

Teacher Turnover in High-Poverty Schools: Unintended or Intended Outcome of Unitary Salary Schedules and Transfer Policies?

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ABSTRACT

Policymakers wanting to close the well-documented achievement gap between students in high- and low-poverty schools have increasingly focused on teacher quality. Yet experienced teachers tend to leave high-poverty schools, replaced by novice, less effective teachers. Research suggests that this churn creates serious academic and equity issues, jeopardizing these children's opportunities for an adequate education. Although teachers' unitary salary schedules and school district transfer policies are not among explicit causes, might turnover be an unintended outcome of such policies? Or might these policies intend to remove experienced educators from high-poverty schools? This article takes a fresh look at this issue.

Keywords: Equity, Teacher Quality, Salary Schedules, Transfer Policies, Teacher Sorting, Incentive Pay, Differentiated Salary Schedules, Structural Racism

REFRAMING TEACHER TURNOVER IN HARD-TO-STAFF SCHOOLS

Teacher quality is the school's most important factor in determining immediate and long-term student outcomes (Chetty et al., 2014). Yet, American public schools, especially those serving low-income children, are challenged with developing and keeping a high-quality teacher workforce (Sutcher et al., 2019). Teacher attrition plays a significant role in these shortages (Carver-Thomas & Darling-Hammond, 2019). According to recent data, 13.8% of America's public school teachers are either leaving their school or leaving teaching altogether (Garcia & Weiss, 2019). Retirements contribute less than one-third of attrition (Sutcher et al., 2019). By comparison, teacher attrition rates in high-achieving nations like Finland and Singapore are typically 3% to 4% annually (Sutcher et al., 2019).

Research identifies several likely factors for why teachers leave: lack of administrative leadership and support; challenging work conditions that interfere with the joy of teaching; feeling disrespected and inability to influence school decisions; dissatisfaction with compensation; better career opportunities; and personal reasons such as family responsibilities (Carver-Thomas & Darling-Hammond 2019; Kersaint et al., 2007). Teacher preparation is also a factor with higher turnover for those unprepared and unmentored (Darling-Hammond et al., 2017; Sutcher et al.,

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2016). These conditions frequently coexist in the same schools (Carver-Thomas & Darling-Hammond, 2019; Grissom, 2011). Moreover, the teachers who replace the leavers are disproportionately beginning teachers who have been shown to be substantially less effective than their more experienced colleagues (Clotfelter et al., 2006; Rivkin et al., 2005).

Generally, *hard-to-staff* describes schools that find it challenging to attract and keep qualified and effective teachers, especially in higher-poverty schools and districts. *High-poverty schools* can be defined as having more than 70% of students eligible for free or reduced-price lunch (FRPL), a proxy for poverty and low-poverty schools tend to have less than 40% of students eligible for FRPL (Glazerman et al., 2013).

Here is a thought experiment: New teachers are assigned to high-poverty schools with challenging working conditions, an indifferent administration, insufficient supplies, and unruly, low-achieving students. They earn the same salaries as other teachers with the same experience and education working elsewhere in the district. If the new teachers can endure this taxing situation for a few years until they meet their district's transfer criteria and become eligible to relocate to low-poverty schools with academically (instead of behaviorally) demanding students, higher perceived professional status, and satisfaction from teaching Advanced Placement or Honors courses, why not? Meanwhile, the district gains more experienced teachers for its affluent students. Thus, the "teacher quality gap" grows. Are unitary salary schedules and transfer policies contributing unintentionally or intentionally to this inequitable outcome?

This article considers how and why teachers' unitary salary scales and school transfer policies often harm high-poverty schools' student achievement and learning climate. We discuss how structural racism may be shaping certain public policies in ways that deliberately create racial disparities in resources and undermine low-income and minority children's educational opportunities. We will review evidence-informed policies that may reduce the "teacher quality gap." Lastly, we ask school districts to conduct equity audits and reconcile their goals, data, and policies to place effective teachers in all schools equitably.

