

## **Addressing Teacher Shortages: General Trends, Research-Based Policy Options, and Recent State Efforts**

### **General Trends**

Teacher staffing shortages vary across and within states, indicating the importance of having accurate data to analyze the state and local teacher supply and demand to identify appropriate policy solutions.<sup>1</sup> Despite the variation in state and local shortages, there are general trends in subject area, geographic, and diversity shortages at the national level. Common shortage areas include:

- Mathematics, science, and special education teachers
- Teachers in high-poverty and high-minority schools
- Teachers in rural areas
- Teachers of color<sup>2</sup>

Shortages are largely caused by declining enrollment in and completion of teacher preparation programs<sup>3</sup> and high teacher attrition.<sup>4</sup> Low pay, poor working conditions, and lack of professional respect not only lead to high levels of teacher attrition but also contribute to fewer individuals pursuing the teaching profession. Teacher salaries continue to lag behind those of college graduates in other professions,<sup>5</sup> and teachers are about thirty percent more likely to work a second job compared to those working in other professions.<sup>6</sup> Mathematics and science teachers face a larger wage gap when choosing the teaching profession over other careers in those fields.<sup>7</sup> High-poverty and high-minority schools often suffer from inadequate resources because of inequitable funding; as a result, these schools tend to have lower salaries and poorer working conditions.<sup>8</sup> Rural schools are often in remote locations, have lower salaries, and require teachers to take on additional roles and responsibilities because they have fewer staff members overall.<sup>9</sup> Teachers of color face additional barriers to entering and remaining in the teaching profession compared to their white counterparts, including

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<sup>1</sup> Jacobs, S. and Olson, L. (2021). In Demand: The Real Teacher Shortages and How to Solve Them FutureEd and Education Council [https://www.future-ed.org/wp-content/uploads/2021/10/FutureEd\\_EdCounsel\\_Teacher\\_Shortages.pdf](https://www.future-ed.org/wp-content/uploads/2021/10/FutureEd_EdCounsel_Teacher_Shortages.pdf)

<sup>2</sup> National Academies of Sciences, Engineering, and Medicine. (2020). *Changing Expectations for the K-12 Teacher Workforce: Policies, Preservice Education, Professional Development, and the Workplace*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25603>

<sup>3</sup> Partelow, L. (2019). What to Make of Declining Enrollment in Teacher Preparation Programs. Center for American Progress <https://www.americanprogress.org/article/make-declining-enrollment-teacher-preparation-programs/>

<sup>4</sup> Sutch, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, 27(35). <http://dx.doi.org/10.14507/epaa.27.3696>

<sup>5</sup> Allegretto, S. A., & Mishel, L. (2020). Teacher pay penalty dips but persists in 2019: Public school teachers earn about 20% less in weekly wages than nonteacher college graduates. Economic Policy Institute. <https://files.epi.org/pdf/207502.pdf>

<sup>6</sup> Shapiro, S., Brown, B., & Partelow, L. (2018). Fact Sheet: Yes, Increase the Salaries of All Teachers. Center for American Progress. <https://www.americanprogress.org/article/fact-sheet-yes-increase-salaries-teachers/#:~:text=Teachers%20are%20about%2030%20percent,of%20teachers%20work%20second%20jobs.>

<sup>7</sup> Hansen, M., Breazeale, G., & Blankenship, M. (2019). STEM Teachers Are Most in Need of Additional Pay. Brookings. <https://www.brookings.edu/blog/browncenterchalkboard/2019/06/17/stem-teachers-are-most-in-need-of-additional-pay/>

<sup>8</sup> Adamson, F., & Darling-Hammond, L. (2012). Funding disparities and the inequitable distribution of teachers: Evaluating sources and solutions. *Education Policy Analysis Archives*, 20(7), 1–46. <https://doi.org/10.14507/epaa.v20n37.2012>

Darling-Hammond, L. (2010). *The flat world and Education: How America's commitment to equity will determine our future*. New York, NY: Teachers College Press.

<sup>9</sup> see footnote 1

being underprepared due to a lack of exposure to college-level coursework in high school, feeling dissatisfied with the lack of diversity in preparation program faculty, and being in an environment that does not reflect or respect their culture or experience.<sup>10</sup>

Teacher working conditions during the pandemic have led to increasing concerns that more teachers will leave the profession and exacerbate existing teacher shortages. More teachers are considering leaving the profession than prior to the pandemic.<sup>11</sup> Additionally, because teachers tend to leave the profession when the economy is doing well,<sup>12</sup> recent state economic growth may increase the likelihood that more teachers will leave the profession.

