

Solutions for the Teacher Shortage in North Dakota

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Executive Summary

The beginning of this school year has brought into sharp relief a persistent challenge facing the United States: a significant teacher shortage, most critically felt in fields such as special education, career and technical education (CTE), science, and mathematics. In North Dakota, this issue is particularly pronounced, with shortages spanning a wide range of subject areas, leading to an unprecedented declaration of all content areas as critical shortage zones for the 2023-2024 school year. Faced with this crisis, state education bodies, including North Dakota, have initiated various measures to attract and retain teaching talent. These measures include innovative solutions like fast-tracking licensing processes, improving financial incentives such as pay raises and student loan repayment assistance, and even international recruitment efforts.

In an ambitious move, North Dakota has also enabled student teachers to lead classrooms under certain conditions and has utilized COVID relief funds to create pathways for paraprofessionals and substitute teachers to achieve licensure, particularly in high-need areas like special education. The establishment of the Teacher Shortage Taskforce by Governor Burgum marks a significant step toward addressing many of the issues that contribute to our current crisis, from recruitment and preparation to licensure and support.

This policy brief aims to shed light on the teacher shortage in North Dakota, exploring the potential of a variety of solutions. Through a detailed analysis, we seek to understand how these initiatives could alleviate current challenges and what more might be done to ensure the state's educational needs are met. This exploration is intended to inform and encourage dialogue among education stakeholders, contributing to the ongoing effort to resolve the teacher shortage in North Dakota and beyond.

In addressing the teacher shortage crisis in North Dakota, this research has led to the identification of several promising strategies. While there is no single solution to this complex issue, the following recommendations offer potential pathways for improvement.

Key Recommendations

- **Pay and Workplace Improvements:** Although North Dakota Teachers earn slightly below the national average wages, moderate pay increases could make the state more competitive. However, it is not likely to resolve the shortage. Improvements in workplace conditions, such as more autonomy in retirement and insurance choices, could prove to be a more cost-effective strategy in making the profession more attractive, particularly for younger educators.
- **Differentiating Pay:** Given the varying severity of shortages across disciplines, adopting differentiated pay scales could address discipline-specific problems. Special education pay increases may be necessary to mitigate shortage levels due to the challenging workplace environments. Due to other higher-paying employment opportunities, math and science teachers may require additional pay to eliminate shortages. Lastly, high-performing teachers evaluated holistically should have the chance to earn higher wages.
- **Raising Academic and Behavioral Expectations:** Following the COVID-19 Pandemic, there has been a notable decline in academic and behavioral expectations for students. Decades of academic literature shows student outcomes increase when expectations are high. Reversing this trend by setting higher standards could not only improve student outcomes but also enhance teachers' job satisfaction and respect in their roles.
- **Empowering Administrators and Encouraging Feedback:** Administrators should be given greater power to evaluate, and, when necessary, remove underperforming teachers. Removing poor teachers improves educational outcomes and increases the respect of remaining teachers. If administrators were given greater decision-making powers over personnel, they could evaluate the quality of candidates in lieu of licensing laws. This empowerment could facilitate the hiring of professionals with practical experience who are looking for a career change toward teaching.
- **Promote Alternative Forms of Education:** Recognizing the role of private schooling, charter schools, and homeschooling play in diversifying education options, North Dakota could benefit from policies that encourage these alternatives. Over recent years, the growth in enrollment in alternative education forms has not only offered families more choice but also helped alleviate the strain on the public school system. Financial incentives such as vouchers, or creating charters, would reduce shortages in public education and reduce public spending for the state.

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Introduction

This school year began with teacher shortages across the U.S. The areas of greatest need continue to be special education, science, and math (Forsht, 2023). Trends indicate that these shortages will only increase nationally. Previously, the areas of critical need in North Dakota were identified as special education K-12, career and technical education 9-12, fine and performing arts, counselors, and science 9-12 (Kolosky, 2023). As of March 10, the Educational Standards and Practices Board declared all content areas as critical shortage for the 2023-2024 school year (Pitkin, 2023).

