



Solving the Teacher Shortage

How to Attract and Retain Excellent Educators

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Introduction

For the past decade, I've worked at a school where 97% of the children qualify for free and reduced-price lunch. I stay because the school climate is good for children and teachers alike. I stay because my principal is wonderful, supports us, does what's best for children, and because I trust her. I stay because my colleagues are gifted teachers and good company and because I continually learn from them.² – A 20-year public school teacher in Minneapolis

Attracting and retaining excellent educators is one of the most important drivers of a well-functioning education system—a system that must prepare diverse students with complex needs to participate in today's knowledge-driven economy. However, a recent surge in the demand for teachers, alongside a diminishing supply and a steady rate of teachers leaving the profession, threatens students' academic and economic welfare.³ Teachers who leave the profession prematurely hurt student learning⁴ and cost taxpayers. For example, one study found that replacing teachers who leave—which can cost in today's dollars as much as \$20,000 per teacher in a large urban district—produces a national price tag of \$8.5 billion a year.⁵

Recruiting and retaining excellent educators is especially urgent in schools serving concentrations of low-income students and students of color, because teacher attrition disproportionately impacts their schools.⁶ In 2012–13, almost one in 10 teachers in high-poverty public schools left the profession. In contrast, fewer than one in 15 teachers in low-poverty schools did so.⁷ The persistently higher rates of turnover in high-poverty, high-minority schools contribute to a concentration of inexperienced and underprepared teachers in these schools.⁸

The federal government, states, and districts must invest in comprehensive human capital systems to prepare and retain competent and committed teachers for long-term careers in the classroom. The policies pursued will influence the quality of the nation's more than 3.1 million public school teachers⁹ and have long-term impacts on student learning, especially for students in the most underserved communities.

Based on a review of an extensive body of research on teacher recruitment and retention, we identify five major factors, and related policies, that influence teachers' decisions to enter, stay in, or leave the teaching profession. Those factors are:

1. Salaries and other compensation.
2. Preparation and costs to entry.
3. Hiring and personnel management.
4. Induction and support for new teachers.
5. Working conditions, including school leadership, professional collaboration and shared decision-making, accountability systems, and resources for teaching and learning.

As figures 1 and 2 suggest, these factors capture many of the reasons teachers say they leave, as well as the conditions under which those who have left say they would consider returning to teach.

