## United States: Understanding Teacher Shortages

This map highlights a number of key factors that reflect and influence teacher supply and attrition and signal whether states are likely to have an adequate supply of qualified teachers to fill their classrooms. Based on these data - which treat compensation, teacher turnover, working conditions, and qualifications - each states is assigned a "teaching attractiveness rating," indicating how supportive it appears to be of teacher recruitment and retention and a "teacher equity rating", indicating the extent to which students, in particular students of color, are assigned uncertified or inexperienced teachers. Ratings are on a 1-5 scale, with 1 (the lightest color) being the least desirable and 5 (the darkest color) being the most desirable.

Teaching Attractiveness Rating:


|  | Indicator | US <br> Average |
| :---: | :---: | :---: |
|  | Compensation Rating |  |
|  | Starting Salary | \$36,141 |
|  | Wage Competitiveness | 74 |
|  | Working Conditions Rating |  |
|  | Pupil-Teacher Ratio | $16: 1$ |
|  | Classroom Autonomy | 77\% |
|  | Collegiality Within School | 38\% |
|  | Testing-Related Job Insecurity | 12\% |
|  | Administrative Support | 48\% |
|  | Teacher Qualifications Rating |  |
|  | \% Inexperienced Teachers | 12.6\% |
|  | \% Uncertified Teachers | 1.89\% |
|  | Teacher Turnover Rating |  |
|  | Left Profession | 7.7\% |
|  | Left School or Profession | 14.2\% |
|  | Plans to Leave Teaching | 6.6\% |

Teacher Equity Rating:



|  | Indicator | US <br> Average |
| :---: | :---: | :---: |
|  | Ratio of Uncertified Teachers in High- vs. LowMinority Schools | 4.05 : 1 |
|  | \% Uncertified Teachers in Low-Minority Schools | 0.88\% |
|  | \% Uncertified Teachers in High-Minority Schools | 3.56\% |
|  | Ratio of Inexperienced Teachers in High- vs. Low-Minority Schools | 1.67 : 1 |
|  | \% Inexperienced Teachers in Low-Minority Schools | 9.9\% |
|  | \% Inexperienced Teachers in High-Minority Schools | 16.56\% |
|  | \% Teachers of color | 18\% |

The data are drawn from national data sources, representing the most recent data available for analysis. Interpretations of the data should keep in mind that, depending on the specific statistic, these sources are from 2012, 2013, or 2014. Some states may have recently experienced changes in policies or conditions which would change the statistic reported if it were collected today. In addition, in some cases, sample sizes are relatively small. We do not report data for states where the samples are too small to meet NCES guidelines for reporting. Complete notes and source information are available at http://learningpolicyinstitute.org/understanding-teacher-shortages-notes-sources.

## Definitions and Sources

Teaching Attractiveness Rating: The average quintile rank (1-5) of each indicator in the categories compensation, teacher turnover, working conditions, and teacher qualifications.
Compensation Rating: The average quintile rank (1-5) of starting salary and salary competitiveness.
Starting Salary: Average starting salary in 2013. Source: NEA Collective Bargaining/Member Advocacy's Teacher Salary Database, based on affiliate reporting as of December 2013, see http://www.nea.org/home/2012-2013-average-starting-teacher-salary.html.

Wage Competitiveness: Estimated annual teacher wage as percentage of estimated annual non-teacher wage, holding constant age, education level, and hours worked. Source: Baker B., Farrie D., \& Sciarra D.G. (2016). Mind the gap: 20 years of progress and retrenchment in school funding and achievement gaps, Table 5. Educational Testing Service: Princeton, NJ. pp. 15.
Working Conditions Rating: The average quintile rank (1-5) of administrative support, testing-related job insecurity, collegiality, teacher autonomy, and pupil-teacher ratios.

Pupil-Teacher Ratio: Pupil-Teacher Ratio in 2014. Source: National Center for Education Statistics. (2015). Digest of Education Statistics. Public and private elementary and secondary teachers, enrollment, pupil/teacher ratios, and new teacher hires: Selected years, fall 1955 through fall 2025. Washington, D.C.: U.S. Department of Education.
Classroom Autonomy: Percentage of teachers who report they have control in their classroom in the following areas of planning and teaching: textbooks and class materials, content and skills to be taught, teaching techniques, evaluating students, discipline, and homework. Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics.
Collegiality Within School: Percentage of teachers who strongly agree that there is a great deal of cooperative effort among the staff members. Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics.
Testing-Related Job Insecurity: Percentage of teachers who strongly agree that they worry about the security of their job because of the performance of their students or school on state and/or local tests. Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics.
Administrative Support: Percentage of teachers who strongly agree that their school administration's behavior toward the staff is supportive and encouraging. Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics.
Teacher Qualifications Rating: The average quintile rank (1-5) of uncertified teachers and inexperienced teachers.
\% Inexperienced Teachers: Percentage of first- and second-year teachers in 2014. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.
\% Uncertified Teachers: Percentage of teachers who have not met state certification requirements in 2014, including those teaching while still finishing their preparation, or teaching with an emergency-style credential. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.

Teacher Turnover Rating: The average quintile rank (1-5) of plans to leave teaching, left profession, and left school or profession.

Left Profession: Percentage of teachers who left the teaching profession between the 2011-12 school year and the 2012-13 school year, also known as "leavers." Source: LPI analysis of the Teacher Follow-Up Survey, 2013, from the Schools and Staffing Survey, National Center for Education Statistics.
Left School or Profession: Percentage of teachers who moved schools or who left the teaching profession between the 2011-12 school year and the 2012-13 school year, also known as "movers and leavers." Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics; Teacher FollowUp Survey, 2013, from the Schools and Staffing Survey, National Center for Education Statistics.
Plans to Leave Teaching: Percentage of teachers planning to leave teaching as soon as possible or as soon as a more desirable job opportunity arises. Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics.

Ratio of Uncertified Teachers in High- vs. Low-Minority Schools: Percentage of uncertified teachers in high-minority schools / Percentage of uncertified teachers in low-minority schools. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.

Teacher Equity Rating: The average quintile rank (1-5) of the ratio of uncertified teachers in high- vs. low-minority schools, the ratio of inexperienced teachers in high- vs. low-minority schools, uncertified teachers in high-minority schools, uncertified teachers in low-minority schools, inexperienced teachers in high-minority schools, and inexperienced teachers in low-minority schools.
\% Uncertified Teachers in Low-Minority Schools: Percentage of teachers in low-minority schools who are not certified. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.
\% Uncertified Teachers in High-Minority Schools: Percentage of teachers in high-minority schools who are not certified. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.
Ratio of Inexperienced Teachers in High- vs. Low-Minority Schools: Percentage of inexperienced teachers in high-minority schools / Percentage of inexperienced teachers in low-minority schools. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics
\% Inexperienced Teachers in Low-Minority Schools: Percentage of first- or second-year teachers in low-minority schools. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.
\% Inexperienced Teachers in High-Minority Schools: Percentage of first- or second-year teachers in high-minority schools. Source: LPI analysis of the Civil Rights Data Collection, Public-Use Data File 2013-14, National Center for Education Statistics.
\% Teachers of color: Percentage teachers of color in 2012. Source: LPI analysis of the Public School Teacher File, 2012, from the Schools and Staffing Survey, National Center for Education Statistics.