TEACHER STABILITY/TURNOVER AS AN EQUITY ISSUE

The higher turnover rates occurring among teachers in schools serving students of color and from low-income families in high-poverty schools are well documented (Carver-Thomas & Darling-Hammond, 2019; see also Scafidi et al., 2007; Simon & Moore-Johnson, 2015). By comparison,

teachers by every measure of teacher quality – classroom experience, licensure exam scores, value-added estimate measures of students’ academic growth – are inequitably distributed across every indicator of student disadvantage – free and reduced-price lunch (FRPL) status, minority, and low prior academic performance (Goldhaber, Lavery, et al., 2015).

The actual relationship between teacher turnover and student achievement is unclear. Most research here is correlational, not causal (Guin, 2004; see also Boyd et al., 2005; Ronfeldt et al., 2013). Third factors such as poverty, working conditions, or poor school leaders may also contribute to low achievement and high turnover. Moreover, even if causation exists, its direction is ambiguous: teacher turnover may cause low student achievement, but low achievement may also prompt teachers to leave (Ronfeldt et al., 2013).

Investigators propose two hypotheses for the links between teacher turnover and student achievement: compositional and disruptive (Ronfeldt et al., 2013). In the “compositional” explanation, researchers suggest that student achievement can change if a difference in teaching effectiveness exists between those who leave and those who replace them. If the incoming teachers are more effective than those who leave, the effect on student achievement is positive. If those leaving were more effective than those replacing them, the impact on student achievement is likely negative. Several studies confirm that, on average, brand new teachers are less effective than colleagues with one to two years of classroom experience (Clotfelter et al., 2007; see also Harris & Sass, 2007; Kane et al., 2006), contributing to the low student achievement. Depending on the local labor market, temporary substitutes and inexperienced teachers are often hired to fill the vacancies (Jacob, 2007). Teacher inexperience appears to be systematically and inversely related to teacher productivity.

A growing body of evidence indicates that more effective teachers are at least as likely, or perhaps more likely, to remain in schools than their less effective colleagues, even in schools with historically underserved (i.e., low-income, minority) student populations (Boyd et al., 2011; Goldhaber et al., 2007). Therefore, the overall effect of turnover depends on the resulting distribution of individual teachers and their effectiveness. In some cases, teacher turnover may be beneficial or make no difference. In none of these studies did investigators actually observe the teaching effects of leavers and stayers, however (Ronfeldt et al., 2013).

In the “disruptive” explanation, turnover has a broader organization influence that extends beyond leaving teachers, replacement teachers, and their students. When turnover has an unsettling influence on the organization, everyone, including staying teachers and their students, is affected. In this schema, even when leaving teachers are equally effective as their replacements, turnover can still impact students’ achievement (Ronfeldt et al., 2013).

The negative impact of teacher turnover on student achievement is stronger in schools with larger shares of low-achieving and African American students (Ronfeldt et al., 2013). In part, this is because high turnover rates make it difficult for schools to build a stable school culture that creates a positive learning climate and enables students to make academic gains (Holmes et al., 2019; Ingersoll, 2001). It reduces teacher collaboration needed to make instructional improvements (Guin, 2004). In addition, schools often respond to the vacancies by increasing class sizes or reducing class offerings, all of which affect student learning (Kini & Podolsky, 2016; Sutcher et al., 2019). Thus, teacher turnover impacts all students in a school, not only those with a new teacher (Ronfeldt et al., 2013).