In response to this emergency, state education bodies have taken steps to reduce obstacles for individuals to teach in classrooms (Will, 2022). Some actions are seen as necessary or innovative. Others have received criticism for rejecting the value that a fully licensed, experienced, in-person teacher brings to the classroom (Cohen, 2023). Some actions states have taken include fast-tracking licensing (Povich, 2023), raising pay (Gibson, 2023), student loan repayment (DeWitt, 2023), internationally recruiting teachers (Wilburn, 2023), and increasing emergency-licensed teachers (Wisconsin Policy Forum, 2023).

North Dakota now allows student teachers, who meet certain qualifications, to be the teacher of record in a classroom (Huebner & Dahl, 2023). Another recent tool has been to use COVID relief funds for paraprofessional to teacher grants. This provides a pathway for paraprofessionals and substitute teachers to maintain their employment while earning a license in special education (North Dakota Department of Public Instruction, 2019). Most recently, Governor Burgum announced 13 members of the newly created Teacher Shortage Taskforce, created to make recommendations that “increase recruitment to the teaching profession, improve preparation programs as well as review licensure, evaluation, compensation, contracts, working conditions and support” (Teigen, 2023).

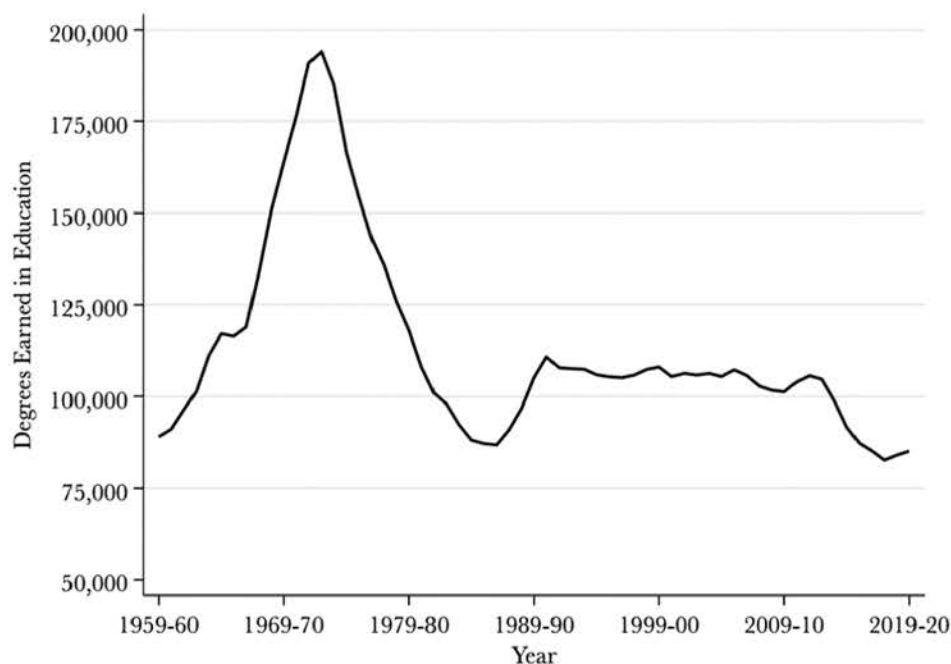
This short paper explores teacher shortages in North Dakota, identifies potential solutions and their likelihood of being successful, and makes recommendations.

Background

Teacher shortages are not a new phenomenon. Following a surge of teaching degrees earned in the early 1970s, the

