Teacher Attrition:

# A Critical Problem For America's Schools



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# Teacher Attrition: **A Critical Problem For America's Schools**

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A major challenge in schools today is for all children to receive a quality education from "highly-qualified" teachers. However, over the past decade, education researchers and district leaders have increasingly called attention to the growing problem of a teacher shortage in the nation's K–12 schools as massive numbers of teachers are leaving the classroom in pursuit of other opportunities or eschewing the field altogether. In a study that was conducted by the National Center for Analysis of Longitudinal Data in Education Research, about 500,000 teachers in the United States leave their schools, a process that happens year over year. Findings from the 2017-18 school year indicated almost every state in the U.S. had teacher shortages in major subject areas, and nearly 50% of teachers at that time said they were actively looking to leave the profession. Not only are teachers considering leaving the field, a large number of newer teachers are doing just that, as about 30% of college graduates that become teachers leave the profession within 5 years. With this major teacher shortage and constant turnover, school systems across the country are grappling with the challenge of building and maintaining a high-quality teacher workforce to meet the needs of all their students (Sutcher, Darling-Hammond, & Carver-Thomas, 2019). In fact, a recent survey of school superintendents found that over 80% report that the teacher shortage is a major challenge for their districts; greater than any other challenge they face (Hodges, T., 2018).

The teacher shortage problem may be greatly exacerbated by the COVID-19 pandemic in the short and long term. A very recent survey of teachers across the U.S. by the Rand Corporation (2021) yielded some alarming results:

- Nearly one in four teachers reported they will leave the profession by the end of the 2020-2021 school year and this percentage is higher with black teachers at 50%. This is a large increase from one in six teachers pre-pandemic or a 60% increase in the rate of projected leavers.

> Over 80% report that the teacher shortage is a major challenge for their districts.

- Seventy-eight percent of teachers reported significant job-related stress (related to hybrid learning, lack of technical support, personal child care, etc), roughly 50% higher than the general working population.
- Teachers in 2021 reported depression at a rate 2 ½ times greater than the general population.
- Among the many additional stressors reported by teachers during the pandemic, lack of administrator support was reported as a major factor in creating difficult working conditions and resulted in increased stress, depression, and burn-out.

Clearly, the increases in an already stressful school work environment brought about by COVID-19 will likely result in an acceleration of the teacher shortage.

The fact is that this teacher shortage has profound implications for the education of our students in K-12. Having a highly qualified teacher in front of students is the single most important factor in student achievement and other important outcomes (Darling-Hammond 1999; Ladd and Sorensen 2016) as effective teachers account for a significant portion of the variation in student achievement (e.g., Clotfelter, Ladd, & Vigdor, 2007; Darling-Hammond & Youngs, 2002; Hanushek, Kain, & Rivkin, 1998; Ladd, 2011; Murnane & Phillips, 1981; Sanders & Rivers, 1996). The impacts of teacher attrition broadly impact all students and all classrooms. Studies show that having high turnover and high attrition of teachers negatively affects the achievement of all students in a school and diminishes teacher effectiveness and overall quality of instruction even for those teachers that remain in the classroom (Ronfeldt, Loeb, and

Wyckoff, 2013; Jackson and Bruegmann, 2009; Kraft and Papay, 2014; Sorensen and Ladd, 2018). When faced with teacher attrition schools and students also experience a wide range of deleterious effects such reduced instructional improvements across the school (Shaw, T. 2016), reduced collaborations among teachers (Moore, 2009), larger class sizes (Isenberg, E. 2010), and fewer class offerings for students (Carver-Thomas & Darling-Hammond, 2017).

High teacher attrition and turnover also has hidden economic costs for districts through recruiting and the training of new teachers that is often not considered. These are funds that now cannot be used for directly helping students and are now directed to these hiring activities. Filling a teacher vacancy costs an average of $21,000 (Carver-Thomas and Darling- Hammond 2017; Learning Policy Institute 2017) and Carroll (2007) estimated that the total annual cost of teacher turnover in the U.S. is $7.3 billion per year, a cost that would be significantly higher in 2021 dollars.

Another insidious consequence of the teacher shortage is that schools' reputations with families in the community can begin to decay as the quality of instruction and school climates decline due to the high percentage of inexperienced teachers and the revolving door of staff. This situation can also make it more difficult to build a solid reputation for teaching as a profession in the community so fewer people are attracted to education further perpetuating the teacher shortage. Taken together, it is critical that school and district leaders and community members begin to understand the root causes of this problem and implement strategies to address this burgeoning teacher shortage.

Finally, another somewhat related aspect to the teacher shortage is chronic teacher absenteeism because the impact is similar to high teacher turnover insofar as students are being instructed by a less experienced teacher and studies show that students assigned to a chronically absent teacher have stagnant growth (Hanson, M., Quintero, D. 2020). It begs the question: Are chronically absent teachers on a course to leave the profession in the near future? Teachers that are often absent are in less supportive environments and we know that low levels of support are related to teacher attrition. It may be that absenteeism represents an early warning to leavers and these teachers need greater support.

