

An Economic Analysis of HB18-1130

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Under consideration this session is HB18-1130, which seeks to allow unlicensed persons to teach in schools that have been unable to fill teacher positions. Eligible candidates must become “district-authorized” teachers. Candidates must meet the standards established by the school district board of education in the grade and subject they are to teach. Candidates must have a bachelor’s degree in the subject they are to teach and can only hold the position for up to five years. The district-authorized instructors may not replace licensed teachers.

The rationale for this bill states that education should be equally accessible to students statewide. There is a “shortage” of licensed teachers in Colorado, and especially in rural communities. Many communities also have qualified professionals who would be interested in teaching and should be allowed to fill vacant positions.

HB18-1130 may be the best solution to the state-proclaimed “teacher shortage.” This analysis will present discussions on four topics related to the bill. (1) A clarification of the term “shortage.” (2) Possible benefits of the bill. (3) Possible negative impacts of the bill and amendments to mediate these problems. (4) A brief discussion of the ideal solution to the problem HB18-1130 is trying to solve.

To begin, the word “shortage” is misused in the context of this bill. A shortage implies the state desires more people to work as teachers for the same low salary. Currently in Colorado, teacher wages are lower than other careers that require a college degree. The pay is not competitive compared to lucrative jobs in technology, law, medicine, and other industries.

For example, an entry level attorney in Denver makes a median salary of \$67,000 and \$110,000 as they gain experience (PayScale). A mechanical engineer makes \$63,000 and eventually \$96,000 (PayScale). The starting teacher salary in Denver is only \$51,000 (CDE 2017). Additionally, 95% of teacher salaries in rural districts are below a level that is consistent

with the cost of living (Dallman 2017). These discrepancies in salary help explain why Colorado has trouble recruiting enough teachers to fill vacant positions.

Wages available to teachers are low and qualified teachers will not work for so little. By the laws of supply and demand in a labor market, low wages result in a low quantity of workers. There is no “teacher shortage,” only low wages with little incentive to teach.

If Colorado will not consider fixing the problem by raising teachers’ salaries, HB18-1130 may be a good solution. The reality is that the state wants more teachers but does not want to increase teacher salaries. The alternative offered by this bill is to hire lower quality teachers who will work for the lower rate. This bill is not the ideal solution to the goal of improving public education, but compelling evidence against the idea is inconclusive.

HB18-1130 may help to fill these vacant teaching positions in public school districts. Especially in urban areas where people are more likely to have a college degree (Soergel 2016), schools may be able to recruit unlicensed teachers. Programs like Teach For America (“TFA”), for example, demonstrate that high-achieving students from top colleges have an interest in teaching in public schools. In 2009, a record 46,359 people applied to the program (Winerip 2010), and about 30% of TFA recruits are professionals who have worked in industry (Rudolph 2017). This organization’s recruitment success shows the large number of people who might consider teaching as a profession.

Currently, the labor market for teachers is at an equilibrium of low wages and a resulting low quantity of employees. If HB18-1130 is passed, the supply curve of the teacher labor market will shift right as a result of an influx of district-authorized teaching candidates. This will yield a new equilibrium at a lower average wage and larger quantity of teachers.

While HB18-1130 presents a possible solution to fill teacher positions in Colorado, it requires a number of amendments to be more effective. One major flaw of the bill is that it perpetuates inequality in public education. Since 33.7% of public school funding in Colorado is from property taxes (CDE 2017), poorer neighborhoods with underfunded schools are likely recipients of district-authorized teachers.

The bill may also have negative consequences from a child developmental psychology perspective. Children who come from impoverished households are more susceptible to inexperienced teaching methods. This is the result of developmental challenges due to underprivileged upbringings (Pagliarini 2011). Educator programs feature courses on developmental and educational psychology. To introduce untrained teachers to students with vulnerable predispositions may perpetuate the cycle of developmental challenges in individuals.

One amendment to HB18-1130 is to require district-authorized teachers to take a training course before their employment as a teacher. This would better prepare teachers to take necessary actions to protect students and ensure strong cognitive development. While the extent of the risks associated with developmental psychology are unknown, this amendment would provide novice teachers with information on the behavior of their students.

Another beneficial amendment would be to require teachers to undergo a “student teaching” period in which they teach alongside a veteran teacher. Research shows that teachers with three years or less of experience perform slightly worse than experienced teachers (Gates Foundation 2012). Teachers who are supported by trained mentors also demonstrate higher student achievement once they’ve taught for three years (Schmidt 2017). By exposing new teachers to methods of experienced teachers, the new district-authorized teachers will have guidance and mentorship before leading a classroom.

HB18-1130 is also flawed in that it fails to address fields where teachers are most needed. STEM (Science Technology Engineering and Math) and Special Education teachers are in the highest demand (Dallman 2017). This bill, however, requires that district-authorized teachers must have a bachelor's degree in the subject they are to teach. This excludes engineers and related technical degree-holders from teaching as they do not have degrees in "Chemistry" or "Math", though their knowledge of these fields may be sufficient to teach at a secondary education level. An amendment to allow individuals who demonstrate proficiency in subject areas they are to teach would open eligibility to more competent people.

Another issue with HB18-1130 is how it introduces a cycle of teacher-turnover. The bill allows district-authorized teachers to teach for a maximum of five years before introducing a new, novice teacher. Teachers commonly play an important role in establishing and sustaining the culture of a school. They play a role in teaching students "cultural information and knowledge" and acting as facilitators for students' developing "social interactions and competencies" (Kindermann 2011).

This cap on employment forces districts to let go of teachers with five years of experience, in exchange for a teacher with zero. A study of five school districts in Texas found that the total cost of one teacher leaving is at least \$13,650 (Cost of Teacher Turnover 2007). By amending the five-year clause, this cost can be avoided as retaining teachers past five years will save districts money. To compliment this suggestion, a teacher who wishes to remain past five years may be required to earn some sort of teaching certification. Training requirements for teachers are a lesser barrier to employment if a teacher is committed to teaching past five years.

This final discussion considers the true nature of the problem HB18-1130 attempts to address. Government has a stake in public education because of the positive externalities

produced by successful educational institutions (Muennig 2007). In order to ensure that government investments in public education are efficient, minimum qualifications for teaching positions must be set in the form of teacher's training and licensure programs. The downside of this effort is what is being seen presently in Colorado: required teacher qualifications reduce the labor supply of teachers.

If the state wants to increase the quantity of trained teachers in its school districts, it must raise teacher salaries. This would incentivize people to go through traditional educator programs and enter a market where teachers can make a salary competitive with other industries.

To achieve the goal of raising teacher salaries, the state should remove barriers to increasing public education funding. Mill levy caps prevent communities from voting to increase district funding. The Gallagher Amendment also limits revenue schools can collect through property taxes. Schools receive 33.72% of their funding from property taxes (CDE 2017) and this amendment makes it impossible to raise these taxes.

On the contrary, this bill seeks to avoid raising teacher wages and will lower the standard for teachers in Colorado. This may, however, suggest that basic standards for teachers are too high. Increased efficiency of the system may be effectively obtained through lowering the basic qualifications of teachers, as present research fails to conclusively show superior performance of trained teachers.

Passage of HB18-1130 is recommended if the state is not going to raise teacher salaries. There are a lot of risks in putting inexperienced teachers in challenging environments, though data does not conclusively state the extent of the effect of novice teachers on a child's cognitive development. By amending the bill with the suggested amendments, HB18-1130 is a relatively good alternative to empty classrooms.

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