National Council on Teacher Quality

STATE POLICY BRIEF – APRIL 2022

Ensuring Students' Equitable Access to Qualified and Effective Teachers

How states have responded to a 2015 federal law that they collect and report on the equitable distribution of teacher talent across their schools.

All students deserve equal access to qualified and effective teachers.

When Congress reauthorized the Elementary and Secondary Schools Act in 2015, it intended to send a strong signal: any further encroachment of federal authority on the nation's K–12 schools needed to end. Compared to its more prescriptive predecessor in 2000, known as No Child Left Behind, the new law, dubbed "ESSA" for the Every Student Succeeds Act, established a set of goals states should strive to meet, only one of which is the subject of this analysis: ***Ensuring that all students have equal access to qualified and effective teachers.***

Before the law's signing in 2015, there was momentum around this issue with the federal government requiring states to submit "equity plans" and offering significant guidance to states on how to do so.

Here we examine the status of the ESSA provision six years after it was signed into law, analyzing how states responded to the law's requirement that they must collect and report the necessary data documenting the equitable distribution of their teacher talent among their schools.

It is not surprising to find an unusually large range of approaches taken by states.

ESSA grants considerable leeway to states, both by design and de facto. With vague language in the law and the rescinding of regulations by the Trump Administration, their abeyance resulted in states mainly deciding what data to report and when to report it, and state plans being approved that did not meet the law's requirements. The Biden Administration has also not attempted a mid-course correction to provide more specific guidance.

While it may be too soon to tell if giving states more discretion and authority to solve key education challenges will lead to more or less progress on solving such challenges, this provision serves as a good test case. Detailed in their plans, states arrive at their own definition of what it means to be teaching **out-of-field**, how many years of experience a teacher must have before they can be considered sufficiently **experienced**, and even if they would include any measure of a teacher's **effectiveness**. Some disadvantages of this ambiguity are that one state cannot be compared with another state, and that such comparisons can often inspire states to want to improve their standing.

The absence of any federal timelines associated with collecting, posting, and refreshing the data turns up a predictable result—that some states feel a greater urgency than do others in addressing this well documented educational challenge. A void in the data leaves little room for action, the ability to identify leading states and districts, and most importantly the ability to gauge if progress has been made.

What does the research say about the distribution of teacher talent?

Research is definitive on this finding: a high correlation exists between a teacher's effectiveness and their students' academic growth.[1]

Further, most research exploring the question of equitable distribution of teachers finds that students with various measures of disadvantage (most often looking at those from low- income backgrounds, but in some cases also looking at students of color) tend to have less effective teachers, as measured by teachers' value added scores.[2] (One notable exception is a study of 26 districts finding no evidence that teachers are distributed inequitably.[3]) The research also finds that students from more disadvantaged backgrounds tend to have lower-quality teachers using other criteria such as years of experience, licensure test scores, competitiveness of their undergraduate institutions, and board certification.[4]

A recent study from the CALDER Center, using experience as a proxy for teacher quality, found students of color in Washington were more likely to be assigned a novice teacher than other students. The study's researchers posit that if school districts were to alter the practices that create the current inequities in how teachers are assigned—instead ensuring that novice teachers are no less likely to be assigned to some schools over others—that schools could achieve the equitable distribution of teacher talent within only five years.

What the law requires:

To comply with the 2015 reauthorization of the Elementary and Secondary Education Act, or "ESSA," the U.S. Department of Education required each state to submit a plan to "**describe how low-income and minority children[5] enrolled in schools assisted under Title I, Part A are not served at disproportionate rates by ineffective, out-of-field, or inexperienced teachers, and the measures the SEA will use to evaluate and publicly report the progress of the SEA with respect to such description.**"[6]

Without the regulatory guidance that the U.S. Department of Education normally issues to accompany a new reporting requirement, states were left with little guidance to create quality plans to meet the law's requirements. Specifically, three problems affecting the quality of the data stand out:

1. **The law does not define the key metrics states must use to report equitable distribution.** The law *identifies* but does not define the three measures that indicate to varying degrees if teacher talent is equitably distributed among schools: **1.**relative effectiveness; **2.** the assignment of teachers to teach subject matter outside their certification area known as "out-of-field" teaching; and **3.** teachers' years of experience.[7] In guidance issued by the U.S. Department of Education in June 2017, the federal government declined to impose standard definitions, reiterating that "in cases where the statute does not define a specific term, a State has significant discretion to determine how it will define that term."[8]
2. **The law requires states to only report state-level data.** States are not required to report anything more than summative data, meaning they are only obligated to report state-level data that reports on disparities between all of the Title I schools in the state versus all of the non-Title I schools —revealing no disparities at the level of the LEA (school district) nor at the level of individual schools.
3. **The law does not impose any reporting deadlines.** Since the U.S. Department of Education chose not to impose any reporting timelines, every state decided when and how often to report the data.

How states responded to the law:

While the U.S. Department of Education has approved every state plan, (and only Pennsylvania has not published any data), there are a number of states that do not adhere to the provision's statutory obligations, with lax federal approval processes partially to blame. In fact, only about a third of states have made a comprehensive effort to comply with all components of the law, reporting on all three required measures and making their data available at the school level.

SUMMARY OF FINDINGS

1. **Few states report on all three measures of teacher quality.** Only 18 states publish data addressing all three measures of teacher quality required by the law (inexperienced, out-of-field, and effective teaching). However, two states, **Arkansas** and **Colorado**, stand out as national models worthy of emulation.[9]

2. **There are no consistent definitions for any of the metrics.** Lacking federal definitions, states came up with their own. For example, across all states, there are five different definitions for what defines a sufficiently experienced teacher.[10]

3. **Many states do not share sufficiently disaggregated data.** While states had to have collected data from their school districts and most likely schools, many states don't make this data public, choosing instead to only report summative data for the whole state: 17 states (including Pennsylvania, which did not report any data at all) did not publish any disaggregated data. Only 34 states report school-, district-, and state-level data. Even more states (37) fail to disaggregate their data to show the distribution of teachers in schools serving large proportions of students of color, despite the clear reference to students of color in the ESSA provision.