## Research-Based Policy Recommendations for Increasing the Recruitment and Retention of Teachers

The following policy recommendations represent a variety of different strategies to increase teacher recruitment and retention. Although they are presented as separate initiatives, research suggests that these policies have the greatest impact when implemented together as a comprehensive set of practices to improve the teacher pipeline.<sup>13</sup>

- Increase Compensation
  - Increase salaries to be commensurate with other professions with similar educational requirements and provide funding for high-poverty districts to raise salaries to effectively compete in the teacher labor market.
  - Implement service scholarships or loan forgiveness programs
    - Effective programs target high-needs areas, impose consequences that are not overly punitive, are administratively feasible, target well-prepared, committed teachers, and cover all or a large percentage of the loan.<sup>14</sup>
  - Create career-ladder programs with formal recognition and salary increases<sup>15</sup>
  - Provide other forms of compensation, such as childcare, housing assistance, or tax incentives
- Improve teacher working conditions
  - Improve the principal pipeline
    - Comprehensive and aligned principal pipelines feature differentiated leader standards that guide all pipeline activities, preservice preparation opportunities, selective hiring and placement, and on the job induction, evaluation, and support.<sup>16</sup>

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<sup>10</sup> Carver-Thomas, D. (2018). Diversifying the Teaching Profession: How to Recruit and Retain Teachers of Color. Learning Policy Institute. [https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying\\_Teaching\\_Profession\\_REPORT\\_0.pdf](https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying_Teaching_Profession_REPORT_0.pdf)

<sup>11</sup> Loewus, L. (2021). Why Teachers Leave – or Don't: A Look at the Numbers. Education Week. <https://www.edweek.org/teaching-learning/why-teachers-leave-or-dont-a-look-at-the-numbers/2021/05>

<sup>12</sup> Goldhaber, D., Theobald, R. (2021). Teacher Attrition and Mobility Over Time. (CALDER Flash Brief No. 23-0421). Arlington, VA: National Center for Analysis of Longitudinal Data in Education Research.

<sup>13</sup> Darling-Hammond, L., Saunders, R., Podolsky, A., Kini, T., Espinoza, D., Hylar, M., & Carver-Thomas, D. (2019). Best practices to recruit and retain well-prepared teachers in all classrooms. Palo Alto, CA: Learning Policy Institute.

[https://learningpolicyinstitute.org/sites/default/files/product-files/Leandro\\_Best\\_Practices\\_Recruit\\_Retain\\_REPORT.pdf](https://learningpolicyinstitute.org/sites/default/files/product-files/Leandro_Best_Practices_Recruit_Retain_REPORT.pdf)  
Center for Analysis of Longitudinal Data in Education Research. (Accessed March 2022) Understanding How Diversity in the Teacher Preparation Pipeline Contributes to Diversity Gaps in the Classroom. <https://caldercenter.org/data-visualizations/understanding-how-diversity-teacher-preparation-pipeline-contributes-diversity>

<sup>14</sup> Podolsky, A. & Kini, T. (2016). How Effective Are Loan Forgiveness and Service Scholarships for Recruiting Teachers? (policy brief). Palo Alto, CA: Learning Policy Institute. <https://learningpolicyinstitute.org/product/how-effective-are-loan-forgiveness-and-service-scholarships-recruiting-teachers>

<sup>15</sup> Doyle, D. (2015). Leadership and Lattices: New Pathways Across the Teaching Profession. Center on Great Teachers and Leaders.

