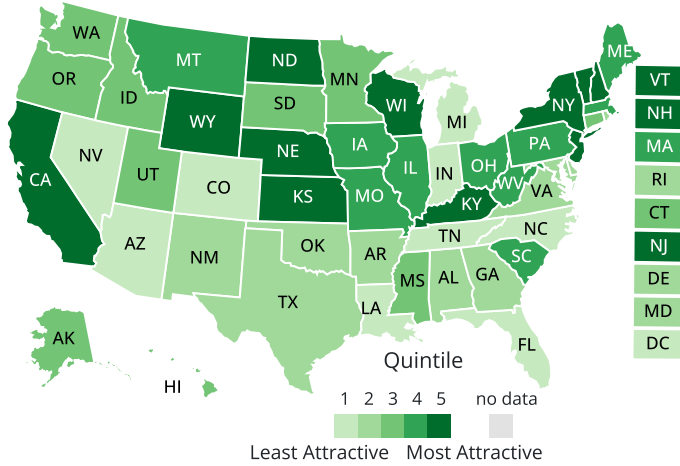


The State of the Teacher Workforce: A State-by-State Analysis of the Factors Influencing Teacher Shortages, Supply, Demand, and Equity

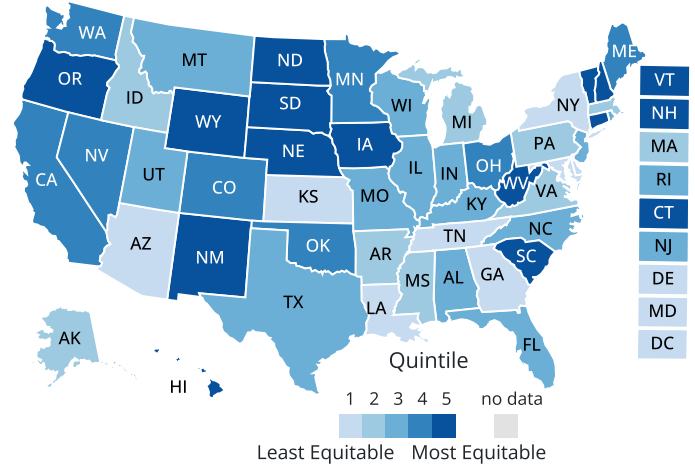
This map highlights key factors available from national data that reflect and influence the supply and demand for teachers in each state, including conditions of teachers' work and equitable access to qualified teachers. Many of these factors describe the appeal of the teaching profession in a given state and help to signal whether states are likely to have an adequate supply of qualified teachers to fill their classrooms. Others describe the extent to which students in different contexts have access to qualified teachers.

United States

Teaching attractiveness rating



Teacher equity rating



Indicator	Quintile	US
Compensation		
Starting salary		\$44,530
Wage competitiveness		73.6%
Working Conditions		
Leadership support		51.5%
Collegiality		39.1%
Classroom autonomy		46.4%
Exclusion from school policymaking*		28.1%
Mentoring for early-career teachers		81.4%
Time for professional development		65%
Perceptions of evaluation		50%
Dissatisfaction*		10.9%
Test-related job insecurity*		7%
School Resources		
Expenditures per pupil		\$14,300
Pupil-to-teacher ratio*		15.4 : 1
Schools meeting the recommended pupil-to-counselor ratio		19.2%
Teacher Turnover and Hiring		
Stayed teaching in the same school		84.1%
Left teaching*		7.9%
Plan to leave teaching*		8.6%
School vacancies unfilled or hard to fill*		46.9%
Qualifications		
Uncertified teachers*		3.7%

