of color take into the classroom, which could guide future investment or efforts to bring more diversity to specific certification routes, and could be helpful in evaluating the success of these different pathways.

Just as important as recruiting teachers of color is knowing whether they stay in schools: Nine states (**Delaware, Georgia, Maryland, Massachusetts, New York, Ohio, Texas, Washington, and Wisconsin**) and **the District of Columbia** currently publish teacher retention data disaggregated by race and ethnicity. (For more, see "Publishing Retention Data" above)

What data points, disaggregated by race/ethnicity, should states publish to track progress on teacher diversity?

- Preparation program enrollment data (published on the state's own website, beyond Title II reporting data)
- Preparation program completion data
- Licensure test pass rate data (first attempt and best attempt)
- Demographic data of the current teacher workforce
- Demographic data of current teachers by preparation route
- Demographic data of emergency-certified educators
- Demographic data of current teachers by certification area and grade span
- Linguistic diversity of educators (whether as measured by bilingual or dual language certification and/or using demographic survey data[63])
- Teacher advancement data, such as participation in teacher leadership roles or pathways
- Where possible, teacher hiring pool data
- Teacher retention data

To be maximally impactful, this data should be reported at the educator preparation program and school levels, where possible, and at least at the higher education institution and district levels. Racial and ethnic demographic data should be comprehensive and detailed, giving a full picture of the range of racial and ethnic identities of teachers and teacher candidates. Policymakers should avoid, for instance, collecting or publishing data that can only be broken down to "teachers of color," and should ensure all data is collected and viewable by race and ethnicity. While data on the overall proportion of teachers of color is useful, it is important that data can be broken down beyond "teachers of color" to understand specific trends for different racial and ethnic groups. States should

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also consider, where possible, collecting similar data on the demographic composition of school leader roles.

Without this data, state policymakers and the public have little information available to them to understand their current workforce demographics, along with areas where they may need to provide support earlier in the teacher pipeline to ensure more candidates of color enter—and remain in—the profession.

RECOMMENDATIONS

Perspectives on Policy from Teachers of Color

What do educators of color think will work to increase the diversity of the teaching profession? Below, we gathered results from two recent nationally representative surveys by the RAND Corporation and Educators for Excellence (or E4E), each shedding light on what strategies teachers of color think will work to attract and retain a more diverse workforce.

The **most popular policies** cited by teachers of color were:

- Increased pay and higher starting salaries.
- Better benefits (including health care, family leave, and more).
- More supportive school administrators.
- Loan forgiveness and service scholarships.
- Expanding preparation programs at minority-serving institutions.
- Teacher residencies: Teacher residencies enjoyed a high degree of support from teachers of color (31%) in RAND's survey results. Interestingly, residencies were ranked as one of the least popular (9%) options for attracting a diverse workforce by teachers of color in E4E's survey.
- Leadership pathways for teachers to grow over the course of their careers.
- Teacher licensing reciprocity agreements.

The strategies least cited by teachers of color were:

- Grow Your Own programs: While Grow Your Own programs were very popular with experts surveyed by RAND in the same study, they were strikingly less so with teachers of color. In direct contrast, however, E4E's 2022 survey results, which asked about Grow Your Own programs as pathways for school aides and paraprofessionals, found strong support from teachers of color.
- Eliminating admissions standards to preparation programs.
- Removing certification tests.
- Access to affinity spaces.

Both RAND and E4E's surveys found contrasting results between educators of color and another group—in RAND's case, with a group of education policy experts, and in E4E's, with educators in

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general. In both cases, results made clear that educators of color have different views on what will attract more diverse teachers. This disconnect reinforces the importance of including the perspectives of educators of color themselves in creating policies and programs designed to serve educators like them. Without their perspective, policy guided by a predominant narrative about what might work (particularly in the absence of robust research) may fail to meet its stated goals.

Sources:

Steiner, Elizabeth D., Lucas Greer, Lisa Berdie, Heather L. Schwartz, Ashley Woo, Sy Doan, Rebecca Ann Lawrence, Rebecca L. Wolfe, & Allyson D. Gittens, Prioritizing Strategies to Racially Diversify the K–12 Teacher Workforce: Findings from the State of the American Teacher and State of the American Principal Surveys. Santa Monica, CA: RAND Corporation, 2022. https://www.rand.org/pubs/research_reports/RRA1108-6.html.

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Actions for state policymakers

1. **Set explicit goals to diversify the workforce and publish more data to track progress to goals.**

   States should begin by setting ambitious and specific goals to diversify their teaching workforce. To set an appropriate goal, states could consider aiming to match the diversity of the state's projected student population to the goal for the number of teachers of color. In states with larger gaps, set interim benchmarks along the way to gauge progress.