## Change in Percentage of People Awarded Degrees from 2009 to 2016

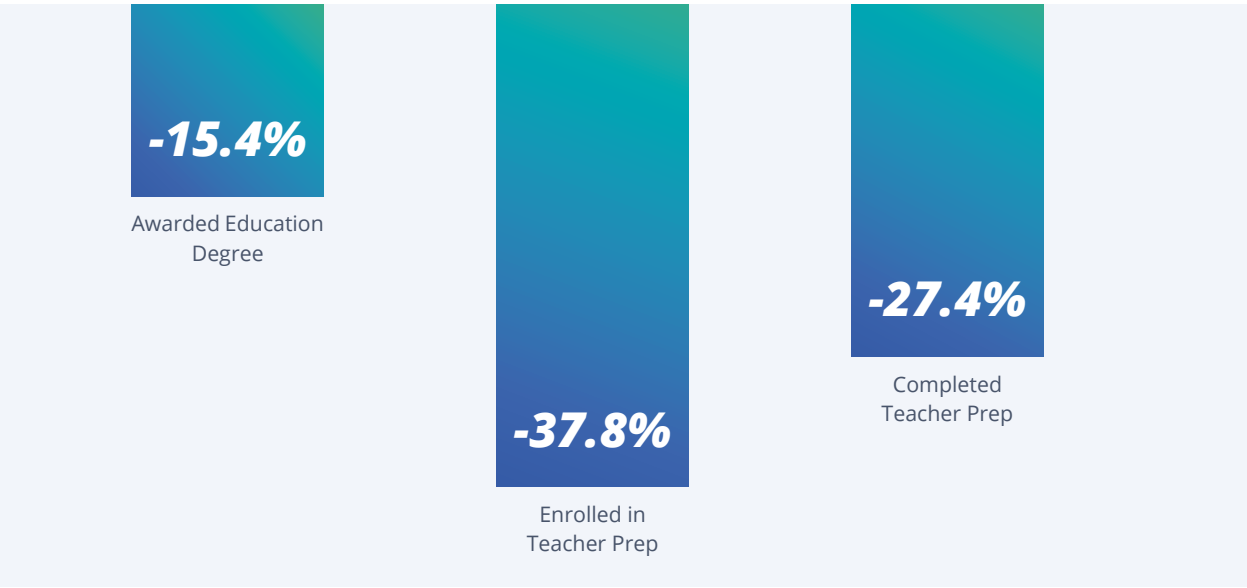



**Table 1** indicates the large declines in the percentage of people earning educational degrees, enrolling in teacher preparation programs and those completing all teacher preparation requirements from 2009 to 2016. These data clearly depict why the teacher pipeline is drying up for many schools and districts.

## Increase in Percentage of Schools Reporting from 2012 to 2016

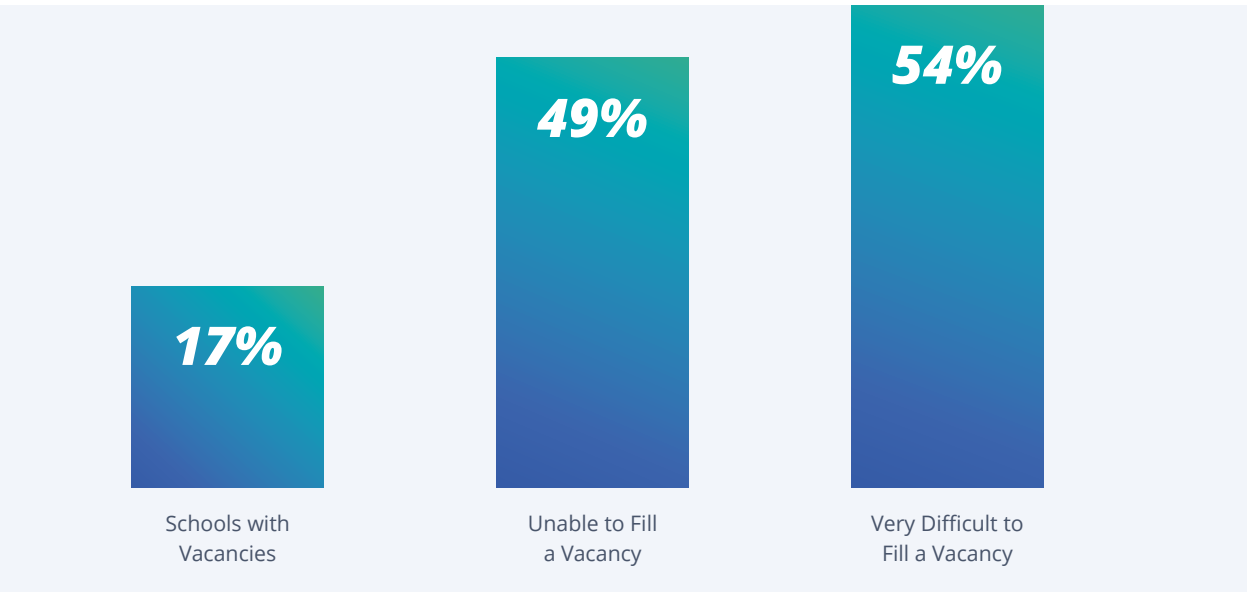



**Table 2** indicates that there has been a large increase in the percentage of schools that have teaching vacancies and more concerning is that there has been a nearly 50% increase in the percentage of schools that have been unable to fill a vacancy from 2012 to 2016. Additionally, there has been over a 50% increase in the percentage of schools that may have been able to fill a vacancy but the process was reported as "very difficult" which suggests an inordinate amount of time was dedicated to hiring efforts or perhaps less than optimal candidates were eventually hired.

# Determinants of
# **Teacher Turnover & Attrition**

There are a number of considerations when analyzing this teacher shortage including teacher recruitment, teacher pipeline, teacher turnover and teacher attrition. Nguyen, T., Pham, L., Springer, M., & Crouch, M. (2019) use turnover and attrition interchangeably as they have essentially the same impact on schools. Turnover relates to teachers switching schools and attrition relates to teachers completely leaving the profession. To establish a conceptual understanding of turnover and attrition; Nguyen, et al., (2019) elucidated a number of major categories identified in the literature that determine if teachers stay or leave a school or the profession.