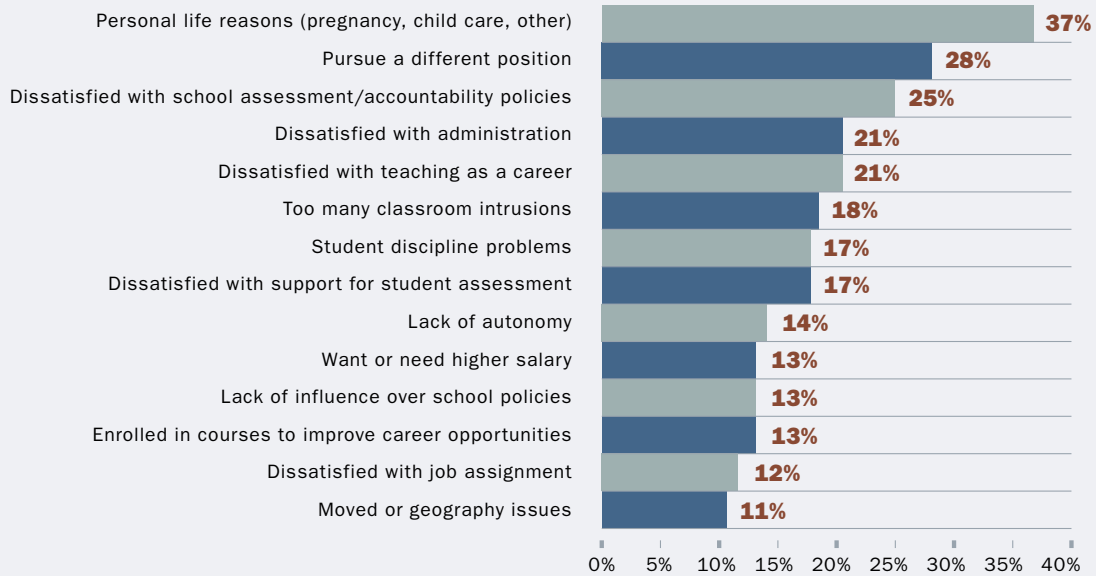
Abstract

A highly competent teacher workforce is a necessary foundation for improving children's educational outcomes, especially for those who rely most on schools for their success. Yet in the United States, shortages in the teaching force have been growing across the country, reaching crisis proportions in some teaching fields—such as mathematics, science, and special education—and in locations where wages and working conditions are least attractive.¹

This brief reports on a research review that finds that the most effective policies for attracting and retaining strong educators include increasing their compensation and improving their preparation, professional support, and working conditions, as well as improving district and school management practices that otherwise create obstacles to recruitment and retention. We describe research-based strategies at the district, state, and federal levels that can be used to enable schools to strengthen teacher quality.

The full paper can be found at <https://learningpolicyinstitute.org/product/solving-teacher-shortage> and join the conversation on Twitter at #SolvingTeacherShortages.

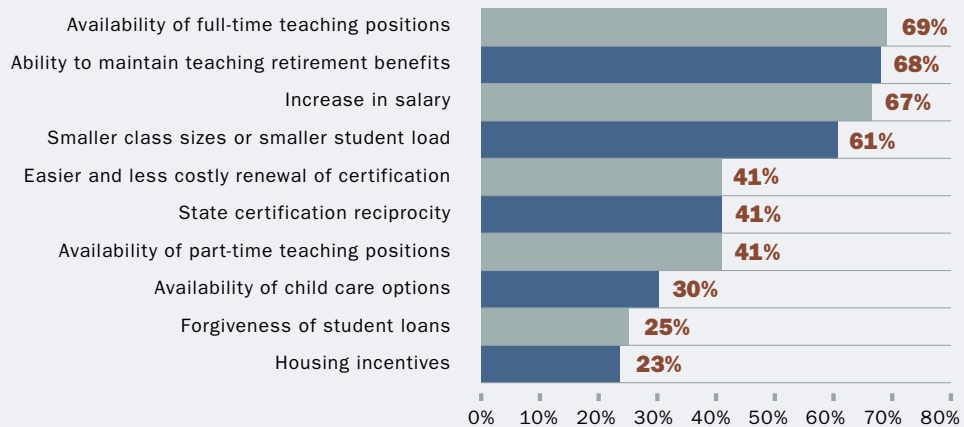
Figure 1: Why Do Teachers Leave?



The percentage of voluntary leavers who rated the factor as extremely or very important in their decision to leave. Percentages do not add to 100 because teachers can select multiple factors.

Source: LPI analysis of the Teacher Follow-up Survey (TFS), 2013, from the Schools and Staffing Surveys, National Center for Education Statistics.

Figure 2: What Would Bring the Leavers Back?



The percentage of leavers who rated the factor as extremely or very important in their decision to return. Percentages do not add to 100 because teachers can select multiple factors.

Note: The most frequently cited factor (the availability of full-time teaching positions) may have been related to the timing of the 2011-12 National Center for Education Statistics survey, which was conducted during a time of budget cuts and teacher layoffs, during the Great Recession.
Source: LPI analysis of the Teacher Follow-up Survey (TFS), 2013, from the Schools and Staffing Surveys, National Center for Education Statistics.

Salaries and Other Compensation





Teachers' salaries affect the supply of teachers, including the distribution of teachers across districts, and the quality and quantity of individuals preparing to be teachers.¹⁰ Salaries also appear to influence teacher attrition: Teachers are more likely to quit when they work in districts with lower wages.¹¹ While there is variation across and within states, teacher salaries in the U.S. are generally lower than those offered to other college graduates. Even after adjusting for the shorter work year in teaching, beginning teachers nationally earn about 20% less than individuals with college degrees in other fields, a wage gap that can widen to 30% by mid-career.¹² Moreover, the difference between teachers' compensation as compared to other workers with a college degree has grown larger over time. In 1994, public school teachers earned a similar compensation (including salary, health benefits, and pension) as other workers with a college degree.¹³ In 2015, teachers earned 11% less in total compensation (including benefits).