<sup>16</sup> Gates, S.M. et al. (2019). Principal Pipelines : A Feasible, Affordable, and Effective Way for Districts to Improve Schools. RAND Corporation. <https://www.wallacefoundation.org/knowledge-center/Documents/Principal-Pipelines-A-Feasible-Affordable-and-Effective-Way-for-Districts-to-Improve-Schools.pdf>

Manna, P. (2021). How Can State Policy Support Local School Districts as They Develop Principal Pipelines? The Wallace Foundation. <https://www.wallacefoundation.org/knowledge-center/Documents/How-Can-State-Policy-Support-Local-School-Districts-Principal-Pipelines.pdf>

- Establish effective professional development
  - Professional development should be content focused, incorporate active learning utilizing adult learning theory, support collaboration in job-embedded contexts, use models and modeling of effective practice, provide coaching and expert support, offers opportunities for feedback and reflection, and be of sustained duration.<sup>17</sup>
- Expand high-retention pathways
  - Teacher Residencies
    - Residencies should have a rigorous selection process, relevant and rigorous coursework built around classroom experience, structured coaching and feedback systems, evaluation focused on continual improvement, and collaboration and alignment between the school and program.<sup>18</sup>
  - Grow-Your-Own Pathways<sup>19</sup>
- Implement or expand induction and mentoring programs
  - Effective programs include orientation to the district and school, instructional support from mentors and collaboration with other teachers, aligned professional expectations, and ongoing professional development based on individual teacher needs. Additionally, criteria should be established for mentor selection, and mentors should be provided with continual professional development.<sup>20</sup>

### Recent State Efforts to Address Teacher Shortages

The tables below provide examples of recently enacted and proposed legislation around research-based policy recommendations to increase teacher recruitment and retention. Please note, this is not a complete accounting of all proposed or enacted legislation in these areas. To view a full list of enacted legislation on all education topics, see NCSL's [Education Legislation Bill Tracking](#) database.

#### Compensation

Year	State	Bill	Summary	Status
2022	Maryland	<a href="#">MD H 81</a>	Authorizes the Community Development Administration in the Department of Housing and Community Development to administer a home buyer assistance program that assists certain teachers with receiving certain low-interest mortgages for the purchase of homes near where the teacher is employed.	Pending
2022	Mississippi	<a href="#">MS H 530</a>	Creates the Strategically Accelerating the Recruitment and Retention of Teachers (START) Act of 2022, for the purpose of providing for an increase to the minimum teacher salary scale; revises the minimum teacher salary scale by increasing the minimum salary (\$43,000 for a teacher with a bachelor's degree and 0 years of experience), increases the minimum annual salary for teacher assistants (\$17,000).	Pending
2022	Missouri	<a href="#">MO H 1770</a>	Allows school districts to create a differentiated teacher salary schedules to increase compensation in order to recruit and retain teachers in hard-to-staff subject areas or hard-to-staff schools.	Pending

<sup>17</sup> Darling-Hammond, L., Hyley, M. E., Gardner, M. (2017). *Effective Teacher Professional Development*. Palo Alto, CA: Learning Policy Institute. <https://doi.org/10.54300/122.311>.

<sup>18</sup> National Center for Teacher Residencies. (2014). *Building Effective Teacher Residencies*. Chicago, IL: National Center for Teacher Residencies. <https://nctrresidencies.org/wp-content/uploads/2021/01/NCTR-BETR-v2-Final-1.pdf>

<sup>19</sup> Garcia, A. (2021). *A 50-State Scan of Grow Your Own Teacher Policies and Programs*. New America. <https://www.newamerica.org/education-policy/reports/grow-your-own-teachers/>

<sup>20</sup> Potemski, A. & Matlach, L. (2014). *Supporting New Teachers: What Do We Know About Effective State Induction Policies?* Center on Great Teachers and Leaders. [https://gtcenter.org/sites/default/files/Induction\\_Snapshot.pdf](https://gtcenter.org/sites/default/files/Induction_Snapshot.pdf)

2022	Oklahoma	<a href="#">OK H 4387</a>	Provides for issuance of advanced teaching certificates where each level has a minimum salary increase and prescribed time to be spend outside the classroom; provides that teachers working in Title I funded schools or small school districts receive an additional salary increase at each level of advanced certification.	Pending
2022	New Jersey	<a href="#">NJ A 896</a>	Provides supplemental appropriation of \$20 million for loan redemption program and tuition reimbursement program for certain teachers of science, technology, engineering, and mathematics (STEM) in return for teaching STEM classes at a public school for four full school years.	Pending
2022	West Virginia	<a href="#">WV H 2210</a>	Exempts personal income earned by individuals working as teachers at primary and secondary schools from personal income tax. (See also WV H 2314, which provides a tax credit to encourage new teachers to remain in the state.)	Pending
2021	Wisconsin	<a href="#">WI S 1059</a>	Establishes minimum salary requirements for teachers; requires a full-time teacher be paid an annual salary that is not less than the annual salary paid to a state legislator for that school year (base salary); requires that teachers with a master's degree and 10 years of experience be paid an annual salary that is not less than the base salary for the school year plus \$15,000; requires teachers with a master's degree and 20 years of experience be paid an annual salary that is not less than \$100,000.	Pending