## Teacher Characteristics:

This determinate helps increase the understanding of how various teacher background variables impact attrition and retention. Variables such as age, experience, marital status, gender, and family structure impact these outcomes. Older studies indicated that female teachers and white teachers are more likely to leave teaching than male teachers or minority teachers (Adams, 1996; Ingersoll, 2001; Clotfelter, Ladd, & Vigdor, 2008; Harrell et al., 2004). However, new meta-analyses from Nguyen, et. al., (2019) found that female teachers are not more likely to leave the profession and that only Hispanic teachers were more likely to leave the profession compared to white or black teachers. Teachers who are married or expecting a new child in the family are more likely to leave the profession (Borman & Dowling, 2008). Finally, teachers nearing retirement age and very youthful teachers are more likely to leave the profession with teachers in the middle of the age range being less likely to leave (Guarino, Santibanez, & Daley, 2006).

## Teacher Qualifications:

Numerous studies have found that there are a number of teacher qualification factors that impact teacher retention and attrition such as level of experience, content area, student achievement and degree attainment. Differential rates of attrition have been identified with STEM and special education teachers having significantly higher rates of attrition (Nguyen, et. al., 2019). Teachers with lesser abilities in teaching and lower scholastic achievement of their students have been associated with higher attrition rates (Boyd, Lankford, Loeb, & Wyckoff, 2005). Johnson, Kraft, and Papay (2012) found that teachers leave schools where they fail to experience success in terms of student achievement and this might at least partially explain higher attrition rates in high poverty schools that demonstrate low student achievement. A correlate to this is that perhaps it is the most ineffective teachers that are not producing high achievement rates with their students and are more likely to leave the profession. The results on attrition rates between teachers with a graduate degree and those with an undergraduate are not significantly different (Nguyen, et. al., 2019). Teachers with standard certifications are more likely to stay in the classroom than those who had an alternate pathway to the classroom (Nguyen, et. al., 2019).

## School Organization:

There are a number of school characteristics that have been found to have statistically significant impacts on teacher attrition but some of these impacts are relatively small such as school location, sector and size. However, some school organizational factors have been found to be very critical to teacher retention, most notably being the level of administrative support, well-run schools and school mentoring programs for novice teachers. Numerous studies suggest that public school teachers, teachers who have higher levels of administrative support (Anderson, 2007; Boyd et al., 2011), and teachers who receive mentoring from highly qualified peers (e.g., coaches) are more likely to remain in the teaching profession (Hahs-Vaughn & Scherff, 2008; Redding & Smith, 2016). Grissom (2011) finds that principal effectiveness (as seen as support and guidance) is associated with greater teacher satisfaction and a lower probability of teacher turnover. Relatedly, studies have shown that teachers' perceptions of the skills of the school principal can greatly influence teacher retention decisions (Boyd et al., 2011; Stockard & Lehman, 2004).

## Administrative Supports:

*Teacher attrition is greatly affected by the degree and quality of administrative support in teachers' decisions about remaining in the classroom. Hughes et al. (2015) found that there are several areas of administrative support that are critical for retaining teachers. Teachers report that emotional support (e.g., reasonable expectations, trust, supportive environment) is essential. The second most important kind of support is defined as "environmental support" as exhibited when administrators effectively address negative student behavior and safety issues. The third most important kind of support was instructional support where teachers are provided with quality professional growth opportunities along with adequate resources, have a say in decisions that affect them, and are provided with quality professional development opportunities (Harris, S., Davies, R., Christensen, S., Hanks, J., & Bowles, B., 2019). In their seminal meta-analysis research, Nguyen, et. al., (2019) concluded: We find that student disciplinary problems, administrative support, and professional development, strongly influence whether teachers stay or leave teaching."*

## Staff Demographics:

An interesting factor that seems related to teacher retention is the congruence of the principal and the staff across gender and race. Grissom and Keiser (2011) found that if the principal and teacher were of the same race there was higher reported job satisfaction and higher teacher retention. Another study found that there are higher teacher satisfaction rates and lower turnover when the principal and teacher were of the same gender (Grissom, Nicholson-Crotty, & Keiser, 2012). In a more recent study, Nguyen et. al (2017) found that teacher turnover is impacted as they stated: "teacher-principal race congruence plays a role in teacher turnover in a multi-ethnic school district, but this influence varies by the teacher's race and the school's demographic context."

## School Resources:

Factors in the school resources category include average class size, student-teacher ratio, expenditures for teacher support, expenditures on teaching resources, and per-pupil spending. The conclusion is that the availability of adequate school resources does impact teacher attrition and retention but to a lesser degree than other factors.

*"We find that student disciplinary problems, administrative support, and professional development, strongly influence whether teachers stay or leave teaching."*

## Teacher Compensation:

The financial-challenge paradigm contends that lagging compensation is the primary reason for teacher shortages (Lasagna, 2009). This paradigm is so widely reported in the common press that it has left little room to consider other contributing causes for teacher attrition (Ramos, G., & Hughes, T., 2020). Financial incentives have often been used to increase teacher recruitment and retention based on the belief that people can be encouraged to go into teaching or be persuaded to stay on in the profession if they are offered enough compensation. Boyd, D.; Lankford, H.; Loeb, S.; Wyckoff, J (2003) and Hanushek, E.; Kain, J.; Rivkin, S. (2004) estimated that pay increases of up to 50% would be required to attract teachers to work in schools with high proportions of ethnic minority or socioeconomically disadvantaged students. However, if schools have positive climates and working conditions teachers can be attracted and retained with smaller pay raises. The effect of increased compensation is also not consistent across genders and age groups. Higher wages are more effective in attracting young female teachers than older male teachers, but more effective in retaining older male teachers (See, B., Morris R, Gorard, S., Kokotsaki, D., & Abdi, S., 2020). With regards to performance pay, (See, et. al., 2020). found: "there is very little evidence to indicate whether performance-related pay works either in improving teachers' performance or retaining them within the profession." In summary, increased salaries seem promising for attracting new teachers into teaching, and in increasing the number of teachers willing to work in challenging schools. This is also the case for addressing the shortage of subject matter teachers in math and science where graduates from these subjects

tend to command a higher salary in the open labor market. When prospective or qualified teachers are asked to report the factors that influence their likelihood for entering or staying in teaching, or that might encourage those in the profession to leave, salary rarely is rated near the top (Cooper-Gibson Research, 2018), instead other determinants are more potent for retention and recruitment.