   States should then collect and publish detailed data, disaggregated by race and ethnicity, at the district and school levels to better understand their progress toward a diverse workforce. States can also make progress to better understand the linguistic diversity of the teacher workforce, particularly if they are working to expand access to bilingual educators. **Oregon,** for example, publishes data on the linguistic diversity of its teacher workforce broken down by teachers' self-reported language of origin.

(For more on what we recommend states collect, see above. For more information about teacher supply and demand data, see NCTQ's *"State of the States 2021: State Reporting of Teacher Supply and Demand Data."*)

2. **Evaluate initiatives and measure success.**

States should build evaluation and reporting requirements into all investments in diversifying the teacher workforce. With this data, policymakers can understand which investments are doing the most to attract, support, and retain teachers of color, and which are not. With this data, states can build a larger evidence base for what works to support a more diverse workforce—and use this data to guide decisions, especially about funding. To do this well, states may have to make improvements to their data infrastructure, particularly across K-12, higher education, and workforce data systems: If, for instance, policymakers wish to understand how well a high school pipeline program is working to bring new teachers of color into the classroom, they need the ability to track candidates from high school to higher education and then back into the teacher workforce again.

Some states are making promising innovations in this area, such as **Washington**, which has updated its state data system to include a code that allows policymakers to tag and follow the trajectory of participants in the Recruiting Washington Teachers program (a high school career academy for future teachers), following them through their educator preparation program and into the classroom as teachers.[64] When making innovations to data systems, it is important that states provide both training and technical assistance to districts and programs to ensure strong implementation.

As part of district reporting on teacher recruitment and retention, **Arkansas** also collects data on the racial and ethnic composition of its statewide teacher pipeline programs.[65]

3. **Commit funding to this priority with an explicit focus on racial equity.**

If teacher diversity is a priority for states, it should be reflected in the state's budget. States should thoughtfully structure investments across the teacher pipeline and prioritize promising practices, particularly those with strong outcomes data. Unless states increase racial diversity at every point in the teacher development pipeline, they will likely be unable to fully bridge the gap between students and teachers of color.[66] Given this, states should invest in programs that span every point in the teacher pipeline in order to bring more prospective teachers of color into the profession.

Many states identified in this publication have made the intent of their investments in teacher diversity clear, explicitly naming increasing workforce diversity as the focus of policy, and targeting funds or supports directly to people of color. While this may not be legally possible in every context, many states referenced in this report have done so successfully. Wherever possible, states should make their goals explicit in policy. With limited dollars to spend, states hoping to diversify their teacher workforce should be sure that programs are truly serving teachers of color.

Minnesota, for example, made recent investments in teacher diversity that span the full length of the teacher pipeline, from high school to teacher preparation, and into the classroom. As part of a roughly $17.5 million dollar investment in educator diversity passed in 2021, the state funded programs like a concurrent enrollment program for high school students, and provided $13 million for Grow Your Own programs, recruitment bonuses between $2,500 and $8,000 for Native American/American Indian educators to fill staffing shortage needs in designated economic development zones, and early career teacher support programs explicitly aimed at supporting teachers of color.[67]

4. **Support and monitor retention of current teachers of color.**

States should track early career teachers in their first five years as a leading indicator of retention success, with a particular focus on collecting and acting on school-level retention data, disaggregated by race and ethnicity. **Delaware** was the only state in our review to publish retention data at the school level for teachers of color.

Surveys of teacher working conditions are also important sources of information on teachers' success and satisfaction, and could help leaders identify and act on challenges identified by teachers of color in particular. States should disaggregate this data at the district and school levels, providing an item-analysis that shows differences in teachers' responses by race and ethnicity. For example, **Kentucky**'s statewide teacher working conditions survey, Impact Kentucky, disaggregates data by race, ethnicity, and gender, along with other demographic data like years in the classroom and grade span taught.

In states that already conduct exit surveys for teachers, like **Delaware,** this data (when collected along with demographic data, where possible) may prove a valuable resource for understanding the challenges that may lead teachers of color to leave the classroom—and help to ameliorate those factors and increase retention rates.[68]

5. **Invest in improving school climate and school leadership.**

   School climate plays an important role in teacher turnover, with a more positive school climate predicting higher self-efficacy and job satisfaction, lower emotional exhaustion, and increased likelihood of remaining in the job.[69] Evidence suggests that school climate especially impacts job satisfaction for teachers of color. Negative aspects of school climate and interpersonal relationships at school (particularly those related to racialized stress–microaggressions and racial discrimination, to name a few) have been shown to strongly influence whether or not teachers of color want to stay in the classroom.[70]

   Given this, states should consider investing in tools that help state and local leaders better understand the role that school climate plays in retention or attrition of teachers of color. School climate data is currently gathered in a number of ways across states, but teacher working conditions surveys are one key way that states can consider diagnosing school climate challenges. From there, policymakers could consider investing dollars in evidence-based school climate improvement initiatives for districts.

