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Impacts of Education Reform on Teacher Attraction and Retention

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Introduction

Fewer issues have received more attention by education researchers than understanding the global teacher shortage, especially in public schools. It is often thought that problems facing the teacher labor market are primarily due to an insufficient supply of new teachers to match the increase in student enrollments and replace the teachers that retire (Ingersoll & Tran, 2023). This is especially complicated by the inability of schools to keep the quality teachers that already serve in the classroom, with as many as 50 percent of teachers leaving the profession before their fifth year of service and one-third of the teaching population consistently experiencing turnover every year (Coulter & Zaleski, 2007). Finally, while the teaching workforce has more than doubled over the past half century, the distribution of teachers is not spread evenly among schools, and schools with higher concentrations of low-performing students have a disproportionate number of teachers with lesser qualifications compared to other institutions (Loeb & Reininger, 2004). Taken together, it would not be unreasonable to deduce that these staffing problems could affect student achievement, place increased pressure on active teachers, and divert already-limited school resources toward teacher recruitment (Coulter & Zaleski, 2007; Ingersoll & Tran, 2023).

The COVID-19 pandemic has changed the way education researchers and the field have addressed education practices, including strategies around hiring and retaining teachers. However, there exists a body of research shedding light on how reform in public policy impacts teacher recruitment and retention, which remains an important part of the conversation that should not be overlooked (Coulter & Zaleski, 2007; Cowan et al., 2016). One topic which should be at the forefront of policymakers' minds is how schools can be better supported to staff classrooms with qualified teachers and meet both student and societal needs. Therefore, an

exploration of reform in public policy is necessary to better understand the nature of teacher shortages. The purpose of this review is to place a critical lens on macro-level reform policies to better understand the impact of public policy on teacher attrition, identify gaps in the research, and provide recommendations for future research.

Literature Review

Reform in education is not a new phenomenon and is generally driven by the perception that students and schools are not achieving, compared to the rest of the world, in light of economic and technological changes (Johnson & Foster, 1990). Indeed, when comparing school quality in the United States to other countries by chosen metrics such as student performance and college entrances, it seems natural to conclude that the source of such problems is brought on by the quality of the teachers and institutions who provide the education (Johnson & Foster, 1990). Education reform as a means of school improvement appears to take a variety of different forms, ranging by topic according to political context, school context, and the level of governance in which the reform agenda is being implemented. For the purpose of examining their impact on the labor supply of teachers, the literature focuses on two specific macro-level policy regimes with the reform agenda in mind: the national implementation of accountability policies in schools and teacher education programs and state-level reforms to the teacher labor market as a result of restrictions on the strength of public sector unions and growth in education privatization. Both regimes have seen an increase in political popularity over the last several decades as current trends in teacher recruitment and retention have persisted. It is possible that other reform policies exist with the intention of school improvement, but the literature appears to limit the discussion to these two broad concepts as it relates to their impact on teacher recruitment and retention.

While perceptions of their impact on the recruitment and retention of teachers are varied,

the literature finds agreement around the values underlying each reform policy as to their reorganizing effect on school communities and the practices of school leadership (Sun & Yincheng, 2016; White et al., 2020). The literature also calls for careful consideration by policymakers as to how these reforms are targeted, especially in monitoring teacher exits as a result of such reforms and implementing policies which recruit and retain teachers, particularly teachers of color and teachers serving hard-to-staff areas (Barret et al., 2021; Brunner et al., 2019; White et al., 2020). Despite the flexibility afforded to policymakers around the concept of education reform, there is still much to examine in the research as to their impact on the teacher labor supply and what more can be done to improve it.