Research affirms that staff cohesion and community are related to student engagement and achievement (Bryk & Schneider, 2002; Little, 1982). When teachers leave school, their prior relationships and relational patterns change. Just as turnover disrupts staff from developing and maintaining “social resources” – including collegiality, community, and trust – so too may it impact student achievement (Guin, 2004; Hanselman et al., 2016, p. 27). Bryk and Schneider (2002) propose that the quality of relationships and trust between teachers and between teachers and students predict student achievement. This may partially account for the disciplinary difficulties in schools with high teacher turnover since students often “test” new teachers with whom they do not have relationships (Griffith & Tyner, 2019). Similarly, Little (1982) identifies “patterned norms” of interaction among colleagues that also predict student achievement. Further, the impact of turnover may be either positive or negative, depending on a school’s initial conditions, at first harming “high resource” schools whereas at first helpful to “low resource” schools (Hanselman et al., 2016).

In addition, staff turnover challenges instructional programs’ continuity and their successful and coherent implementation (Guin, 2004). School’s instructional program coherence has been shown to predict student achievement (Newman et al., 2001). When teachers leave, they

take the organizational knowledge needed to effectively enact such programs with them (Abelson & Baysinger, 1984). At the same time, new hires initially lack the basic knowledge and skills to implement an unfamiliar instructional program and must become conversant with it before organizational progress is possible. Thus, a school with ongoing teacher turnover is always starting over rather than making progress in their instructional agendas (Ronfeldt et al., 2013), with turnover producing instructional discontinuities that undermine student learning and performance (Newman et al., 2001).

The ongoing turnover also adversely affects teachers who remain in hard-to-staff schools. Not only do stayers shoulder more of the school's instructional load, but they also have fewer professional development resources available to them, as these assets are spent on new hires (Esch et al., 2005). Stayers also carry much of the responsibility for mentoring new teachers about school expectations and programs (Guin, 2004). This draining effect may carry over from teachers to their students. In fact, a study of New York City teacher turnover shows that students of stayers perform significantly worse in circumstances of higher turnover, and the adverse effects mainly accrue in lower-performing schools. By comparison, students of teachers who left, achievement results were somewhat negative but generally nonsignificant and unstable (although this instability may be attributable to measurement error) (Ronfeldt et al., 2013).

Replacing teachers is financially costly, reaching an estimated \$20,000 or more for each teacher who leaves an urban school district (Sutcher et al., 2016) and upwards of \$2.2 billion a year nationally (Phillips, 2015). Recruiting, hiring, and orienting new teachers are major expenses that could otherwise be spent on improving the academic program or enhancing working conditions (Barnes et al., 2007; Darling-Hammond & Sykes, 2003). Schools with historically underserved student populations may be the most impaired by constant turnover because they tend to have the fewest overall resources with which to work; their new hires tend to need more supports if they are to improve (Carroll et al., 2000; Darling-Hammond & Sykes, 2003).

UNITARY SALARY SCHEDULES AND SCHOOL TRANSFER POLICIES

It is not this paper's purpose to discuss teacher compensation options in detail; the arguments for and against different teacher compensation policies are more fully discussed elsewhere (Hanushek, 2007; see also Hendricks, 2015; Podgursky & Springer, 2007). Although our research finds no data where school districts use salary schedules and transfer policies explicitly to incentivize

experienced teachers to leave high-poverty schools and move to low-poverty schools, these factors, their contexts, and impacts deserve a closer look.

Unitary Salary Schedules

Historically, teachers' single salary schedules emerged in the early twentieth century, an outcome of tumultuous labor relations to ensure teachers with the same years of experience and education level received the same salary (Moelhman, 1927). Salary schedules created pay equity, professionalism, and employee satisfaction across grade levels, political jurisdictions, districts, and academic disciplines, replacing prior pay systems negotiated between individual teachers and local school boards often rife with favoritism (Kershaw & KcKean, 1962). Since 1950, 97% of all US schools have adopted unitary salary schedules that differentiate pay by experience, seniority, and credentials, equalizing pay across teaching subject and teacher quality (Sharpes, 1987). The size of pay increases linked to the "steps" or "columns" varies with the district. Objectivity is its main advantage, leaving little room for administrators' bias to impact wages.

