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CHARTER SCHOOL ACHIEVEMENT ON THE 2003 NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

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on the
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Executive Summary

The 2003 administration of the National Assessment of Educational Progress (NAEP) in math and reading in grades 4 and 8 represented the first time that a nationally representative sample of charter schools (grade 4) was included in NAEP. This initiative was the result of a May 2002 resolution by the National Assessment Governing Board (NAGB) and also involved administering a special Charter School Survey Questionnaire to the national sample of charter schools in 2003 NAEP. As NAGB's then executive director noted, "Charter schools were an important public policy issue on which NAEP could provide important information."[1] Indeed, the No Child Left Behind Act (NCLB) that was signed into law in January 2002 included being restructured as a charter school as one of the sanctions for public schools that chronically fail to make "adequate yearly progress" (AYP) in achievement.

As this year's state lists of schools that failed to make AYP are being generated, it is already clear that many public schools face the possibility of being restructured as a charter school. Solid achievement data on charter schools are therefore more imperative than ever, and NAEP data are considered the "gold standard." However, NAGB and NCES did not plan to include the 2003 NAEP charter school results in the 2003 NAEP report, which was released on Nov. 13, 2003. Instead, their plan called for a separate NAEP Charter School Report, which the National Center for Education Statistics (NCES) scheduled for release in January 2004 and then, according to documents from NAGB's Nov. 14, 2003 meeting, postponed to June 2004.

On March 5, 2004, NCES presented the 2003 NAEP charter school results to NAGB members at a closed session (permitted by law) of their meeting. The release date for the NAEP Charter School Report was still listed as June 2004. By NAGB's May 2004 meeting, however, not only had the release date been postponed again, to December 2004, but the plan for the much-anticipated report had been fundamentally altered. Whereas official NAEP reports have always contained only descriptive data – which was the original plan for the NAEP Charter School Report, as well – NCES now proposed accompanying the charter school results with a special, sophisticated analysis that "would try to determine whether the characteristics of charter schools, such as their governance, can explain any achievement differences from other public schools beyond those accounted for by the characteristics of their students."[2]

Although NAGB approved the new plan for the NAEP Charter School Report, NAGB policy (1989, 1994) prohibits officially reporting NAEP scores with officially prepared "adjusted" or "predicted" results because they "would be subject to serious methodological and political challenges and would be contrary to the strong national commitment to encouraging high standards for all children."[3] As then NAGB member Chester A. Finn said, according to NAGB minutes, "while it was proper for researchers to prepare adjusted scores, it would be wrong for them to [sic] part of a government report, such as NAEP. He said such scores would damage the credibility of program [sic]."[4]

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[1] NAGB, Reporting and Dissemination Committee, Report of Aug. 2, 2002.
[2] Report of May 14, 2004, NAGB Reporting and Dissemination Committee; also see April 30, 2004, NCES memo, "Plans for Reporting Private School and Charter School Results."
[3] NAGB, Resolution on Reporting State-Level NAEP Results, March 5, 1994.
[4] NAGB, Reporting and Dissemination Committee, Report of March 4, 1994.

The issue is not the merits of a special explanatory analysis. Rather, the issue is further delaying the release of even the basic 2003 NAEP charter school results ostensibly for the sake of preparing such an analysis for inclusion in the NAEP Charter School Report (if that is even NCES's or NAGB's reason for the additional delay), especially since NAGB policy prohibits this form of official NAEP reporting. More important, as public schools across the nation face being restructured as a charter school because of NCLB's premise that doing so would improve their performance, surely the interests of children are better served by a timely, "gold standard" report on charter school achievement than by waiting for an analysis that tries to determine whether charter school governance explains any differences in performance between charter and regular public schools.

Frustrated by the repeated delays in the release of the NAEP Charter School Report and knowing that the data were collected in 2003, the American Federation of Teachers (AFT) decided to try to unearth the basic NAEP charter school results. Embedded in the questionnaire that was administered to schools along with the 2003 NAEP math and reading tests in grades 4 and 8 is the question: What type of school is this? "Charter school" was one of the possible answers. This enabled the American Federation of Teachers (AFT) to comb through the Web-based NAEP Data Tool to identify NAEP's first-time, nationally representative sample of charter schools (grade 4) that is the subject of the inexplicably twice-delayed charter school report. We were similarly able to find grade 8 math and reading achievement outcomes for schools that identified themselves as charter schools, though this smaller sample yielded more limited findings than for grade 4. As a result, we were able to analyze and present our findings on grade 4 and grade 8 achievement in charter schools in the typical way NAEP publicly reports its results.

We also compare charter schools to regular public schools in states where there were enough NAEP data to permit statistically reliable comparisons (Arizona, California, Colorado, District of Columbia, Michigan and Texas). Because charter schools in Arizona, the District of Columbia, Michigan and Texas have more freedom from the rules that ordinarily govern public schools than do charters in California and Colorado, it was possible to make an initial assessment of how governance is related to achievement. That question is the focus of the explanatory analysis that will be part of the official report of the NAEP charter school results, now scheduled for December 2004.

Unfortunately, the NAEP Data Tool only permits a comparison between charter schools and other public schools by the specific factors presented in our study and not by the dozens of other student, school and community characteristics that NAEP gleans. Even more significantly, the NAEP Data Tool does not contain the detailed Charter School Survey Questionnaire that was administered for the 2003 NAEP charter school report, so its results could not be analyzed at this time.

How Did Charter School Students Perform on 2003 NAEP?

- **Average scores.** Compared to students in regular public schools, charter school students had lower achievement both in grade 4 (six scale points lower in math, seven scale points lower in reading) and grade 8 (five points lower in math, two points lower in reading). These differences were all statistically significant, except for grade 8 reading, and translate into about a half year of schooling.
- **Achievement levels.** In grades 4 and 8 and both in math and reading, the percentages of charter school students performing at or above *Basic* and at or above *Proficient* were lower than the corresponding percentages for regular public school students.

Free or Reduced-Price Lunch Eligibility. Because the evidence suggests that charter schools are a little more likely than other public schools to enroll poor children, a fair comparison between the two kinds of public schools must include comparing students with similar economic backgrounds. The NAEP Data Tool only permits doing so by eligibility for free or reduced-price lunch, which is a frequently used proxy for economic background.

- The scores of students who were eligible for free or reduced-price lunch, as well as the scores of students who were not, were lower in charter schools than in regular public schools both in grades 4 and 8 and both for math and reading. Among lunch-eligible students, the statistically significant difference was nearly six scale points in grade 4 math and seven points in reading. These differences translate into a little more than a half year of schooling. In grade 8, the difference between charter and regular public schools was nearly seven scale points in math and four points in reading, but only the math result was statistically significant.
- **Achievement gap.** In both kinds of public schools, the achievement gap between students who were and were not eligible for free or reduced-price lunch was similarly substantial in both subjects and both grades, but the gap was slightly larger in charter schools than in regular public schools in grade 4 reading and grade 8 math.