4. **Shared data lacks context for meaningful comparisons.** Comparisons within states are difficult to make as many states fail to provide context, such as the relative distribution of a LEA's or school's teachers compared to the state average. Limited years of data also restricts the ability to understand trends in progress or regression towards the overarching goal of eliminating equitable access gaps.

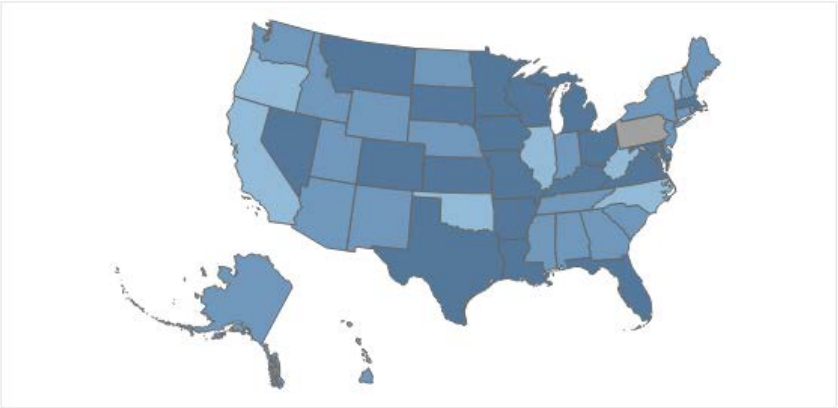
Few states report on all three measures of teacher quality.

Most states have "cherry picked" which provisions they are willing to report. To be clear states were given the authority to do so and are therefore not out of compliance. Still, what measures do states use to decide if the distribution of teacher talent is inequitable?

Of the 50 ESSA plans that have been approved by the U.S. Department of Education, only 18 states report data on all three measures named in the law to indicate that a teacher is both qualified and effective (experience, out-of-field, effectiveness). The remaining 33 states elected to report on fewer than three measures: one reported none, six reported one and 26 reported two.

Which measures do states use to report on teacher quality?

Summary of key measures reported	Ineffective teachers	Teachers teaching out of field	Inexperienced teachers



- State reports only on out-of-field.
- State reports only on inexperienced.
- State reports only on ineffective.
- State reports on out-of-field and inexperienced.
- State reports on ineffective and inexperienced.
- State reports on all three key measures.
- State does not report on any of the three key measures.

View this map on the NCTQ website for interactive features.
Visit www.nctq.org/publications/Ensuring-Students-Equitable-Access-to-Qualified-and-Effective-Teachers.

Most states show a clear preference for reporting on some measures, steering clear of any measure of teacher effectiveness.

- 45 states report some kind of data on teachers who are assigned to teach subjects outside their certification area, with only six not addressing the area of out-of-field teaching (**Illinois, Indiana, North Carolina, Oregon, Pennsylvania,** and **West Virginia**).

- 47 states report some kind of data on the experience level of their teachers with only four that do not (**Illinois, Oklahoma, Pennsylvania,** and **Vermont**).

- Many fewer states—only 20—report on the distribution of effective teachers among their schools, a surprisingly low number given that a number of states had effectiveness data, but decided not to use it for these purposes (see below). Furthermore, some applied proxies for effectiveness that related more to teachers' certification status or teaching assignment, rather than their ability to improve student outcomes.

A missed opportunity

Quite a few states (19)[i] have access to teacher performance data, but elected not to use it here to track the distribution of effective teachers among their schools.

Objective measures of student growth such as value-added models are an important tool for measuring student learning. These models have the ability to measure individual students' learning gains, controlling for students' previous knowledge and background characteristics.

Given the wide scale problems over adopting more meaningful teacher evaluations, defining effectiveness remains a challenge for states. However, regarding those states that already collect teacher performance date, publicly reporting this measure could have provided a critical metric to assess the strength and distribution of the teacher workforce.

[i] The 19 states are: Alabama, Arizona, Connecticut, Delaware, Georgia, Hawaii, Idaho, Minnesota, Mississippi, New Jersey, New York, North Dakota, Oregon, Rhode Island, South Carolina, Tennessee, Utah, Washington, and West Virginia.

Many states elected to add additional measures not named in the law.

A number of states inserted additional teacher attributes or measures into their reporting—even while also choosing not to report on the three measures stated in the ESSA provision. These indicators vary in the degree to which they provide meaningful insight into the equitable distribution of the teaching corps.

- **15 states[ii] examine rates of retention,**[11] a useful addition given that high needs schools are more likely to report high attrition. While some attrition is generally advisable, constant and substantial teacher churn undermines student achievement gains.[12]

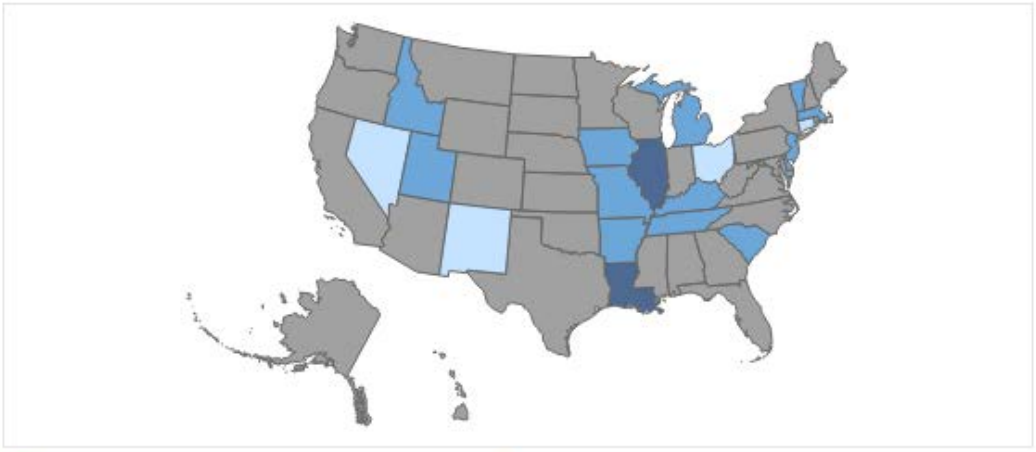
- **6 states chose to report on teacher attendance.** Connecticut, Illinois, Louisiana, Nevada, New Mexico, and Ohio chose to report on variations in teacher attendance between their Title I and non-Title I schools. While the research is quite mixed on whether teachers working in Title I schools are more likely to be absent, attendance could be a useful measure in that frequent teacher absences of ten days or more have been shown to have a significant negative impact on student performance.[13]