Yet as presently structured, some believe this compensation system works against schools' capacity to recruit, hire, and retain the most effective teachers (Hanushek, 2007; Hendricks, 2015). It also reduces individuals' efforts to perform at their best, fails to reward individuals' efforts and student outcomes, and does not discern between teachers in different academic fields. As a result, subjects such as math and science that bring high wages in non-teaching careers often face shortages, whereas elementary education grades and social studies do not. In fact, some believe this "wage rigidity" causes teachers to sort across school districts with higher quality teachers sorting into schools with more favorable work environments (Gilpin, 2011; Podgursky et al., 2004) as well as individuals to sort into teaching and non-teaching occupations (Gilpin, 2011). Moreover, studies find that prospective teachers are more likely to apply to districts with fewer disadvantaged students, partly because teachers are usually paid using a single salary schedule that does not account for the teaching assignment's difficulty (Goldhaber, Krieg, et al., 2015).

The evidence clearly suggests that overall teaching experience and graduate education have little consistent relationship to student performance (National Council on Teacher Quality [NCTQ], 2010). By comparison, the first few years of teaching experience do appear to have essential impacts on student achievement (Boyd et al., 2006; Rivkin et al., 2005; Rockoff, 2004). Advances in research methods and data systems now allow investigators to conclude that teachers

continue to “grow on the job.” These gains continue into their second and third decades of teaching (Kini & Podolsky, 2016; Papay & Kraft, 2015). This is especially true when teaching in a supportive and collegial working environment and when they amass experience in the same grade level, subject, or district (Kini & Podolsky, 2016).

To work as intended, a teacher compensation program must strongly reward individuals’ and small groups’ classroom performance, since aspects of teachers’ work involve teamwork with colleagues and staff that should be acknowledged and compensated.

The exact weights and forms would need further study (Hanushek, 2007; Podgursky & Springer, 2007). In addition, the compensation plan would have to clearly reward principals and administrators based on student performance. This would incentivize them to make decisions with student outcomes in mind, including teacher selection and retention. This arrangement is especially needed to support educators in high-poverty schools if the goal is to retain highly effective teachers, not just lower turnover rates alone (Hanushek, 2007). Although the literature may not be “sufficiently robust to prescribe” how school districts should design their compensation systems, it is positive enough to suggest that further experiments and pilot programs would be desirable (Podgursky & Springer, 2007, p. 943).

Transfer Policies

Since investigators conclude that “teacher quality gaps” in districts are due more to teacher assignment to schools than to teacher assignment to classrooms within schools (Goldhaber, Lavery, et al., 2015), teacher transfer policies also raise equity concerns. Typically, a *transfer* is “defined as a move from one school in the district to another and may be voluntary or involuntary” (Cohen-Vogel et al., 2013, p. 325). Researchers have long recognized transfers of experienced, well-qualified teachers away from schools with high concentrations of poverty and novice teachers replacing them as a problem in urban school districts (Becker, 1952; Krei, 2000).

Transfer and assignment practices vary from district to district (Cohen-Vogel et al., 2007). The authority to hire teachers and assign them to schools rests with school principals and local school districts. In filling vacant positions, many districts give preference to their currently employed teachers seeking a voluntary transfer to another school over “new hires.” Current teachers may receive advanced notice of any open positions and be guaranteed an interview (Cohen-Vogel et al., 2013). By using this practice, many cities create a de-facto “dual system”

(Kozol, 1991) with “islands of quality education” that increase socioeconomic (SES) “class distinctions within city school system” (Kantor & Brenzel, 1992, p. 292). “From the teacher’s perspective, the opportunity to transfer to a ‘better’ school was one of the few rewards the system offered for years of competent service” (Murphy, 1990, p. 236).