Indicator	Quintile	US
Equity by School Minority Enrollment		
Gap in percentage of uncertified teachers between higher- and lower-minority schools*		3.7
Uncertified teachers in higher-minority schools*		6.2%
Uncertified teachers in lower-minority schools*		2.5%
Gap in percentage of inexperienced teachers between higher- and lower-minority schools*		6.3
Inexperienced teachers in higher-minority schools*		15.2%
Inexperienced teachers in lower-minority schools*		8.9%
Equity by School Poverty		
Gap in percentage of uncertified teachers between higher- and lower-poverty schools*		3.3
Uncertified teachers in higher-poverty schools*		5.7%
Uncertified teachers in lower-poverty schools*		2.4%
Gap in percentage of inexperienced teachers between higher- and lower-poverty schools*		5.8
Inexperienced teachers in higher-poverty schools*		15%
Inexperienced teachers in lower-poverty schools*		9.2%

Additional factors influencing teacher supply and demand: Numerous factors influence teaching, learning, and teacher supply and demand in each state. Policymakers may want to consider these indicators when assessing their labor market for teachers.

United States

Indicator	US
Teacher Pipeline	
Total number of teacher preparation program (TPP) enrollees	589,655
Change in TPP enrollees over past 5 years	-0.6%
Total number of TPP completers	154,517
Change in TPP completers over past 5 years	4.1%
Student Enrollment	
Total number of students	49,514,913
Change in student enrollment over past 5 years	-2.3%
Change in projected student enrollment over next decade	-5.5%

Indicator	US
Workforce Characteristics	
Total number of teachers	3,224,967
Teachers of color	20.1%
Ratio of adults of color to teachers of color	2.1 : 1
Teachers over 60 years old	6.4%
Change in number of teachers over past 5 years	1.7%
Teacher Financial Strain	
Work outside the school system	17.1%
Money spent on classroom supplies	\$470
Outstanding student loans	36.6%

* Scale is reversed such that a higher quintile reflects a more positive condition.

This map was last updated in July 2024 (originally published in July 2023). The data are drawn from national data sources, representing the most recent data available for analysis as of April 2024. Interpreters of the data should keep in mind that the sources for various statistics represent different academic years (ranging mainly from 2017–18 to 2022–23). Some states may have recently experienced changes in policies or conditions which would change the statistic reported if it were collected today. In addition, some indicators are estimated based on a sample of teachers and, in some cases, sample sizes are relatively small. We follow the National Center for Education Statistics guidelines for reporting and note any estimates that should be interpreted with caution.

The Technical Supplement, last updated in June 2024, includes the complete notes and source information:

<https://learningpolicyinstitute.org/state-of-teacher-workforce-notes-sources>

Suggested citation: Learning Policy Institute. (2024). *The state of the teacher workforce: A state-by-state analysis of the factors influencing teacher shortages, supply, demand, and equity* [Interactive map]. <https://learningpolicyinstitute.org/product/state-of-teacher-workforce-interactive>



View the interactive map at learningpolicyinstitute.org/state-of-teacher-workforce

Teaching attractiveness rating: Indicates the attractiveness of the teaching profession in each state by averaging the quintile rank from the indicators capturing compensation, working conditions, school resources, turnover and hiring, and qualifications. *Source: Multiple*

Teacher equity rating: Indicates the extent to which students have equitable access to a well-qualified teaching workforce by averaging the quintile rank from the indicators capturing racial and economic equity. *Source: Multiple*

Starting salary: The average starting teacher salary per state, adjusted for cost-of-living differences. *Source: National Education Association (2022–23)*

Wage competitiveness: The average public school teacher weekly wage as a percentage of the estimated weekly wage for other college-educated workers within each state. *Source: Economic Policy Institute (2017 to 2022)*

Leadership support: Percentage of teachers who strongly agree that “the school administration’s behavior toward the staff is supportive and encouraging.” *Source: National Teacher and Principal Survey (2020–21)*

Collegiality: Percentage of teachers who strongly agree that “there is a great deal of cooperative effort among the staff members.” *Source: National Teacher and Principal Survey (2020–21)*

Classroom autonomy: Average of the percentage of teachers who report they have “a great deal of control” in their classroom in the following areas of planning and teaching: textbooks and class materials, content and skills to be taught, teaching techniques, evaluation of students, discipline, and homework. *Source: National Teacher and Principal Survey (2020–21)*