## Student Characteristics:

Teachers that work in schools with high or above average student achievement are more likely to remain on the job. Johnson, Kraft, and Papay (2012) when they posited that teachers leave schools where they fail to experience success in terms of student achievement, thus teacher attrition will likely be higher in lower performing schools (Eller, Doerfler, & Meier, 2000; Hanushek, Kain, & Rivkin, 2004). There are a number of studies that suggest teachers are more likely to leave schools where the majority of students are minority races (e.g., Carroll, Reichardt, Guarino, & Mejia, 2000; Dagli, 2012). It might be expected that the socioeconomic composition of a school might result in higher teacher attrition but studies indicate little difference, when controlling for achievement, between high-poverty and low-poverty schools in terms of teacher attrition. However, Nguyen, et. al. (2019) concluded in their exhaustive meta-analysis that most school body characteristics such as race and SES do not seem to influence attrition or that their influences are rather small so we should focus on other levers to increase retention.

## Student Behavior:

D. Ravitch (2016) reported of a "growing toxicity in public school environments, including the dynamic between students and teachers." This situation greatly affects working conditions which are correlated with teacher satisfaction and which is highly predictive of teachers leaving the profession (Hanks, J.; Davies, R.; Christensen, S.; Harris, S.; Bowles, B., 2019). Compounding this problem is the fact that teachers expect school leadership to support and enforce rules for student conduct, but only 44% of teachers believe that they do an adequate job of doing so. Poor student discipline and classroom management have emerged as significant causes of teacher attrition. Schools with greater discipline issues reported higher teacher turnover rates (Ingersoll, 2003), while Tsouloupas, Carson, Mathews, Grawitch, and Barber (2010) and poor student behavior directly leads to teacher burnout as they experience challenging behaviors daily in the classroom. Buchanan, Prescott, Schuck, Aubusson, Burke and Louviere (2013) have found student behavior as a top concern for beginning teachers as apprehension and inconsistencies in responding to discipline problems contributes to anxiety and low self-efficacy among teachers. According to Thibodeaux, A., Labbat, M., Lee, D., & Labbat, C., (2015) teachers indicated that student discipline is a top reason for their leaving the classroom. As Ramos and Hughes (2020) stated, student discipline needs to be more actively considered among the important variables to address teacher attrition.

## Working Conditions:

The determinant of "working conditions" is often mentioned in the analysis of teacher attrition but this term includes such a diverse set of variables the term can easily be misconstrued. Researchers have identified these specific workplace conditions associated with teacher attrition: instructional leadership, school culture, collegial relationships, time for collaboration and planning, teachers' decision-making power, experiences with professional development, facilities, lack of parental support or involvement, and resources. Each of these factors seem to be important in the teacher attrition equation. The fact is that teacher working conditions are critical and understanding how teachers perceive the working climate of a school has immediate and subsequent impacts on student performance and longer-term effects on teacher attrition (Kaniuka, T., & Kaniuka, A., 2019). Poor workplace conditions are common in schools with disadvantaged students resulting in high attrition rates (Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. 2016). The single most predictive workplace condition is poor administrative support. When administrators fail to encourage and acknowledge staff, communicate a clear vision, and generally run a school poorly, turnover rates increase to nearly one in four, more than double the rate of those who feel their administrators are supportive (Sutcher, et. al., 2019). It seems clear that classroom climate and working conditions need to be more actively considered among the important variables as part of the teacher attrition conversation (Ramos, G., & Hughes, T., 2020).

## Staff Accountability

The popular press has frequently stated that required testing and other accountability systems are causing the teacher attrition problem; that teachers are stressed by the high expectations. However, the review by Nguyen, et. al., (2019) found that "removing or reducing teacher accountability does not seem to have a clear benefit on retention, although the evidence base is particularly weak here." There have been a number of initiatives at the state level to impact teacher labor markets through accountability systems and merit pay. Murnane and Steele (2007) found that rigorous teacher evaluation systems and teacher merit pay can potentially impact the number of available teachers and improve the equitable distribution of effective teachers across schools. However, many of these policies have not been greatly studied and there are great inconsistencies in the policy implementation and oversight making efficacy difficult to determine (Nguyen, et. al., 2019). Some studies have found that schools with higher levels of accountability for school administrators can also influence teacher satisfaction, commitment, and attrition (Li, 2012). Taken together, Nguyen, et. al. (2019) summarized: "teacher evaluation, teacher merit pay, federal policies such as NCLB, and principal effectiveness can theoretically influence teacher retention and attrition."

## School Improvement:

School Improvement:
More recently, there has been a strong focus on school improvement systems which aim to increase teacher buy-in and teaching efficacy which may incentivize teachers to remain in the classroom (Bryk, Gomez, Grunow, & Lemahieu, 2015; Coburn & Penuel, 2016; Cohen-Vogel, Cannata, Rutledge, & Socol, 2016). However, there have not been rigorous evaluations of how school improvement influences teacher attrition and retention (Heissel & Ladd, 2018; Sun, Penner, & Loeb, 2017). The impacts of recent school reform initiatives are important factors influencing teacher attrition and retention that require more attention but the evidence suggests that teacher evaluations and accountability does not impact teacher attrition in a major way (Nguyen, et. al., 2019).