Collective bargaining agreements (CBA) – legal contracts specifying teachers’ and school districts’ rights and obligations – negotiated with teachers’ unions often influence teacher transfer policies. Presently, 34 states allow teachers to engage in collective bargaining, nine states permit it, and seven states declare it illegal (NCTQ, 2019). Teacher union contracts’ seniority-based transfer policies allow senior teachers the first pick of open positions in other district schools over less senior teachers. This enables more experienced teachers to move from schools they perceive as less desirable (as proxied by student poverty or minority composition) and remain in more “attractive” placements (Goldhaber, Lavery, et al., 2015). Yet even with CBA contracts, seniority may be the most important transfer factor or only a consideration along with other factors (Johnson, 1984; Youngs et al., 2015).

Studies examining whether seniority rules affect teacher distribution reach conflicting conclusions (Cohen-Vogel et al., 2013; see also Koski & Horng, 2007; Nelson, 2006). Studies find no support for the hypothesis that districts’ seniority rules worsen the “teacher quality gap” between low- and high-poverty schools: the “gap” would exist regardless of the seniority provisions (Gross et al., 2010; see also Koski & Horng, 2007; Cohen-Vogel et al., 2013). For example, in Northeastern and Midwestern school districts, seniority-based intradistrict transfer of teachers away from low-income schools is usually connected to union contract provisions, but this transfer pattern also occurs in districts without these terms (Krei, 2000).

Research shows that holding all else equal, teachers with better pre-service qualifications – such as certification exam scores and college competitiveness, proxies for teacher quality – are more likely to apply for transfer or leave teaching entirely (Boyd et al., 2005, 2011; Goldhaber et al., 2007). This is especially true in low-achieving schools (Boyd et al., 2005). By comparison, more effective teachers whose students demonstrate higher achievement growth are less likely to transfer (Boyd et al., 2011; Hanushek et al., 2005; Goldhaber et al., 2007). Some of these findings reach statistical significance (Boyd et al., 2011). Likewise, teachers with more years in the classroom, usually more effective teachers, are less likely to request transfers and leave schools

than are their less experienced colleagues (Ingersoll & Smith, 2003; Marvel et al., 2007). Goldhaber and colleagues (2007) observe that the most effective teachers remain in teaching and at the same school for the longest period at low and high-achieving schools.

Race, ethnicity, and teacher preparation pathways are also transfer factors. Among studies that control for school, district, and other teacher characteristics, White teachers generally are more likely to apply for transfers than are non-White teachers (Boyd et al., 2011; Ingersoll, 2001), and teachers, such as African American or Latinx, are less likely to apply for transfers when they work in schools with high concentrations of students with similar demographics to theirs (Boyd et al., 2011). And as noted, overall, teachers holding regular or standard certification types are less likely to transfer to new schools or leave teaching than colleagues with provisional certification or from alternative routes (Boyd et al., 2011; Marvel et al., 2007). Only Teach for America (TFA) teachers are significantly less likely to transfer, probably reflecting TFA's policy of placing teachers in difficult-to-staff schools and requiring two years of service (Boyd et al., 2011).

STRUCTURAL RACISM AND EFFECTIVE TEACHER EQUITY

The historical legacy of racially separated and unequal schooling is a daily reality for millions of American children. Much of it stems from “pervasive structural racism” (Noguera & Angel, 2020). This context begs the question: Do traditional unitary salary schedules and transfer policies incentivize experienced teachers to leave high-poverty schools unintentionally or intentionally?

“*Structural racism* refers to the totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice” (Bailey et al., 2017, p. 1453). According to political sociologist Eduardo Bonilla-Silva (2017), structural racism is a form of “racism without racists,” visible in public policies that place communities of color at a disadvantage. “[I]n turn, these arrangements and practices reinforce biased beliefs, values, and resource distribution” (Bailey et al., 2017, p. 1453).

