

TEACHER QUALITY

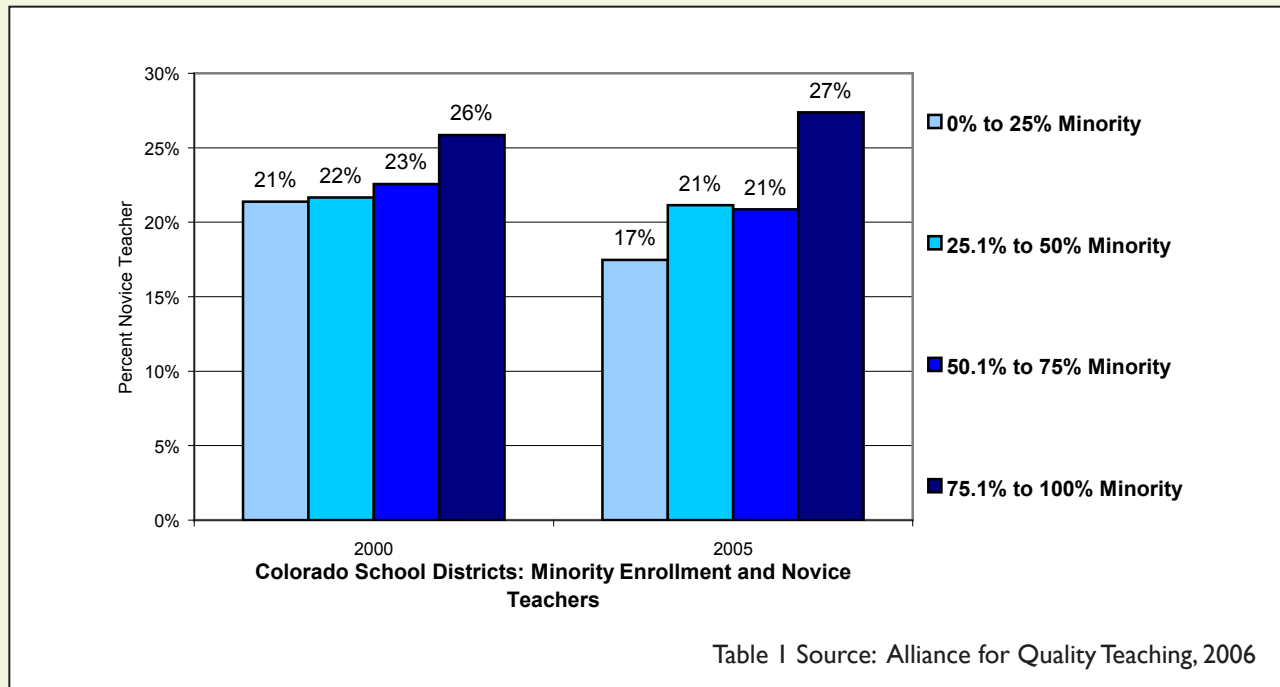
THE CHALLENGE:

Teacher quality is the strongest system based contributor to student achievement. Importantly, our knowledge is limited about what works to improve teacher quality. A teacher's ability to improve student achievement is related to characteristics such as their experience, ability, pedagogical training, and content knowledge -- particularly in science, technology, engineering and math (STEM). All these factors together make up less than 15 percent of the difference in student achievement between high- and low-performing teachers.

KEY TEACHER QUALITY ISSUES

Teacher Shortages: Colorado specific data on teacher shortages are limited. Best estimates indicate that Colorado does not currently face an overall teacher shortage and should not due to the retirement of the baby boomer generation of teachers. Teacher shortages in Colorado (like most of the country) are place and subject specific. Schools facing shortages are typically found in rural and inner city areas. Subjects that traditionally face shortages are: speech language pathologists, special education, STEM, ESL, and foreign/world languages. There are potential shortages in reading and English language arts due to increased expectations for achievement and college entrance.

Teacher Gap: In Colorado, poor and minority (K-12) students are more likely to be assigned inexperienced and minimally educated teachers. As the proportion of minority students in schools increases, the proportion of novice teachers (less than 3 years experience) also increases.



The teacher gap does not exist in all districts; however those districts where minority students are more likely to be taught by inexperienced teachers also, on average, have larger differences in math performance between minority and white students, i.e., a larger achievement gap.

K-12 Teacher Preparation: In Colorado, there are traditional teacher preparation programs in colleges and universities and alternative teacher preparation programs. In alternative preparation programs, often run by districts, teachers learn on the job. Alternative programs are not under the control of colleges and universities.