Exclusion from school policymaking: Average of the percentage of teachers who report that teachers have “no influence” over school policy in the following areas: student performance standards, curriculum, in-service professional development, teacher evaluation, teacher hiring, and discipline policy. *Source: National Teacher and Principal Survey (2020–21)*

Mentoring for early-career teachers: Percentage of early-career teachers who reported having a mentor assigned by their school or district in their first year of teaching. Note: Early-career teachers in these data include teachers in their first 5 years of teaching (those starting in 2016–17 or more recently). *Source: National Teacher and Principal Survey (2020–21)*

Time for professional development: Percentage of teachers who get release time from teaching to attend professional development. *Source: National Teacher and Principal Survey (2017–18)*

Perceptions of evaluation: Percentage of teachers who strongly agree that “overall, the evaluation process was fair.” *Source: National Teacher and Principal Survey (2017–18)*

Dissatisfaction: Average of the percentage of teachers who strongly agree with the following statements: “The stress and disappointments involved in teaching at this school aren’t really worth it”; “If I could get a higher paying job, I’d leave teaching as soon as possible”; “I think about transferring to another school”; “I don’t seem to have as much enthusiasm now as I did when I began teaching”; and “I think about staying home from school because I’m just too tired to go.” Note: Estimates from Kentucky, Minnesota, Montana, New Hampshire, North Dakota, Oklahoma, Rhode Island, Vermont, and West Virginia should be interpreted with caution. The coefficient of variation of at least one of the underlying metrics is between 30% and 39% for these states. *Source: National Teacher and Principal Survey (2020–21)*

Test-related job insecurity: Percentage of teachers who strongly agree with the statement: “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” Note: Estimates from Iowa, Nebraska, and Vermont should be interpreted with caution. The coefficient of variation for each state’s estimate is between 30% and 40%. *Source: National Teacher and Principal Survey (2020–21)*

Expenditures per pupil: Current expenditures per pupil for public schools, adjusted for cost-of-living differences. *Source: Common Core of Data (2020–21)*

Pupil-to-teacher ratio: Pupil-to-teacher ratio for public schools. *Source: Common Core of Data (2022–23)*

Schools meeting the recommended pupil-to-counselor ratio: Percentage of public schools with pupil-to-counselor ratio below 250:1, as recommended by the American School Counselor Association. *Source: Civil Rights Data Collection (2020–21)*

Stayed teaching in the same school: Percentage of teachers who stayed teaching in the same school between 2020–21 and 2021–22. Note: The estimate for the District of Columbia is not reported because reporting standards are not met. Estimates for Alaska and Wyoming are excluded because of data cautions noted by NCES and disparities between the NCES-reported values and state-level sources. *Source: Teacher Follow-Up Survey (2021–22)*

Left teaching: Percentage of teachers who left the teaching profession between 2020–21 and 2021–22. Note: Estimates from Alabama, Connecticut, Georgia, Hawaii, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Dakota, Oklahoma, Oregon, South Carolina, Utah, Vermont, Washington, and West Virginia should be interpreted with caution. The coefficient of variation for each state’s estimate is between 30% and 50%. Estimates for Alaska, Colorado, Delaware, District of Columbia, Rhode Island, South Dakota, and Wyoming are not reported because reporting standards are not met. *Source: Teacher Follow-Up Survey (2021–22)*

Plan to leave teaching: Percentage of teachers who plan to leave teaching as soon as they can or when a more desirable job opportunity comes along. *Source: National Teacher and Principal Survey (2020–21)*

School vacancies unfilled or hard to fill: Percentage of schools with teaching vacancies that found it very difficult to fill the vacancy or could not fill the vacancy. *Source: National Teacher and Principal Survey (2020–21)*

Uncertified teachers: Percentage of full-time-equivalent teachers in the state’s public schools who have not met state certification requirements, including those teaching while still finishing their preparation or teaching with an emergency-style credential. Note: Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18. *Source: Civil Rights Data Collection (2020–21)*