The structural racism concept asserts that racism is not always a function of personal bias or intentional discrimination. Nor is it always the result of formal race-neutral policies and practices, “natural catastrophes” (such as Hurricane Katrina in 2005 that decimated African American neighborhoods in New Orleans), or “bad luck” that have the effect of disadvantaging certain racial or ethnic groups (Powell, 2008). According to the late John Calmore, a social justice

law scholar, racism exists in “our culture, institutions, and societal organizations” (Calmore, 1998, p. 1078). The structures we create, inhabit, and sustain – the policies, organizations, and institutions –over time normalize and shape our identity and provide social meaning (Calmore, 1998). Moreover, these policies can produce “foreseeable, even if unintended, racial harms” (Powell, 2008, p. 794). For example, in Hurricane Katrina, the middle-class-oriented evacuation plans assumed car ownership, not accounting for the fact that many of New Orleans’ low-income African American residents did not own cars (Brookings, 2005).

Examples of structural racism are evident in many aspects of our society. In *The Color of Law* (2017), American academic and author Richard Rothstein describes how public policy and law explicitly and systematically disadvantaged racial and ethnic minorities, depressed African American wages, and made it difficult for them to accumulate intergenerational wealth. For example, after World War II, the Federal Housing Administration (FHA) policy specified that it would not insure loans or finance mortgages to a cooperative that included African American members; and local banks would not finance housing costs by issuing mortgages without this government approval. Following the federal government’s lead, local zoning ordinances promoted racial exclusion, “redlined” neighborhoods (literally maps color-coded to the majority of residents’ race) directed realtors about where Whites were permitted to buy homes, but African Americans could not (and vice versa). Likewise, *restrictive covenants* defined what race homeowners were permitted to sell their homes to, and the Internal Revenue Service granted tax-exempt status to churches, hospitals, universities, and neighborhood associations that promoted residential segregation. This housing discrimination channeled many African American and Latinx youth into high-poverty neighborhood schools. These and other government policies limited African American families’ capacities to accumulate wealth that their children could inherit. Rothstein concludes, “Once government implemented these policies, economic differences became self-perpetuating” (Rothstein, 2017, p. 153).

And this state-sanctioned structural discrimination is not simply “old news.” A June 2020 study of tax assessment and sales data for 118 million homes across the US homes finds that in almost every state, African American and Latinx families pay 10% - 13% more in annual property taxes than a White family in the same situation (Avenancio-Leon & Howard, 2020). The variation in tax rates results from the mismatch in property assessments between neighborhood attributes and market prices. Further, the legal appeals behavior challenging this practice and the judicial

outcomes differ by race, resulting in higher assessment growth rates for minority residents (Avenancio-Leon & Howard, 2020). These practices made it more difficult for African Americans to save money from their wages.

Structural racism is also evident in public schools. Despite *Brown v. Board of Education's* (1954) affirmation that school segregation is unconstitutional, many public schools and public school districts remain segregated by race and socioeconomic status. The US has over 13,000 school districts of varied shapes and sizes (EdBuild, 2019). Although the school attendance boundaries may appear arbitrary, relying on state constitutional provisions or local referenda, decision-makers intentionally drew these borders to reinforce student segregation by race and socioeconomic status (EdBuild, 2019). For example, since 2000, 128 communities from Maine to Utah, typically wealthier and Whiter areas, have tried to secede from larger school districts (73 have succeeded), leaving behind large numbers of students of color and low-income in neighborhoods with lower property values and household incomes than their breakaway neighbors. Thirty states have established a legal process to allow this (EdBuild, 2019).

Fensterwald (2018) also sees signs of structural racism in the teacher assignment patterns that result in the least experienced teachers working with the most disadvantaged schools. A 2016 study in California found that about 1 in 7 teachers in schools with the highest proportion of low-income students were inexperienced as compared with about 1 in 10 in low-poverty schools; and the proportion of teachers holding emergency or temporary licenses in the poorest schools was more than double the 0.8% in the wealthiest schools (California Department of Education, 2016).

Structural racism is also evident in school funding policies that depend on local property taxes (Baker et al., 2020; Raikes & Darling-Hammond, 2019) and in unequal access to health care, healthy food, and clean water and air (Almasy & Ly, 2017; Bailey et al., 2017; Montag, 2019; Wallace et al., 2017). And the examples do not end here.