   States may also do well to focus on the role of principals as key drivers of school climate. Research shows that principal leadership, already predictive of school climate overall, plays a particularly important role in teachers of color's self-reported desire to stay in their role for the long term.[71]

   Some preliminary research also suggests that principals of color may produce positive outcomes for teachers of color: At least one study has found that Black principals are more likely to hire and retain Black teachers.[72]

   States can also play a role in supporting principal training to retain teachers of color. **Pennsylvania,** for instance, partnered with local practitioners and advocates to disseminate a toolkit, written by the Center for Black Educator Development, to help principals develop their skills in retaining educators of color.[73]

6. **Support districts to improve hiring and human resource functions.**

   Some evidence suggests that teachers of color are less likely than white candidates to receive a job offer.[74] While hiring and other HR functions rest with districts, states can

make an impact by providing direct training or funds to districts for the purpose of advancing more equitable hiring and human resources practices.

States can also consider training district human resources staff to respond appropriately to challenges that teachers of color may submit to human resources, such as struggles with racial discrimination, racialized microaggression, and feelings of isolation, among other challenges teachers of color may face.

7. **Engage teachers of color in policymaking.**

Teachers of color themselves have an important role to play in shaping policies to diversify the teacher workforce. Evidence shows that compared to both white colleagues and to experts in education policymaking, teachers of color differ in what they think it will take to bring teachers of color into the classroom (see "Perspectives on Policy from Teachers of Color"), making it critical for policymakers to check their own thinking in dialogue with the educators closest to this issue. States policymakers should engage teachers of color, both formally and informally, in any initiative meant to impact this issue.

8. **Minimize disproportionate impact of layoffs on teachers of color.**

Before districts are faced with the prospect of teacher layoffs, state policymakers should proactively reexamine their policies around how layoff decisions are made. Recent research recommends that states take a local, community-informed approach to designing their own priorities for when decisions about layoffs are made.[75] At a minimum, states can start by ensuring their requirements do not make seniority the most important factor when considering layoffs, taking into account effectiveness and other factors, too.

DATA

Download full dataset
Download the full teacher diversity policy data collected by NCTQ and used in this analysis.

APPENDICES

Download Data Tables: Relative and Actual Gaps between Students of Color and Teachers of Color, by State

State	Relative gap (as % of students of color)	% Students of color	% Teachers of color	Student-teacher racial gap (Percentage Points)
Alabama	-51.6%	47%	23%	-24
Alaska	-74.8%	53%	13%	-40
Arizona	-60.9%	64%	25%	-39
Arkansas	-70.2%	41%	12%	-29
California	-50.5%	79%	39%	-40
Colorado	-71.0%	48%	14%	-34
Connecticut	-79.0%	51%	11%	-40
Delaware	-69.2%	58%	18%	-40
District of Columbia	-18.3%	87%	71%	-16
Florida	-46.2%	64%	34%	-30
Georgia	-49.1%	63%	32%	-31
Hawaii	-15.6%	89%	75%	-14
Idaho	-83.7%	26%	4%	-22
Illinois	-65.1%	54%	19%	-35
Indiana	-79.1%	35%	7%	-28
Iowa	-88.8%	27%	3%	-24
Kansas	-74.0%	37%	10%	-27
Kentucky	-81.6%	26%	5%	-21
Louisiana	-49.1%	57%	29%	-28
Maine	-64.8%	13%	4%	-9
Maryland	-55.5%	66%	29%	-37

Massachusetts	-71.0%	44%	13%	-31
Michigan	-72.0%	36%	10%	-26
Minnesota	-84.1%	37%	6%	-31
Mississippi	-51.3%	57%	28%	-29
Missouri	-78.2%	31%	7%	-24
Montana	-65.9%	22%	8%	-14
Nebraska	-85.6%	36%	5%	-31
Nevada	-67.6%	71%	23%	-48
New Hampshire	-88.0%	17%	2%	-15
New Jersey	-71.2%	60%	17%	-43
New Mexico	-46.7%	79%	42%	-37
New York	-69.8%	59%	18%	-41
North Carolina	-54.3%	55%	25%	-30
North Dakota	-89.1%	26%	3%	-23
Ohio	-81.5%	33%	6%	-27
Oklahoma	-68.7%	54%	17%	-37
Oregon	-62.1%	40%	15%	-25
Pennsylvania	-83.0%	38%	6%	-32
Rhode Island	-83.7%	47%	8%	-39
South Carolina	-61.0%	52%	20%	-32
South Dakota	-83.9%	29%	5%	-24
Tennessee	-60.1%	40%	16%	-24
Texas	-40.8%	74%	44%	-30
Utah	-74.7%	28%	7%	-21
Vermont	-77.0%	11%	3%	-8
Virginia	-63.1%	54%	20%	-34
Washington	-73.2%	50%	13%	-37
West Virginia	-82.7%	11%	2%	-9
Wisconsin	-81.3%	32%	6%	-26
Wyoming	-77.1%	23%	5%	-18