In addition, great inequities in teacher salaries among districts within the same labor market leave some high-need, under-resourced districts at a strong disadvantage in hiring. For example, an analysis of nationally representative data found that the best-paid teachers in low-poverty schools were earning 35% more than their counterparts in high-poverty schools.¹⁴

Resources matter in several ways. For example, Alishia Morris, a 4th grade teacher who transferred to a district 15 miles across the border in Arkansas after six years of teaching in Oklahoma, described her decision: "It wasn't the school's fault. If it was, it wouldn't have been so difficult for me to leave. It's just that Arkansas has more resources—they just make teaching easier." By teaching in Arkansas, Morris received a salary increase of \$8,000 to \$9,000 from the \$33,500 she made at Westville (in Oklahoma). In Arkansas, she also has reading and mathematics facilitators to help with her students, as well as a \$500 annual allowance for classroom materials.¹⁵

To improve the recruitment and retention of excellent teachers:



-  **1. States and districts** can increase teacher salaries in schools and communities where salaries are not competitive or able to support a middle-class lifestyle. To do this, some **states** have funded statewide salary minimums that raise and equalize pay, as well as salary incentives for accomplishments such as National Board Certification or taking on additional responsibilities. **Districts** can negotiate salary structures that incentivize retention and make compensation packages more competitive in the local labor market.
-  **2. States and districts** can use federal levers in the new Every Student Succeeds Act (ESSA) to provide low-income schools and districts with additional resources to attract and retain high-quality teachers. To improve educator quality, Title II of ESSA includes funding that can be used, among other things, for the development of career-advancement opportunities that provide differential pay, as well as other incentives to recruit and retain teachers in high-need academic subjects and low-income schools. Moreover, **districts** should be mindful of resource/salary inequities associated with inequitable distributions of teachers, and, as required by ESSA, identify and establish a plan for addressing resource inequities, which **states** are responsible for monitoring.
-  **3.** The **federal** government should enforce ESSA's provisions for funding and teacher equity. **Districts** also can take advantage of the weighted student funding pilot program under ESSA to help equalize access to experienced, in-field, and expert teachers, using this funding flexibility on initiatives to attract and retain high-quality teachers in low-income schools and in programs serving English learners and special education students.¹⁶
-  **4. States and districts** can increase teachers' overall compensation by offering housing incentives. Such incentives include money for expenses such as rent, relocation, and down payment assistance, as well as discounted homes and subsidized teacher housing. Given the paucity of existing research on these strategies, the **federal** government and **states** also should fund research to study how these types of creative compensation structures impact teacher recruitment and retention.

Preparation and Costs to Entry




Having strong preparation for teaching enhances teachers' sense of efficacy and their effectiveness, improving student outcomes.¹⁷ Strong preparation also increases the likelihood that teachers will remain in the profession.¹⁸ A comprehensive preparation typically includes observing others teaching, student teaching at least a full semester, receiving feedback, taking courses in teaching methods, learning theory, and selecting instructional materials. Teachers who enter the profession without these elements of preparation have been found to be two to three times more likely to leave the profession than those who are comprehensively prepared.¹⁹

In spite of the benefits of comprehensive preparation for teachers and their students, a growing share of teachers are entering the profession before having completed, or sometimes even begun, their training.²⁰ These teachers are disproportionately concentrated in low-performing schools serving large proportions of low-income and minority students.²¹ Given the rising costs of higher education, including teacher training, and the lack of access to financial aid, many prospective teachers may rationally choose pathways in which they can earn a salary while undergoing training, rather than taking on debt they must repay while earning a low salary. Evidence shows that willingness to enter a lower-paying field is tied to the level of debt candidates must carry.²² Accordingly, the cost of comprehensive preparation coupled with an often low salary contributes to many teachers entering the classroom unprepared, negatively influencing student outcomes, and culminating in teachers leaving the profession.