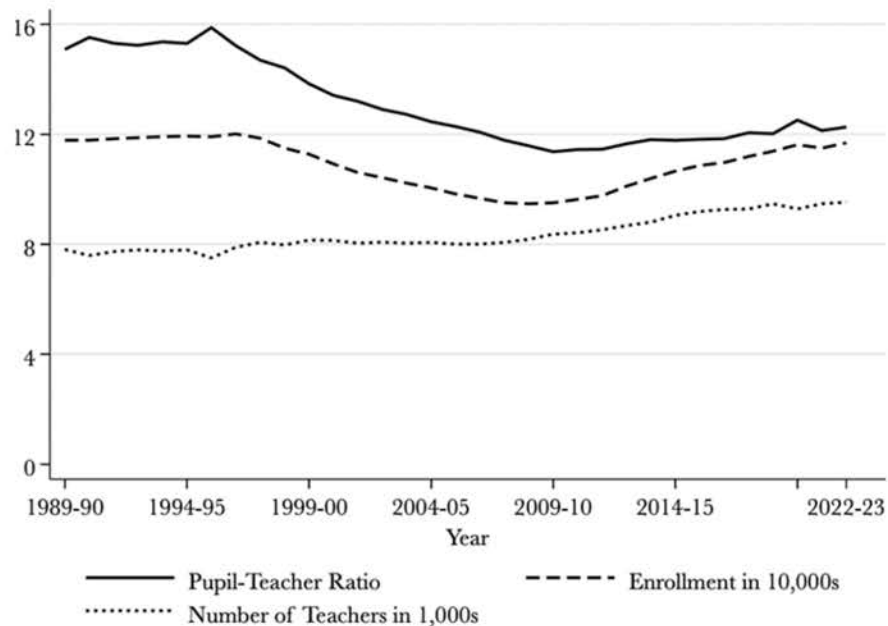
number of degrees awarded fell at its greatest rate through 1987, culminating in a 55.2 percent decrease (Figure 1). Over the next four years, there was a steady increase in teaching degrees earned, followed by a 20-year plateau. From 2012 to 2020, the number of degrees earned decreased by 19.5 percent (National Center for Education Statistics [NCES], n.d.-a). Subsequently, alternative pathways to teaching licensure have increased in popularity and availability (Tournaki, Lyublinskaya, & Carolan, 2009).

Figure 1 : Degrees Earned in Education



One indicator of shortages is the pupil-teacher ratio. This metric divides the number of enrollments by teachers. In North Dakota, it declined from 15.88 teachers per pupil in 1995 to 11.36 in 2009 (Figure 2). It has since increased to 12.26 in 2021 (NCES, n.d.-b). This is the 8th lowest of the United States. This average is 10 fewer students per teacher than California, Arizona, and Utah, raising some doubt about a teacher shortage in North Dakota.

Figure 2 : Number of ND Public School Teachers and Students



Identifying the Issue

So, is there a shortage? Yes. While there may currently be enough graduates from teacher education programs, there are deficiencies in certain subject areas, such as STEM and special education, where the demand far exceeds the supply (Podolsky, Kini, Bishop, & Darling-Hammond, 2016). This mismatch is further complicated by geographical disparities, with rural and urban schools often facing the most significant challenges in recruiting and retaining qualified teachers (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). While the large rural percentage of North Dakota communities leads to low class size averages, it still creates opportunities for shortages in specialized subject areas (Sutcher et al., 2016).

Moreover, while there may be options for dealing with shortages through scheduling, staffing changes, and mergers, these options tend to be very costly for rural communities. Schools typically set a maximum, minimum, and target class size. In the short term, schools may utilize different schedules, portable classrooms, or staffing changes to accommodate fluctuating enrollment. In the long term, school districts change zoning and build new schools to accommodate growth. When districts decrease in size, they close buildings and merge with other schools or move operations (Nitta, Holley, & Wrobel, 2010). These decisions are barriers which prevent rural schools from having optimal classroom sizes. So, rural communities lower the pupil-teacher ratio. This does not mean every classroom in the state only has 12 students, but there are many very small classes.

Inconsistent enrollment poses a problem for rural communities. The variance of class size tends to be greater in small school districts. Unlike a large urban district, in which teacher positions may be moved from one school to another to accommodate changes in enrollment and closely meet target class sizes, rural schools are often forced to run small classes. Consolidation of districts is one solution to reduce inefficiency, but often remains infeasible. Since populations are less dense, transportation costs are higher per student (Alexander, 1990). In considering consolidation, transportation costs may increase, and schedules may need to be adjusted (Nitta et al., 2010). In addition, mergers of smaller districts may require building additional classrooms to accommodate the needs of specialized instruction that were not envisioned when small rural schools were built.

Two other factors which have decreased pupil-teacher ratios are an effort to reduce these numbers to improve educational outcomes and the growth in special education (Hanushek & Rivkin, 1997). While decreased class sizes have greatly increased school expenditures, it is not clear that they are effective in improving student learning. It is worth noting that these decreases in pupil-teacher ratios accompany decreases in the percent of children living with both parents and an increase in the percent of children living in poverty (Hanushek, 1998). Alternatively, decreased class sizes may be offsetting decreased outcomes due to changes in family structure (Kearney, 2023). In the 1980s, it is estimated one-third of the

decline in the pupil-teacher ratio was due to special education (Hanushek & Rivkin, 1997).