Students of color demonstrating an interest in teaching as a career path

The federal government collects data related to career and technical pathways students complete in order to gauge how many students are expressing interest in certain careers. Federal data on participation in the "Education and Training" career cluster includes three CTE pathways: Teaching and Training, Administration & Administrative Support, and Professional Support Services. Data is not disaggregated by pathway; therefore, it is not possible to make clear inferences about the ratio of students of color completing the Teaching and Training pathway alone. However, the data provides the only indicator available at a national level to begin to understand the amount of students of color interested in education or similar profession.

Figure A below shows the percentage of students of color concentrating (taking two or more courses) in the "Education and Training" CTE career cluster. Deeper blue states indicate a higher percentage of students of color participating, while lighter blue states indicate a lower percentage.

Figure B shows the percentage of students of color participating in the "Education and Training" cluster relative to the overall population of students of color in the state.
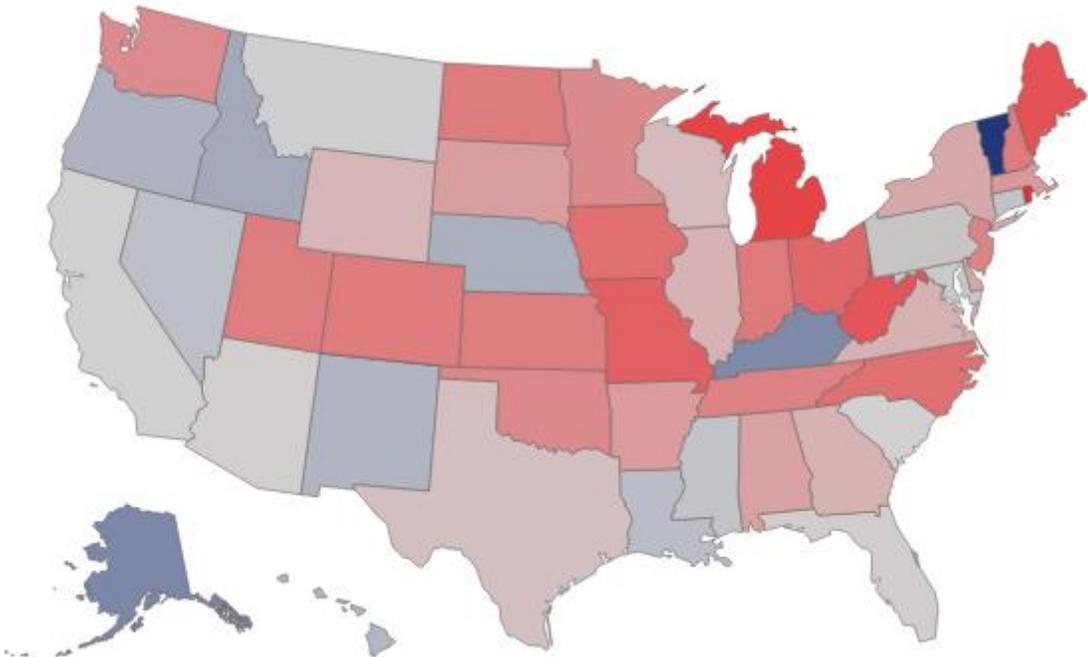- *Bluer states indicate the percentage of students of color concentrating in the Education and Training cluster is **higher** than the percentage of students of color in the state overall; greener states are **slightly above** the overall population.*
- *Yellow states indicate **a similar proportion** of students of color participating relative to the percentage of students of color in the state overall.*
- *Orange states indicate that participation of students of color participating is **below** the state's population of students of color.*