Central-City Location. Charter school operators often locate in or near central cities, where regular public schools are under fire and parents more likely to seek education alternatives for their youngsters. Because student achievement is generally lower in central cities, it is therefore important to ask whether or not the lower student achievement in charter schools reflects the greater likelihood of charter school location in central cities. The comparison of central-city charter schools with central-city regular public schools suggests it does not. (Note: Only grade 4 results are presented because the grade 8, central-city charter school sample was too small to compare reliably to the regular public school sample.)

- Both in terms of average scores and achievement levels for math and reading alike, regular public schools in central cities outperformed charter schools in those locations. The statistically significant math difference was a little more than a half year of schooling, while in reading it was a little less than a half year.

Minority Students. Given the predominantly central-city location of charter schools, their higher percentage of black students (33 percent, grade 4) compared to the statewide percentage for other public schools (18 percent, grade 4) is not surprising. Charters, however, are no more likely than regular public schools to enroll Hispanic students. Because minority student achievement is generally low, it is therefore important to ask whether or not charters' disproportionate enrollment of black (but not Hispanic) students explains the lower achievement of charter schools relative to regular public schools. The NAEP results suggest it does not. (Note: Results are presented only for grade 4 because the grade 8 NAEP charter school sample does not allow for statistically reliable comparisons by race and ethnicity.)

- Compared to their peers in regular public schools, black and Hispanic charter school students scored lower both in math and reading in grade 4, but the differences were not statistically significant. The achievement gaps between white and black students and between white and Hispanic students were about the same in charter schools as in regular public schools.

Achievement of More versus Less State-Regulated Charter Schools. Because the results of the special NAEP Charter School Survey Questionnaire are not available on the NAEP Data Tool, we could not conduct a detailed analysis of the governance question that is the focus of the unprecedented explanatory analysis that will be part of the official report of the NAEP charter school results currently scheduled for December 2004. However, it is possible to offer preliminary evidence about whether differences in the degree of state regulation of charter schools are associated with differences in charter school performance by examining Arizona, California, Colorado, the District of Columbia, Michigan and Texas. (Note: The NAEP Data Tool did not provide charter school data for other states either because the sample was too small or the state had no charter schools. Moreover, only results from the nationally representative grade 4 charter school sample are reported because the size of the grade 8 charter school sample is insufficient to permit reliable comparisons among the states.)

- The interstate analysis of charter school governance and student achievement undercuts the idea that more charter school autonomy produces higher student achievement among charter schools and between charters and regular public schools.

- In Arizona and the District of Columbia, both of which have very autonomous charter schools, charter schools underperformed regular public schools, but not at statistically significant levels. In the two other states with very autonomous charter schools, Michigan and Texas, charter schools performed significantly lower than regular public schools. In math, the difference in both states was equivalent to about a year of schooling. In reading, Michigan's charter schools underperformed regular public schools by the equivalent of about two years of schooling, and in Texas, it was about one and a half years.
- In the two states with the least autonomous charter schools, California and Colorado, charter schools and regular public schools scored about the same.

Background (see Appendix A for a chronology of events)

The National Assessment of Educational Progress (NAEP), often termed "the nation's report card," has been testing the academic achievement of a nationally representative sample of students and publicly reporting the results since 1969. NAEP is a project of the National Center for Education Statistics (NCES), which is within the Institute of Education Sciences (IES) of the U.S. Department of Education. Overall policy direction for NAEP is the responsibility of the National Assessment Governing Board (NAGB), an independent entity whose members are appointed by the U.S. secretary of education according to categories set by Congress.[1]

In 2003, NAEP conducted national and state assessments in reading and mathematics in grades 4 and 8. This marked the first time that a nationally representative sample of charter schools (grade 4) was part of NAEP. Those schools also received a special NAEP Charter School Survey Questionnaire, which NAGB had approved on Nov.16, 2002. Grade 8 charter schools were also included in 2003 NAEP, but these schools, unlike the grade 4 sample, were not specially drawn to be nationally representative.

Including a nationally representative sample of charter schools in 2003 NAEP was the result of a May 2002 NAGB resolution that had been initiated "by a group of organizations that are interested in the developing (charter school) movement."[2] As then NAGB executive director Roy Truby noted, "Charter schools were an important public policy issue on which NAEP could provide important information."[3] Indeed, by that time there were already about 2,000 charter schools nationwide. Moreover, policymakers often found themselves caught between researchers' findings that there was little or nothing to distinguish charter school performance from that of comparable, regular public schools and advocacy groups' opposing claims. Further underscoring the public policy significance of the charter school movement was the fact that the No Child Left Behind Act (NCLB), which was signed into law on Jan. 8, 2002, included being restructured as a charter school as one of the sanctions for public schools that chronically fail to make "adequate yearly progress" in achievement. With charter schools now a key part of high-stakes accountability, NAGB's 2002 decision to examine and report their performance on NAEP – often dubbed the "gold standard" of assessment – could not have been timelier.

The 2003 NAEP results were released on Nov. 13, 2003, but the charter school results were not among them. NAGB had instead planned to produce a separate NAEP Charter School Report, which NCES originally scheduled for release in January 2004. However, one day after the Nov. 13 release of 2003 NAEP, NCES informed NAGB members during their board meeting that the Charter School Report would be delayed to June 2004.

On March 5, 2004, NCES presented the 2003 NAEP charter school results to NAGB members at a closed session (permitted by law) of their meeting. The release date for the NAEP Charter School Report was still listed as June 2004. By NAGB's May 2004 meeting, however, not only had the release date been postponed again, to December 2004 – more than a year after the other 2003 NAEP results had been released -- but the plan for the report had been fundamentally altered. Whereas official NAEP reports have always contained only descriptive data – which was the original plan for the NAEP Charter School Report, as well – NCES now proposed accompanying the charter school results with a special analysis, using hierarchical linear modeling (HLM),[4] that "would try to determine whether the characteristics of

[1] The NCES Commissioner is Robert Lerner, whose nomination was sent to the U.S. Senate by President George Bush on June 3, 2003, and whose recess appointment was announced on Dec. 26, 2003. NAGB's chair is Darvin Winick, who was selected for the position by U.S. Secretary of Education Rod Paige in November 2002.
[2] NAGB, Reporting and Dissemination Committee, Report of Aug. 2, 2002.
[3] Ibid.
[4] The following description of HLM is abstracted from Anthony S. Bryk and Stephen W. Raudenbush, *Hierarchical Linear Models for Social and Behavioural Research: Applications and Data Analysis Methods* (Newbury Park,

charter schools, such as their governance, can explain any achievement differences from other public schools beyond those accounted for by the characteristics of their students."[5]

Although NAGB approved NCES's new plan to report the NAEP charter school results with an analysis that attempts to explain them, NAGB policy, dating from 1989, prohibits officially reporting NAEP scores with officially prepared "adjusted" or "predicted" results. In 1994, this issue was again before NAGB. After much debate, the board unanimously reaffirmed its 1989 policy, noting that it made its decision "after wide consultation with state officials, and that any adjusted or predicted scores would be subject to serious methodological and political challenges and would be contrary to the strong national commitment to encouraging high standards for all children."[6] As then NAGB member Chester A. Finn said, according to NAGB minutes, "while it was proper for researchers to prepare adjusted scores, it would be wrong for them to [sic] part of a government report, such as NAEP. He said such scores would damage the credibility of program [sic]."[7]

