

# Nebraska**MATH**

February 2010 Newsletter – All Rights Reserved

---

## Platte Institute study advocates charter schools; NebraskaMATH responds

Recently, the Omaha World-Herald ran an article revealing the results of a study on education in Nebraska, which was conducted by an organization wishing to promote the development of Nebraska state legislation supporting charter schools. In an effort to keep Nebraska educators informed, NebraskaMATH personnel have chosen to discuss some of the issues raised by the article.

### *What is a Charter School?*

The Web site for the national organization *U.S. Charter Schools* (located at <http://www.uscharterschools.org>) offers the following definition:

A charter school is a public school that operates independently of the local school board, with freedom from many of the regulations that apply to traditional public schools. The term “charter” is essentially synonymous with the term “contract,” a document which details the school’s mission, program, goals and means for measuring success.

According to the Web site, “charter schools are accountable to their sponsor – usually a state or local school board – to produce positive academic results and adhere to the charter contract. The basic concept of charter schools is that they exercise increased autonomy in return for this accountability.”

According to the first-year report of the National Study of Charter Schools (<http://www2.ed.gov/pubs/charter/index.html>), the three reasons most often cited to create a charter school are to:

- Realize an educational vision
- Gain autonomy
- Serve a special population

Minnesota was the first state to adopt charter school legislation in 1991. Although 40 states, the District of Columbia and Puerto Rico now have legislation supporting charter schools, Nebraska does not.

### *Charter school pros and cons*

According to the Education Commission of the States (ECS), there are both positive and negative aspects of supporting charter school legislation. An article posted on their Web site (available at <http://www.ecs.org/html/issuesection.asp?issueid=20&s=pros+%26+cons>) states the following:

According to proponents:

- Charter schools present students and parents with an increasingly diverse array of education options.
- The competition provided by charter schools forces school districts to improve the performance of their schools in order to attract and retain students and dollars.
- If managed properly, charter schools serve as laboratories for education experimentation and innovation. The easing of certain regulations can free teachers and administrators to develop and implement new learning strategies.
- Increased accountability for charter schools means that schools have to perform or risk closure. This extra incentive demands results.

Opponents of the charter school movement indicate:

- Because charter schools operate as a business, as well as a learning institution, they are subject to market forces that may eventually force them to close, depriving students of a continuous education.
- Charter schools sometimes segregate students along racial and class lines and fail to adequately serve students with disabilities or limited English proficiency.
- Accountability for student performance is difficult to measure and enforce in the burgeoning charter school movement. The usual complications of accurate student measurement are compounded by the often-conflicting demands of the state government's need for accountability and the marketplace's desire for opportunity.
- The emergence of education management organizations as proprietors of charter schools creates "pseudo-school districts" in which decisions are made far removed from the school.
- Some studies have shown that there is a high turnover rate for teachers in Charter schools (see Miron and Applegate in the 2007, "Teacher Attrition in Charter Schools") indicating that about 40 percent of newer charter school teachers leave for other jobs.

### ***Platte Institute study pushes for charter schools***

In January, the Platte Institute for Economic Research released a study promoting the need for charter schools in Nebraska. The institute commissioned the conservative, charter-school proponent Pacific Research Institute in Sacramento, Calif., to conduct this study, entitled "Race to the Top: Can We Compete, Nebraska's Charter School Initiative."

The 52-page report criticizes Nebraska's public education system, and study author Vicki Murray, associate director of education studies at Pacific Research Institute, said the state's public schools are "not serving anyone particularly well."

The study claims charter schools can provide quality education at lower cost because of reduced bureaucracy.

John McCollister, the Platte Institute's executive director, told the Omaha World-Herald he hopes the study will cause state lawmakers to pass charter school legislation. The study believes that the Obama administration favors charter schools, and thus, Nebraska will be at a competitive disadvantage for federal grants.

Murray wrote in the study that in Phoenix, competition between charter schools and public schools for students boosted achievement in surrounding public schools. Murray estimated that no-frills charter schools could operate in Nebraska for about \$5,800 a year per student, while public schools cost more than \$9,500.

To read and download the full study, visit the following link:

<http://www.platteinstitute.org/publications/time-is-now-for-charter-schools-in-nebraska>

***The state of education in Nebraska: Excerpts from the Platte Institute’s report***

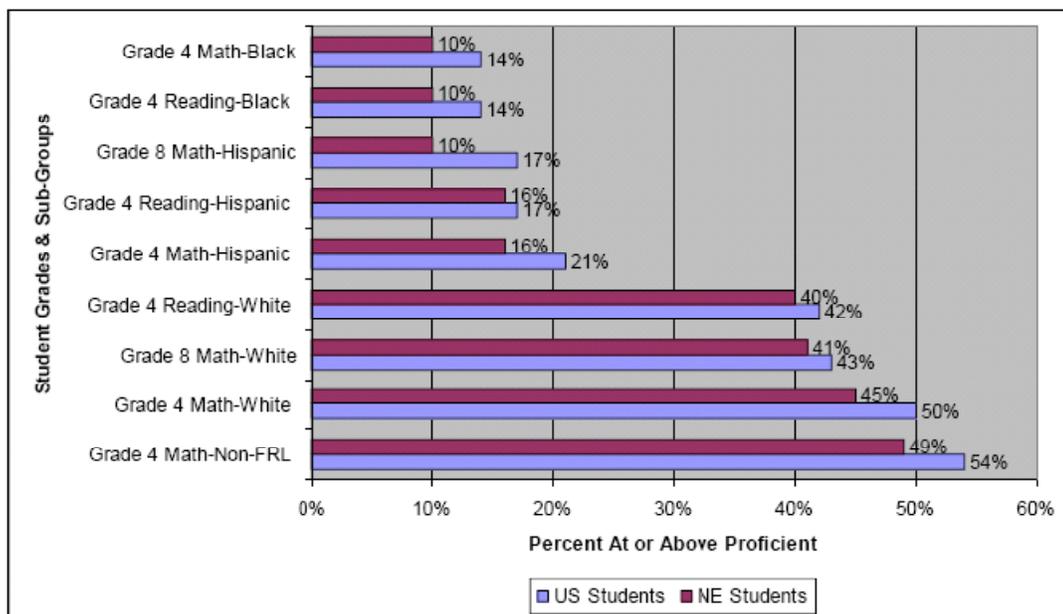
*National Assessment of Educational Progress (NAEP).*