Figure A: CTE Concentrators of Color in the "Education and Training" Pathway
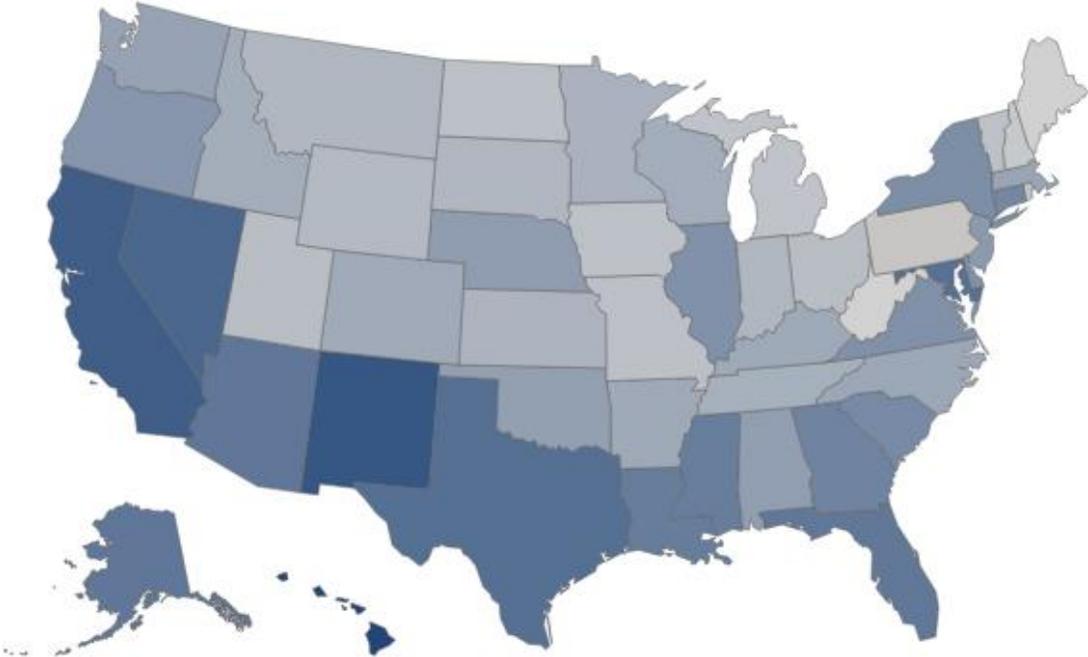
Source: United States Department of Education

Figure B: CTE Concentrator Diversity Relative to Overall Student Diversity

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[12] Of note, some of the high school pipeline initiatives captured here also fit into the Grow Your Own model and were counted under both sections.

[13] Of note, several studies of individual programs do appear to show positive impact, both on student participants' overall outcomes and their likelihood of entering the classroom. See: Monto, C. (2021). Increasing diversity in teacher candidates: An Oregon model using a community college pathway into teacher education, *Community College Journal of Research and Practice, 45*(1), 54-64, DOI: 10.1080/10668926.2019.1640144; Perkins, B. (2016). Growing the next generation: A program encourages students of color to become teachers. *American Educator*, *40*(3), 12-16.

[14] Kemple, J. J., & Snipes, J. C. (2000). *Career academies: Impacts on students' engagement and performance in high school.* MRDC; American Institutes for Research. (n.d.). *Project evaluating the impact of early college high schools.* American Institutes for Research. https://www.air.org/project/evaluating-impact-early-college-high-schools; Henneberger, A. K., Witzen, H., & Preston, A. M. (2022). A longitudinal study examining dual enrollment as a strategy for easing the transition to college and career for emerging adults. *Emerging Adulthood*, *10*(1), 225-236; What Works Clearinghouse. (2017). *Evidence snapshot: Dual enrollment.* U.S. Department of Education, Institute of

Education Sciences. https://ies.ed.gov/ncee/wwc/EvidenceSnapshot/671; Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. R. (2007). *The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states.* Community College Research Center, Columbia University; Karp, M. M., & Hughes, K. L. (2008). Study: Dual enrollment can benefit a broad range of students. *Techniques: Connecting education and careers* (J1), 83(7), 14-17.

[15] Steiger, J., Fink, J., & Jenkins, P. D. (2023). *Assessing college-credit-in-high-school programs as on-ramps to postsecondary career pathways for underrepresented students.* Community College Research Center, Columbia University.

[16] Somewhat unusually, in this model, students participating in the model's fifth and sixth year experience do not receive their high school diploma when they complete the 12th grade year. As the state has noted publicly, this has created some drawbacks for students. Students participating in higher education coursework during their fifth and sixth years may be unable to live on their college campus due to rules. They are also unable to access state or federal financial aid to pay for cost of living or any additional coursework they might take outside of their TREP courses. Districts are not required under the law to cover the cost of housing or books during a student's experience, though Colorado Department of Education staff note that many have. Without this requirement, students may struggle to pay for housing during the program. Banghart, K. (Host). (2023, January 31). TREP Program (Season 4 Episode 4) [Video podcast episode]. In Redefining Rural. https://www.youtube.com/watch?v=GTWimYhggzg

[17] Bilingual Educators Initiative grants. (n.d.). Washington State Professional Educator Standards Board. https://www.pesb.wa.gov/innovation-policy/grants-pilots/bilingual-educators-initiative/

[18] As part of our analysis, we included any Grow Your Own program that supported a given population (such as paraprofessionals, students, etc.) to earn their teacher certification and then remain in the state to teach. Of note, there is overlap between programs defined as Grow Your Own and those classified by our analysis as high school pipeline programs.