Financial assistance for preparation can make a substantial difference. For example, Irene Castillon (a recipient of service scholarships and forgivable loans and a sixth-year teacher in a school with more than 90% low-income and Latino students) commented that, "Without the financial assistance, I don't think that I would have enrolled in a teacher preparation program and pursued a master's degree [in Stanford's teacher preparation program]."²³

To improve the recruitment and retention of excellent teachers:



- **1. Federal and state** governments can provide service scholarships and loan forgiveness programs to attract prospective teachers to the fields and locations where they are needed most. Successful programs cover all or a large percentage of tuition; target teachers for high-need fields and schools; recruit academically strong and committed teachers; and commit recipients to teach with reasonable financial consequences if they do not fulfill the commitment.
- **2. States and districts** can develop teacher residencies. Urban and rural teacher residencies have been successful in recruiting talented candidates in high-need fields to work as paid apprentices to skilled expert teachers as part of their preparation. This allows novices to earn an income and gain experience while completing a credential in return for a commitment to teach for several years. **Districts**, in partnership with local institutions of higher education, could develop teacher residencies by investing a portion of the funds they receive under Title II of ESSA, as well as accessing funds under Higher Education Act (HEA) Title II and AmeriCorps, partnering closely with local institutions of higher education to support the development of these programs. The **federal** government should increase existing investments in the teacher residency model (e.g., Teacher Quality Partnership Grants) to support the creation or expansion of additional teacher residency programs in high-need districts.
- **3. States and districts** can create local pathways into the profession, such as high school career pathways and Grow Your Own teacher preparation models. These programs recruit talented individuals from the community to a career in education and help them along the pathway into the profession.

Hiring and Personnel Management


After teachers complete their preparation, they face the challenge of finding a teaching job. District and school practices related to hiring and supporting teachers influence the quality of teachers hired, as well as teachers' decisions to enter, stay in, or leave the profession. These practices can also affect student achievement.²⁴ Important factors include:



- Timing of hiring: Late hiring of teachers—caused by late state budgets, difficulty predicting teacher needs, and delaying hiring until transferring teachers are placed—negatively affects teacher recruitment and retention and student achievement.²⁵
- Information in the hiring process: Schools and districts sometimes hire teachers based on inadequate information because they have outdated technology, poor capacity to transmit information, and limited time for candidate interviews and demonstration lessons.²⁶
- School and district support for mobile teachers: One in 10 teachers who left after the 2012 school year cited a move or geographic issue as important in their decision to leave teaching.²⁷ The most frequently cited barriers to continuing to teach after a move include the expense and time associated with each state's licensure procedures, the loss of the level of tenure and seniority when teachers leave a state or district (and related effects on their salary), and the negative effects of mobility on teacher pensions.²⁸



In the words of Kilian Betlach, an elementary school principal in Oakland, CA, “Hiring is hard, and hiring is the single most important thing you can do to improve your school.”²⁹

To improve the recruitment and retention of excellent teachers:



 **1. Districts and schools** can strengthen hiring practices to ensure decisions are made as early as possible with the best candidate pool and based on the best information possible. Some high-performing schools and districts invest substantial time in a multi-step hiring process that allows the school staff and candidate to assess their fit based on extensive information, including teaching demonstration lessons and school visits in which the candidate meets other teachers and staff.


 **2. States and districts** can revise timelines for voluntary transfers or resignations so that hiring processes can take place as early as possible, ideally in the spring of the prior school year. In order to give school leaders better visibility into their hiring earlier in the school year, states and districts can implement incentives for teachers to submit their intent to resign or retire earlier in the school year and also require that the voluntary transfer process be completed earlier. **States** can also implement incentives to encourage state legislatures to pass budgets on time.