## Workforce:

This category of determinants is based upon studies outside of education related to general employee retention decisions. Employment opportunities inside and outside of teaching, and policies that can influence attrition and retention at the district or state levels, (apart from accountability or school improvement efforts) and include employment rate, teacher salary, non-teacher salary, late hiring, and retention bonuses. General employment research indicates that alternative job opportunities and the general hiring rate influences whether people stay or leave their current occupation. Late hiring is also another factor that may relate to teacher attrition (Jones, Maier, & Grogan, 2011). In terms of monetary incentives, potential salary in other professions, teacher salaries, and teacher retention bonuses could motivate or deter teachers from leaving the profession (Griffeth, Hom, & Gaertner, 2000; Rubenstein, Eberly, Lee, & Mitchell, 2017). For instance, researchers have found that higher earnings were negatively associated with attrition (Podgursky, Monroe, & Watson, 2004; Stockard & Lehman, 2004). Elsewhere, others have found that salary increases were associated with teachers' decisions to switch schools (Hanushek, Kain & Rivkin, 2004; Lankford et al., 2002).

## Teacher Pipeline:

Between 2009 and 2014, Sutcher, Darling-Hammond, and Carver-Thomas (2016) reported there was a 35% reduction in undergraduate and post-baccalaureate teacher preparation enrollments resulting in a decrease of almost 240,000 fewer potential teachers in the pipeline in 2014 as compared to 2009. This trend has continued into 2016 as total enrollment nationwide in teacher preparation programs has declined by more than one-third since 2010; this decline means that across the country, approximately 340,000 fewer students elected to enroll in teacher preparation programs in the 2016-17 school year. However, labor markets vary greatly based on locale and the situation can be better or worse depending on factors such as rural, inner-city, suburban and various community characteristics. In the final analysis, there is a shrinking pool of potential new teachers coupled with increasing teacher attrition which combine to create a serious problem for our schools.

# Approaches to Addressing the **Teacher Attrition Problem**

## Improving Financial incentives:

We see a great deal written in the popular press that teacher salaries are a major factor in teacher attrition based on survey data. However, studies examining the actual impacts of a plethora of financial incentive packages and approaches provides a quite different view. The preponderance of evidence for using financial incentives is quite weak for teacher retention and somewhat more positive for teacher recruitment (Nguyen, et. al., 2019). The impact of most financial incentive packages was short-lived at best. Therefore, it would suggest that school districts should not view the provision of financial rewards as a robust solution to the problem of teacher attrition.

## Instituting Collaborative Support Systems:

Instructional Coaching: Instructional coaches, through sharing their knowledge of teaching skills and strategies, can identify critical skills both teachers and students need to learn (Dole, 2004). By placing high expectations on student and teacher achievement, instructional coaches guide teachers' way to success (Dole, 2004). Studies show that positive student outcomes can enhance teacher retention as teachers begin to see success in their students' learning as well as their own capacities. Teacher retention will likely improve as they continue to work in this type of supportive environment (Long, 2009). Teachers often cite isolation as a factor in their decision to switch careers (Ingersoll & Strong, 2004); instructional coaches collaborating closely with fellow teachers can strive to eliminate these feelings of loneliness. Russell, J. (2019) found highly significant results that effective instructional coaching can be utilized as an intervention to curb teacher attrition. District and campus leaders can initiate practices to increase the effectiveness of instructional coaches as a means to increase teacher capacity and retention. The converging evidence is that making instructional coaches available to teachers, through high-quality guidance and collaboration, has the potential to mitigate the teacher retention crisis (Russel, J., 2019).

## Professional learning communities (PLCs):

PLC's allow teachers time to collaborate and discuss with colleagues how to achieve student success through the use of best practices (DuFour & DuFour, 2013). When teachers gather in a PLC, they are fostering teacher leadership, teacher empowerment and are focused on continuous improvement. Effective PLCs "empower teachers, set goals and develop action plans" (Thornton, 2010). Research by Little, Marzano, Lezotte, Reeves and Brophy and Good (2007) found that student achievement flourishes when teachers come together as a team to create a "viable curriculum,",monitor student learning, formatively assess students, hold high expectations for all students and operate under a "collective commitment" to grow all students. Based on the converging evidence, PLCs have the potential to reinforce the participants' decision to stay in the profession and thus increase teacher retention (Troutt, 2014).

## Mentoring and Induction:

Previous studies have suggested that teacher mentoring for inexperienced teachers and induction for new teachers can help improve teacher retention. In a recent review of the literature it was reported that support and professional development in schools for veteran teachers as well as younger teachers in the early stages of their careers appear to offer potential benefits for retention but are also arguably important in their own right (See, et. a., 2020). However, the evidence for induction programs per se is quite weak, when considering the most methodologically strong studies, for reducing teacher attrition (See, et. al., 2020).

In the final analysis to improve teacher retention some of the most impactful approaches for district leaders is to provide opportunities for expert, veteran teachers to be engaged in leading curriculum development, professional development, and instructional coaching and mentoring for their peers (Darling-Hammond, L., Burns, D, Campbell, C., Goodwin, A. L., Hammerness, K., Low, E.L., McIntyre, A., Sato, M., & Zeichner, K., 2017).

## Improving Student Discipline:

According to Thibodeaux, et. al., (2015) student discipline is a top reason for teachers leaving the classroom and student discipline needs to be more actively considered among the important variables to address teacher attrition (Ramos, J. & Hughes, T., 2020). There is a growing body of research that supports improvements in disciplinary behavior, anti-social behavior, student bullying behavior and peer victimization is directly related to implementing systematic positive behavior support systems or also known as PBIS (Bradshaw, Koth, Thornton, & Leaf, 2009; Bradshaw, Mitchell, & Leaf, 2010; Horner, Sugai, & Anderson, 2010; Sadler & Sugai, 2009; Simonsen et al., 2012; Waasdorp, Bradshaw, & Leaf, 2012). Schools delivering PBIS methods with fidelity displayed lower levels of disruptive behavior problems and more prosocial behavior. There were also significant reductions in office discipline referrals (Bradshaw, C. Waasdorp, T., Leaf, P., 2012). Therefore, district and school leaders should strongly consider implementing the tenants of PBIS across all classrooms which will improve teacher working conditions, school climate and therefore increase teacher retention.