School Accountability

First, much of the literature focuses on the application of federal planning mandates for public schools and teacher education programs which have become politically popular over the last several decades in Western countries across the globe. In the United States, these mandates took the form of federal policy which conditions the awarding of education funds on schools' progress toward meeting certain targets in student achievement based on test scores. These policies evolved first with the No Child Left Behind Act of 2001 and the less-restrictive Every Student Succeeds Act of 2015. Both have had a role in dramatically expanding national influence over U.S. education policy and are designed to increase demands on teachers and alter school recruitment strategies as a feature of addressing school quality (Jabbar, 2018; Sun & Yincheng, 2016; Sykes & Martin, 2019). While these policies were well intended, minimal attention has been given by policymakers to the consequences of those policies on new teachers or teachers serving hard-to-staff areas (Adoniou, 2016; Clotfelter et al., 2004).

Research has examined the teacher retention and attrition rates to shed light on how

school accountability systems and local response to those policies impact teacher attrition. For example, Clotfelter et al. (2004) examined administrative data from North Carolina's NCLB-era accountability system to demonstrate how school-based accountability systems at the time affected the ability of low-performing schools to attract and retain teachers. The authors found retention rates and probabilities of departure from the teaching profession demonstrated that North Carolina's school accountability system increased the problems that low-performing schools already have in retaining qualified teachers (Clotfelter et al., 2004). Also clear in their research was that increased accountability pressures on personnel serving low-performing students imposed costs on localities in efforts to counter the negative perceptions of failing schools, but the impacts of North Carolina's own policies could be understated or overstated in other states depending on the design of their own accountability system (Clotfelter et al., 2004). The findings did not reveal the effect of the accountability system on the quality of teachers in low-performing schools, but suggested "a more systemic approach is needed" to ensure that low-performing schools have access to a pool of effective teachers (Clotfelter et al., 2004, p. 270).

Researchers have also discussed the impact of school accountability on the area of teacher preparation, where minimal involvement by preparation programs in the policy debate has gradually resulted in reduced local control for programs (Bales, 2006; Huang, 2006). Federal intervention into teacher education began with legislation that far precedes the adoption of No Child Left Behind (NCLB), but the intent of forcing specific reforms to increase teacher quality would find its way into NCLB criteria that states would use to determine whether a teacher was "highly qualified" to teach (Bales, 2006). Qualitative studies of revisions to teacher preparation and certification point to the issues raised by these changes in policy (Bales, 2006; Hafner & Maxie, 2006; Huang, 2006; White et al., 2020). Several studies have reported that many states

have struggled to respond to these criteria, resulting in a more cumbersome process for obtaining a teaching license and additional barriers into the profession for new teachers (Bales, 2006; Huang, 2006; White et al., 2020). Where other state-level reforms to teacher preparation were seen as favorable, many still exist within the larger framework of changes to federal policy and external factors like declining budgets for state universities (Hafner & Maxie, 2006). One consequence of this is a noticeable increase in the number of teachers obtaining either alternative licensure or emergency permits that require relatively minimal preparation (Bales, 2006; Huang, 2006). White et al. (2020) found some evidence that alternative pathways to licensure, seen as favorable to individuals seeking low-cost pathways to becoming a teacher, may be helpful in increasing the diversity of the teaching supply, but often leads to higher rates of turnover by those teachers due to less comprehensive preparation. The level of involvement by preparation programs in the policy debate appears to vary by state in the current era. However, the research underscores the importance of engaging programs and student teachers in the development of policies intended to increase and diversify the supply of qualified teaching candidates (Bales, 2006; Hafner & Maxie, 2006; Huang, 2006; White et al., 2020).

Sun and Yincheng (2016) conducted a difference-in-difference analysis of survey data from the Schools and Staffing Surveys and Teacher Follow-Up Surveys from 1993-95 and 2007-09 to further the understanding of school accountability policy and teacher turnover, with a specific eye on how the effects of NCLB differed for teachers in tested subjects and grade levels and how they differed for teachers in disadvantaged schools. The authors found a weak increase in the average rate of teachers being transferred or attrited involuntarily in the early years of the Act's implementation, even in disadvantaged schools, and that NCLB actually increased demand for teachers in tested subjects (Sun & Yincheng, 2016). Additionally, the authors did not find a

significant change in the rate of teachers voluntarily leaving schools or leaving the profession (Sun & Yincheng, 2016). Their macro-level study runs counter to the popular claim that NCLB increased teacher attrition and suggests that individual and organizational engagement with policy change is but one product of the national focus on teacher quality and school accountability.