 **3. Districts** can build training and hiring pipelines by developing Grow Your Own programs and residencies, while developing systems to monitor and address teacher turnover. Grow Your Own programs recruit talented individuals from the community to a career in education and help them along the pathway into the profession so they can return to teach in the community. Teacher residencies are district-university partnerships that recruit talented candidates to work as paid apprentices to expert teachers in high-need fields while candidates simultaneously complete their credential and commit to teach for several years. **Districts** can also develop strong partnerships with local teacher preparation programs that create pipelines to hiring. Long Beach Unified School District in southern California has aggressively pursued this strategy, which according to the superintendent, allows prospective teachers to “lear[n] the Long Beach way’ while enabling the district to vet teachers and encourage strong candidates to apply.”³⁰ **States** can support these approaches by providing grants and expertise to districts interested in implementing Grow Your Own or residency models or local partnerships.



4. States and districts can reduce unnecessary barriers to entry for veteran teachers moving from other states and districts. **Districts** can offer salaries commensurate with experience so that veteran teachers who want to transfer into the district do not lose salary credit. **States** can create cross-state pensions for teachers. Current benefit plans, which are often not portable across states or districts, cause many teachers to leave the profession when they relocate. Portable plans, such as TIAA-CREF’s model for college faculty, should be explored for p-12 teachers. **States** can develop reciprocity agreements with other states to attract mobile, out-of-state teachers. **States** might also consider investing in the design and implementation of online hiring platforms where teachers can easily identify the steps necessary to be hired by the state or transfer into the state.

Induction and Support for New Teachers

After districts hire talented teachers, strong induction and support for novice teachers can increase their retention, accelerate their professional growth, and improve student learning.³¹ The most effective induction programs include mentoring, coaching, and feedback from experienced teachers in the same subject area or grade level as the novice teacher; the opportunity for novice teachers to observe expert teachers; orientation sessions, retreats, and seminars for novice teachers; and reduced workloads and extra classroom assistance for novice teachers.³² Teachers who receive this set of supports have been found to stay in teaching at rates more than twice those of teachers who lack these supports.³³ However, only a small proportion of teachers receive this comprehensive system of support.³⁴

Although mentoring and induction programs have become more widely available in the United States over the past two decades, there is great variability in the quality of these programs. High-poverty schools tend to have weaker programs, which is where early career teachers generally face more complex and diverse student needs and challenges.³⁵

To improve the recruitment and retention of excellent teachers:



1. States and districts can invest in high-quality induction programs. **States and districts** can develop induction and mentoring programs using ESSA Title II funds and competitive grant funds, such as the Supporting Effective Educator Development program.

Working Conditions

Teaching conditions—which also define learning conditions for students—are a strong predictor of teachers’ decisions about where to teach and whether to stay. Working conditions are often much worse in high-poverty than in low-poverty schools and contribute to high rates of teacher turnover in these schools.³⁶ Four factors related to working conditions are consistently cited by teachers in high- and low-poverty schools as important in their career decisions:

1. School leadership and administrative support: Administrative support is often the top reason teachers identify for leaving or staying in the profession or in a given school, outweighing even salary considerations for some teachers.³⁷
2. Accountability systems: Approximately 25% of public school teachers who left the profession in 2012 reported that dissatisfaction with the influence of school assessment and accountability measures on their teaching or curriculum was extremely or very important in their decision to leave.³⁸ Many teachers have said that the focus on testing, test preparation, and a narrower, mandated curriculum has reduced their ability to teach in ways they feel are more effective.³⁹
3. Resources for teaching and learning: Schools with sufficient instructional materials and supplies, safe and clean facilities, reasonable student-to-teacher ratios, and adequate support personnel can positively affect teacher retention rates and influence the kind of teaching and learning that can occur.⁴⁰ The reverse is also true: Inadequately resourced schools are a factor in teacher turnover.⁴¹

4. Opportunities for professional collaboration and shared decision-making: Teachers' career decisions are shaped by their connectedness to a team working toward a common shared purpose.⁴² Opportunities for teacher collaboration and input into decision-making are key factors.