At the same May 2004 meeting at which NCES presented NAGB with the new, unconventional reporting plan and new release date for the NAEP Charter School Report, NCES also introduced a new plan and postponed date, from January 2004 to June 2004, for a report on private school achievement on NAEP. (Unlike the 2003 NAEP charter school results, the private school results that are to be included in that report have already been reported, on average, in previous NAEP reports.) In contrast to the plan for the Charter School Report, in which results will be accompanied by an explanatory analysis, the private school report will contain only descriptive data. An HLM analysis *may* be done, according to NCES, "to capture the effects of school climate, and demographic and other characteristics that differentiate private from public schools." However, the results of such further analysis "would be published in a second report sometime in 2005 or later…."[8]

In short, while the charter school results will not be released without a special explanatory analysis and not until December 2004, the private school results, which have already been simply reported, will be reported again in more detail in October 2004, with a possible, special explanatory analysis coming "sometime in 2005 or later." We could find no public document that might explain this discrepancy in the NCES/NAGB plans and scheduled release dates for the two reports. Given that there are far greater differences in governance, as well as in students' socioeconomic status, between private and public schools than there are between charter and regular public schools, it would be easier to imagine a methodological, substantive or public-policy justification for the opposite decision.

But the issue here is not the merits of an HLM or other special analysis or whether it is more appropriate for private or charter schools to be the first subjects of such an analysis. Rather, the issue is the further delay in releasing even the basic 2003 NAEP charter school results for no discernible reason other than to prepare an explanatory analysis of those results (if that is even NCES's and NAGB's reason) for inclusion

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Calif.: Sage Publications), 1991. The basic idea of HLM is to think of the lowest-level units (smallest and most numerous) as organized into a hierarchy of successively higher-level units. For example, students are in classes, classes are in schools, schools are in school districts, school districts are in the states. We can then describe outcomes for an individual student as a sum of effects for the individual student, for her/his class, for the school, for the district and for the state. Hierarchical models are often applicable to modeling of data from complex surveys, because usually a clustered or multistage sample design is used when the population has a hierarchical structure in the sense described above. For more details, see http://www.fas.harvard.edu/~stats/survey-soft/hierarchical.html.

[5] Report of May 14, 2004, NAGB Reporting and Dissemination Committee; also see April 30, 2004, NCES memo, "Plans for Reporting Private School and Charter School Results."

[6] NAGB, Resolution on Reporting State-Level NAEP Results, March 5, 1994.

[7] NAGB, Reporting and Dissemination Committee, Report of March 4, 1994.

[8] NCES memo, "Plans for Reporting Private School and Charter School Results," April 30, 2004; also see Upcoming NAEP Reports, prepared by NCES, April 30, 2004, and NAGB, Reporting and Dissemination Committee, Report of May 14, 2004.

in the official NAEP Charter School Report. The fact that officially reporting NAEP results in this fashion is unprecedented in NAEP's 35-year history and in violation of NAGB policy only underscores the troubling nature of this decision. More important, as public schools across the nation face being restructured as a charter school because of NCLB's premise that doing so would improve their performance, surely the interests of children are better served by a timely, "gold standard" report on charter school achievement than by waiting for an analysis that tries to determine whether any achievement differences between charter and regular public schools might be explained by charter school governance.

Frustrated and concerned by the repeated delays in the release of the much-anticipated 2003 NAEP Charter School Report, we decided to see if we could unearth the basic NAEP charter school results. We knew, through NAGB public records, that charter schools had been assessed as part of the regular 2003 NAEP. We also knew that NAEP typically administers school questionnaires[9] as part of its assessments, and that even though it may not issue written reports on all the background information it collects, the data are available on the NAEP Data Tool.[10]

Thus, while the many postponements of the NAEP charter school report signaled that the assessment data were not available for public scrutiny—more accurately, given the complexities of using the NAEP Data Tool, not available for researchers—there was a chance that the data to perform an analysis were actually there. And indeed they were (with the important exception noted below), though finding them would not have been possible without a combination of intuition, prior knowledge, considerable digging and luck.

Embedded in the 2003 NAEP school questionnaire is the question: "What type of school is this?" Schools could then report that they were charter schools. This enabled us to find the nationally representative sample of charter schools that NCES had drawn for grade 4, as well as grade 8 NAEP data for schools that had identified themselves as charters (a smaller sample). In this way, we were able to conduct a conventional NAEP analysis and present our findings on grade 4 and grade 8 math and reading achievement in charter schools in the typical way NAEP reports its results. Our study, which uses the NAEP Data Tool, separates charter schools from other public schools and compares student achievement in math and reading in grades 4 and 8. To enhance the fairness of the analysis, additional comparisons of charter schools and other public schools are conducted for several student subgroups:

- Eligibility for the national school-lunch program;
- School location (central cities, urban fringe/large towns, and rural/small towns); and
- Race/ethnicity (from school records, as is typically reported by NAEP).

Charter schools are also compared to other public schools in states with enough data to permit statistically reliable comparisons (Arizona, California, Colorado, District of Columbia, Michigan and Texas). Since charter schools in Arizona, the District of Columbia, Michigan and Texas have more freedom from the rules that ordinarily govern public schools than do charter schools in California and Colorado, it is possible to make an initial assessment of how governance and autonomy are related to achievement—the question underlying the HLM analysis that will accompany the official release of the charter school results and that has purportedly contributed to the delay of that report to December 2004.

Unfortunately, the NAEP Data Tool only permits a comparison between charter schools and other public schools by the specific factors presented in our study and not by the dozens of other student, school and community background characteristics that NAEP gleans. Even more significant, the NAEP Data Tool

[9] The school questionnaire is completed for each school by the principal or other official. It is used to gather information concerning school administration, staffing patterns, curriculum and student services.
[10] http://nces.ed.gov/nationsreportcard/naepdata/

does not contain the detailed Charter School Survey Questionnaire that was expressly developed, approved (Nov. 16, 2002) and administered for the NAEP charter school report, so its results could not be analyzed. (Appendix B contains the copy we obtained from NAGB's public records.) When the 2003 restricted data set is made available to the public, a more complete analysis of charter schools will be possible.

How Well Did Charter School Students Perform in 2003?