However, Adoniou (2016) took an international view of school accountability systems and collected data through interviews, classroom observations, field notes, and online surveys to research the ways in which schools operationalized education reform and how reform affects the motivations of beginning teachers to work and remain in the teaching profession. This qualitative study reported on a survey of 14 self-selected beginning teachers carried out within their first 16 months of teaching in an urban school jurisdiction in Australia. Adoniou (2016) found that education reform agendas have resulted in schools “scrambling to meet [school] performance indicators in ways that demonstrated panic rather than intellectual investigation” (p. 91). Further, national reform standards may actually have the effect of pushing new teachers out of the profession if school leadership offers no direction or support in managing their responses to those agendas, and school leaders must be mindful of how their responses to reform agendas are impacting beginning teachers (Adoniou, 2016). While it is not clear whether findings of the study could be replicated in the United States, the findings suggest a powerful warning for state leaders to remember as it thinks about how accountability policy is managed in their own schools.

While Every Student Succeeds Act (ESSA) replaced NCLB to give states greater flexibility in monitoring school accountability, questions around the distribution of teachers remained constant. Sykes and Martin (2019) analyzed a sample of state plans to examine how

states planned to increase access to qualified teachers and find any outliers in the data set. Their study revealed a significant percentage of strategies that were not directly relevant to addressing teacher inequity, and even less of them were appropriately resourced or committed in areas where teacher equity was an issue (Sykes & Martin, 2019). Additionally, in states with highly rated plans, strategies existed to address school conditions while offering examples of targeted strategies to improve teacher inequity in low-performing schools (Sykes & Martin, 2019). However, these plans were met with challenges as they were instituted by state education agencies with limited control over the implementation of such strategies (Sykes & Martin, 2019). Sykes and Martin (2019) pointed to many logistical barriers for states and raised important questions for what improvement strategies states could employ in the current era of ESSA accountability.

Finally, Courtney (2019) contributed to this research to find a relationship between school quality factors and the school improvement designations implemented at the state level under ESSA. The study utilized an inferential statistics model to measure the relationship between teacher-centric school quality factors and school improvement designations under the ESSA accountability system implemented in Kentucky. Courtney (2019) found that schools with the comprehensive support and improvement designation were statistically more likely to have higher teacher turnover rates, higher percentages of new teachers, and employ teachers with lower rates of advanced education prior to their identification under the new accountability system. The findings also suggested greater emphasis on policymaking which elevates teacher recruitment and retention among the state's school improvement priorities (Courtney, 2019). While there is much in the literature as to the response of states and schools in our current era of school accountability, each new reform brings attention to the importance of teacher recruitment

and retention as part of each state's school improvement priorities.

Labor Market Reforms

Additionally, there is literature which highlights state-level reforms to the teacher labor market as a result of laws restricting the strength of public sector unions and education privatization schemes in the last several decades. Some research has shown that school organizational characteristics and working conditions are significant predictors of teacher turnover, exceeding student demographic characteristics, and these issues are especially pronounced in high-poverty schools and subjects like special education (Coulter & Zaleski, 2007; Cowan et al., 2016; Geiger & Pivovarova, 2018; Ingersoll & Tran, 2023). A number of studies help to explain the impact of working conditions on teacher attrition over time.