Gap in percentage of uncertified teachers between higher- and lower-minority schools: Percentage-point difference between the percentage of uncertified teachers in the state’s schools serving the highest proportions of students of color (“higher-minority schools”) and those in the state’s schools serving the lowest proportions of students of color (“lower-minority schools”). Note: Uncertified teachers are those who have not met the state certification requirements for a standard credential. Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18, and this could influence the estimated values by type of school. *Source: Civil Rights Data Collection (2020–21)*

Uncertified teachers in higher-minority schools: Percentage of uncertified teachers in the quartile (25%) of schools in the state with the highest proportions of students of color. Note: Uncertified teachers are those who have not met the state certification requirements for a standard credential. Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18, and this could influence the estimated values by type of school. *Source: Civil Rights Data Collection (2020–21)*

Uncertified teachers in lower-minority schools: Percentage of uncertified teachers in the quartile (25%) of schools in the state with the lowest proportions of students of color. Note: This indicator is used to construct the gap indicator but is not included in the overall Teacher Equity rating. Uncertified teachers are those who have not met the state certification requirements for a standard credential. Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18, and this could influence the estimated values by type of school. *Source: Civil Rights Data Collection (2020–21)*

Gap in percentage of inexperienced teachers between higher- and lower-minority schools: Percentage-point difference between the percentage of inexperienced teachers in the state's schools serving the highest proportions of students of color and those in the state's schools serving the lowest proportions of students of color. Note: Inexperienced teachers are those in their first 2 years of teaching. *Source: Civil Rights Data Collection (2017–18)*

Inexperienced teachers in higher-minority schools: Percentage of inexperienced teachers in the quartile (25%) of schools in the state with the highest proportions of students of color. Note: Inexperienced teachers are those in their first 2 years of teaching. *Source: Civil Rights Data Collection (2017–18)*

Inexperienced teachers in lower-minority schools: Percentage of inexperienced teachers in the quartile (25%) of schools in the state with the lowest proportions of students of color. Note: This indicator is used to construct the gap indicator but is not included in the overall Teacher Equity rating. Inexperienced teachers are those in their first 2 years of teaching. *Source: Civil Rights Data Collection (2017–18)*

Gap in percentage of uncertified teachers between higher- and lower-poverty schools: Percentage-point difference between the percentage of uncertified teachers in the state's schools serving the highest proportions of students living in low-income households and those in the state's schools serving the lowest proportions of students in low-income households. Note: Uncertified teachers are those who have not met the state certification requirements for a standard credential. Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18, and this could influence the estimated values by type of school. *Source: Civil Rights Data Collection (2020–21)*

Uncertified teachers in higher-poverty schools: Percentage of uncertified teachers in the quartile (25%) of schools in the state with the highest proportion of students living in low-income households. Note: Uncertified teachers are those who have not met the state certification requirements for a standard credential. Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18, and this could influence the estimated values by type of school. *Source: Civil Rights Data Collection (2020–21)*

Uncertified teachers in lower-poverty schools: Percentage of uncertified teachers in the quartile (25%) of schools in the state with the lowest proportion of students living in low-income households. Note: This indicator is used to construct the gap indicator but is not included in the overall Teacher Equity rating. Uncertified teachers are those who have not met the state certification requirements for a standard credential. Estimates for Delaware and the District of Columbia should be interpreted with caution because the estimated value for uncertified teachers in 2020–21 varied considerably from prior values and from state-reported estimates of uncertified teachers. The percentage of uncertified teachers estimated in 2020–21 for these states was more than 5 percentage points different from the average percentage of uncertified teachers estimated in 2015–16 and 2017–18, and this could influence the estimated values by type of school. *Source: Civil Rights Data Collection (2020–21)*

Gap in percentage of inexperienced teachers between higher- and lower-poverty schools: Percentage-point difference between the percentage of inexperienced teachers in the state's schools serving the highest proportions of students living in low-income households and those in the state's schools serving the lowest proportions of students in low-income households. Note: Inexperienced teachers are those in their first 2 years of teaching. *Source: Civil Rights Data Collection (2017–18)*