- **16 states[iii] chose to report on the distribution of their teachers who hold an advanced degree**, though there is definitive consensus in the research that teachers holding an advanced degree are no more effective than teachers not holding such a degree.[14]

[ii] The 15 states are: Arkansas, Delaware, Idaho, Illinois, Iowa, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, New Jersey, South Carolina, Tennessee, Utah, and Vermont.
[iii] The 16 states are: Alabama, Alaska, Arkansas, California, Illinois, Kentucky, Maine, Michigan, Minnesota, Nebraska, New Jersey, Ohio, South Carolina, South Dakota, Virginia, and Washington.

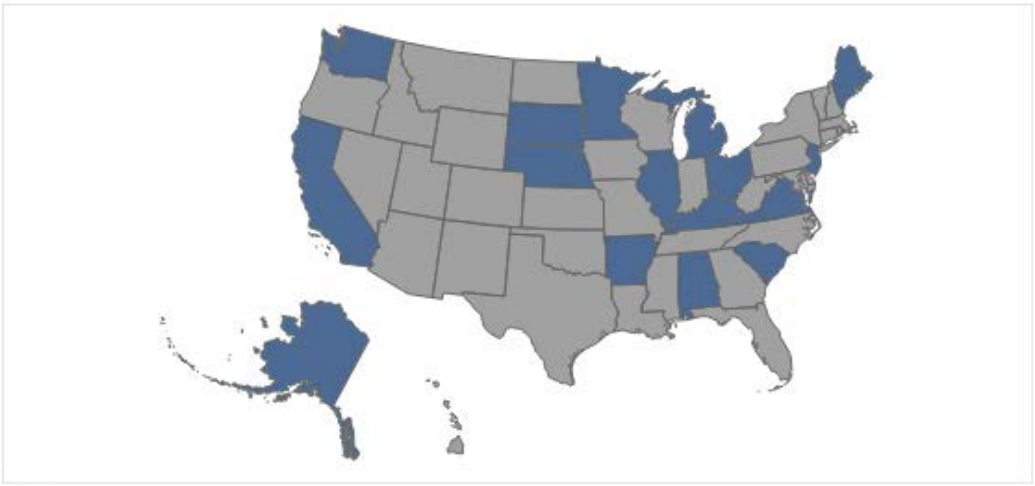
Additional measures reported by states

Attendance and Retention | Educational attainment



Attendance and retention
Attendance
Retention
Neither attendance nor retention

Attendance and Retention | Educational attainment



Yes
No

View these maps on the NCTQ website for interactive features.
Visit www.nctq.org/publications/Ensuring-Students-Equitable-Access-to-Qualified-and-Effective-Teachers.

FINDING 2

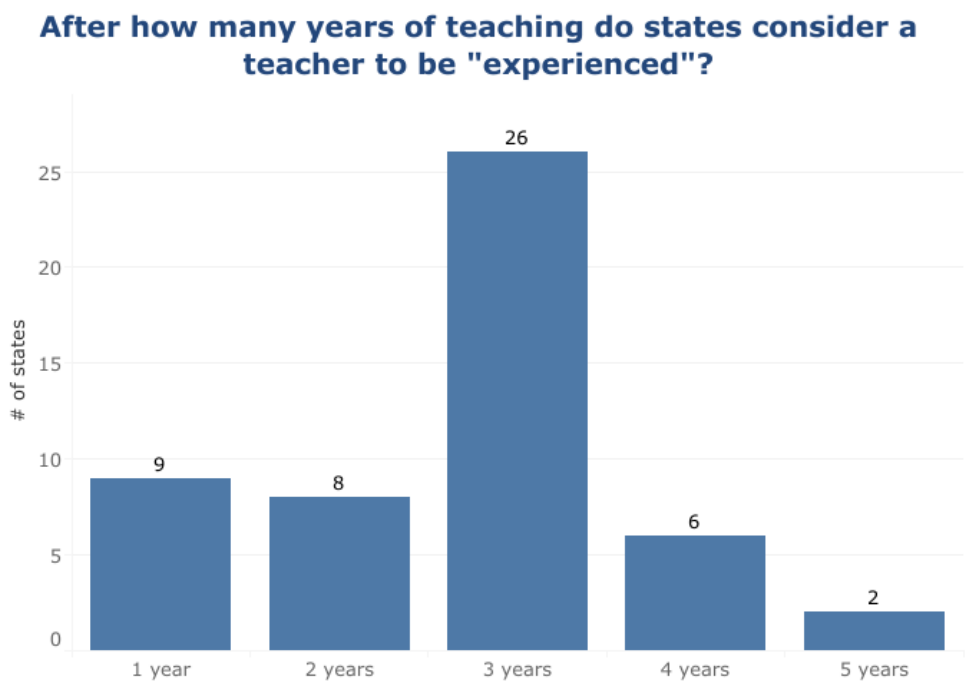
There are no consistent definitions for any of the metrics.

As neither the law nor the U.S. Department of Education has imposed standard definitions for the measures states are to use, states were left to define their own measures. States tended to provide different answers to such questions as "How much experience should a teacher have in order to deem the teacher fully qualified?" or "On what basis is a teacher classified as "out-of-field?" Accordingly, that makes it impractical to compare the distribution of qualified, effective teachers among states.

States use no fewer than five definitions of teacher inexperience.[15]

Unfortunately, states have arrived at definitions that are not well grounded in what research findings, a particular problem when it comes to how states have defined what it means for a teacher to be "inexperienced".