[19] Of note, this figure includes only <u>direct</u> state spending by states whose programs explicitly included a focus on diversity. It does not include spending by non-state entities, or allocations of federal or private grant money by the state. Some states, like **Michigan**, have allocated significant grant money toward Grow Your Own. In 2022, Michigan allocated $175 million in federal grant funds to expand Grow Your Own programming.

[20] Illinois Public Act 101-0122. https://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=101-0122

[21] Gist, C. D., Bianco, M., & Lynn, M. (2019). Examining Grow Your Own programs across the teacher development continuum: Mining research on teachers of color and nontraditional educator pipelines. *Journal of Teacher Education*, *70*(1), 13-25.

[22] Our analysis was limited to analyzing state policies, and therefore did not include review of program-level policies requiring candidates to fulfill service obligations to receive loan forgiveness or conditional scholarships.

[23] Worley, L., & Zerbino, N. (2023, May 22). *Teacher residencies offer compelling solution to staffing shortages, although at a large investment.* Brown Center Chalkboard. https://www.brookings.edu/blog/brown-center-chalkboard/2023/05/22/teacher-residencies-offer-compelling-solution-to-staffing-shortages-although-at-a-large-cost/

[24] Lambert, D. (2023, February 24). *California sinks millions into teacher residency programs, but many can't afford to enroll.* EdSource. https://edsource.org/2023/california-sunk-millions-into-teacher-residency-program-but-many-cant-afford-to-enroll/685984; Hirschboeck, K., Eller White, M., Brannegan , A., & Reade, F. (2022). *Teacher residency programs in California: Financial sustainability challenges and*

opportunities. WestEd. www.wested.org/wp-content/uploads/2022/01/Teacher-Residency-Programs-in-California_Brief.pdf

[25] Year-long residencies are often key components of undergraduate teacher preparation; however, we do not include these in our current review.

[26] Guha, R., Hyler, M. E., & Darling-Hammond, L. (2017). The teacher residency: A practical path to recruitment and retention. *American Educator*, *41*(1), 31.

[27] Gasman, M., Castro Samayoa, A., & Ginsberg, A. (2016). *A rich source for teachers of color and learning: Minority serving institutions.* Philadelphia, PA: Penn Center for Minority Serving Institutions.

[28] Gasman, M., Castro Samayoa, A., & Ginsberg, A. (2016).

[29] Minor, J.T. (2008). *Contemporary HBCUs: Considering institutional capacity and state priorities. A research report.* East Lansing, MI: Michigan State University, College of Education, Department of Educational Administration. Boland, W.C. & Gasman, M. (2014). *America's public HBCUs: A four state comparison considering institutional capacity and state funding priorities*. Philadelphia, PA: Penn Center for Minority Serving Institutions, University of Pennsylvania Graduate School of Education.

[30] Of note, MSIs do tend to have lower pass rates on teacher licensure tests. While not enough is known to make causal statements about why this is the case, historic inequities in both support for MSIs and the student populations they serve may play a role. For this reason, states could consider targeting funds to MSIs with the specific goal of improving support to students to pass licensure exams. See: Putman, H. (2022). *Digging deeper: Which types of institutions achieve excellence and equity for aspiring teachers of color?* Washington, D.C.: National Council on Teacher Quality.

[31] *U.S. Department of Education announces first-ever Augustus F. Hawkins Centers of Excellence program grants to strengthen teachers of color pipeline and address teacher shortage.* (2023, February 15). U.S. Department of Education. https://www.ed.gov/news/press-releases/us-department-education-announces-first-ever-augustus-f-hawkins-centers-excellence-program-grants-strengthen-teachers-color-pipeline-and-address-teacher-shortage#:~:text=A%20priority%20in%20President%20Biden%27s

[32] This same benefit is open to graduates of any Connecticut Educational Reform District, a designation that currently includes districts with the state's lowest accountability index scores.

[33] Carver-Thomas, D. (2018b). *Diversifying the teaching profession through high-retention pathways.* Learning Policy Institute.

[34] Fiddiman, B., Campbell, C., & Partelow, L. (2019). *Student debt: An overlooked barrier to increasing teacher diversity.* Center for American Progress.

[35] Rothstein, J., & Rouse, C. E. (2011). Constrained after college: Student loans and early-career occupational choices. *Journal of Public Economics, 95*(1-2), 149-163.

