

PLAYING TO TYPE?

MAPPING THE CHARTER SCHOOL LANDSCAPE



BY DICK M. CARPENTER II
FOREWORD BY CHESTER E. FINN, JR.



THOMAS B. FORDHAM
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FINAL REPORT



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EXECUTIVE SUMMARY

Most discussions of charter schools assume that they are monolithic. While the media, researchers, and policymakers are obsessed with comparing charters to traditional public schools, there's been little interest in comparing different types of charter schools to one another—until now.

This study—the first of its kind—categorizes the nation's charter schools into a robust typology according to their educational approaches. It also provides demographic information by type—how many are in each category, what their student populations look like, and so forth—and makes a first attempt at comparing their test scores. The result is a much richer and more accurate picture of the charter school universe.

SCHOOL TYPES

This study identifies 10 unique school types—the result of multiplying five instructional themes by two student population categories.

INSTRUCTIONAL AND CURRICULAR THEMES

- ▲ **Traditional.** These are schools that stress high standards in academics and behavior, rigorous classes, lots of homework, and other earmarks of a “back-to-basics” approach.
- ▲ **Progressive.** This category includes schools that subscribe to educational philosophies and/or practices aligned with “progressivism,” which places a premium on individual development.
- ▲ **Vocational.** These schools seek to equip students with practical, career-related skills that will help them make the transition from school to work.
- ▲ **General.** Charter schools in this category, including “conversion” schools that were previously operated by a district, are essentially indistinguishable from conventional neighborhood public schools.
- ▲ **Alternative delivery.** This category includes schools that provide most instruction outside of traditional school buildings or classrooms, such as “virtual” charter schools.

STUDENT POPULATION

- ▲ **Open enrollment.** These schools do not target specific student populations for admission.
- ▲ **Targeted student population.** These schools serve students with specific needs or attributes.

Charter school typology and school distribution for Arizona, California, Florida, Michigan, and Texas, 2001-2002

| | Open Enrollment | Targeted Student Population | Totals |
|----------------------|------------------------|------------------------------------|---------------|
| Traditional | 260 (22.4%) | 8 (.7%) | 268 (23.1%) |
| Progressive | 329 (28.3%) | 8 (.7%) | 337 (29%) |
| Vocational | 50 (4.3%) | 93 (8%) | 143 (12.3%) |
| General | 153 (13.2%) | 189 (16.3%) | 342 (29.5%) |
| Alternative Delivery | 69 (5.9%) | 4 (.3%) | 73 (6.2%) |
| Totals | 861 (74.1%) | 302 (26%) | 1163* |

Note: Percentages are of total sample.

** Our survey was of 1,182 schools. We were able to assign types for 1,163 of them. Most of the schools for which no type was assigned closed during the course of our study.*

STUDENT ACHIEVEMENT BY TYPE

This study also includes the first attempt to compare the test scores of various types of charter schools. The results are not definitive; limitations in the data do not permit us to make strong conclusions. Still, preliminary evidence indicates that some types do outperform others.

ABSOLUTE PERFORMANCE BY TYPE, ADJUSTED FOR DEMOGRAPHICS

Higher-Performing Types

Traditional

General/Open Enrollment

Progressive

Lower-Performing Types

Vocational

General/Targeted Student Population

Alternative Delivery

The picture looks different, however, when we examine the progress of school types over time; those that started out farthest behind made the strongest gains from one year to the next.

CONCLUSIONS

It is possible to develop a typology of charter schools that is replicable and defensible. It also appears, as expected, that a relationship exists between school type and student achievement. As better data become available, it will be up to the research community to utilize (and perhaps refine) this typology and rigorously test whether certain school types outperform others. The findings will be just as important to policymakers and educators as the “horse-race” comparisons of charters against traditional public schools.

FOREWORD

What does the phrase “charter school” convey to you? A common working definition is “an independently operated public school of choice, freed from many regulations but accountable for its results.” This and similar framings of the charter school concept really address matters of structure, governance, and accountability. They say nothing about what sort of education is offered by charter schools. What is their curriculum? Their pedagogy? Their theory of learning? Their way of matching what goes on in the classroom (assuming they have classrooms) with the needs or circumstances of their students?

Discussions of chartering and charter schooling practically never get into such matters. Yet the essence of a charter school is supposed to be its differentness from other schools,

Somewhere between an undifferentiated mass of 3,500 “charter schools,” and 3,500 unique institutions, a typology was waiting to be created.

at least other schools in its vicinity. If it’s not different, why would anyone attend it? Which leads to the question of just how it is different, if indeed it is? What makes it tick as an educational institution?