In short, racism is not necessarily unintentional or individualistic. Rather, institutional practices and cultural patterns enacted over time and across many domains work to preserve, entrench, and deploy racial inequities without relying on racist actors; racialized outcomes result (Powell, 2008). What may appear to be the result of arbitrary decisions by many individuals may result from deliberate government policy to discriminate against people of color (Rothstein, 2017).

RETHINKING PUBLIC EDUCATION SALARY AND TRANSFER POLICIES

Long concerned with K-12 teacher compensation, many policymakers believe that changes in the structure of teacher salary schedules might change the appeal of teaching and incentivize teachers (and principals) to remain in hard-to-staff schools and in the profession (Loeb et al., 2009). A look at selected research may offer policy guidance.

Studies into teacher salaries and student achievement conclude that policies that intend to close the achievement gap between low-income students and those more affluent must find ways to upgrade the effectiveness of teachers available to low-income and minority students and to create inducements for these teachers to stay in these more challenging schools (Hanushek, 2007). Nonetheless, the strongest empirical link between teacher productivity and teacher experience finds that higher base salaries reduce teacher attrition (Clotfelter et al., 2011; see also Hendricks, 2014; Imazeki, 2005). This suggests that paying higher base salaries to those teachers in high-poverty schools who actually raise student performance is more likely to retain those most able and likely to improve over time (Hanushek, 2007; Hendricks, 2015). When districts differentiate their salary schedule to stimulate practices and outcomes they wish to reinforce, they can impact the distribution of teachers they hire and retain.

In addition, studies find that higher salaries offered earlier in a teacher's career are more likely to attract and retain teachers, especially high-quality candidates who are more like to attract superior opportunity wages in the non-teaching labor market (Goldhaber & Brewer, 1997). This "*frontloading*"— giving larger raises early in a teacher's career and smaller raises later — also increases retention because teachers are most likely to quit during their first few years of teaching (Hanushek & Rivkin, 2007; Ingersoll, 2001). This U-shaped relationship between experience and attrition suggest that districts do not need to keep offering the same set of rewards to retain teachers later in their career as they did through the earliest years when the job was the most difficult and teachers had more career options outside education (Grissom & Strunk, 2012). By comparison, studies find that bonus or "merit" pay does not seem significant in recruiting or retaining high aptitude teachers (Gilpin, 2011; Ritter et al., 2016). These studies limitations include the small amounts of money involved, inconsistent funding, and teacher evaluations that assess teacher effort rather than student outcomes (Hanushek, 2007).

Many of the nation's largest school districts are experimenting with paying effective teachers more than their colleagues with similar years of experience to teach hard-to-staff subjects

or work in hard-to-staff schools. In a 50-state sample of the 100 biggest school districts in the country and the largest districts in each state, differentiated pay is currently available in 124 districts of 145 school districts (Nittler & Duncan, 2018). But districts are twice as likely to offer extra compensation for teaching hard-to-staff subjects (i.e., STEM, English as a Second Language, and special education) as they are for working in high-needs schools (Gerber, 2018). Incentives include annual salary supplements (stipends, ranging from \$100 to \$20,000, annually), starting new hires in these positions at a higher level on the salary schedule, or paying an increased base salary on a separate salary schedule (Nitter & Duncan, 2018).

For example, in one random assignment study of 10 large and economically diverse school districts in seven states, 114 schools, grades 3 through 8, findings suggest that offering bonuses of \$20,000 a year (paid in five installments over two years) for the highest performing teachers (i.e., the top 20% within their subject and grade in terms of consistently raising student achievement) to transfer into schools serving the most disadvantaged students can improve student test scores and other outcomes in low-achieving schools and recruits and retains teachers in these schools (Glazerman et al., 2013). Researchers conclude that although this transfer program was more cost-effective than creating smaller classes in elementary grades, it cannot be assumed to be more cost-effective for all grades and districts (Glazerman et al., 2013).