[36] Baum, S., & O'Malley, M. (2003). College on credit: How borrowers perceive their education debt. *Journal of Student Financial Aid*, *33*(3): 7-19.

[37] Saenz-Armstrong, P. (2023) Teacher Salaries, Cost of Rent, and Home Prices: Can teachers afford to liveSaenz-Armstrong, P. (2023). *Teacher salaries, cost of rent, and home prices: Can teachers afford to live where they teach?* Washington, D.C.: National Council on Teacher Quality. https://www.nctq.org/blog/Teacher-salaries,-cost-of-rent,-and-home-prices:-Can-teachers-afford-to-live-where-they-teach

[38] Bärnighausen, T., & Bloom, D. E. (2009). Financial incentives for return of service in underserved areas: A systematic review. *BMC Health Services Research*, *9*, 1-17.

Pathman, D. E., Konrad, T. R., King, T. S., Taylor Jr, D. H., & Koch, G. G. (2004). Outcomes of states' scholarship, loan repayment, and related programs for physicians. *Medical Care,* 560-568.

[39] Field, E. (2009). Educational debt burden and career choice: Evidence from a financial aid experiment at NYU Law School. *American Economic Journal: Applied Economics*, *1*(1), 1-21.

[40]Of note, it is relatively unusual for elementary certification to be considered a critical or shortage area; therefore, states looking to follow this approach should look carefully at their own data to determine what is appropriate.

[41] Feng, L., & Sass, T. R. (2015). *The impact of incentives to recruit and retain teachers in "hard-to-staff" subjects: An analysis of the Florida critical teacher shortage program.* Working Paper 141. National Center for Analysis of Longitudinal Data in Education Research (CALDER).

[42] Wisconsin Statutes 39.40; Wisconsin Minority Teacher Loan Program Information. (n.d.). Higher Education Aids Board, State of Wisconsin. https://heab.state.wi.us/files/programs/mtl-flyer.pdf

[43] Achinstein, B., Ogawa, R. T., Sexton, D., & Freitas, C. (2010). Retaining teachers of color: A pressing problem and a potential strategy for "hard-to-staff" schools. *Review of Educational Research*, *80*(1), 71–107. https://doi.org/10.3102/0034654309355994

[44] Kirby, S. N., Berends, M., & Naftel, S. (1999). Supply and demand of minority teachers in Texas: Problems and prospects. *Educational Evaluation and Policy Analysis*, *21*(1), 47-66.

A more recent meta-analysis also suggests that additional compensation helps retain teachers, though that retention effect tends to end when the bonus ends:

Pham, L. D., Nguyen, T. D., & Springer, M. G. (2021). Teacher merit pay: A meta-analysis. *American Educational Research Journal, 58*(3), 527-566.

[45]Morgan, A., Nguyen, M, Hanushek, E., Ost, B., & Rivkin, S. (2023). *Attracting and retaining highly effective educators in hard-to-staff schools.* CALDER Working Paper No. 280-0323.

[46] Our data collection did not define "hard to staff" but followed states' definitions of and parameters for identifying a hard-to-staff school.

[47]Of note, **Colorado** is the only state that includes an incentive as large as $10,000, which candidates can put toward preparation costs if they commit to teach in a rural school for three years. Excluding Colorado's incentive, direct salary incentives range from $3,000-$6,000.

[48] Billingsley, B., Bettini, E., & Williams, T. (2019). Teacher diversity in special and general education: Composition and distribution of teachers of color across schools. *Remedial and Special Education*, *40*, 199-212. McLeskey, J., Tyler, N. C., & Flippin, S. S. (2004). The supply of and demand for special education teachers: A review of research regarding the chronic shortage of special education teachers. *The Journal of Special Education*, *38*(1), 5-21.

[49] Carver-Thomas, D. (2018b).

[50]Swisher, A. (2022). *Building a school climate that makes teachers want to stay.* National Council on Teacher Quality. https://www.nctq.org/blog/Building-a-school-climate-that-makes-teachers-want-to-stay

[51] TNTP & Educators for Excellence (2023). *So all students thrive: Rethinking layoff policies to protect teacher diversity.* Retrieved from https://soallstudentsthrive.org/wp-content/uploads/2023/03/So-All-Students-Thrive-Rethinking-Layoff-Policy-to-Protect-Teacher-Diversity-v2.pdf

[52] This figure is adapted from "So all students thrive," with numbers updated to reflect a recent change in Alabama state law.

[53] Kraft, M. A., & Bleiberg, J. F. (2022). The inequitable effects of teacher layoffs: What we know and can do. *Education Finance and Policy, 17*(2), 367-377.