Average Score. Table 1 below shows that charter school students had lower student achievement, measured by scale scores, in both fourth grade (six points lower in math and seven points lower in reading) and eighth grade (five points lower in math and two points lower in reading). The differences were statistically significant in grade 4 math and reading and grade 8 math (at the *Basic* and below-*Basic* levels), but not in grade 8 reading.[11]

Table 1. Average mathematics and reading scale scores and achievement level, grades 4 and 8: 2003

	N	Average Scale Score	Below Basic	At or Above Basic	At or Above Proficient	At Advanced
Grade 4 Math						
Charter	2,913	228 *	33% *	67% *	25% *	2% *
Other Public	173,849	234	24%	76%	32%	4%
Grade 4 Reading						
Charter	2,870	210 *	45%	55%	25% *	5% *
Other Public	169,070	217	38%	62%	30%	7%
Grade 8 Math						
Charter	1,604	271	42% *	58% *	24%	6%
Other Public	140,121	276	33%	67%	27%	5%
Grade 8 Reading						
Charter	1,671	259	33%	67%	29%	4%
Other Public	138,888	261	28%	72%	30%	3%

*Significantly different from other public schools at the 0.05 level.
NOTE: Detail may not sum to totals because of rounding. Significance tests were performed using unrounded numbers.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.

NAEP scale scores are common across age or grade levels and assessment years used to report NAEP results; they are expressed on a 0-500 scale for reading and mathematics.[12] Over the four years from grade 4 to grade 8 in the national public school sample, math scale scores progress from 234 to 276, or 10.5 points a year. In reading, scale scores progress from 217 to 261, or 11 points a year. Therefore, the

[11] All differences reported are significant at the 0.05 level with appropriate adjustments for multiple comparisons. Statistical tests are conducted to determine whether the changes or differences between two result numbers are statistically significant. The term "significant" does not imply a judgment about the absolute magnitude or educational relevance of changes in student performance. Rather, it is used to indicate that the observed changes are not likely to be associated with sampling and measurement error, but are statistically dependable population differences.

[12] Scaling is the process of assigning numbers to reflect students' performance on an assessment. The scale score is derived from the overall level of performance of groups of students on NAEP assessment items. In NAEP, scaling is based on item response theory (IRT) and results in a scale score for each subject area that can be used to summarize levels of performance attained by particular groups of students.

achievement difference between charter school and regular school students in the fourth grade can be said to be between one-half and one full year of school. In grade 8 math, the difference is half a year.

Achievement-Level Results. Table 1 also shows the percentages of students in charter schools and other public schools performing below *Basic*, at or above *Basic*, at or above *Proficient* and at *Advanced* levels for grades 4 and 8. Achievement-level percentages are values that indicate the percentage of students within the total population, or in a particular subgroup, who meet or exceed expectations of what students should know and be able to do.[13] Specifically, they are the weighted percentage of students with NAEP composite scores that are equal to, or exceed, NAGB's achievement-level cut scores. (See Technical Appendix (C) for a more complete definition of the four proficiency levels.)

At grades 4 and 8 in both subjects, the percentages of students in charter schools performing at or above *Basic* and at or above *Proficient* were lower than the corresponding percentages in other public schools. For example, 67 percent of charter schools scored at the basic level or higher in grade 4 math, while the comparable figure for other public schools was 76 percent. The lower achievement of charter schools at the basic level was statistically significant for grade 4 and grade 8 math. At the proficient level, the lower achievement of charter schools was statistically significant in grade 4 math and reading.

How Various Groups of Students in Charter Schools Performed on NAEP in Comparison to Students in Regular Public Schools

In addition to reporting on students' overall performance on its assessments, NAEP also reports on the performance of various subgroups of students. In each of the three major subgroup comparisons (free-lunch eligibility, urban location, and race/ethnic group), charter school students performed no better and usually worse than students in other public schools. However, the nature of NAEP's grade 8 sampling design generally precludes statistically reliable comparisons between charter and regular public schools for that grade, so many of the differences are not statistically significant. We echo the warning that NAEP typically issues in its reports: "When reading these subgroup results, it is important to keep in mind that there is no simple, cause-and-effect relationship between membership in a subgroup and achievement in NAEP. A complex mix of educational and socioeconomic factors may interact to affect student performance."

Students Eligible for Free/Reduced-Price School Lunch

NAEP collects data on students' eligibility for free/reduced-price lunch as an indicator of family economic status. Eligibility for free and reduced-price lunches is determined by students' family income in relation to the federally established poverty level. Free-lunch qualification is set at 130 percent of the poverty level, and reduced-price lunch qualification is set at between 130 percent and 185 percent of the

[13] To quote the language typically used in NAEP reports, "As provided by law, NCES, upon review of a congressionally mandated evaluation of NAEP, has determined that achievement levels are to be used on a trial basis and should be interpreted and used with caution. However, both NCES and NAGB believe that these performance standards are useful for understanding trends in student achievement. NAEP achievement levels have been widely used by national and state officials." The "trial" use of NAGB's achievement levels has been ongoing since 1992, despite a number of highly critical evaluations of the validity of the levels, which include evidence that the standards they reflect for what students *should* know are quite high. See, for example, U.S. General Accounting Office, "Educational Achievement Standards: NAGB's Approach Yields Misleading Interpretations," Washington, D.C.: June 1993, GAO/PEMD-93-12; National Academy of Education Panel on the Evaluation of the NAEP Trial State Assessment, An Evaluation of the 1992 Achievement Levels, Stanford, Calif.: National Academy of Education, 1993; and James W. Pellegrino, Lee R. Jones and Karen J. Mitchell, eds., *Grading the Nation's Report Card: Evaluating NAEP and Transforming the Assessment of Educational Progress*, National Research Council, Washington, D.C.: National Academy Press, 1998.

poverty level. Information regarding students' eligibility in 2003 was not available for 10 percent of fourth-graders and 11 percent of eighth-graders, either because their schools did not participate in the National School Lunch Program or for other reasons.

The information on eligibility for free/reduced-price lunch in Table 2 suggests that charter schools are a little more likely to enroll poor children (54 percent of fourth-graders) than other public schools (46 percent). To make the comparison of charter and other public schools fairer, we therefore compare students from families of similar economic status.[14]

Average Score. In grades 4 and 8, average scores in 2003 were higher in regular public schools than in charter schools in each subject, both for students who were eligible and not eligible for free/reduced-price lunch. Among students eligible for the lunch program, the difference was nearly six scale score points in grade 4 math and seven points in reading—both statistically significant differences. These scale score differences translate into a little more than half a year of schooling. In grade 8, the difference between charter and regular public schools was nearly seven scale score points in math and four points in reading, but only the math result was statistically significant.

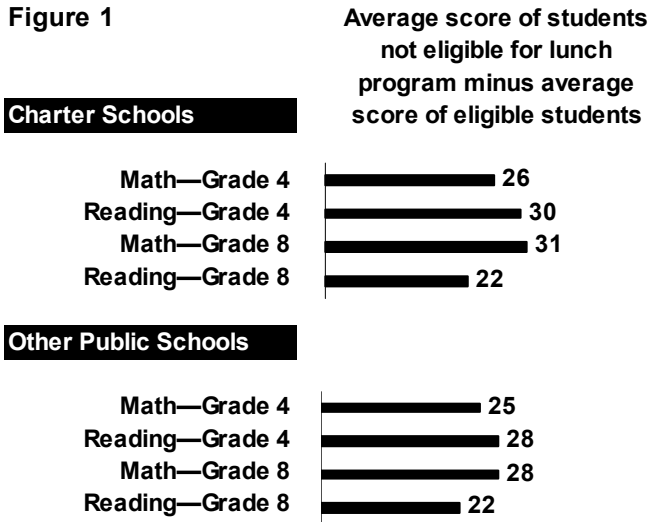
[14] We have repeatedly, but unsuccessfully, urged NAEP to compare students with similar backgrounds as part of its public reporting of public/private school comparisons. The differences in students between these two sectors are far greater than those between charter and regular public school students.