## Quality Personalized Professional Development:

There is a paucity of research on the direct impact of traditional professional development programs delivered by school districts on teacher attrition so broad recommendations would be spurious. However, teachers report through surveys that professional development is viewed as important in their feelings about remaining in the classroom (Nguyen, et. al., 2019). Although different from standard professional development, systematic Professional Development Schools (PDSs) have been shown to significantly positively affect how long teachers remain in education and reduce teacher attrition (Latham, N., and Vogt, W.P., 2007). Therefore, district leaders should strive to continue to provide high-impact, job-embedded and individualized professional development as these efforts can seem to hold promise in bolstering retention (Norton, 1999)

## Enhanced Administrative Support:

There is a general overlap of what is considered administrative support and teacher working conditions in the literature. Lack of administrator support is reported to be the most critical component of school working conditions according to teachers and can result in a nearly doubling of the teacher attrition rate. (Sutcher, et. al., 2019). Kraft and Papay (2014) found that teachers who work in more supportive environments tend to develop skills and attributes that enable them to become more effective in increasing student achievement over time compared to teachers who report working in less supportive schools. District leaders should institute processes to empower school leaders to become instructional leaders, mentors, and coaches for the teachers in their building. Putting school leaders into the role of instructional coach and supporting classroom efforts, as opposed to basic evaluations, will greatly enhance teachers' perceived level of support. Teachers frequently report that school leaders do not provide adequate support and expertise in dealing with student discipline issues. To improve administrative support in this area we must provide school leaders with the knowledge and skills to implement consistent school-wide discipline methods such as PBIS.

## Improved Climate and Working Conditions:

Podolsky, Kini, Bishop, & Darling-Hammond, (2016) found that teacher attrition can be reduced by improving teacher working conditions and administrators working with teachers and creating a positive school climate. Johnson, Kraft, and Papay (2012) found that teachers will remain in high poverty-low performing schools if certain climate and working conditions are present, such as administrator leadership, collaboration with peers, and a positive school climate. Kraft, Marinell, and Yee (2016) found that as schools improve their organizational contexts (working conditions are part of that context), teacher attrition declines and associated improvements in student performance occur at faster rates. Studies show that how teachers perceive their working conditions is closely linked to how they view their principals. A teacher who trusts his or her principal is more likely to view teaching as manageable. The researchers urge school districts suffering from high turnover rates to evaluate teacher perceptions and find ways to train principals to improve school working conditions Burkhauser, S., 2017). It seems clear that classroom climate needs to be more actively considered among the important variables as part of the teacher attrition conversation (Ramos, G., & Hughes, T., 2020). School climate is a complex construct and one of the most powerful mechanisms to improve climate is the increase of positive interactions among and between staff, students and families. Educators should reduce inconsistent negative and punitive responses to student behavioral issues by helping staff increase

the frequency of positive reinforcement of appropriate behavior and general positive interactions. Students will have a sense of a positive climate as teachers are viewed as fair and equitable in their responses. Improved communications with families will also improve climate as they can receive frequent feedback. Research supports that when schools use positive behavioral support systems (PBIS), there will be increased teacher efficacy and autonomy which will enhance their perceptions of school climate and improve teacher retention rates.

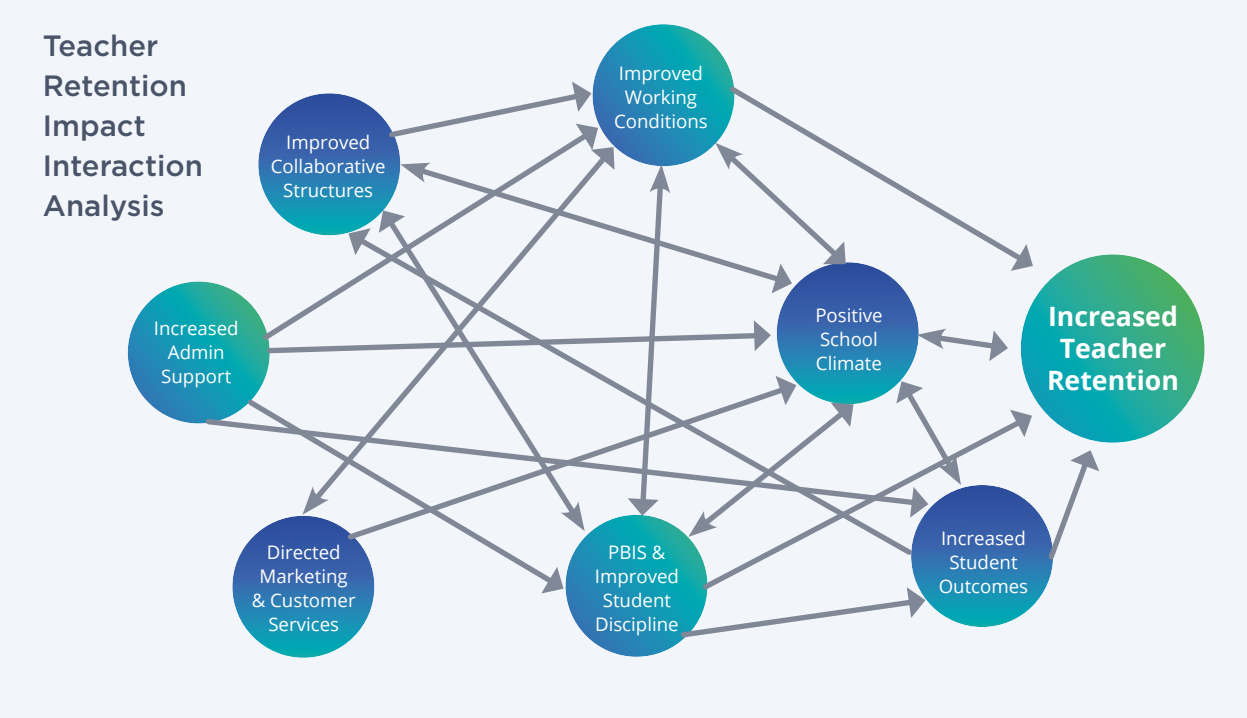
## Providing Alternative Routes to Teaching:

There is no clear empirical evidence that offering alternative routes into teaching will improve teacher retention (Nguyen, et. al., 2019).