Also known as the Nation’s Report Card, NAEP is the only nationally representative, ongoing assessment of American students’ knowledge and skills in various grade-level subject areas. NAEP assessments are administered uniformly nationwide, and therefore the results serve as a common measure for all states. Thus, unlike STARS, which assesses Nebraska students’ grade-level proficiency against state-specific academic content standards, NAEP measures students’ grade-level proficiency against a common set of content standards for all American students?

At first glance, overall average NAEP fourth and eighth grade math and reading scores seem to indicate that Nebraska students are outperforming their U.S. peers, with more than one-third of fourth and eighth graders (35 percent) achieving proficiency in reading compared to around 30 percent of their peers nationwide. Likewise, more than one-third of Nebraska eighth graders achieve proficiency in math (35 percent) compared to one-third of their peers nationwide. Meanwhile, nearly 40 percent of Nebraska and U.S. fourth graders achieve proficiency in math (38 percent each).

A closer look at several major socio-economic sub-groups reveals that fewer Nebraska students are actually proficient in those subjects than their peers across the country.

**Figure 11: NAEP Reading and Math Proficiency: Nebraska and U.S. Public School Student Sub-Groups Compared**



Source: Author's figure based on U.S. Department of Education NAEP data.

Notes:

1. Figures represent percentages of students scoring at or above proficient.
2. NAEP reading results are from 2007. NAEP math results are from 2009.
3. Non-FRL stands for students who are not free-and reduced-lunch eligible (not low-income students).

Black fourth graders in Nebraska are the most disadvantaged when it comes to reading and math, with only one in 10 achieving proficiency. Black Nebraska fourth graders do only slightly better in reading than fourth grade English learners, 10 percent proficient compared to 9 percent of Nebraska English learners. Nebraska Hispanic students, who are not designated English learners, do only slightly better than their Black peers. Poor proficiency rates, however, are not limited to minority students since a majority of Nebraska's White and non-poor students are not proficient in reading or math, either.

### ***NebraskaMATH's response***

Whether one believes charter schools can or cannot improve student achievement in Nebraska, we do agree that action is needed to raise the levels of student achievement across the state. We are working to support teachers, schools and districts who share this belief.

NebraskaMATH personnel believe the best way to improve student achievement in a school, whether public, private or charter, is to provide the right kind of support for teachers. In short, good teaching matters. Consider the following quotes from research in mathematics education:

- Quantitative studies have found that the effect size of good teaching is greater than **any** other educational variable, including students' socioeconomic status (e.g., Wenglinsky, 2002)
- Teachers are crucial to students' opportunities to learn mathematics, and substantial differences in the mathematics achievement of students are attributable to differences among teachers (National Mathematics Advisory Panel Report, 2008)
- Students who have several effective teachers in a row make dramatic gains in achievement, while those who have even two ineffective teachers in a row lose significant ground, which they may never recover. Indeed, students who achieve at similar levels in the third grade may be separated by as many as 50 percentile points three years later, depending on the quality of the teachers to whom they were assigned (Haycock, 1998).

The challenge here is to determine what support is needed for teachers to ensure that all of Nebraska's teachers are "good teachers" of mathematics. This is a complicated task.

According to the National Math Advisory Panel, commissioned in 2008, "Mathematics teaching is an extraordinarily complex activity involving interactions among teachers, students, and the mathematics to be learned in real classrooms."

Well-known researchers of mathematics education have been studying the types of mathematical knowledge needed to be effective instructors of mathematics. This knowledge differs from that of the mathematician or other users of mathematics in that it requires the teacher to figure out student errors and misconceptions.

According to Stylianides & Ball (2008), *mathematical knowledge for teaching* "is the particular form of mathematical knowledge that is useful for, and usable in, the work that teachers do as they teach mathematics to their students." Furthermore, teachers with greater *mathematical knowledge for teaching*

are better able to listen to student reasoning and to help students build conceptual understanding of mathematical concepts (e.g., Ball, Thames, & Phelps, 2008).

Thus it is the belief of NebraskaMATH personnel that the most efficient way to increase student mathematics achievement is to invest in the education of mathematics teachers, focusing on building practicing teachers' *mathematical knowledge for teaching*.

As a result, we have made high quality professional development courses readily accessible to Nebraska teachers through the NMSSI program. Please visit our Web site at [scimath.unl.edu/nmssi](http://scimath.unl.edu/nmssi) for more information.

-- *Article property of UNL Center for Science, Mathematics & Computer Education*