Table 2. Average mathematics and reading scale scores by eligibility for free/reduced-price school lunch, grades 4 and 8, 2003

	Charter Schools			Other Public Schools		
	Weighted Percentage of Students	Average Scale Score	At or Above Basic	Weighted Percentage of Students	Average Scale Score	At or Above Basic
Grade 4 Math						
Eligible	53.8%	216 *	52.5%	45.9%	222	62.2%
Not Eligible	46.2%	238	80.4%	54.1%	244	88.1%
Grade 4 Reading						
Eligible	53.0%	194 *	38.0%	45.2%	201	45.0%
Not Eligible	47.0%	225	70.0%	54.8%	229	76.0%
Grade 8 Math						
Eligible	81.4%	252 !*	38.9% !	38.1%	259	47.4%
Not Eligible	18.6%	282 !	71.3% !	61.9%	287	78.5%
Grade 8 Reading						
Eligible	81.3%	242	49.0%	38.0%	246	56.2%
Not Eligible	18.7%	268 !	75.8% !	62.0%	271	82.1%

*Significantly different from other public schools at the 0.05 level.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Detail may not sum to totals because of rounding. Significance tests were performed using unrounded numbers.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.

Figure 1



Achievement Gap. As in other public schools, the average mathematics and reading scores in both grades 4 and 8 for students in charter schools who were eligible for free/reduced price lunch were much lower than the average score for students who were not eligible (Figure 1). In charter schools, the gap was slightly larger than in other public schools in grade 4 reading and grade 8 math.

Achievement-Level Results. The percentages of students in the fourth grade at or above *Basic* and *Proficient* were lower in charter schools than in other public schools both for students who were eligible and those who were not eligible for free/reduced-price lunch (Table 3). For example, 53 percent of charter school students scored at the *Basic* level or higher, while the comparable figure for other public schools was 62 percent. Grade 8 results are not compared because the accuracy of the comparison is limited by the nature of the sample.

Table 3. Mathematics and reading achievement-level results by eligibility for free/reduced-price school lunch, grade 4, 2003

			Below Basic	At or Above Basic	At or Above Proficient	At Advanced
Grade 4 Math						
	Eligible	Charter School	48%	53%	11%	1%
		Other Public	38%	62%	15%	1%
	Not Eligible	Charter School	20%	80%	37%	4%
		Other Public	12%	88%	45%	6%
Grade 4 Reading						
	Eligible	Charter School	62%	38%	12%	1%
		Other Public	55%	45%	15%	2%
	Not Eligible	Charter School	30%	70%	36%	8%
		Other Public	24%	76%	42%	11%

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.
NOTE: Detail may not sum to totals because of rounding.

Location of School

Charter school operators often locate in or near central cities, where public schools are under fire and parents are more likely to seek education alternatives for their youngsters. Moreover, population density in urban areas reduces student transportation problems for charter schools and offers more opportunities to find larger facilities in which to operate a larger school. Data from the NCES Schools and Staffing Survey (SASS) show that 47.3 percent of charter school *teachers* worked in central cities, compared to only 26.9 percent of regular public school teachers.[15]

Because student achievement is generally lower in central cities, it is possible that lower student achievement in charter schools may only reflect the greater likelihood of charter school location in central cities. If so, then it may still be possible that charter schools outperform regular, central-city public schools. Certainly that is an assumption underlying the federal NCLB legislation, which lists being restructured as a charter school as one of the sanctions for public schools that persistently fail to make "adequate yearly progress" as called for in the law. We turn, then, to a comparison of achievement by school location.

NAEP classifies the type of community where a school is located based on U.S. Census data (central city, urban fringe/large town, and rural/small town). Grade 4 NAEP data (Table 4) show an even greater concentration of charter school *students* in central cities (about 62 percent) relative to other public school students (about 31 percent) than do the SASS data. In fact, the NAEP sample of charter school students for the eighth grade in the urban fringe/large town and rural/small town areas is so small that it does not allow a statistically reliable comparison between charter schools and other public schools.

[15] Unpublished tabulations from the NCES 1999-2000 Schools and Staffing Survey.

Table 4. Average mathematics and reading scale scores by school location, grade 4, 2003

	Charter Schools			Other Public Schools		
	Weighted Percentage of Students	Average Scale Score	At or Above Basic	Weighted Percentage of Students	Average Scale Score	At or Above Basic
Grade 4 Math						
Central City	61%	220 *	58%	32%	227	68%
Urban Fringe/Large Town	25%	236	78%	32%	238	80%
Rural/Small Town	14%	238	84%	36%	236	80%
Grade 4 Reading						
Central City	63%	204	50%	31%	208	52%
Urban Fringe/Large Town	24%	219 !	64%	32%	221	66%
Rural/Small Town	13%	219 !	64%	36%	219	67%

*Significantly different from other public schools at the 0.05 level.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Detail may not sum to totals because of rounding. Significance tests were performed using unrounded numbers. Grade 8 is not included in this table because the sample does not allow accurate determination of the variability of the statistic.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.

Average Score. Students scored low both in charter schools and other public schools in central cities, but charter school achievement was worse. Average scale scores for the fourth grade were higher in regular public schools than in charter schools in each subject. In urban fringe/large town and rural/small town comparisons, charter schools scored the same as other public schools, suggesting that the charter school performance deficit is confined largely to central city charter schools. However, these comparisons outside central cities are not necessarily reliable in the NAEP sample. In central cities, the scale score difference was nearly seven points in math and four points in reading—but only the math difference was statistically significant. The math differential is a little more than half a year of schooling, and in reading the differential is less than half a year.

Achievement-Level Results. In the fourth grade, the percentages of students at or above *Basic* and *Proficient* were lower in charter schools than in other public schools in central cities (Table 5), although the results were small and statistically insignificant for reading. In math, 58 percent of charter school students scored at the *Basic* level or higher, while the comparable figure for other public schools was 68 percent. As in the scale score comparison, achievement-level results for the urban fringe/large town and rural/small town comparisons showed charter schools and other public schools performing equally. Grade 8 results are not compared because the accuracy of the comparison is limited by the nature of the sample.