- Districts and schools have no formal mechanism to give feedback to traditional teacher preparation institutions (colleges and universities) on what is working or things that need to change.
- About half of Colorado's teachers are trained in other states without any evaluation of whether this is good or bad for teacher quality. It is fairly easy for a teacher trained in another state to become licensed to teach in Colorado.
- Alternative teacher preparation has changed the teacher preparation landscape.
 - Colleges and universities no longer have a monopoly on teacher preparation.
 - About a third of first year teachers are in alternative programs.
 - Teachers bear the main cost of their own preparation. Alternative preparation increases the role of districts in funding preparation and decreases the state's role. Traditional teacher preparation is supported by the state through COF.
- The nature of the teacher workforce is changing.
 - Many younger teachers do not view teaching as a life-time career.
 - Many people enter teaching later in life as a second or third career (a quarter of Colorado's first year teachers were 40 or older in 2005).
- Teacher preparation has been subject to nearly constant reform over the past 10-15 years with no evaluation of whether these efforts have improved teacher quality.



Pre-school teachers: Pre-school teacher quality efforts face two major challenges: funding and jurisdictional. Teachers pay (and pensions—or lack there of) as well as preparation requirements depend on where a person works, e.g. in licensed day care compared to pre-kindergarten program in a public school district. Funding issues have led to generally low pay which is related to high levels of turnover and incentives for pre-school teachers to move into higher grades.

Policy Tools for Teacher Quality: The State

State level Policy Teacher Quality Policy Tools

Colorado has several available policy tools with which it can improve teacher quality.

- Through licensure, the state sets minimum standards on what teachers should know and be able to do (particularly at the K-12 level) when they enter the field and what they need to do to be re-certified. Through this system, the state controls which institutions can prepare teachers.
- Through a combination of licensure, accreditation, and NCLB the state sets minimum standards for what K-12 teachers need to know to teach a given class (particularly in core subjects). NCLB has raised particularly challenging issues for special education and middle school teachers in the core subjects.
- The state has primary jurisdiction over the K-12 teacher pension system. Our current defined benefit pension system may not serve the needs of newer teachers who expect to have multiple careers over a lifetime
- The state has a primary role in producing teacher quality data. Only the state can produce data that allow districts and schools to see “how they are doing” relative to the rest of the state. The state is moving towards providing value-added data that will help districts see how they are doing relative to student achievement in grades 3-11. Other states are also collecting data on other issues such as working conditions, hiring and movement of teachers, and shortage areas.

Because the state has such a huge financial contribution to education, the state can use these resources as an incentive to improve teacher quality.

- Colorado (like all other states) has been unsuccessful in providing incentives to change K-12 teacher pay systems: however, several Colorado districts are national leaders in innovative teacher pay systems.
- Colorado (like other states) has also provided incentives (such as loan forgiveness) to teachers in shortage areas to limited or mix success. Research suggests it takes approximately \$10,000 a year to induce teachers to work in challenging schools.
- Historically, since federal resources (e.g., NSF or US Department of Education) are used to support large teacher training initiatives (e.g., professional development) the state and local education administrations face challenges in sustaining these initiatives.



Policy Tools for Teacher Quality: The District

Districts have control over many of the key aspects of teacher quality. Districts can prepare (through alternative preparation programs), and do hire, place, train, evaluate, pay, and fire teachers. Districts also control teacher quality enablers: curriculum, allocation of time to subjects, assignment of teachers to schools and subjects, and feedback systems to help teachers improve their work.

Issues to Consider

Licensure

Should Colorado adjust the licensure system in response to specific problems, such as:

- Middle grades where students begin dropping out or distancing themselves from active learning and there are NCLB requirements that secondary teachers be content certified.
- Increased numbers of ESL students.
- Aligning re-certification credits with school improvement efforts.

Should the state do away with K-12 teacher licensure? As the education system moves to holding schools accountable for their outputs (test scores and graduation rates), do we need to continue to control inputs like teacher licensure.

Should the state expand and standardize licensure requirements for pre-school teachers?

Preparation

Should Colorado create a mechanism to provide feedback to teacher preparation institutions on satisfaction with teacher preparation by districts?

Should Colorado investigate new methods of financing alternative teacher preparation to increase the capacity of districts to prepare their own teachers?

Pensions

Should Colorado revisit its pension system by increasing the defined contribution options for teachers to make it more friendly to those who do not plan on teaching for the rest of their life?

Should the system be expanded to include community-based pre-school teachers and/or college instructors?

Resources

Should Colorado direct money towards specific shortages either in the form of increased incentives for individuals (such as loan forgiveness for ESL teachers, or bonuses for STEM teachers) or to build training capacity (such as math training in rural areas)?

Should the state expand its funding of pre-school programs?

Data and information

Should the state take a lead role in disseminating data and information on successful policies and practices in districts such as working conditions, alternative compensation systems, effective preparation systems, supporting high levels of achievement or college going rates, and/or closing the teacher gap.



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