### Working Conditions

Year	State	Bill	Summary	Status
2022	Arizona	<a href="#">AZ S 1328</a>	Provides that the Department of Education shall establish a high-quality teacher professional development program and issue scholarships or grants, or both, on a competitive basis to qualified applicants to obtain high quality teacher professional development from a qualifying postsecondary institution that will support teachers in gaining additional credentials to teach in high-need content areas.	Pending
2022	Illinois	<a href="#">IL S 814</a>	Requires the State Board of Education to establish a competitive grant program to support the new principal mentoring program and to approve one or more eligible entities to provide services to new principals under the program.	Enacted
2022	New Jersey	<a href="#">NJ A 1819</a>	Establishes task force to examine and make recommendations regarding professional development requirements for public school teachers and school leaders.	Pending
2021	Oklahoma	<a href="#">OK S 1191</a>	Creates the State Principal Leadership Program to provide professional development to school principals; establishes goals of increasing educator retention, improving school culture and climate, and improving student academic outcomes.	Pending
2022	Utah	<a href="#">UT H 396</a>	Requires the State Board of Education to provide funding to local education agencies for additional paid professional hours for educators; describes the professional development LEAs will provide with state board funding.	Pending

## High-Retention Pathways

Year	State	Bill	Summary	Status
2021	Illinois	<a href="#">IL H 5361</a>	Creates the Paraprofessional Fast Track to Teaching Degree Pilot Program Act; provides that the program is created for a 2-year degree pathway by which paraprofessional educators may enroll to achieve the education requirements to attain a professional education license in this state.	Pending
2022	Kentucky	<a href="#">KY H 277</a>	Creates an expedited alternative certification pathway for residency programs; establishes a student loan forgiveness program for teachers obtaining certification through an expedited certification process with a residency component.	Pending
2021	Massachusetts	<a href="#">MA H 1366</a>	Establishes grow your own teacher preparation programs higher education grants; clarifies that for community college participants there must be criteria around articulation agreements and guarantees between the community college and the 4-year institution of higher education.	Pending
2021	Minnesota	<a href="#">MN H 217</a>	Strengthens the Increasing Teachers of Color Act; establishes grants for teacher residencies, grow your own programs serving adults, and grow your own programs serving secondary students.	Pending
2022	New Mexico	<a href="#">NM H 13</a>	Directs the secretary to establish and maintain department-approved teacher residency programs; replaces former competitive grant program for teacher residencies.	Enacted
2021	New York	<a href="#">NY A 4689</a>	Prompts the development of guidelines to use to develop grow your own initiatives aimed at attracting underrepresented candidates into the teaching profession.	Pending
2021	North Carolina	<a href="#">NC H 124</a>	Directs the North Carolina Teaching Fellows Commission to select at least one minority-serving institution to participate in the North Carolina Teaching Fellows program.	Pending

## Induction and Mentoring

Year	State	Bill	Summary	Status
2022	Florida	<a href="#">FL H 165</a>	Establishes School Teacher Training and Mentoring Program; provides for award of stipends for classroom teacher mentorship; provides responsibilities relating to development of policies, curriculum, and best practices relating to classroom instruction. (See also <a href="#">FL S 618</a> )	Pending
2021	Illinois	<a href="#">IL H 3730</a>	Amends the New Teacher Induction and Mentoring Article of the School Code; provides that, beginning with the 2023-2024 school year, the State Board of Education shall develop a program to provide grants to mentor training providers to establish a training program for new teacher mentors, and requires each public school to use a teacher induction and mentoring program.	Pending
2022	New Jersey	<a href="#">NJ S 1660</a>	Establishes the three-year Male Teachers of Color Mentorship Pilot Program, which pairs a male teacher of color with a student in his final year of teacher preparation; provides that the teacher mentor will mentor the student for the final year of preparation and the first two years of employment; mentors will receive a stipend of \$5,000 for each year of participation in the pilot program.	Pending

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