By comparison, simply raising urban districts teachers' salaries or offering a version of "combat pay" to teach in high-poverty schools may reduce teacher turnover. But it may also retain less effective teachers, leaving fewer resources to recruit and hire more effective ones (Hanushek, 2007). Nor does increasing every urban teacher's salary stop the inefficient practice of paying teachers for advanced education and credentials (Hanushek, 2007).

Studies suggest that teacher vacancies in hard-to-staff subjects or schools could benefit from differentiating salaries along these dimensions (Dee & Goldhaber, 2017). Neither the American Federation of Teachers (AFT) nor the National Education Association (NEA) oppose changes to the salary scales but insist it must be done at the local level with teachers' support and input (Miner, 2018).

Since a 2012 report observed that it costs an estimated \$14.8 billion annually to pay teachers for earning advanced degrees (Miller & Rosa, 2012), some encourage school districts to end this practice and instead use the money more flexibly to attract and keep effective teachers

(Sawchuk, 2009). Similarly, some argue that boosting salaries for a small subset of teachers would be more cost-effective than paying supplements to teachers earning master's degrees (Iasevoil, 2017). Some conclude that since performance pay is not cost-effective over time (because the teacher costs outpace the student achievement), providing differentiated pay for effective teachers to transfer to high-need schools becomes more cost-effective long-term (Chaing et al., 2017).

COMPLETING THE THOUGHT EXPERIMENT

Our thought experiment asked, “Are unitary salary schedules and transfer policies inadvertently or deliberately creating equity issues when students in high-poverty schools continue to lose experienced teachers?” Given our history and recent illustrations of these practices in action, it is reasonable to ask whether structural racism may play a role in designing and maintaining these compensation and transfer policies.

Since compensation and transfer policies are designed district by district, generalizing about this issue is problematic. Nonetheless, an equity audit (greatly simplified here) in each domain can help determine the answer. It begins by asking the right questions and gathering the right data. With the superintendent's leadership, the districts' educators and school boards can attempt to reconcile their expressed goals for educating every student to high levels with their disaggregated student achievement data to identify gaps between low- and high-poverty students and schools. Next, they can review teacher transfer rates and patterns between their low- and high-poverty schools to see if their transfer policies may be contributing to the faculty (and leadership) churn that keeps high-poverty schools' student achievement low. Following, they can assess their salary schedule to determine if it pays for advanced education credentials earned and/or differentiates salaries according to teacher performance in raising student achievement in high-poverty schools. In tandem, they can consider their districts' needs and whether revising their teacher compensation plan and other practices would advance their goals for rewarding effective teachers and administrators and producing equitable and high student learning.

If data on their student achievement gaps, teacher quality gaps, salary schedule, and transfer practices and rates suggest that they have an equity issue with effective teachers migrating to low-poverty schools – and they want to improve the situation – they will invite key community leaders, teachers, parents, and other to discuss the issue and review the data. But if the evidence suggests a teacher effectiveness equity issue in school placements, and the school board, educators,

and community members choose not to address it, perhaps structural racism may be at play, and the inequitable outcomes of salary and transfer policies are intentional.

CONCLUSION

The equity ramifications of having the highest teacher turnover in schools already challenged lends a particular urgency to identifying policy strategies to advance retaining effective teachers in high-needs schools. Proposed policies must be “effective, politically tenable, and not prohibitively expensive” (Grissom, 2011, p. 2558). Identifying potential strategies that meet all these criteria may seem like a fool’s errand. But as Joshua Starr, Phi Delta Kappa International CEO, concludes, “An equity agenda that involves the redistribution of resources... should expect an angry response from one group of stakeholders or another (Starr, 2020/2021, p. 60). “All the talk in the world about fairness and ‘meeting kids’ needs’ won’t mean a thing if the resources – time, people, and funds – aren’t aligned to [the district’s] goals” (Starr, 2020/2021, p. 61).

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