North Dakota's teacher shortage is likely to continue. While estimates for student enrollments in the years ahead are mixed, they tend to predict moderate levels of change for education in the United States as a whole (NCES, n.d.-a; NCES, 2023a). From Fall 2011 to Fall 2021, student enrollments increased in North Dakota by 21 percent, more than any other state (NCES, 2023a). It is estimated that from 2021 to 2031, North Dakota enrollments will increase by 6 percent, second only to Idaho (NCES, 2023a). Additionally, according to 2017-2018 data, North Dakota has a high number of young teachers and teachers near retirement (NCES, 2018). There tends to be the highest departures from teaching for younger teachers new to the profession and older teachers retiring (Ingersoll, 2001). Forty-five percent of new teachers leave the profession within the first five years (Ingersoll, Merrill, Stuckey, & Collins, 2018). Thus, retaining younger teachers will be especially important. While future increases in enrollment are less drastic than the growth North Dakota schools have experienced from 2008 to 2021, continued growth and teacher demographics reveal that this teaching shortage is not a short-term problem. Long-term solutions are needed to improve the state of education in North Dakota.

Theory and Proposed Solutions

In theory, higher wages and better working conditions should mitigate labor shortages in the long run. These actions would draw new workers into the profession, reduce attrition, reduce movement of teachers to other states, and increase the retirement age.

Education stakeholders should focus on ways to increase recruitment to the teaching profession. As mentioned, the recruitment of teachers has declined. The reasons could be that expected pay has decreased in relation to professions that require a similar level of education, that the expected working conditions have worsened, or some combination of the two. Indeed, each reform for teacher shortages typically falls under the categories of pay, working conditions, or licensing. Yet, the value of each solution is not uniform among grade levels or disciplines.

Pay

The size of the shortage is the best indicator for whether pay is above or below equilibrium. Whether teachers are paid too much or too little is normative. Whether wages are above or below an equilibrium is objective. If wages are above equilibrium, that is, competitive with jobs that require a similar amount of skill and education, one can expect a surplus of teachers; if below, one can expect a shortage. However, other actions may be more efficient at mitigating these shortages. Efforts to improve the workplace environment may greatly

improve teacher retention and recruitment at a lower cost for districts. The average teacher turnover in the 2001-2002 school year was 9.3 percent. One study found a 10 percent increase in pay would lead to a decrease in this turnover rate to 8.7 percent. Math and science teachers, notable shortage areas of the time, were found to be most sensitive to changes in pay (Hansen, Lien, Cavalluzzo, & Wenger, 2004).

Using median or average pay to determine pay ranking among states has some flaws. If the workforce of a state is younger, those teachers may earn higher wages than in competing states, but they will skew the average and median pay to appear low. This could be true even given the possibility that salary schedules could be more generous at every step and lane. Additionally, the cost of living is different across states. In 2021, North Dakota teachers ranked 32nd in pay among U.S. states. They ranked 28th or 27th, depending on methods, when accounting for cost of living (NCES, 2022c; U.S. Bureau of Economic Analysis, 2023). Given the young teacher demographics of North Dakota, teacher pay is slightly below average.

Not all shortages in education are equal. Typically, special education and social studies teachers agree to the same contract with the same pay even though there is greater demand for special education teachers. The demand for special education teachers began with the passage of the Education for All Handicapped Children Act, or EHA, in 1975. It was changed to the Individuals with Disabilities Education Act,

or IDEA, in 1990 (U.S. Department of Education, 2023). With this act came individualized education plans, or IEPs. These documents specify services to provide enrolled students and development goals (U.S. Department of Education, 2017). Special education class sizes may be much smaller, but teachers also manage cases to ensure IEPs are met and student progress is tracked (Wiener, 2009). While special education enrollments have remained close to 15 percent of total public school enrollments since 2007, the shortage of special education teachers has grown in recent years (NDDPI, 2022; NDDPI, 2023d).