Table 5. Mathematics and reading achievement-level results by school location, grade 4, 2003

		Below Basic	At or Above Basic	At or Above Proficient	At Advanced
Grade 4 Math					
Central City	Charter School	42%	58%	16%	1%
	Other Public	33%	68%	24%	3%
Urban Fringe/Large Town	Charter School	22%	78%	36%	4%
	Other Public	20%	80%	36%	5%
Rural/Small Town	Charter School	16%	84%	34%	3%
	Other Public	20%	80%	33%	3%
Grade 4 Reading					
Central City	Charter School	50%	50%	20%	4%
	Other Public	49%	52%	22%	5%
Urban Fringe/Large Town	Charter School	36% !	64% !	31% !	6% !
	Other Public	34%	66%	34%	8%
Rural/Small Town	Charter School	36% !	64% !	32% !	7% !
	Other Public	33%	67%	32%	7%

!The nature of the sample does not allow accurate determination of the variability of the statistic.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.
NOTE: Detail may not sum to totals because of rounding.

Racial and Ethnic Minority Students

Many reports suggest that charter schools especially appeal to racial and ethnic minorities concentrated in low-achieving public school systems in central cities. In fact, in the NAEP sample, charter schools were approximately twice as likely as other public schools to enroll black students (33 percent compared to 18 percent) but about equally likely to enroll Hispanic students (Table 6). Given the predominantly central-city location of charter schools, their higher percentage of black students compared to the percentage in the national sample of other public schools is not surprising.[16] The question we turn to next is whether charter schools' disproportionate enrollment of minority students, whose achievement is generally low, may explain the low average performance of charter schools.

NAEP identified students who took the NAEP assessments as belonging to one of five racial/ethnic subgroups or as "other" based on information obtained from school records. Results for Native American and Asian subgroups are not separately shown in Table 6 due to their small representation in the charter school sample. The NAEP sample of charter school students in eighth grade does not allow a statistically reliable comparison between charter schools and other public schools for race and ethnicity, so those comparisons are omitted.

Average Scores. When comparing student achievement by race, no meaningful difference existed between charter schools and other public schools. In fourth-grade math, white, black, and Hispanic students in charter schools had lower average scale scores than their peers in other public schools, but the differences were small and statistically insignificant. In reading, the gaps were even narrower.

[16] The NAEP Data Tool does not allow a comparison of black student enrollment or achievement between charters and regular public schools located in central cities.

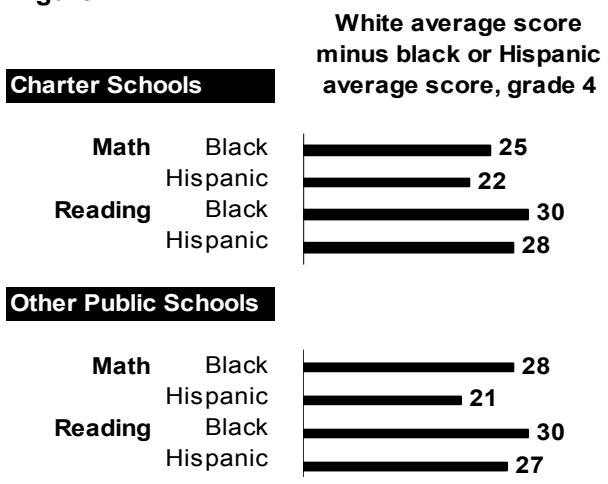
Table 6. Average mathematics and reading scale scores by race/ethnicity, grade 4, 2003

	Charter Schools			Other Public Schools		
	Weighted Percentage of Students	Average Scale Score	At or Above Basic	Weighted Percentage of Students	Average Scale Score	At or Above Basic
Grade 4 Math						
White	47.1%	241	84%	61.8%	243	87%
Black	33.4%	213	50%	18.1%	216	54%
Hispanic	14.6%	219	58%	13.0%	222	62%
Other Groups	4.9%	----	----	7.1%	----	----
Grade 4 Reading						
White	48.7%	225	71%	62.2%	227	74%
Black	33.1%	195	37%	18.3%	197	40%
Hispanic	13.3%	200	45%	12.4%	199	43%
Other Groups	5.0%	----	----	7.1%	----	----

*Significantly different from other public schools at the 0.05 level.
--- Sample size is insufficient to permit a reliable estimate.
NOTE: Detail may not sum to totals because of rounding. Significance tests were performed using unrounded numbers. Grade 8 is not included in this table because the sample does not allow accurate determination of the variability of the statistic. Race/ethnicity reported by school.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.

Achievement Gap. The differences in scores between white and black students and between white and Hispanic students in charter schools and in other public schools are presented in Figure 2, shown to the right. Achievement gaps based on race/ethnicity in grade 4 are about the same in charter schools as in other public schools. Clearly, charter schools are no more successful at reducing racial and ethnic achievement disparities than are other public schools.

Figure 2



Achievement-Level Results. In the fourth grade, the percentages of students at or above *Basic* and *Proficient* were the same or lower in charter schools than in other public schools for white, black or Hispanic students, but the differences are not meaningful (Table 7). For example, 50 percent of black charter school students scored at the *Basic* level or higher in math, while the comparable figure for other public schools was 54 percent.

Table 7. Mathematics and reading achievement-level results by race/ethnicity, grade 4, 2003

			Below Basic	At or Above Basic	At or Above Proficient	At Advanced
Grade 4 Math						
	White	Charter School	16%	84%	41%	4%
		Other Public	13%	87%	42%	5%
	Black	Charter School	50%	50%	9%	0%
		Other Public	46%	54%	10%	0%
	Hispanic	Charter School	43%	58%	12%	1%
		Other Public	38%	62%	15%	1%
Grade 4 Reading						
	White	Charter School	29%	71%	37%	8%
		Other Public	26%	74%	39%	10%
	Black	Charter School	63%	37%	12%	1%
		Other Public	60%	40%	12%	2%
	Hispanic	Charter School	56%	45%	16%	2%
		Other Public	57%	43%	14%	2%

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.
NOTE: Detail may not sum to totals because of rounding.

How Did Charter School Students Perform in States that Grant More Charter School Autonomy?

The twice-postponed NAEP Charter School Survey, now due in December 2004, will accompany its results with an analysis using a statistical technique known as hierarchical linear modeling. The analysis is intended to determine whether certain charter school characteristics, such as their governance, help explain the achievement disparities (amply described here in our study) between charter schools and other public schools beyond those accounted for by differences in their students. Official NAEP reports have never accompanied results with an explanatory analysis, and the practice is in violation of NAGB policy.

The results of the detailed NAEP Charter School Survey Questionnaire (see Appendix B), which included questions about governance, accountability and charter-school type, are not publicly available. We were therefore unable to perform these analyses. However, it is possible to compare charter school achievement outcomes among five states (Arizona, California, Colorado, Michigan, and Texas) and the District of Columbia using available NAEP data.[17] Since the states vary with respect to their governance of charter

[17] The NAEP Data Tool did not provide charter school data for other states either because the sample was too small or the state had no charter schools. Moreover, we could only report results from the nationally representative grade 4

schools, it may be possible to reach a conclusion about the effect of governance on student outcomes in advance of the more sophisticated statistical modeling promised for the NAEP Charter School Study.