Why these questions rarely get answered seems to me to have two explanations. One is that people read too much into the “charter” label on a school, somehow viewing it as the school’s key institutional attribute rather than, more accurately, a license to operate under certain conditions. It’s akin to using the word “boy” to describe a kind of person, or “bird” to characterize an animal. Yes, it tells you something, mainly about what the creature is not—not a girl, not a mollusk or amphibian. But it doesn’t tell you much. The differences among boys—big and little, strong and weak, black and white and brown, toddler and quarterback, law-abiding and delinquent—are vast, and in many ways more consequential than the difference between boy and girl. Ditto the differences between eagle and sparrow, between penguin and seagull, between robin and albatross. “Bird” and “boy” just don’t tell you a heckuva lot. Neither does “charter school.” In fact, that a school operates under a charter may be the least important thing about it.

The second reason we seldom get decent answers to the “how is it different” or “what’s important about it” questions is that some people think every charter school is *sui generis*: that the corpus of 3,500-plus charter schools now operating in the United States is so unbelievably diverse that, in truth, each one is best seen as a unique educational institution, unlike all others. If you follow that reasoning, you would not be disposed to generalize, save to note that they all have charters.

Our experience with charter schools suggested to us that both views are wrong; the array of educational institutions that has arisen in the United States over the past 15 years, in fact, contains a number of distinct and distinctive subsets or types or categories. They’re not just “birds.” Edison schools are different from Paideia schools; dropout-recovery schools are different from primary schools; “virtual” schools are different from brick-and-mortar schools; and so forth.

But neither are we looking at 3,500 categories. The forty-odd KIPP Academies have a lot in common with each other, as do, say, the “Core Knowledge” charter schools. Knowing that a school belongs to one of those groupings tells you a lot about it.

Somewhere between an undifferentiated mass of 3,500 “charter schools,” and 3,500

unique institutions entirely lacking in useful subcategories, we reasoned that there was a “typology” waiting to be created. A defensible, reasonably analytic, manageable number of types or categories or flavors of charter schools. With a typology in hand, we further reasoned, one could learn still more about charter schooling. How many of which sort of schools, for example? Do they serve different populations of kids? Do they tend to be bigger or smaller? And then—the \$64,000 question—is there any difference in their academic effectiveness or performance, any difference that corresponds to (if indeed it isn’t caused by) their distinctive characteristics?

This was unknown territory but well worth exploring. So we asked Dr. Dick Carpenter of the University of Colorado at Colorado Springs to work on this for us. Although now a college professor, Carpenter once served as the principal of a K-8 charter school—an experience that motivated his interest in this study. We persuaded several funders to help

*That a school operates under a charter
may be the least important thing about it.*

underwrite such as analysis, and so extend hearty thanks to the Pisces Foundation and the Challenge Foundation for their generous support. And we recruited a host of expert advisors to supply Carpenter and us with guidance as the project proceeded. So a hearty thanks to group members Macke Raymond, Kellie O’Keefe, Lew Solmon, Caprice Young, Robert Linn, Mary Gifford, and Gregg Vanourek. We’re also grateful as well to researchers Linda Carroll, Deborah Cole, and Laura Severn, who assisted Dr. Carpenter.

This report contains the typology of charter schools that we sought, as well as a first attempt at discerning whether some types are more effective than others. The typology is based on Carpenter’s careful sorting of 1,182 charter schools, representing 87 percent of all those operating in 2001-2002 in the five states (Arizona, California, Florida, Michigan, and Texas) that then accounted for the lion’s share of U.S. charter schools.

Carpenter sorted the schools into 55 categories, then grouped those into ten larger types. He shows how many schools are in each, then provides some welcome data about the kinds of kids they enroll, their average size and age, etc.

The “typology” is a milestone in its own right. To the best of our knowledge, the charter movement—and charter analysts and policymakers—have never before had anything like it.

I find it fascinating on several dimensions. I was surprised to discover, for example, that “progressive” schools outnumber “traditional” schools in the charter universe—but that both are surpassed by what Carpenter calls “general” schools, i.e., those with no distinctive curricular or pedagogical emphasis. I was less surprised to see, once again, the very large percentages of charter pupils in every category who are poor and minority—but it is interesting to observe that low-income pupils are somewhat less common in “progressive” and “alternative delivery” schools.