The amount of special education positions unfilled and irregularly filled, meaning filled by provisional, temporary, or emergency license, was 8.3 percent for the 2022-2023 school year. This compares to percentages of 2.8 and 2.7 for social studies education and health or physical education respectively (NDDPI, 2022). This mirrors national trends. In 2021, 41 percent of secondary schools found it very difficult or were not able to fill an opening in special education as opposed to 11 percent in social studies and 12 percent in health or physical education. While the shortage is acute in special education, other states continue to face shortages in all areas. Difficulty filling positions has significantly increased in all disciplines for public schools from the 2011–2012 school year to 2020–2021 school year (NCES, n.d.-d).

Among disciplines, teachers vary in their ability to leave teaching for alternative

employment. Engineering is a high paying profession available to math and science teachers. Research has found that when these types of high-paying positions are available, shortages in math and science are greater (Rumberger, 1987; National Science Board, 1983; Levin, 1985). There is not as clear of a pathway away from teaching for social studies, physical education, language arts, or special education, which may explain why these disciplines are less sensitive to changes in pay.

If North Dakota schools want skilled educators for content areas facing shortages, they should utilize a differential pay scheme much like is used in universities. Judging by the difficulty schools have in filling and retaining various positions, more individuals enjoy and can teach social studies or physical education than special education or math and science. Increased pay for special education, math, science, and other shortage-related areas could alleviate teacher shortages at a lower cost than across the board increases.

In differentiating pay, schools should also consider performance-based rewards. High performing teachers ought to be able to negotiate a higher wage. If teachers' wages were negotiable, principals would have an incentive to evaluate performance in a meaningful way rather than to “check the boxes” of a given framework-tracking software (Scavette, 2017). This alone should not quantify teacher effectiveness. Additionally, student performance alone as a measurement for “merit pay” may decrease

teacher morale and collaboration (Edenfield, 2014; Gragg, 1960). Yet, more attentive observations, measurement of student performance, student reviews, colleague evaluations, or other meaningful metrics should be considered to incentivize high performing teachers to remain in the field and to foster high expectations for their students.

Lastly, two ways to increase the pay of young teachers without increasing expenses would be to provide them with greater autonomy over retirement contributions and insurance plans. While retirement contributions vary from school to school, public school teachers pay high rates compared to private sector employees (Hess, 2023). Paying a large portion of compensation toward retirement is challenging when young teachers are trying to pay off student loans and save for a downpayment. Regarding health insurance, younger individuals are much less expensive but pay into group plans. This leads to agreements in which all employees, regardless of age or cost to insure, pay the same premium for a given plan. While there exist many legal hurdles which would prevent the segmenting of this market, the current system exacerbates the strain on young teachers' incomes.

Working Conditions and Student Performance

The COVID-19 Pandemic negatively impacted student learning, student mental health, and behavior. One study estimates students lost approximately one-third of a

year of learning due to the pandemic (Betthäuser, Bach-Mortensen, & Engzell, 2023). The most recent "Nation's Report Card" of National Assessment of Educational Progress, or NAEP, showed no notable improvement in reading or math scores for any state (Binkley, 2022). According to the Institute of Educational Science's School Pulse Survey of the 2022-2023 school year, COVID-19 has led to increases in student chronic absenteeism, increases in students seeking mental health services, and decreases in student behavioral development and socioemotional development (NCES, 2023b). From the 2009-2010 school year to the 2019-2020 school year, student bullying and student sexual harassment of other students decreased. Yet, student racial/ethnic tensions, cyberbullying, verbal abuse of teachers, widespread disorder in classrooms, and acts of disrespect for teachers other than verbal abuse increased (NCES, 2022a). While some students may treat one another better face-to-face, classroom behavior has worsened. It is likely that this decline in behavior has made teacher retention more difficult.

Poorer working conditions are likely to decrease levels of employment over time. These conditions vary among subjects and grade levels. In seeking to reduce the shortage in special education, administrators should consider providing more prep time for special education teachers, who must complete paperwork in addition to lesson plans. Ingersoll found teacher turnover to be associated with inadequate administrative

support, student discipline problems, limited faculty input into school decision-making, and, to a lesser degree, low salaries (Ingersoll, 2001). High teacher turnover negatively impacts school performance; and poor school performance increases teacher turnover (Ingersoll, 2001). To retain teachers, schools must improve school performance.