School leadership strategies are a critical component of teacher support. For example, one principal of a school with little turnover described her efforts to involve teachers in the decision-making process:

I have a style that encourages people to share their opinions, to talk through issues, to try to reach consensus. When necessary, I will make a clear decision and say, 'This is the way it has to be.' But when I can, I really try to view my role as the facilitator of an entire team.⁴³

Similarly, providing dedicated time for teacher collaboration supports teachers' success. As one teacher noted:

The third-grade team, we try to plan together. We teach pretty much the same curriculum, but we, within our own room, we do our own style of teaching it. So, we stay with the same units, and we plan the same field trips...You feel like you're supported.⁴⁴

To improve the recruitment and retention of excellent teachers:



1. States can invest in the development of high-quality principals by establishing strong preparation standards for administrators. **States** and the **federal** government can invest in the development of high-quality principals who work to include teachers in decision-making and foster positive school cultures. Effective principal preparation programs are fundable under Title II of ESSA, as are principal mentoring and professional development opportunities to continuously hone effective school leadership skills throughout the career. **States** and **districts** can apply for funds from ESSA's School Leader Recruitment and Support Program, which authorizes competitive grants to recruit and train principals for high-need schools.

2. States and **districts** can survey teachers to assess the quality of the teaching and learning environment and to guide improvements. One example is the Teaching, Empowering, Leading and Learning (TELL) survey, with questions—about a school's culture, a principal's leadership, and relationships among colleagues—that are strong predictors of teachers' job satisfaction and career plans.⁴⁵ This can be supported through Title II of ESSA.

3. States and the **federal** government can incentivize professional development strategies and the redesign of schools to provide for greater collaboration. Systematic and sustained collaboration among teachers requires changes in scheduling and resource allocation so that teachers have the time necessary for productive collaboration, which improves teacher efficacy and retention. **Districts** and schools should update school design, scheduling, and the allocation of resources in order to provide teachers with the time necessary for productive collaboration.⁴⁶

Conclusion

Recruiting and retaining excellent teachers is critically important for the success of future generations, especially for those living in underserved communities. Fortunately, decades of research on the factors that contribute to attracting and keeping teachers in the classroom can guide strategies to meet this challenge. Local contexts will determine what set of research-based policies are most appropriate for a given state, district, or school to ensure their teachers lead rather than leave the profession. A comprehensive set of policies is needed to address our emerging teacher shortage and to ensure every child is taught by a competent, committed teacher.

Why Do Teachers Leave?

Increasing the number of teachers entering the profession is one strategy for reducing the teacher shortage, but we also need to address the persistent problem of teacher turnover. Each year, more than 200,000 teachers leave the profession, with nearly two out of three leaving for reasons other than retirement.

What is contributing to the teacher exodus?



Inadequate Preparation

Beginning teachers with little or no preparation are 2½ times more likely to leave the classroom after one year compared to their well-prepared peers.

Lack Of Support For New Teachers

New teachers who do not receive mentoring and other supports leave at more than two times the rate of those who do.



Challenging Working Conditions

Teachers often cite working conditions, such as the support of their principals and the opportunity to collaborate with colleagues, as the top reason for leaving.

Dissatisfaction With Compensation

Beginning teachers earn about 20% less than individuals with college degrees in other fields, a wage gap that can widen to 30% for mid-career educators.



Better Career Opportunities

More than 1 in 4 teachers who leave say they do so to pursue other career opportunities.

Personal Reasons

More than 1 in 3 teachers who leave cite personal reasons, including pregnancy and child care, as extremely or very important in their decision.



Complete source information available in: Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). *Solving the Teacher Shortage: How to Attract and Retain Excellent Educators*. Palo Alto, CA: Learning Policy Institute.

Endnotes

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External Reviewers

The full report upon which this research brief is based benefited from the insights and expertise of two external reviewers: Susan Moore Johnson, the Jerome T. Murphy Professor of Education at the Harvard School of Education; and Janice Poda, Ph.D., Consultant at the Council of Chief State School Officers and Learning Forward. We thank them for the care and attention they gave the report. Any remaining shortcomings are our own.

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The Learning Policy Institute conducts and communicates independent, high-quality research to shape evidence-based policies that support equitable and empowering learning for every child. Nonprofit and nonpartisan, the Institute connects policymakers at the local, state, and federal level with the evidence, ideas, and actions needed to strengthen the pre-k to grade-12 education system and address the complex realities facing public schools and their communities.

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