## Decreasing Teacher Accountability:

Among the commonly cited reasons for teacher attrition is the pressure placed on teachers through the use of high stakes testing and enhanced accountability systems. However, the review by Nguyen, et. al., (2019) found that "removing or reducing teacher accountability does not seem to have a clear benefit on retention, although the evidence base is particularly weak here." Therefore, educational leaders should not assume that accountability reductions will improve teacher retention.

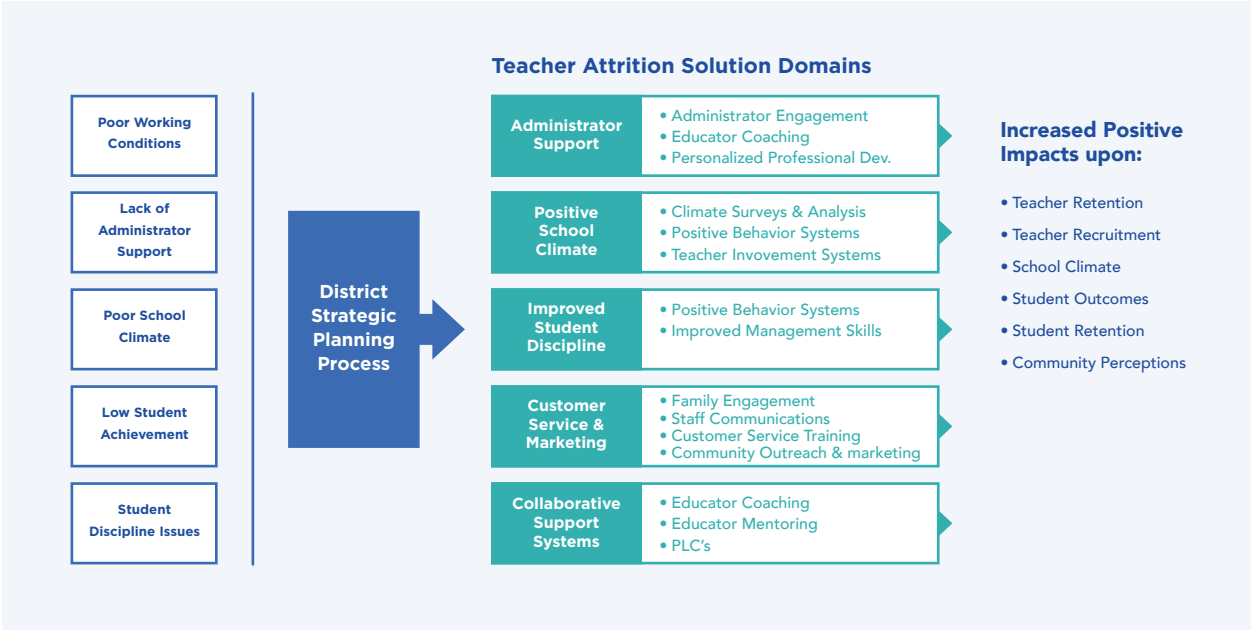
## Toward a Framework for Addressing Teacher Attrition




This infographic in **Table 3** displays the complex interactions that occur among the variables involved with teacher attrition. Some of the interactions are one-way such as how increased administrative support improves overall teacher working conditions. Other interactions are bi-directional such as how improved working conditions help create a positive school climate and a positive school climate contributes greatly to overall working conditions. Another example is that increased teacher retention is associated with increased student achievement and we find that increased student achievement enhances teacher retention--very much a reciprocal interaction. Taken together, the solutions, strategies and tactics all interact and combine to increase teacher retention and reduce teacher turnover and attrition.

## SchoolMint Teacher Retention Framework

**Table 4** Addressing Teacher Attrition for Schools and Districts




The SchoolMint Teacher Retention Framework (TRF) depicted above in Table 4 attempts to link the primary drivers of teacher attrition derived from the literature with specific approaches to improve teacher retention. Central to the framework is that teacher retention efforts are closely woven into the overall strategic plan of the district so that there is alignment with other district-wide initiatives and efforts. There are five identified solution domains with specific strategies, methods, services and software systems that seek to address the causal variables of teacher attrition. The anticipated positive impacts are not only seen in improved teacher retention but also in teacher recruitment, student outcomes and a more positive student enrollment trend. The community at large will also have a more positive perception of the school or district as stable and as a desirable place as the staff turnover and attrition rates decline.

# SchoolMint
# Solution Domains

Administrative Support: This is perhaps the most important set of strategies to reduce teacher attrition as lack of administrative support (correlated with poor working conditions) is reported as the most salient factor in teacher attrition. SchoolMint provides a software platform called ***Whetstone*** that helps educational leaders and administrators engage in continuous improvement feedback with teachers, strategic problem-solving and systematic planning to improve working conditions, increase administrator support, improve climate, enhance student outcomes and decrease discipline issues. ***Whetstone*** will greatly increase the visibility of administrators as instructional leaders and teachers will view their school leaders as highly supportive thus improving teacher retention.