Traditional measures may not improve school performance as much as previously thought. One study found no evidence of class size, per-pupil expenditure, teacher certification, and advanced degree attainment correlating with school effectiveness (Dobbie & Fryer, 2013). It did, however, find that five practices prominent in qualitative academic research were effective in improving school performance. They are the provision of frequent teacher feedback, data driven instruction, high-dosage tutoring, increased instructional time, and a relentless focus on academic achievement (Dobbie & Fryer, 2013). Fryer piloted a program for Houston Public Schools implementing these policies, but replacing “frequent teacher feedback” with “more-effective teachers and administrators” by removing ineffective ones. He found increases in math achievement in primary and secondary schools by 0.15 to 0.18 standard deviations per year, but little effect on reading achievement (Fryer, 2014). These methods are not exhaustive for actions schools can take to improve learning outcomes, but we advise schools to raise academic expectations and increase accountability for negative student

behaviors.

In contrast, it is worth noting that during the COVID-19 Pandemic, many schools lowered expectations for students. Many districts stopped tracking attendance, late work policies were relaxed, and students were offered pass/fail grades opposed to traditional grades (Northern & Griffith, 2022). Widespread evidence of cheating brings into question the legitimacy of education at various levels (Ives & Cazan, 2023; Dey, 2021; Hobbs, 2021). Following the pandemic, many schools have found themselves making up for lost instructional time. Each grade has some learning loss unique from those above and below them. Given vertically aligned standards, even the most immediate effects of the COVID-19 Pandemic will impact K-12 education several years into the future.

In response, schools must raise academic expectations for students. In general, over the past two decades, the number of students repeating grades has decreased (NCES, 2021). Additionally, graduation rates have increased (NCES, n.d.-e; NCES, 2022b). With prompting from No Child Left Behind, school graduation rates have increased substantially over the past two decades (Harris, Liu, Barrett, & Li, 2023). Following the pandemic, graduation rates decreased for the first time since No Child Left Behind (Migdon, 2022). The most immediate, least costly way to recover from this drop in graduation rates is for schools to lower academic expectations. Grade inflation, or higher GPAs despite lower standardized test

scores, is one example in which schools seem to be pursuing this illegitimate option (Grose, 2023).

Administration, counselors, and case managers should encourage students to meet high expectations set by teachers. Unless specified by an IEP, we should not look to make exceptions. When less is expected of students, their learning suffers (Smey-Richman, 1989). It is detrimental to the value of education. It is detrimental to students' belief that academic effort will improve their lives. It is detrimental to the value of a high school diploma and its ability to demonstrate student learning (Clark & Mortorell, 2014).

Students need to be given the choice to succeed or fail. It is "persistence in activities that are subjectively threatening but in fact relatively safe" that leads to increased self-efficacy (Bandura, 1977). We are not calling for a removal of supports, but for students to be expected to master a sizable percentage of content and develop necessary skills for workplace readiness. The notion that all students can accomplish certain academic goals is true. The notion that teachers, principals, or counselors can force all students to accomplish certain academic goals is false. All schoolwork success functions as a distribution. There is variance in the degree to which students fulfill learning objectives. Not all students will legitimately fulfill every standard with 100 percent accuracy 100 percent of the time. When this type of unrealistic goal is put in place, teacher self-efficacy suffers. The goal

is continually unmet. There always comes a point when the class must move on. Instead, we ought to provide students with opportunities, encouragement, and a sense of agency in what they achieve. It is in students' best interest to be forced to take ownership of their learning and success.

Licensing

Neither teaching licensure nor the level of education attained by a teacher have been found to significantly increase student outcomes (Dobbie & Fryer, 2013; Tournaki et al., 2009). Yet, North Dakota ought to value placing those who are best at teaching in classrooms. In some cases, that may be a student teacher ready to prove themselves. In other cases, that student teacher may need a full semester to learn under a cooperating teacher. To distinguish between these candidates, principals need to be given greater autonomy in personnel decisions. Fryer showed significant school improvement by removing low performing administration and teachers (Fryer, 2014). By allowing performance-based removal, principals have an incentive to observe and evaluate teachers. Frequent feedback is something that current teaching schedules often neglect. Teachers do not need to be micromanaged with frameworks, but their performance increases from frequent feedback, formal or informal (Dobbie & Fryer, 2013). This does not need to be from administration. Fellow teachers or instructional coaches can provide this service, but it requires coordination efforts from teachers who have little margin in their

work day. Feedback should be prioritized and planned for all teachers.