[54]Teacher and Administrator Recruitment and Retention Plan. (n.d.). Division of Elementary and Secondary Education; State of Arkansas. https://dese.ade.arkansas.gov/Offices/legal/equity-assistance-center/teacher-and-administrator-recruitment-and-retention-plan; Conversation with Arkansas Department of Education, May 2023.

[55]Of note, this district-reported data is not currently aggregated and published at the state level, and for this reason, Arkansas is not currently counted in the nine states that publish retention data at the state level.

[56] Of note, other states do set goals around teacher diversity that may not be numeric, or are not published, and thus are not reflected here.

[57] The Hunt Institute & Office of Governor Roy Cooper. (2021). *Developing a representative & inclusive vision for education (DRIVE) final report and recommendations.* Retrieved from https://files.nc.gov/governor/documents/files/HI-DRIVE-Final-Report.pdf

[58] Connecticut State Department of Education. (2022, March 16). *11 WAYS CSDE is leading educator recruitment & diversification efforts.* State of Connecticut. https://portal.ct.gov/-/media/SDE/Talent_Office/11WaysEducatorDiversification.pdf

[59] For some of this data, we were able to ascertain it was collected by states during our state verification process, when some shared with us that they collect certain data that has not been subsequently published. Some states, like **Utah**, shared with us that they are currently collecting data that is not published now but will be in the future.

[60] Carver-Thomas, D. (2018a).

[61] Putman, H., & Walsh, K. (2021). Driven by Data: Using licensure tests to build a strong, diverse teacher workforce. Washington, D.C.: National Council on Teacher Quality. Retrieved from https://www.nctq.org/publications/Driven-by-Data:-Using-Licensure-Tests-to-Build-a-Strong,-Diverse-Teacher-Workforce

[62] National Council on Teacher Quality (2021). *Teacher licensure pass rates: State data dashboards* https://passrates.nctq.org/

[63] On their own, collecting certification data and teacher demographic data separately may present a limited picture of the linguistic diversity of a state's teacher workforce. Certification data alone will not reflect the full linguistic diversity of the teacher workforce; similarly, data on languages that teachers are fluent in will not necessarily reflect whether that language skill is used in the classroom.

[64] Rosenberg, M., & Sowders, S. (2019). *Recruiting Washington teachers: 2018–19 annual report.* Washington State Professional Educator Standards Board, cited in Garcia, A. (2020).

[65] Teacher and Administrator Recruitment and Retention Plan. (n.d.).

[66] Putman, H., Hansen, M., Walsh, K., & Quintero, D. (2016).

CALDER. (n.d.). *Understanding How Diversity in the Teacher Preparation Pipeline Contributes to Diversity Gaps in the Classroom*. CALDER Center at American Institutes for Research. Retrieved June 16, 2023, from https://caldercenter.org/data-visualizations/understanding-how-diversity-teacher-preparation-pipeline-contributes-diversity

[67] MN HF2 2021, Special Session https://www.revisor.mn.gov/bills/bill.php?b=house&f=hf2&ssn=1&y=2021

[68] New survey targets educators who change positions. (n.d.). Delaware Department of Education. Retrieved June 16, 2023 from https://www.doe.k12.de.us/site/Default.aspx?PageType=3&DomainID=4&PageID=1&ViewID=6446ee88-d30c-497e-9316-3f8874b3e108&FlexDataID=23880

[69] Aldridge, J.M., & Fraser, B.J. (2016). Teachers' views of their school climate and its relationship with teacher self-efficacy and job satisfaction. *Learning Environ Research*, *19*, 291-307. https://doi.org/10.1007/s10984-015-9198-x; Grayson, J. L., & Alvarez, H. K. (2008). School climate factors relating to teacher burnout: A mediator model. *Teaching and Teacher Education*, *24*(5), 1349-1363.

[70] Grayson, J. L., & Alvarez, H. K. (2008).

[71]Hopper, E. B., Robinson, D., & Fitchett, P. (2022). Early career African American teachers and the impact of administrative support. *Urban Education, 57*(3), 401-431.

[72]Bartanen, B., & Grissom, J. A. (2023). School principal race, teacher racial diversity, and student achievement. *Journal of Human Resources*, *58*(2), 666-712.

[73] El Mekki, S. (n.d.) *Respecting educator activists of color: The anti-racist guide to teacher retention.* The Center for Black Educator Development. Retrieved from https://static1.squarespace.com/static/5df3f23a2e878f341fa14f7a/t/60f6eca994a3c73e54fc2290/1626795183368/CBED21-A2E+Retention+Toolkit-012.pdf

[74]D'Amico, D., Pawlewicz, R. J., Earley, P. M., & McGeehan, A. P. (2017). Where are all the Black teachers? Discrimination in the teacher labor market. *Harvard Educational Review*, *87*(1), 26-49.

[75]TNTP & Educators for Excellence (2023).