According to the charter school (and voucher) advocacy group, the Center for Education Reform, the District of Columbia and the five states are among 26 "strong" charter-school-law states, which the center translates as meaning that their charter schools are relatively free of state rules and regulations.[18] Arizona, the District of Columbia and Michigan are among six states that obtained a grade of "A" from the center. California, Colorado and Texas earned a "B." Charter schools in California and Colorado are much more likely to be authorized and monitored by public school districts, which also play significant roles in the funding of charter schools and the provision of special education services. California also has a large percentage of "conversion" schools, that is, regular public schools that became charter schools. These conversion charter schools tend to be much larger than other charter schools, so they make up a large percentage of the student-weighted NAEP data.

Average Scores. In fourth-grade math, Colorado was the only state where charter school students scored higher than other public school students, but the difference was very small and statistically insignificant (Table 8). Michigan and Texas had significantly lower average math scores in their charter schools than in their regular public schools—a 14 scale-score point differential in each state, equivalent to approximately a year of school. In grade 4 reading, Arizona and California were the only states where charter schools scored higher than other public schools, but the difference was very small (two points and one point, respectively) and statistically insignificant, and there are also problems with the reliability of the sample. In Michigan again, charter school students had significantly lower average scale scores (by 19 points or about two years of school) in reading than other public school students, and the same was true in Texas (by 14 points or about one and a half years of school).

charter school sample because the size of the grade 8 charter school sample is insufficient to permit reliable comparisons among the states.

[18] http://edreform.com/_upload/charter_school_laws.pdf

Table 8. Average mathematics and reading scale scores by state, grade 4, 2003

		Charter Schools			Other Public Schools		
	N	Weighted Percentage of Students	Average Scale Score	At or Above Basic	Weighted Percentage of Students	Average Scale Score	At or Above Basic
Grade 4 Math							
Nation (Public)	176,762	1.2%	228	68%	98.8%	234	76%
Arizona	3,719	6.7%	224	63%	93.3%	230	71%
California	8,154	1.6%	227	68%	98.4%	228	68%
Colorado	3,277	7.3%	237	80%	92.7%	235	76%
District of Columbia	2,614	11.8%	203	35%	88.3%	205	37%
Michigan	3,757	5.1%	222 *	60% *	94.9%	236	78%
Texas	5,283	1.1%	224 *	68%	98.9%	238	83%
Grade 4 Reading							
Nation (Public)	171,940	1.2%	210	55.3%	99%	217	61.8%
Arizona	3,558	5.5% !	211 !	56.3%	95%	209	54.6%
California	7,968	1.6%	207	51.7%	98%	206	49.9%
Colorado	3,273	6.7%	223	67.9%	93%	223	68.9%
District of Columbia	2,594	12.0%	184	27.1%	88%	189	31.7%
Michigan	3,647	5.1%	201 *	43.1% *	95%	220	65.3%
Texas	4,772	1.1%	201 *	47.5%	99%	215	59.1%

*Significantly different from other public schools at the 0.05 level.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Detail may not sum to totals because of rounding. Significance tests were performed using unrounded numbers. Grade 8 is not included in this table because the sample does not allow accurate determination of the variability of the statistic.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.

The interstate analysis of charter school governance and student achievement undercuts the idea that more charter school autonomy contributes to higher student achievement among charter schools, let alone superior performance compared to other public schools. In the two states with the least autonomous charter schools, California and Colorado, charter schools and other public schools scored about the same. In two of the states with very autonomous charter schools, Arizona and the District of Columbia, their generally lower charter school scores were not different from scores in other public schools at statistically significant levels. In two other states with very autonomous charter schools, Michigan and Texas, charter schools performed significantly lower than other public schools.

Table 9. Mathematics and reading achievement-level results by state, grade 4, 2003

			Below Basic	At or Above Basic	At or Above Proficient	At Advanced
Grade 4 Math						
	National (Public)	Charter School	33%	68%	25%	2%
		Other Public	24%	76%	32%	4%
	Arizona	Charter School	37%	63%	22%	1%
		Other Public	29%	71%	26%	2%
	California	Charter School	32%	68%	24%	3%
		Other Public	32%	68%	25%	3%
	Colorado	Charter School	20%	80%	34%	4%
		Other Public	24%	76%	34%	4%
	District of Columbia	Charter School	65%	35%	6%	0%
		Other Public	63%	37%	7%	1%
	Michigan	Charter School	40%*	60%*	17%*	2%*
		Other Public	22%	78%	35%	5%
	Texas	Charter School	32%	68%	16%*	0%
		Other Public	18%	83%	33%	4%
Grade 4 Reading						
	National (Public)	Charter School	45%	55%	25%	5%
		Other Public	38%	62%	30%	7%
	Arizona	Charter School	43% !	56% !	27% !	7% !
		Other Public	45%	55%	24%	5%
	California	Charter School	48%	52%	22%	5%
		Other Public	50%	50%	21%	5%
	Colorado	Charter School	32%	68%	38%	8%
		Other Public	31%	69%	36%	9%
	District of Columbia	Charter School	73%	27%	7%	1%
		Other Public	68%	32%	11%	3%
	Michigan	Charter School	57%*	43%*	17%*	3%*
		Other Public	35%	65%	33%	8%
	Texas	Charter School	53%	48%	16%*	1%
		Other Public	41%	59%	27%	6%

*Significantly different from other public schools at the 0.05 level.
!The nature of the sample does not allow accurate determination of the variability of the statistic.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Reading and Mathematics Assessments.
NOTE: Detail may not sum to totals because of rounding. Significance tests were performed using unrounded numbers.

Achievement-Level Results. In fourth-grade math, the percentages of students at or above Basic and Proficient were the same or lower in charter schools than in other public schools in every state, except for the "at or above Basic" percentage in Colorado. In reading, the differences in achievement levels for charter and other public schools were much smaller—and almost non existent in Arizona, California and Colorado. The differences between charter and other public schools were meaningful only in Michigan and Texas (Table 9). For example, 43 percent of charter school students in Michigan scored at the Basic level or higher in reading, while the comparable figure for other public schools was 65 percent.

Appendix A

The following is a chronology of events surrounding the delayed NAEP Charter School Report. The publicly available documents that were used to prepare this chronology can be obtained from NAGB or from the American Federation of Teachers.