Licensing laws often have the stated intent of professionalizing industries, raising standards, and protecting consumers. Yet, economic literature has found that licensing laws decrease competition and increase profits for existing firms or wages for existing professions (Goldstein, 2012; McLaughlin, Mitchell, & Philpot, 2017; Plesca, 2015). Typically, unions favor licensing laws to increase members' wages and job security. Yet, teacher shortages create a negative externality. If behavior or learning worsens for students in one classroom, it negatively impacts other teachers. Further, more tasks may be assigned to teachers in a shortage. As a result, some unions are trying to reduce the barriers of licensing (Thirteen PBS, 2023).

The number of irregular licenses has greatly increased in North Dakota in recent years (NDDPI, 2022). While this solution has helped in the short term, North Dakota should consider content tests or on-the-job evaluation to offer full licensing to non-licensed and emergency-licensed staff. As previously mentioned, North Dakota has a low percentage of middle-aged teachers. With increases in CTE courses and a severe shortage in special education, we should consider streamlining licensing to professionals with experience who are looking for a career change into teaching. Schools would benefit from fresh perspectives on education while meeting personnel needs. Additionally, schools

should consider rewarding relevant experience by using those years of experience toward salary steps. This would allow greater feasibility for those transitioning careers toward teaching.

Other Considerations

North Dakota is one of only five states in which charter schools are not legal (Wilkins, 2020). While charter school performance has been mixed prior to the COVID-19 Pandemic, recent reports show that they not only outperform traditional public schools but are more successful at closing achievement gaps (Raymond, Woodworth, Fy Lee, & Bachofer, 2023). Additionally, they achieve this while spending an average of 29.5 percent less per student (Wolf, 2023). There is evidence that charter schools create a positive externality for traditional public school personnel. Charters tend to have the highest turnover in lowest and highest performing teachers. High performers typically leave for traditional public school positions (Bruhn, Imberman, & Winters, 2022). If charters were present in North Dakota, those schools would be first to deal with shortage issues.

Figure 3: Public School Enrollments As A Percentage of Total Enrollments



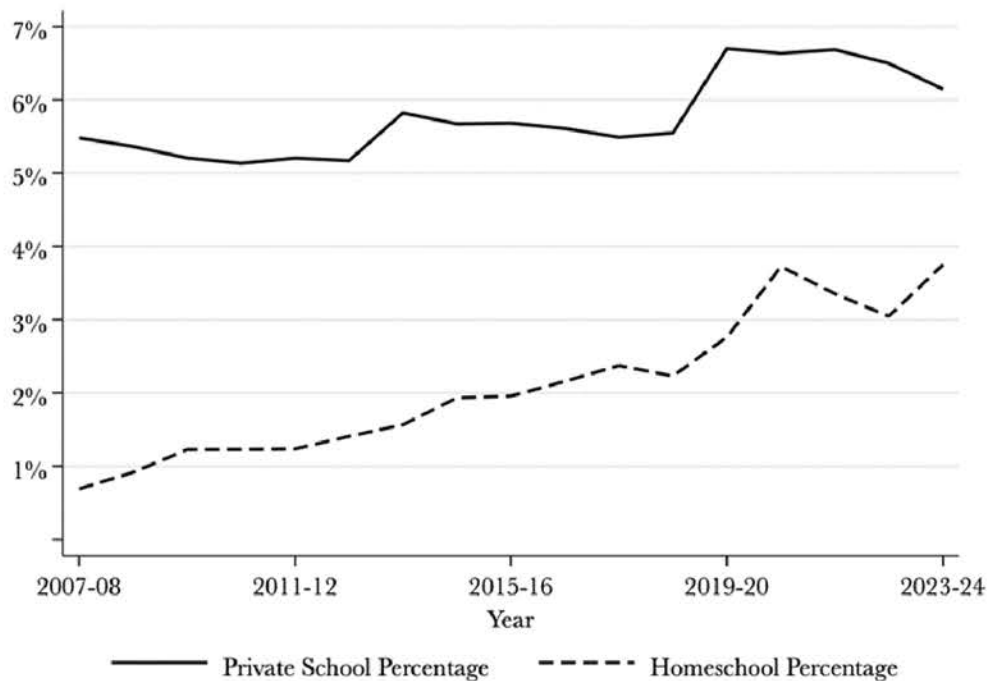
As shown in Figure 3, public school enrollments have decreased as a percentage of total enrollments (NDDPI, 2023c). Continued increases in private school education and a recent rapid rise in homeschooling account for this change in schooling choices, as shown in Figure 4. The recent rise in homeschooling echoes a national trend as many families began homeschooling following concerns regarding the quality of education administered over distanced learning and pandemic-related policies (Fleck, 2022; Jamison, Meckler, Gordy, Morse, & Alcantara, 2023; Newberry, 2022). While there may be selection bias due to requirements for homeschoolers to score above 50 percent on standardized testing, homeschooled students tend to perform as well or better than traditionally schooled peers (NDDPI, Home Education; Ray, 2004; Rudner, 1999; Snyder, 2013). Although these students currently only make up 3.75 percent of enrollments in North Dakota, increases in this population, and the private school population, lessened the strain on our public school workforce. Since 2007, 30 percent of the growth in ND enrollments has been made up of homeschool and private school students (NDDPI, 2023a; NDDPI, 2023b).