The finer-grained typology in Appendix A has some tantalizing tidbits, too. For example, the fact that “Core Knowledge” accounts for the second largest category of “traditional” schools (after generic “back-to-basics”) and that Montessori is the largest category under “progressive,” with “arts” coming in a close third.

To be sure, the charter world is changing rapidly. For instance, there are dozens of KIPP Academies today, which was not even a discernable category in 2001-02. The number of

“home study” schools has likely decreased (as California has cracked down on them), while “virtual” charter schools have blossomed in many states.

Then Carpenter went a step farther and asked if certain types of charters are more effective than others in terms of student achievement. The available data were less than ideal, and, as he pointed out to us, few of his findings withstand a rigorous test of statistical significance. Still, a few tantalizing bits emerge. In absolute terms, “traditional,” “progressive,” and “general/open enrollment schools” outperformed “vocational,” “alternative delivery,” and “general/targeted student population” schools. In other words, looking at a two year adjusted average, the first three types had significantly higher test scores than the last three. But examine the schools based on gains in scores over two years and the results invert—i.e., the lower-achieving types made greater progress from one year to the next. Similarly, in reading, “traditional” schools outperform “progressive” ones in absolute terms, but the latter made greater gains over time.

What to make of these findings? They suggest that a relationship exists between school type and achievement. Perhaps the differences spotted here will hold up with stronger data and a more rigorous methodology. We certainly don’t have enough information yet to encourage policymakers to shun certain school types; as an authorizer ourselves (in Ohio) we will still consider strong applications from the “Vocational” or “Alternative Delivery” (or even “Progressive!”) genres of charter operators.

The day may come when we’ll learn that certain school types are unlikely to produce the results our nation needs, or that some are especially effective. We’ve built the typology; now, researchers, please go forth and use it.

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Washington, D.C.
April 2006

INTRODUCTION

Many of today's liveliest education policy issues are entangled with charter schools. Though much attention has focused on the schools themselves, especially on their academic performance, the policies they engage are, in fact, multifarious. For example, the No Child Left Behind Act of 2001 (NCLB) confers on children stuck in low-performing district schools the opportunity to enroll instead in a public charter school. NCLB also contemplates the conversion of troubled schools into charters as one form of "reconstitution." (So do several state accountability strategies.)

Such policies seem to presume that children will be better served by charter schools—and that a poorly performing school would get better if it were chartered. A related assumption seems to be that "a charter school is a charter school is a charter school."

Anyone who has spent time in charter schools or with their data knows that reality is far more complicated. Charter schools are certainly not all alike. Indeed, chief state school officers have been heard to say that some of their highest performing schools are charters—but so are some of their worst performers.

What accounts for those differences? Do they fall into any pattern? Does it matter what sort of charter school one attends? Are there significant categories, constellations within the charter

Charter schools are not all alike.

Some of the highest performing schools in a given community are charter schools, but so are some of the worst performing.

universe? Indeed, are there subdivisions of that universe that would usefully inform the interminable and seemingly irresolvable debate over whether "charter" or "district" public schools are producing higher achievement or yielding greater academic growth in their pupils?

Some analysts are beginning to appreciate that the charter sector of K-12 schooling should not be viewed monolithically, and that the variation within it needs more rigorous study. The federal random-assignment charter study currently in the field, for example, is designed to yield information about the impact that state policy differences (such as charter funding and autonomy) have on achievement. Others are examining the relationship between the quality of school authorizers and the performance of the schools.

But almost no one to date has shown much interest in the conceptual, philosophical, and programmatic differences among charter schools. Few have asked, much less attempted to answer, even basic questions, such as: Which curriculum is more effective, back-to-basics or Montessori schools, ethnocentric or Core Knowledge? Our search through three widely used academic databases produced a wealth of references to charter schools, but almost no references to performance differences among them.

Given the origins of the charter movement, this is surprising. Fostering curricular autonomy and diversity was among the foremost goals of early charter laws. In 1992, for example, *Curriculum Review* discussed how Minnesota's new charter law would grant teachers "the freedom to develop their own curriculum and agenda" to attract students with "an affinity for the school's teaching methods, the school's learning philosophy, or a particular subject."

Early charter enthusiasts, such as Stephen Tracy, also stressed that charters should be a source of school innovation. He wrote in 1992:

Perhaps the greatest promise of charter schools is that they would break the intransigence that characterizes most traditional public school systems. Charter schools could be created by independent groups of educators, by corporations, or by universities. They could even be established by public school systems that are committed to dramatic reform. As a result, promising innovations that have been blocked by bureaucratic wrangling would find their way into practice more rapidly.