- For example, six states (**Connecticut**, **Delaware**, **Florida**, **Georgia**, **Mississippi**, and **Washington**) set quite a high threshold for defining a teacher with sufficient experience, choosing four or five years of experience as the threshold a teacher must meet. However, the research definitively shows that teachers on average are only far less effective in their first and second year of teaching, and only somewhat less effective in the third year than in future years.[16] Attaching a label of "inexperience" to a teacher in her 4th or 5th year is not meaningful in terms of questions of student access.
- At the other end of the spectrum are nine states (**Alaska**, the **District of Columbia, Hawaii**, **Idaho, Louisiana**, **Missouri**, **Montana**, **Vermont**, and **Virginia**) that consider a teacher to be "inexperienced" only in the first year, ignoring the fact that second-year teachers too are on average significantly less effective than other teachers.



In this chart, years are defined as complete years of experience. For example, a state in the 3 Years category captures a state that defines an inexperienced teacher as a teacher that has been in the classroom for less than three full years. At the conclusion of their third year of teaching, the teacher would then be considered experienced.

State definitions for "out-of-field" teaching, don't just vary but spill over into unrelated metrics.

Out-of-field teaching is traditionally interpreted as the practice of assigning a teacher to teach a course for which he or she lacks certification. Yet in reporting out-of-field teachers, 8 states also define teachers who are classified as "probationary"—meaning they are still new to the profession or have not met full licensure requirements—as teaching out-of-field. In some cases, probationary teachers may well be fully certified to teach a particular subject.[17]

While most states report out-of-field teaching as the percentage of their teachers who are assigned to teach one or more classes outside their area of certification, four states (**California**, **Florida**, **New Hampshire**, and **Minnesota**) define out-of-field-teaching in terms of the percentage of classes taught by a teacher who is out-of-field. The effect of this decision is to bring down the number of out-of-field teaching quite

substantially compared to states employing the more traditional definition. As a unique twist, another two states, Kentucky and Louisiana, report out-of-field teaching as the percentage of students who are assigned to a class that is taught by a teacher who is out-of-field in that subject.

FINDING 3

Many states do not report sufficiently disaggregated data.

First and foremost, a number of states (13) do not report school-level data, which is where most of the variation will take place. A recent brief by The Education Trust finds that among half of states, disparities in student access to experienced teachers exist mainly *between* districts, while in the remaining half, the variations exist primarily *within* districts, based on 2017-2018 OCR data.[18]

For example, in Kentucky's 4th largest district (Warren County), 5.2% of students in its Title I schools are taught by teachers classified by the state as "ineffective," compared to only 0.3% for other Title I schools elsewhere in the state. This disparity effectively means that a student going to a Title I school in Warren County is 17 times more likely to be taught by an ineffective teacher than in other Title 1 schools in the state. State-level data alone would not be able to identify this gap.

Third, few states disaggregate data in order to permit comparisons between students of color and White students. Though the provision explicitly calls out the need to compare the distribution of teachers based on student race and ethnicity, only 12 states elected to do so.

States likely found this provision in the law to be too heavy a lift, perhaps an unfunded mandate, given that it would have required them to capture data that most currently may not collect, including teacher assignment and student enrollment data

at the individual course level. States could have provided some insight into this issue by reporting on those schools educating high percentages of students of color which were not also Title I schools, but none choose to do so.

Recent work by The Education Trust underscores the need for states to undertake this comparison, finding that Black students are both more likely to attend schools that have higher percentages of novice teachers, and are more likely to be assigned to a new teacher. Similarly, a companion report found in 37 states that the percentage of novice teachers in schools serving the most Latino students was higher than those schools serving the fewest Latino students.[19]

State Spotlights: Why school-level data makes a difference

By adopting school level disaggregation, **Florida** was able to learn that Miami-Dade's Title I schools were no more likely to have out-of-field teachers as more affluent schools in the district. Further, the proportion of classes taught by out-of- field teachers in these Title I schools was roughly half the state average, a reason to celebrate.

Rhode Island reports that 14% of the teachers in its largest school district, Providence, meet its definition of "inexperienced" (0-3 Years), but it is how the state breaks that data down that allows state and district leaders to push for changes. Because the state made it possible to distinguish between secondary and elementary schools—something few other states did—it learned that most of these inexperienced teachers were landing in high poverty *secondary* schools (21.5%) as opposed to its high poverty *elementary* schools (12.7%).

Achieving more equitable distribution is not an easy task, but one local leaders cannot achieve without the data. The answer isn't necessarily to involuntarily move teachers, but even more intentional assignments within a school can achieve greater parity of student experiences. As part of this early equity gap work, **Massachusetts** embarked on a project to understand from the student experience their interaction with out-of-field, inexperienced, or ineffective teachers. This report examined patterns of assignment at the student level (e.g., How many times did Student A have an experience with an ineffective teacher?). This type of system is a role states can and should play in providing useful, actionable data for district and school leaders.

FINDING 4

Shared data lacks context for meaningful comparisons.

The quality of a state's reporting is not only informed by what they report, but also how well they present it and how often they report it. While 33 states outlined in their initial plans that they intended to publish the data annually, few states have met these self-imposed deadlines. The remaining 18 do not specify in their state ESSA plans when they would make the data public nor how often they plan to refresh the data. Providing context and trends over time allows leaders to learn from others who are making progress.

Four factors relate to how data can be best displayed:

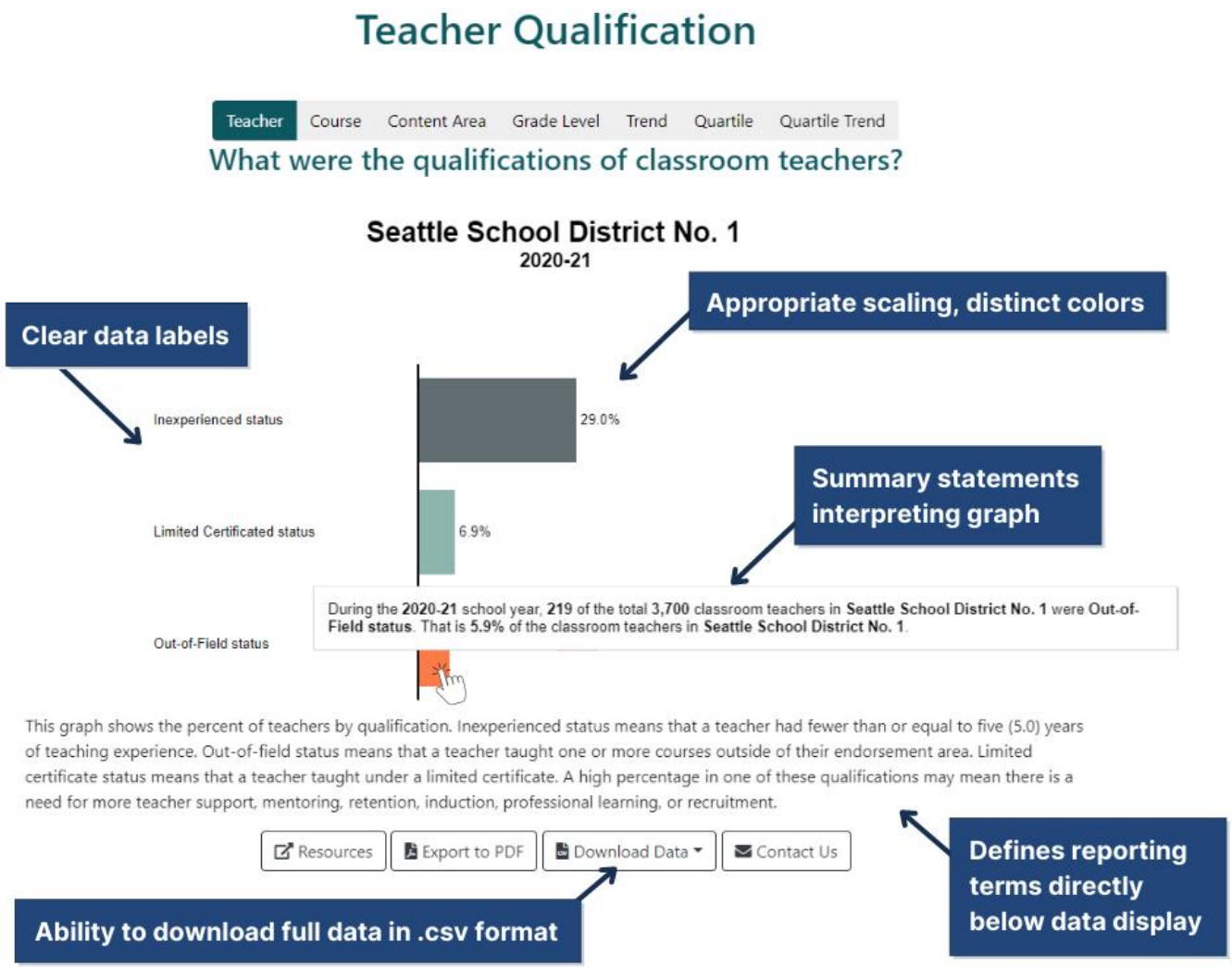
1. Key terms are defined and easily accessible to be able to interpret what the measure represents. By way of example, Virginia and Washington state both display the distribution of their inexperienced teachers, with Washington reporting what appears to be a nearly 20-percentage-point higher share of inexperienced teachers than Virginia. However, the difference is misleading, in that Washington sets a five-year threshold for experience—a definition that it clearly displays—compared to Virginia, which sets a threshold of only one year of teaching—a definition that Virginia does not display.

2. The data is accompanied by detailed charts, graphs or other data visualizations.

3. Key trends and insights are accessible.

4. The state makes it possible to download raw data. The ability to download or export the full data set unlocks it for further analysis, so that researchers and policymakers are able to manipulate the raw data in a .csv format, leading to further investigation and insight.

Washington state's display of its data illustrates how each of these four factors improve the user experience:



It’s not too late to fix this problem.

Absent federal requirements that would require states to disaggregate their distribution data at a school-level or adhere to a set of common definitions defined at the federal level, it is not surprising that states have taken many different approaches and manifested a range of commitment to measuring the distribution of their teacher workforce.

However, this level of variability is not unique to this provision. When it comes to federal education policy, it is not a given that more prescriptive approaches lead to greater or more genuine commitment on the part of states. For example, there is little evidence that the far more prescriptive "highly qualified teacher" requirement found in the 2000 No Child Left Behind Act was a successful effort to improve teacher quality. On the other hand, the lack of impact from that failed provision may be attributable to a poorly conceived and executed solution, not its prescriptive nature.

This newer provision under ESSA advanced a much less ambitious design, with no hint of a federal hammer. As documented here, many states will not achieve its most basic aim, failing to quantify the extent to which low-income students and students of color have less access to qualified and effective teachers than other students in order for states and their LEAs to ameliorate any gaps. The provision did not seek to penalize states, districts, or teachers for what was learned, only to ensure that this long-standing educational challenge would be better understood, a modest goal falling well short of federal overreach.

Still, while tempting, it is too soon to write off the broader positive contribution this provision may have in a number of states. Given the federal government's weak authority in education, it may be expecting too much—no matter how stringent a federal law—that all 50 states and the District of Columbia would equally share enthusiasm or urgency for any issue, no matter how compelling the evidence or need. Further, it could be the case that the provision's flexible nature has led more

states out of a compliance mindset, taking more ownership for genuinely addressing this problem.

To date, the Biden Administration has not chosen to weigh in on this provision for the purpose of providing greater clarity than the limited guidance provided by the Trump Administration. While in certain respects the horse has already left the barn, there are still opportunities to encourage states to consider adopting common, research-based definitions and to publish data that is disaggregated down to the school level.

We offer four recommendations for states to consider:

1. Improve how data is reported so it is clearer **how schools and districts fare in relation to the state average or other obvious points of comparison (such as schools and districts with comparable populations)**. Currently, less than half of states compare each LEA's distribution data to the state average. Florida and New Mexico stand out as state exemplars.

2. **Add a summary calculation capturing all of the measures used to define an effective, qualified teacher.** While it is valuable for states to report the distribution of teachers under each measure, it is equally valuable to produce a summative score, as Arkansas and Colorado have done. Colorado does this by publishing gap size categories; Arkansas calculates a Workforce Stability Index. These summary calculations convincingly show where equity gaps compound.