While convincing evidence regarding the performance of charter schools and homeschooling has been recent, private schools have a long history of consistently high learning outcomes. Research is mixed regarding the extent to which parental education and income influence the difference in private versus public education (Coleman, Hoffer, & Kilgore, 1982; Pianta & Ansari,

2018). Yet, private school students of both 4th and 8th grade have never performed lower than their public school counterparts on math or reading NAEP scores (National Assessment of Educational Progress, 2023).

Even if North Dakota were to offer modest vouchers for curriculum purchases, this could make homeschooling or private schooling more feasible for families and alleviate fiscal and staffing issues in public schools. There are currently 12,718 students enrolled in homeschooling and private schools in North Dakota. Given \$13,589 is spent per student in public education, these students reduce state and local expenditures by \$172.8 million per year (NDDPI, North Dakota STARS Reporting and Analytics Portal; NDDPI, 2023a; NDDPI, 2023b).

Figure 4: Homeschool and Private School Enrollments As A Percentage of Total Enrollments



North Dakota should remove or consolidate distanced instruction. Enrollments are particularly low at ND virtual academies. Only 448 students are enrolled this year (NDDPI, 2023c). These academies average 7 students per grade. If one academy served the entire state, it would both decrease cost per student and allow for greater accountability than in small virtual institutions.

Conclusion

While concern has arisen for a teacher shortage across disciplines, we see it is greatest at the high school level and in the areas of special education, CTE, science, and mathematics.

Grants for paraprofessional to teacher pipeline and usage of emergency licensing have helped North Dakota combat this teacher shortage thus far. Yet, we have several proposals for education reform intended to provide lasting solutions. North Dakota teachers earn slightly below average wages even when accounting for the cost of living. While increasing wages does not improve teacher performance, it may help in attracting and retaining skilled educators, particularly in shortage-related areas. We recommend school districts develop differential pricing models to allocate resources to areas of greatest need. Workplace improvements, such as increased prep time for special education, may be more efficient at reducing shortages than increase in pay alone. Expectations in education fell during the COVID-19 Pandemic and it is in the best interest of teachers and students to raise academic expectations and behavioral accountability. Barriers put in place by licensing laws could be reduced if administration were given greater incentives through greater personnel decision-making to evaluate teachers and provide feedback. Charter schools, private schools, and homeschooling may improve student learning outcomes and ease some of the burden of teacher shortages on

traditional public schools. Modest stipends may encourage more families to pursue non-public education which would reduce the burden on our public school teaching workforce in the years ahead.

From a myriad of potential reforms, the recommendations in this paper have been selected for their effectiveness and relevance to North Dakota following the COVID-19 Pandemic. Looking ahead, the success of the Teacher Taskforce, announced by Governor Burgum, will depend on its ability to target specific issues with solutions supported by research. North Dakota is home to many who are grateful for the opportunities they could pursue due to a supportive educational system. The current generation of students continues to deal with the repercussions of a global pandemic. Let us provide them with an opportunity to succeed, despite these challenges, with solutions that most effectively promote a meaningful and rigorous learning environment.

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