

B. Compensation for teachers of hard-to-fill subjects and teachers in hard-to-staff schools

Does evidence suggest that additional compensation alone is sufficient to attract and keep good teachers in high-need schools? If not, what other changes does the research suggest that states need to make to solve staffing shortages?

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Does evidence suggest that additional compensation alone is sufficient to attract and keep good teachers in high-need schools? If not, what other changes does the research suggest that states need to make to solve staffing shortages?

Research suggests that additional compensation can be helpful in attracting and retaining teachers, but is not sufficient on its own.

There is a large literature showing that teacher turnover is affected by both pay and working conditions (see, for example, Borman & Dowling, 2008; Goldhaber, Gross, & Player, 2010; Hanushek, Kain, & Rivkin, 2004; Ingersoll & Strong, 2010; Kirby, Naftel, & Berends, 1999; Lankford, Loeb, & Wyckoff, 2002; Scafidi, Sjodquist, & Stinebrickner, 2002; Winter & Melloy, 2005).

Some evidence suggests that higher pay might contribute to improving teacher recruitment and retention in high-need schools (Clotfelter, Glennie, Ladd, & Vigdor, 2006; Guarino, Santibañez, Daley, & Brewer, 2004). For example, Denver's ProComp program was found to improve teacher retention rates across the board, with the greatest increase (75% to 86%) coming in schools designated as "hard-to-serve." Despite these improvements, however, retention in hard-to-serve schools still lagged behind others, and the authors cautioned that the study did not prove a causal link between

ProComp and increased retention (Wiley, Spindler, & Subert, 2010).

Existing research has not clarified whether higher pay or better working conditions is the more cost-efficient way to attract and keep good teachers. Some evidence suggests that the amount of additional pay that states would need to attract and retain teachers in schools that teachers consider less desirable, absent a concurrent change in working conditions, would likely be cost prohibitive for most school districts (Hanushek et al., 2004).

A number of studies conclude that a range of circumstances and conditions, which include but are not limited to added pay, must be in place to attract and keep good teachers in high-need schools (see Johnson, Berg, & Donaldson, 2005 for a review; see also Liu, Johnson, & Peske, 2004). Without these conditions, teachers tend to seek schools with higher levels of student achievement and more advantaged students (Lankford et al., 2002). These also tend to be schools with lower concentrations of minority students (Hanushek et al., 2004).

In general, when considering whether to select positions in chronically hard-to-staff schools, teachers look for effective and supportive administration, favorable working conditions (including adequate resources), and like-minded colleagues with whom they can share practices (Goldhaber, Destler, & Player, 2010; Koppich, Humphrey, & Hough, 2007). These conditions become increasingly important when considering urban schools that serve low-income students. The majority of hard-to-staff positions are concentrated in these schools, which have nearly twice the annual teacher turnover (19 percent versus 11 percent) as large suburban schools that serve fewer low-income students (Ingersoll, 2002).

Some research suggests that one of the most important factors that teachers consider is the quality of school leadership (Koppich et al., 2007; Prince, 2007). Schools with weak or unsupportive principals have difficulty attracting high-quality teachers and even more difficulty retaining them. In one study of teacher recruitment, would-be teachers in three teacher-training institutions rated a supportive principal as the factor that would most likely influence their decision to apply for or accept various teaching positions in an urban district (Milanowski, Longwell-Grice, Saffold, Jones, Odden, & Schomisch, 2007). In a study of teacher turnover in New York City schools, Boyd, Grossman, Ing, Lankford, Loeb, & Wyckoff (2009) found that both current and former teachers cited dissatisfaction with administrative support as the most important factor influencing their decision to leave the school where they taught.

In addition to school leadership, working conditions are important. Hard-to-staff schools are more likely than less challenging schools to offer poor professional conditions. Inadequate physical facilities and insufficient resources (including textbooks and supplies) contribute to these schools' difficulty in retaining quality teachers.

Professional culture is a critical factor that teachers consider as well. Teachers seek schools at which they can exercise reasonable professional autonomy and share practice and ideas with colleagues. In addition, the general school atmosphere, as influenced by student behavior and discipline, contributes to teachers' decisions to select or remain at a high-needs school (Futernick, 2007; Kelly, 2004; Koppich et al., 2007).

The high incidence of inexperienced teachers assigned to high-need schools compounds the challenge of ensuring that these locations have good teachers. When experienced teachers do not move to the most challenging assignments, states assign less experienced (often brand new) teachers to these locations. A lack of rigor plagues much of the research on induction programs' effects on beginning teachers (Ingersoll & Smith 2004), and large-scale controlled studies have produced mixed results. Ingersoll and Smith's (2004) study of different types of mentoring and induction programs showed that such programs are generally associated with lower beginning-teacher turnover, though some induction supports are more effective than others (see also Guarino, Santibañez, & Daly, 2006). By contrast, Glazerman et al. (2010) measured the effects of

a new teacher induction program and found that after three years, teachers who participated in the induction program had the same retention rate as nonparticipants. However, the researchers also found that the program had significant positive effects on student achievement.

Research suggests that the kinds of institutional resources that are required to implement supportive induction and mentoring programs are often absent in challenging schools. Thus, inexperienced teachers in high-needs schools must learn to teach in environments that would challenge even their most experienced colleagues

(Kelly, 2004; Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004). Researchers have found that the attrition effects of collegial support systems extend beyond new teachers. Borman and Dowling (2008) found that across experience levels, “a greater reported prevalence of school-based teacher networks and opportunities for collaboration was related to lower attrition rates.”

In sum, pay does matter, though research is inconclusive on the comparative value of higher pay as opposed to improving other working conditions.

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