3. Incorporate **the best available teacher effectiveness data**. Currently 31 states do not attempt to capture any measure of teacher effectiveness, even though 19 are already collecting effectiveness data for other purposes. Using available objective measures of effectiveness would instill greater confidence in this measure, yet many states choose not to include this data even though the state has it available. Indiana stands out as an exemplar, both for including this effectiveness data on the same webpage as the state's other teacher quality indicators, and for using measures of student growth in their teacher evaluation system. Their reporting could be made stronger by reporting on out-of-field teaching.

4. **Commit to refreshing data at least every other year.** States should focus on producing a strong trend line by which to measure progress, requiring regular updating of data. The only way to ensure we are addressing equitable access is with data.

We offer two recommendations for the federal government to consider:

1. **Establish regulations to provide clear guidance to states including definitions and timelines for reporting.** With the recovery of the pandemic front and center, how teacher talent is distributed is as important to understand now as ever before, particularly as we know students from low- income families and students of color suffered the most in terms of learning loss.[20] Regulations provide an opportunity to tighten up the holes left in states' plans by inadequate approval processes at the time.

2. **Invest in teacher data systems**. Understandably, the pandemic and getting students back to in-person learning was a priority for the current administration. As these efforts seem to be paying dividends and most students are now back at in-person learning, understanding the distribution of talent must be front and center. Providing a significant funding opportunity for states to invest in their teacher data systems, would not only help states report better information on equity gaps for the most disadvantaged students, but could also shed more light on teacher supply and demand. This Administration has the opportunity to bring equitable access back to the forefront.

APPENDIX A

Individual State Results

Based on the data collected, NCTQ identified nine fundamental criteria to evaluate the extent to which states were reporting teacher distribution data and making it accessible to the public.

View this table on the NCTQ website for interactive features, including tooltip details.
Visit www.nctq.org/publications/Ensuring-Students-Equitable-Access-to-Qualified-and-Effective-Teachers.

State	Does the state report on the proportion of out of field teachers in a way that is approximately aligned to research consensus?	Does the state report on the proportion of inexperienced teachers in a way that is approximately aligned to research consensus?	Does the state choose to report on teacher effectiveness using definitions/ methodology grounded in research?	Has the state published data at least once in the last 2 years?	Does the state publish this data at the state, district, and school level?	Does the state disaggregate their reporting by Title I and race/ethnicity?	Does the state report how individual LEA's compare to the state average?	Does the state follow best practices for accessibility in data reporting?	Does the reporting include the ability to download or export the full data set?
Alabama	Yes	Yes	No	Yes	Yes	No	No	Partially	No
Alaska	Yes	Partially	No	Yes	Yes	Partially	Yes	No	No
Arizona	Yes	Yes	No	Yes	Yes	Partially	No	Yes	No
Arkansas	Yes	Yes	Partially	Yes	Yes	Yes	Yes	Partially	Yes
California	Yes	Yes	No	Yes	Yes	No	Yes	Partially	No
Colorado	Yes	Yes	Yes	Yes	Partially	Yes	Yes	Yes	Yes
Connecticut	Yes	Partially	No	Yes	Yes	Partially	No	Yes	Yes
Delaware	Yes	Partially	No	Yes	Yes	Partially	No	Yes	No
District of Columbia	Yes	Partially	No	Yes	Yes	Partially	Yes	Yes	Yes
Florida	Yes	Partially	Yes	Yes	Yes	Yes	Yes	Yes	No
Georgia	Yes	Partially	No	Yes	No	Partially	No	Partially	No
Hawaii	Yes	Partially	No	Yes	Yes	No	Yes	Partially	No
Idaho	Yes	Partially	No	Yes	Yes	No	Yes	No	No
Illinois	No	No	Yes	Yes	Partially	No	Yes	Partially	No
Indiana	No	Yes	Yes	Yes	Yes	No	No	Partially	No
Iowa	Yes	Yes	Partially	Yes	Yes	Yes	No	Partially	No
Kansas	Yes	Yes	Partially	Yes	Yes	Partially	No	Partially	No
Kentucky	Yes	Yes	Partially	Yes	Yes	Yes	No	Partially	Yes
Louisiana	Yes	Partially	Yes	Yes	Yes	Partially	Yes	Partially	Yes
Maine	Yes	Yes	No	Yes	Yes	No	No	Partially	Yes
Maryland	Yes	Yes	Yes	Yes	Partially	Yes	No	Partially	No
Massachusetts	Partially	Yes	Yes	Yes	Yes	Partially	Yes	No	Yes
Michigan	Yes	Yes	Yes	Yes	Yes	Partially	Yes	No	No
Minnesota	Yes	Yes	No	Yes	Yes	Partially	Yes	Partially	No
Mississippi	Yes	Partially	No	Yes	Yes	Partially	No	Partially	No
Missouri	Yes	Partially	Yes	Yes	No	Yes	No	Partially	No
Montana	Yes	Partially	Partially	Yes	No	Yes	No	Partially	No

Continued from previous page:

State	Does the state report on the proportion of out of field teachers in a way that is approximately aligned to research consensus?	Does the state report on the proportion of inexperienced teachers in a way that is approximately aligned to research consensus?	Does the state choose to report on teacher effectiveness using definitions/ methodology grounded in research?	Has the state published data at least once in the last 2 years?	Does the state publish this data at the state, district, and school level?	Does the state disaggregate their reporting by Title I and race/ethnicity?	Does the state report how individual LEA's compare to the state average?	Does the state follow best practices for accessibility in data reporting?	Does the reporting include the ability to download or export the full data set?
Nebraska	Yes	Partially	No	Yes	Yes	No	Yes	Partially	No
Nevada	Yes	Yes	Yes	No	Partially	No	Yes	No	Yes
New Hampshire	Yes	Yes	No	Yes	Yes	Partially	Yes	Partially	No
New Jersey	Yes	Partially	No	Yes	Yes	Yes	Yes	Partially	No
New Mexico	Yes	Yes	No	Yes	Yes	Partially	Yes	Yes	No
New York	Yes	Yes	No	Yes	Yes	Partially	Yes	No	No
North Carolina	No	Yes	No	Yes	Yes	Partially	No	Partially	No
North Dakota	Yes	Yes	No	Yes	Partially	Yes	No	Partially	No
Ohio	Yes	Yes	Yes	Yes	Partially	Partially	No	No	Yes
Oklahoma	Partially	No	No	No	No	No	No	No	No
Oregon	No	Yes	No	Yes	Partially	No	No	No	No
Pennsylvania	No	No	No	No	No	No	No	No	No
Rhode Island	Yes	Yes	No	Yes	Yes	Partially	No	Yes	Yes
South Carolina	Yes	Yes	No	Yes	Yes	No	No	Partially	Yes
South Dakota	Yes	Yes	Yes	Yes	Yes	No	Yes	Partially	No
Tennessee	Yes	Yes	No	Yes	Yes	Partially	No	No	Yes
Texas	Yes	Yes	Yes	Yes	No	Yes	No	No	No
Utah	Yes	Yes	No	Yes	Partially	No	No	Partially	No
Vermont	Yes	No	No	Yes	Yes	No	No	Partially	No
Virginia	Yes	Partially	Yes	Yes	Yes	Partially	Yes	Partially	No
Washington	Yes	Partially	No	Yes	Yes	No	No	Yes	Yes
West Virginia	No	Yes	No	Yes	Partially	Partially	No	Partially	No
Wisconsin	Yes	Yes	Partially	Yes	No	Partially	No	No	Yes
Wyoming	Yes	Yes	No	Yes	Yes	Partially	No	Partially	No

View this table on the NCTQ website for interactive features, including tooltip details.
Visit www.nctq.org/publications/Ensuring-Students-Equitable-Access-to-Qualified-and-Effective-Teachers.

APPENDIX B

Methodology

To determine the quality of a state's reporting, NCTQ collected and analyzed state-by-state reports and representative report card profiles in the winter of 2020-2021. The process with which to collect and verify this data is detailed below.

Reports and representative profiles. Analysis began on a state's Department of Education website. The website was examined by following website paths that mentioned any of the following:

- Report card
- Data center
- ESSA reporting
- Educators
- Equitable Distribution of Teachers
- Access to equitable teachers

When prompted for a district or school input within a report card or data reporting portal, the school district associated with the state's capital was queried as a representative profile.

Verification. In March 2021, NCTQ contacted all 50 states and D.C. to verify the accuracy of the data collection. Feedback was incorporated when relevant.

ACKNOWLEDGEMENTS

Authors

Shayna Levitan, Shannon Holston, and Kate Walsh

Data collection and analysis

Shayna Levitan, Kelli Lakis, Lisa Staresina

Advocacy and communications

Nicole Gerber, Ashley Kincaid, Andrea Browne Taylor

Reviewers

Special thanks to the following individuals for providing review and feedback on this project. Inclusion does not imply endorsement.

Meagan Comb, Executive Director
Wheelock Educational Policy Center

Eric Duncan, Senior P–12 Data and Policy Analyst
Educator Diversity The Education Trust

Sandi Jacobs, Executive Director of Strategic Resourcing
Baltimore City Public Schools

Brennan McMahon Parton, Vice President, Policy and Advocacy
Data Quality Campaign

Sarah Mehrotra, Senior P–12 Data and Policy Analyst
The Education Trust

Project funders

This report is based on research funded by the following foundations. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the project funders.

Bill & Melinda Gates Foundation

Daniels Fund

The Joyce Foundation

Walton Family Foundation

Suggested citation: Levitan, S., Holston, S. & Walsh, K. (2022). *Ensuring Students' Equitable Access to Qualified and Effective Teachers.* Washington, D.C.: National Council on Teacher Quality.

ENDNOTES

1. Rivkin, S., Hanushek, E., & Kain, J. (2005). Teachers, Schools, and Academic Achievement. *Econometrica 79*(2), 417-458.

2. Sass, T. R., Hannaway, J., Xu, Z., Figlio, D. N., & Feng, L. (2012). Value added of teachers in high- poverty schools and lower poverty schools. J*ournal of Urban Economics, 72*(2-3), 104-122; Steele, J.L., Pepper, M.J., Springer, M.G. & Lockwood, J.R. (2015). The distribution and mobility of effective teachers: Evidence from a large, urban school district. *Economics of Education Review, 48*(1), 86-101; Goldhaber, D., Quince, V., & Theobald, R. (2018). Has it always been this way? Tracing the evolution of teacher quality gaps in US public schools. *American Educational Research Journal, 55*(1), 171-20; Goldhaber, D., Lavery, L., & Theobald, R. (2015). Uneven Playing Field? Assessing the Teacher Quality Gap Between Advantaged and Disadvantaged Students. *Educational Researcher, 44*(5), 293–307; Glazerman, S., & Max, J. (2011). *Do low income students have equal access to the highest performing teachers?* Washington, D.C.: Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from http://ies.ed.gov/ncee/pubs/20114016/pdf/20114016.pdf.

3. Isenberg, E., Max, J., Gleason, P., & Deutsch, J. (2021). Do Low-Income Students Have Equal Access to Effective Teachers? *Educational Evaluation and Policy Analysis*. https://doi.org/10.3102/01623737211040511.

4. Goldhaber, D., Quince, V., & Theobald, R. (2018a). Has it always been this way? Tracing the evolution of teacher quality gaps in US public schools. *American Educational Research Journal, 55*(1), 171-201; Goldhaber, D., Lavery, L., & Theobald, R. (2015). Uneven Playing Field? Assessing the Teacher Quality Gap Between Advantaged and Disadvantaged Students. *Educational Researcher, 44*(5), 293–307; Clotfelter, C., Ladd, H., Vigdor, J., & Wheeler, J. (2007) *High-Poverty Schools and the Distribution of Teachers and Principals*. CALDER Working Paper; Kalogrides, D., Loeb, S., & Beteille, T. (2013). Systematic sorting: Teacher characteristics and class assignments. *Sociology of Education, 86*(2), 103-123; Sass, T., Hannaway, J., Xu, Z., Figlio, D., & Feng, L. (2010); Value added of teachers in high-poverty schools and lower-poverty schools. *Journal of Urban Economics, 72*(2–3): 104–22.