Murnane and Olsen (1990) developed this understanding by showing how changes in salary have an impact on the length of time teachers stay in the profession (Murnane & Olsen, 1990). They obtained employment information on 13,980 teachers employed in North Carolina elementary schools between 1975 and 1984 and used regression methods to estimate the probability for duration. They found a significant relationship between salary and the duration of employment for beginning teachers, when controlling for district-specific factors such as changes in student enrollment (Murnane & Olsen, 1990). This relationship is more significant depending on high-demand subject areas and the teacher's academic ability (Murnane & Olsen, 1990). The findings inform the understanding that salary increases significantly reduce turnover among beginning teachers, but a uniform salary scale creates difficulties in retaining teachers in fields that are in demand such as chemistry and physics (Murnane & Olsen, 1990). Cowan et al. (2016) come to similar conclusions in their finding that compensation has an impact, but public schools are limited by collective bargaining agreements in their ability to find differential compensation

for high-demand areas and subjects. As such, a more targeted policy approach is needed to address shortages in those areas (Cowan et al., 2016).

Perhaps the rigidity posed by collective bargaining agreements in compensating teachers was one impetus for recent laws limiting the strength of public sector unions, which were most common in the period following the Great Recession of 2007-09, but this is not immediately made clear by the literature. Public schools were given flexibility to reform teacher employment practices with the elimination of collective bargaining laws in many states governed by conservative governors and legislatures, much to the opposition of teachers' unions and public school advocates (Brunner et al., 2019; Marianno, 2015; Roth, 2017). The product of such policies included unilateral changes by states and localities to reform teacher tenure policies, dismissal procedures, and the salary schedule. There is research that suggests the limitations on public sector union organizing and bargaining over working conditions could implicate the democratic purposes of public education and social justice activism and therefore have an impact on the diversity of the teaching force (White et al., 2020). However, the implementation of these reforms has varied widely across states and localities, and there is debate as to whether such reforms have had a significant impact on the labor supply of teachers or school conditions.

Attempting to understand how these state-level policies created flexibility in the laws governing the employment of teachers, Marianno (2015) utilized a self-collected dataset to track legislation relating to teachers' unions and collective bargaining between 2011 and 2013. The study found that while large-scale restrictions on union rights and collective bargaining declined after 2011, more focused legislative proposals addressing the rights of teachers continued (Marianno, 2015). Additionally, while many job protections for teachers were eliminated in the way of tenure and dismissal procedures, teachers experienced a tradeoff with greater

compensation, retirement, and benefit provisions (Marianno, 2015). The findings do challenge existing narratives about the decline of union strength and suggest a nuanced depiction in the passage of union-related legislation (Marianno, 2015). However, the research up to that point in time did not explore how these tradeoffs factor into an active teacher's decision to stay or leave the profession or what the long-term implications of these reforms were.

Roth (2017) worked to fill the gap in the literature by examining the labor supply response of teachers to one of the most significant reforms to union strength following the passage of 2011 Wisconsin Act 10. Utilizing quantitative administrative data obtained from staff files from Wisconsin in the 1995-96 through the 2015-16 school years and employing two value-added measures in reading and mathematics, Roth (2017) plotted the time series of aggregate turnover rates for regular education teachers in Wisconsin public schools and examined the quality of education per grade level. Roth (2017) found that there was a sharp increase in teacher attrition in the year after the Act was passed, driven by the exit of older teachers who retired following the expiration of preexisting union agreements, but there is no evidence whether the teacher turnover caused by Act 10 directly affected schools or student academic performance.

The research by Heneman III et al. (2019) may provide answers for the Wisconsin phenomenon following the Act's passage, focusing their study on reviewing compensation reforms in selected school districts in Wisconsin and the impetus for the changes that were adopted. Their search process was conducted post-Act 10 through 2015 and yielded a total of 25 school districts out of 424 in the state. Document reviews and interviews revealed that districts who took advantage of the reforms were driven to seek compensation changes due to the administrative flexibility granted to them as well as unique financial and talent needs (Heneman III et al., 2019). The authors found that school districts appeared reluctant to pursue wholesale

compensation reform in collective bargaining and non-collective bargaining environments, perhaps because they did not experience the same intensity of need or they determined that compensation reform was not worth pursuing (Heneman III et al., 2019). The fact that school districts did not experience massive teacher turnover as a result of the Act may be for this reason, but the literature calls for careful implementation of compensation changes in the post-reform environment in the event school districts decide to pursue them (Heneman III et al., 2019).