- **NAGB Policy Resolution, March 5, 1994:** NAGB unanimously reaffirms the **Dec. 9, 1989**, policy against reporting NAEP results in an "adjusted" or "predicted" form and calls its policy to the attention of the commissioner of Education Statistics and the Department of Education, noting that "any proposed changes in Board policy should be presented to the appropriate committees of the Board for Board consideration."
- **May 2002:** NAGB resolution endorses NAEP reporting on a nationally representative sample of charter schools, if feasible, as a pilot study in 2003.
- **August 2002:** NCES presents NAGB with the design for a grade 4, nationally representative charter school sample as part of the 2003 math and reading state NAEP, with oversampling in three states with high proportions of charter school students—California, Michigan and Texas. NAGB unanimously approves the plan on Aug. 3.
- **November 2002:** NCES presents NAGB with a positive progress report and a NAEP 2003 Charter School Survey Questionnaire. NAGB's Reporting and Dissemination Committee expresses concern "about the clarity of several questions dealing with the types of programs in charter schools and with accountability requirements." After editing by NCES staff, the committee recommends approval of the charter school supplemental background questionnaire. NAGB unanimously approves the recommendation on Nov. 16.
- **July 2002:** NCES prepares draft outline of NAEP 2003 Fourth Grade Charter School Report (July 18).
- **August 2003:** NCES informs NAGB that **January 2004** is the expected release date for the report of results for a national sample of charter schools at grade 4 in the 2003 NAEP, as well as a profile of charter school characteristics.
- **November 2003:** Results of the 2003 NAEP are publicly reported on Nov. 13. NCES informs NAGB at its Nov. 14 board meeting that **June 2004** is now the expected release date for the Charter School Study.
- **March 2004:** NCES presents the results of the Charter School Study (and Private Schools Report) to NAGB in closed session (permitted by law) on March 5, including "next steps" for both reports. **June 2004** continues to be listed as the expected date for the Charter School Study.
- **April 30, 2004:** NCES memo ("Plans for Reporting Private School and Charter School Results) proposes further analyses, using hierarchical linear modeling, to explain public/private and charter/other public school differences. Memo calls for charter school results to be released with accompanying analysis in **December 2004**. In contrast, it calls for private school results to be released in fall 2004, with further analysis published in a second report no earlier than 2005.
- **May 2004:** NAGB presented with new NCES plan and release dates for charter school and private school reports, as per April 30 memo, on May 14.

Appendix B

NAEP 2003 Charter School Survey Questionnaire
as Approved by the National Assessment Governing Board
November 16, 2002

Founding and Origin

1. When was your school's charter granted?

☐☐ Month ☐☐☐☐ Year

2. Who granted the charter?
Mark (X) only one box.

☐ A school district

☐ The State Board of Education

☐ Postsecondary institution

☐ A state charter-granting agency

☐ Other – What is the name of the chartering agency?

3. Is your charter school a newly created school or was it a pre-existing school?
("Pre-existing" means the charter school was originally all or part of a public or private school.)

Mark (X) only one box.

☐ A newly created school

☐ A pre-existing public school

☐ A pre-existing private school

4. When did your school start providing instruction as a charter school?

☐☐ Month ☐☐☐☐ Year

5. Which population of students does your charter school primarily serve? (Choose one)

- ☐ All students (no particular population)
- ☐ At-risk students
- ☐ Students with disabilities
- ☐ Gifted/talented students
- ☐ Other (please describe) _____

6. Which of the following best describes your charter school's primary focus in terms of program content? (Choose one)

- ☐ We have a comprehensive curriculum (no specialized area of focus)
- ☐ We have a special curricular focus (e.g., arts, math/science, foreign language immersion)
- ☐ Our curriculum is based on a particular educational philosophy (e.g., Montessori, open school)
- ☐ Our curriculum is based on a particular philosophy or set of values (e.g., Eastern philosophy, religion)
- ☐ Other (please describe) _____

Management and Autonomy

7. Is your school operated by an organization or company that also manages other schools? (Do not include a public school district as an organization or company managing your school.)

- ☐ Yes – What is the name of the organization or company?
- ☐ No

8. Is your school part of another public school district or local education agency (LEA), OR is your school itself a charter school district?

Mark (X) only one box.

- ☐ Part of another public school district or local education agency (LEA).

  What is the name of the district or LEA? _____

- ☐ A charter school district by itself.

9. Does your school's charter include waivers or exemptions from the following state or district policies?

Please mark one box for each option below.

	Yes	No
a. Teacher certification requirements	☐	☐
b. Teacher/staff hiring/firing policies	☐	☐
c. Curriculum requirements	☐	☐
d. Student attendance/seat time requirements	☐	☐
e. Student assessment requirements	☐	☐
f. Control of finances/budget	☐	☐
g. Incentives, rewards, or sanctions due to school performance	☐	☐

Accountability

10. In which of the following areas is your school monitored by the state or charter-granting agency?

Please mark one box for each option below.

	Yes	No
a. Instructional practices	☐	☐
b. Student achievement	☐	☐
c. Student behavior	☐	☐
d. Student attendance	☐	☐
e. School governance	☐	☐
f. School finances	☐	☐
g. Compliance with state or federal regulations	☐	☐

11. To which of the following groups are you <u>required</u> to make a report on your school's progress?

Please mark one box for each option below.

	Yes	No
a. Chartering agency	☐	☐
b. Private funders	☐	☐
c. Parents	☐	☐
d. Community/general public	☐	☐
e. School governing board	☐	☐
f. State Board of Education	☐	☐
g. State department of education (if not a chartering agency)	☐	☐
h. State Legislature	☐	☐

Technical Appendix (C)

Note: The information in this appendix is drawn directly from official NAEP reporting.

Background Information. Beginning in 2002, the NAEP national sample was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments. NAEP permits students with disabilities or limited-English proficient students to use certain accommodations (e.g., extended time, small group testing).[19]

Statistical Significance. Average test scores have a standard error—a range of up to a few points above or below the score—due to sampling error and measurement error. Statistical tests are used to determine whether the differences between average scores are significant; therefore, not all apparent differences may be found to be statistically significant. All the differences discussed in this report were tested for statistical significance at the 0.05 level.

Achievement Levels. Achievement levels are performance standards set by NAGB to provide a context for interpreting student performance on NAEP. These performance standards, based on recommendations from panels of educators and members of the public, are used to report what students should know and be able to do at the *Basic, Proficient*, and *Advanced* levels of performance in each subject area and at each grade assessed.

> ***Basic:*** This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
>
> ***Proficient:*** This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject matter knowledge, application of such knowledge to real-world situations and analytical skills appropriate to the subject matter.
>
> ***Advanced****:* This level signifies superior performance.

The minimum scale scores for achievement levels are as follows:

	Grade 4	Grade 8
Basic	214	262
Proficient	249	299
Advanced	282	333

Weighted percentage. A weighted percentage is calculated by differentially weighting cases, as opposed to a simple percentage in which all cases are equally weighted. For example, the simple percentage of students in a NAEP sample who answer an item correctly is calculated by tallying the number of students in the sample that provided correct answers, dividing this number by the total sample size and multiplying the result by 100. The weighted percentage is calculated by tallying the sum of the weights for students answering the item correctly, dividing by the sum of the weights for the total sample and multiplying by 100.

[19] The Nation's Report Card: Mathematics Highlights 2003, NCES Number: 2004451 (Release Date: Nov. 13, 2003).

In NAEP, each sampled student is assigned a weight that makes proper allowances for NAEP's sampling design and reflects adjustments for school and student nonparticipation. Weighted percentages are estimates of the percentages of the total population, or population subgroup, that have a specified characteristic. For example, the weighted percentage of fourth-grade students in the NAEP sample who correctly answered a particular NAEP test item is an estimate of the percentage of fourth-grade students in the nation who can correctly answer that question.