5. While the law references minority children, this report will use the term students of color.

6. Section 1111 (20 U.S.C. 6311)

7. Hanushek, E. A. (1992). The trade-off between child quantity and quality. *Journal of Political Economy*, *100*(1), 84-117; Sanders, W., & Rivers, J. (1996). *Cumulative and Residual Effects of Teachers on Future Student Achievement*. University of Tennessee Value-Added Research and Assessment Center; Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, Schools, and Academic Achievement. *Econometrica, 73*(2), 417-458; Rowan, B., Correnti, R., & Miller, R. J. (2002). What large-scale survey research tells us about teacher effects on student achievement: Insights from the Prospects study of elementary schools. *Teachers College Record*, 104, 1525-1567; Gordon, R., Kane, T.J., & Staiger, D. O. (2006). *Identifying effective teachers using performance on the Job* (Hamilton Project Discussion Paper). Washington, D.C.: Brookings Institution; Rice, J. K. (2013). Learning from experience? Evidence on the impact and distribution of teacher

experience and the implications for teacher policy. *Education Finance and Policy, 8*(3), 332-348; Boyd, D., Lankford, H., Loeb, S., Rockoff, J., & Wyckoff, J. (2008). The narrowing gap in New York City teacher qualifications and its implications for student achievement in high-poverty schools. *Journal of Policy Analysis and Management, 27*(4), 793-818; Papay, J. & Kraft, M. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. *Journal of Public Economics*, 130. 105-119; Ingersoll, R. (2002). *Out-of-Field Teaching, Educational Inequality, and the Organization of Schools: An Exploratory Analysis*. CPRE Research Reports; Dee, T. S., & Cohodes, S. R. (2008). Out-of-field teachers and student achievement: Evidence from matched-pairs comparisons. P*ublic Finance Review, 36*(1), 7-32; Jerald, C. D., & Ingersoll, R. (2002). All Talk No Action: Putting an End to Out-of-Field Teaching. Washington, D.C.: The Education Trust. Retrieved from https://repository.upenn.edu/gse_pubs/142; Goldhaber, D., & Brewer, D. J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis, 22*(2), 129-145.

8. United States Department of Education. (2017, June 16). *ESSA State Plans FAQ*. Retrieved from: https://www2.ed.gov/policy/elsec/leg/essa/essastateplansfaqs.pdf.
9. The remaining states have elected to collect and/or publish data on only some of these measures— though Pennsylvania has yet to report on any.
10. Definitions of out-of-field teaching also vary, with eight states including teachers who are rated as provisional or emergency in their counts, and four states reporting the data in terms of the number of classes, not the number of teachers, taught by an out-of-field teacher.
11. These states report on teacher retention in schools with low-income versus non low-income students. An additional five states report on teacher retention in general.
12. Sorensen, L., & Ladd, H. F. (2019). *Teacher turnover and the disruption of teacher staffing*. Washington, D.C: The Brookings Institution; Ronfeldt, M., Loeb, S., Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal, 50*(1), 4-36.
13. For example, when a teacher misses 10 or more days of school, the decline in student achievement is often proportionate to the differences in achievement seen between students taught by a new teacher compared to those taught by a teacher with two to three years of experience. See: Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2007). *Are teacher absences worth worrying about in the U.S.?* Working paper 13648; National Bureau of Economic Research; Miller, R.T., Murnane, R.J., & Willet, J.B. (2007). *Do Teacher Absences Impact Student Achievement? Longitudinal Evidence from One Urban School District*. Working paper 13356; National Bureau of Economic Research.
14. Boyd, D., Lankford, H., Loeb, S., Rockoff, J., & Wyckoff, J. (2008). The narrowing gap in New York City teacher qualifications and its implications for student achievement in high-poverty schools. *Journal of Policy Analysis and Management, 27*(4), 793-818; Ladd, H. F., Clotfelter, C. T., & Vigdor, J. L. (2007). *How and why do teacher credentials matter for student achievement?* (NBER Working Paper 142786); Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica, 73*(2), 417-458; Horn, A. S., & Jang, S. T. (2017). *The Impact of Graduate Education on Teacher Effectiveness: Does a Master's Degree Matter?* MHEC Research Brief. Midwestern Higher

Education Compact; Bastian, K. C. (2019). A degree above? The value- added estimates and evaluation ratings of teachers with a graduate degree. *Education Finance and Policy, 14*(4), 652-67.

15. The District of Columbia defines an inexperienced teacher as a first-year teacher or a second-year teachers rated as ineffective. For the purposes of this report, this definition was not considered distinct from a definition that only consider inexperienced teaching to be through Year 1.

16. Papay, J. P., & Kraft, M. A. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. J*ournal of Public Economics*, 130, 105-119; Wiswall, M. (2013). The dynamics of teacher quality. *Journal of Public Economics*, 100, 61-78; Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics, 95*(7-8), 798-812; Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review, 94*(2), 247-252.

17. An additional four states (Hawaii, Iowa, Mississippi, and South Dakota) seem to have likewise initially defined out-of-field teaching in their ESSA plan this way; however, report the proportion of emergency, provisional, or initial licenses as distinct measures separate from their reporting on the more traditional definition of out-of-field teaching.

18. Mehrotra, S., Morgan, I., & Socol Rose, A. (2021). *Getting Black Students Better Access to Non- Novice Teachers*. Washigton, D.C: The Education Trust; Mehrotra, S., Morgan, I., & Socol Rose, A. (2021). *Getting Latino Students Better Access to Non-Novice Teachers*. Washington, D.C.: The Education Trust.

19. Mehrotra, S., Morgan, I., & Socol Rose, A. (2021).

20. Dorn,E., Hancock,B., Sarakatsannis,J., & Viruleg, E. (2021). *COVID-19 and education: The lingering effects of unfinished learning*. Washington, D.C.: McKinsey and Company. Retrieved in February 2022 from https://www.mckinsey.com/industries/education/our-insights/covid-19-and- education-the-lingering-effects-of-unfinished-learning.