Brunner et al. (2019) further contributed to the research by reviewing the set of reforms implemented in neighboring Michigan, which revised teacher evaluation policies and limited collective bargaining rights. The authors examined 10 years of exit data from teachers in the state, where reforms were introduced midway through the data set, and used a difference-in-difference approach that compared the exit rates of teachers with the exit rates of other staff in the same school districts who were not affected by the policy changes (Brunner et al., 2019). The authors found that teacher attrition overall was largely unaffected by Michigan's reform policies, but interestingly, early-career teachers in hard-to-staff areas were more likely to exit the profession following the passage of those policy changes (Brunner et al., 2019). While this is a recurring phenomenon, the study does not explain whether attrition was made worse due to the reforms or despite them. However, the findings suggest that policymakers seeking similar reforms in other jurisdictions should be careful of how changes to the teacher labor market could affect the supply of teachers in high-demand areas (Brunner et al., 2019). Brunner et al. (2019) advances the understanding of the limited impact these reforms had on teacher attrition, but it is evident that not all reforms can be applied in the same way across all school districts.

While the findings of studies analyzing the impact of union reform are mixed, research has given insight into the specific impacts of job protections that have been limited as a result of

those broader reforms. Tenure as a form of job protection is a benefit offered to public employees and often championed by teachers' unions, so it would be natural to explore this option. Using ten years of teacher panel survey data in Louisiana, Barret et al. (2021) utilized a difference-in-difference model to identify a relationship between teacher exits and the removal of tenure policies without a threat of dismissal. The authors tested the causal effect of tenure by comparing subgroups of teachers who differ in their perception of tenure protections to estimate the effect of tenure protections on teacher exits (Barret et al., 2021). Similar to the Roth (2017) study, the authors found that teacher exits increased after tenure was eliminated, with effects concentrated in groups such as retirement-eligible teachers (Barret et al., 2021). They also found that the increase in teacher attrition can be harmful to teachers who remain in their schools and to students, but could benefit schools if they are given the ability to dismiss less effective teachers, assuming there is a sufficient supply of effective teachers to replace them (Barret et al., 2021). The research does not suggest the long-run impacts of tenure reform on the ability of schools to attract new teachers, but the findings imply that policymakers should be prepared for teacher exits that may result from tenure reform by creating policies that will attract teachers to replace those who leave the profession (Barret et al., 2021).

Local schools have seen a further decentralization of school employment policies with the creation of school choice programs that have seen a dramatic expansion in many states. The topic of school choice has subsequently raised important questions as to their effect on the teaching workforce. Hoxby (2002) utilized survey data from the U.S. Department of Education Schools and Staffing Survey to examine the characteristics of teachers in public and choice schools to examine how schools structure teaching jobs and compensation. The study found that private education providers are given the flexibility to explore incentive-based options for

teachers, especially in metropolitan areas, with the evidence that school choice increases the value families and schools place on teacher effort and effectiveness (Hoxby, 2002). Increases in school choice should ideally raise the competition schools experience to attract new and active teachers, especially in math and science, and to reorganize teaching jobs and compensation to meet this demand (Hoxby, 2002). If competition increases the quality of the teaching force, schools and students should therefore benefit.

By virtue of their ability to provide incentives and opportunity for prospective teachers, it is long held by school choice advocates that choice or charter schools are an example of the perceived benefits of a free labor market. However, the literature also presents common challenges related to program implementation, especially in the heavily-researched charter school sector. Kaimal and Jordan (2016) conducted a mixed methods study in 12 urban charter schools to understand the incentive-based program for school improvement and found that comprehensive, incentive-based models are unviable, confusing in their implementation, and are limited in their effectiveness. Further, their study found that where there was improvement in student achievement as a result of the incentive-based system, achievement was not consistent over time; educators need significant salary increases to truly be incentivized by money and for schools to experience improved rates of retention (Kaimal & Jordan, 2016). Additionally, Jabbar (2018) analyzed qualitative interview data in New Orleans and discovered that the post-Hurricane Katrina deregulatory environment brought on by charter school expansion resulted in increased instability, or “churn” in teacher retention, as well as unpredictability in a bifurcated teaching market separated by race and geography (Jabbar, 2018). For public schools, this means districts experiencing a large charter school presence will realize new hiring challenges and staffing uncertainty as parents and teachers move from school to school (Jabbar, 2018). Despite