Inexperienced teachers in higher-poverty schools: Percentage of inexperienced teachers in the quartile (25%) of schools in the state with the highest proportion of students living in low-income households. Note: Inexperienced teachers are those in their first 2 years of teaching. *Source: Civil Rights Data Collection (2017–18)*

Inexperienced teachers in lower-poverty schools: Percentage of inexperienced teachers in the quartile (25%) of schools in the state with the lowest proportion of students living in low-income households. Note: This indicator is used to construct the gap indicator but is not included in the overall Teacher Equity rating. Inexperienced teachers are those in their first 2 years of teaching. *Source: Civil Rights Data Collection (2017–18)*

Total number of teacher preparation program (TPP) enrollees: Total number of enrollees from the state's teacher preparation programs. Note: Enrollees include completers in that year. *Source: Title II (2021–22)*

Change in TPP enrollees over past 5 years: Percent change in the state's number of enrollees from teacher preparation programs over 5 years (2017–18 to 2021–22). Note: Enrollees include completers across all years of data. *Source: Title II (2017–18 to 2021–22)*

Total number of TPP completers: Total number of completers in the state's teacher preparation programs. *Source: Title II (2021–22)*

Change in TPP completers over past 5 years: Percent change in the state's number of completers from teacher preparation programs over 5 years (2017–18 to 2021–22). *Source: Title II (2017–18 to 2021–22)*

Total number of students: Number of students enrolled in the state's PreK–12 public schools. *Source: Common Core of Data (2022–23)*

Change in student enrollment over past 5 years: Percent change in the number of students enrolled in the state's PreK–12 public schools over 5 years (2018–19 to 2022–23). *Source: Common Core of Data (2018–19 to 2022–23)*

Change in projected student enrollment over next decade: Percent change in the projected student enrollment in the state's public schools from 2022 to 2031. *Source: National Center for Education Statistics (2022–23)*

Total number of teachers: Number of teachers working in the state's PreK–12 public school system. *Source: Common Core of Data (2022–23)*

Teachers of color: Percentage of teachers who self-identify as American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, Two or more races, or Hispanic, regardless of race. Note: Estimates from Kentucky, Montana, and Nebraska should be interpreted with caution. The coefficient of variation for each state's estimate is between 32% and 35%. *Source: National Teacher and Principal Survey (2020–21)*

Ratio of adults of color to teachers of color: Ratio of the percentage of nonelderly adults of color (ages 20 to 64) in the state to the percentage of teachers of color in the public schools. Note: Estimates from Kentucky, Montana, and Nebraska should be interpreted with caution because of caveats associated with the NTPS estimate of teachers of color (see Teachers of Color indicator). *Source: National Teacher and Principal Survey; American Community Survey (2020–21)*

Teachers over 60 years old: Percentage of teachers who are over 60 years old and may be nearing retirement. Note: Estimates from Kentucky and Oklahoma should be interpreted with caution. The coefficient of variation for each state's estimate is between 30% and 34%. *Source: National Teacher and Principal Survey (2020–21)*

Change in number of teachers over past 5 years: Percent change in the number of teachers in the state's public schools over 5 years (2018–19 to 2022–23). *Source: Common Core of Data (2018–19 to 2022–23)*

Work outside the school system: Percentage of teachers who reported earning additional compensation from working in a job outside of the school system during the school year. *Source: National Teacher and Principal Survey (2020–21)*

Money spent on classroom supplies: Average amount of their own money that teachers in a state report spending on classroom supplies without being reimbursed, adjusted for cost-of-living differences. Note: This average only includes teachers who reported spending money that was not reimbursed (an estimated 95% of all teachers nationally). *Source: National Teacher and Principal Survey (2020–21)*

Outstanding student loans: Percentage of teachers in a state who still owe money on student loans that they used to help pay for undergraduate or graduate education. *Source: National Teacher and Principal Survey (2020–21)*