## Positive School Climate:

School climate is a complex construct with many facets such as student-staff interactions, school structures, community relations, levels of support, etc. The first step in addressing school climate issues and associated school working conditions is to assess the nature and extent of the problem. SchoolMint provides school climate surveys for students, teachers, administrators and families to gather perceptions across a wide range of school climate and interactional parameters. The identification of the specific points of friction or challenge for each stakeholder group will allow educational leaders to plan specific strategies and tactics for addressing the identified concerns. One of the most robust indicators of a negative school climate is the existence of excessive student discipline issues, suspensions and expulsions. To address the problem of negative student-staff and staff-parent interactions, SchoolMint provides the ***Hero*** platform to help schools improve climate through several mechanisms as supported in the research literature (Konold, T., Cornell, D., Jia, Y., Malone, M., 2018). One of the most powerful mechanisms to improve climate is the increase of positive interactions among and between staff, students and families. ***Hero*** will help schools reduce inconsistent negative and punitive responses to student behavioral issues by helping staff increase the frequency of positive reinforcement of appropriate behavior and general positive interactions. Climate will also be improved by *Hero* through a consistent and expected application of discipline and reinforcement as delineated in the platform. Students will have a sense of a positive climate as teachers are viewed as fair and equitable in their responses. Improved communications with families will also improve climate as they can receive frequent feedback through the "*Hero* app." Research supports that when schools use positive behavioral support systems, as enhanced by *Hero,* there will be increased teacher efficacy and autonomy which will enhance their perceptions of school climate. *Hero* helps institute repeatable, consistent and coherent actions around your common responses to student discipline, defining a clear behavioral matrix or expectations and providing positive reinforcement to students in tier 1.

## Improved Student Discipline:

As noted by several lines of research, the central reason many teachers leave the profession is due to managing student behavior in the classroom and a generalized decay in student discipline. The majority of teachers have not received systematic training in managing student behavior and with an increase in student social-emotional, behavior and mental health issues teachers are anxious and ill-equipped to meet these challenges. There is a growing body of research that supports improvements in disciplinary behavior, anti-social behavior, student bullying behavior and peer victimization related to implementing positive behavior support systems (Bradshaw, Koth, Thornton, & Leaf, 2009; Bradshaw, Mitchell, & Leaf, 2010; Horner, Sugai, & Anderson, 2010; Sadler & Sugai, 2009; Simonsen et al., 2012; Waasdorp, Bradshaw, & Leaf, 2012). A multilevel, longitudinal analyses indicated that relative to the children in comparison schools, those in PBIS schools displayed lower levels of disruptive behavior problems and concentration problems, and better emotion regulation and more prosocial behavior. There were also significant intervention effects on children's odds of receiving an office discipline referral (Bradshaw, C. Waasdorp, T., Leaf, P., 2012). The ***Hero*** platform from SchoolMint provides a platform for the systematic implementation of the core practices of PBSS and PBIS such as: behavioral expectations, reinforcement for meeting expectations, consistency of teacher responses to student behavior, frequent student feedback and

corrective responses. When teachers have improved student behavior in the classroom, increased sense of self-efficacy, and reduced anxiety and stress, there will be a corresponding decrease in teacher attrition.

## Customer Service and Marketing:

Institutions must instill an ethos of customer service across all stakeholders groups in the organization which includes positive personal interactions and frequent and timely communications. These interactions permeate every aspect of the institution and even how teachers interact with students in the classroom. One could argue that the customer service ethos even extends to how teachers individualize instruction in the classroom to meet the needs of students. Delighting families with a focus on customer service also extends to the digital realm as providing families with easy-to-use software systems for enrollment and other processes that foster this feeling of delight. The creation of a customer service environment will help institutions attract and retain teachers, which is a critical problem in many circles. When all stakeholders of an institution have a mentality of trying their best to meet the needs of others a more positive climate is developed. When staff and school leaders treat each other from a customer service perspective this will directly impact job satisfaction and a perception of a positive work environment. The teacher retention strategy must clearly involve the development of customer service methods through specific staff training and SchoolMint provides schools and district professional services and training around the methods and techniques of ***customer service.*** Additionally, it will be important for schools and districts to tell the community their story of how they are attracting and retaining teachers and creating a positive educational environment. SchoolMint's professional services aimed at ***marketing services*** will help districts tout their positive outcomes which will further enhance families and teachers to the district.

## Collaborative Support Systems:

Teachers often cite isolation as a factor in their decision to switch careers and instructional coaches collaborating closely with fellow teachers can eliminate these feelings of loneliness. Teacher retention will likely improve as they continue to work in this type of supportive coaching environment as found by Russell, J. (2019). More importantly, instructional coaching is one of the most effective strategies to improve teacher pedagogical skills and efficacy which is correlated with teacher retention. Not only does ***Whetstone*** provide a system for increased administrator support as noted earlier, *Whetstone* is designed for use by instructional coaches as well. Whetstone will support district and campus leaders to initiate practices to increase the effectiveness of instructional coaches as a means to increase teacher capacity and retention. The *Whetstone* platform is highly customizable with features that support: Formal and information observation feedback; Video integration and virtual feedback; Meeting and virtual collaboration logs; Goals and next steps tracking; Lesson plan submission and feedback dashboards; Quantitative and qualitative data collection and analysis around frequency, trends, and performance benchmarking. *Whetstone* functionality can also support more effective and efficient PLC's which have been shown to reduce teacher attrition.

Taken together, SchoolMint provides a conceptual framework (TRF) to help district leaders understand the underlying factors around teacher attrition and a roadmap for addressing these challenging issues with detailed methods in five solution domains. SchoolMint also provides an array of professional services and software solutions as part of the TRF to improve teacher retention in a sustainable and comprehensive manner.

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