enjoying relative flexibility from the constraints of public schools to recruit better teachers, clear challenges hinder the ability of charter schools to retain teachers and merits further discussion about alternative policies that will create stability in the teaching force.

Analysis

The result of these reform policies seems to point to a greater vesting of authority in the oversight of school accountability with the federal government, contrasted by increased control for states and localities as it relates to public sector employment practices. The findings are clearly mixed as to the recruitment and retention of teachers in our current era of school accountability and is especially varied when exploring the topic on a national level or the state level. However, the literature does find agreement in implementing approaches to ensure that schools have access to a stable market of effective teachers to address student needs (Clotfelter et al., 2004). For example, school accountability under ESSA gives states new opportunities to consider teacher recruitment and retention among their school improvement strategies. School context is important in meeting accountability targets and policymakers must consider the strain their responses to reform agendas are placing on new teachers (Adoniou, 2016). Further, the research underscores the importance of increasing the input educator preparation programs have in the policy debate to address the supply of qualified teaching candidates (Bales, 2006; Huang, 2006). Teacher preparation programs could engage the preferences of teaching candidates of color and explore the possibility of innovative programs to attract a diverse pool of candidates into the profession (White et al., 2020). The studies raise important suggestions for what schools could do to address inequities in the distribution of teachers and ensure each new reform is meeting their intended design.

Additionally, the findings of studies analyzing the impact of reforms to public sector

employment are also mixed but appear to suggest that the impact varies greatly by the type of reform and the extent to which the reform was enacted. For example, some states enjoyed certain flexibility in their ability to compensate teachers, much to the agreement of researchers like Cowan et al. (2016), who argued for more freedom in the salary schedule to address hard-to-staff areas and subjects. However, research has shown that school districts, such as those in Wisconsin, were reluctant to do so (Heneman III et al., 2019). There appears to be limited evidence that the flexibilities granted by reforming working conditions have contributed to increased incentives for teachers to work in high-need or hard-to-staff areas, or whether they were intended for such outcomes at all. Researchers may find meaningful context in why some school districts decided to pursue or not pursue reforms like restructures to compensation, tenure, or other working conditions. Additionally, to the extent that certain employment practices brought about by previous union contracts remain in place, further research could uncover whether perceptions of those practices or of union strength in the post-reform environment compared to other schools have helped the recruitment or retention of teachers. Finally, the findings by Kaimal and Jordan (2016) and Jabbar (2018) appropriately detail the practical challenges schools experience in maintaining staff as a result of school choice policies, but the research is limited as to the resource implications of school choice on the ability of schools to attract and retain teachers. The research suggests further study is needed to assist schools with staffing while maintaining true choice for families.

Conclusion

Current research demonstrates that public policy has measurable impacts on the labor supply of teachers, and a careful approach is necessary to ensure schools are staffed with quality teachers to address student needs. While exploratory, this review captures our understanding of

the current teacher market as a consequence of recent education reforms. Despite the extensive research that has been done related to the impact of school accountability and labor market reform policies on the supply of teachers, quality research is still needed to fill in the gaps presented by the literature. Future studies could focus on what strategies states should employ as part of their school improvement priorities to address inequities in the distribution of teachers. Additionally, researchers may be interested to learn what labor market reforms can be employed to create stability in the teaching force. Further study on these topics could greatly inform the field as it seeks ways to improve rates of teacher recruitment and retention.

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