To compare the effectiveness of different educational approaches within the charter sector requires the creation of a systematic typology of charter schools. A useful typology must be comprehensive enough and parsimonious enough to be used by researchers. Once designed, researchers would need to collect descriptive and performance data on each school in order to compare the different school types.

Before we can compare how effective the different educational approaches employed by charter schools are, we must first create a typology of schools.

In 2004 we set out to accomplish these tasks via a two-phase process. Phase one entailed building and applying an accurate, workable typology of charter schools. The second phase examines performance differences among charter school types.

DEVELOPING A CHARTER SCHOOL TYPOLOGY

We began by building a sample of schools from the five states with the most charters in 2001-2002, a year we chose to maximize our chances of being able to gather usable achievement data. At the time, Arizona, California, Florida, Michigan, and Texas were home to 59 percent of the nation's charter schools. The goal was to include each charter school in these states; available data got us close: a sample of 1,182 schools, more than 87 percent of all those operating.

For each school, we collected descriptive data, including its enrollment and the percentage of its pupils who were minority or who were eligible for the federal free/reduced lunch program (a widely-used gauge of poverty). We also asked how many years the school had operated. Then, we created a list of charter types, gleaned from descriptions available through school websites, school accountability reports, state education department websites, state charter school associations, and/or direct correspondence with schools. This resulted in 55 types of schools. Appendix A describes each of these sub-types.

Deducing the types from textual material relied on descriptions provided in mission statements, goals, curricular overviews, students they seek to serve, and the like. Often, these descriptions stated the type explicitly: "We are a Core Knowledge school," or, "Our school uses a hands-on, project-based approach to teaching." Others were too general, or textual information provided no descriptive information whatsoever, requiring direct correspondence with the school. Even then, school personnel were frequently unable to identify a unifying theme for their school. Thus, the question that elicited the best information was: "What distinguishes your school from the other public schools in your area?"

Through a multi-stage process, involving two groups of charter researchers and experts, these school types were grouped into a two-dimensional typology that allows for a sophisticated representation of both school theme and intended student population (see Figure 1).

Obviously, judgments had to be made. The team had to decide, for example, whether to classify the Edison Schools model as traditional or progressive (they determined it to be traditional). The typology then underwent an inter-rater reliability analysis, a process that determined the extent of agreement among multiple raters. Researchers were asked to place schools into one of the types, using the descriptive data at hand; the analysis, across three raters, showed substantial agreement on the typology and its suitability for classifying charter schools.

THE TYPOLOGY

As Figure 1 shows, except for the final category (alternative delivery), the typology's rows relate to schools' instructional or curricular themes, such as "traditional" or "progressive." The columns represent schools' intended pupil populations, with the left column containing schools that serve all comers and the right column containing schools that target particular sorts of youngsters (e.g., dropouts or children with disabilities). The two dimensions allow for schools to be classified both by type and by student population. For example, some charter schools designed to serve at-risk populations subscribe to a traditional approach, while others are built around vocational training.

FIGURE 1
Charter school typology and school distribution

| | Open Enrollment | Targeted Student Population | Totals |
|----------------------|------------------------|------------------------------------|---------------|
| Traditional | 260 (22.4%) | 8 (.7%) | 268 (23.1%) |
| Progressive | 329 (28.3%) | 8 (.7%) | 337 (29%) |
| Vocational | 50 (4.3%) | 93 (8%) | 143 (12.3%) |
| General | 153 (13.2%) | 189 (16.3%) | 342 (29.5%) |
| Alternative Delivery | 69 (5.9%) | 4 (.3%) | 73 (6.2%) |
| Totals | 861 (74.1%) | 302 (26%) | 1163* |

Note: Percentages are of total sample.

** Our survey was of 1,182 schools. We were able to assign types for 1,163 of them. Most of the schools for which no type was assigned closed during the course of our study.*

SCHOOL TYPES DEFINED

INSTRUCTIONAL AND CURRICULAR THEMES

Traditional. These are schools that stress high standards in academics and behavior, rigorous classes, lots of homework, and other earmarks of a "back-to-basics" approach. Classes tend to be teacher-centered, students are supposed to be industrious and well-behaved, and the courses are full of challenging, prescriptive academic content. Philosophically, traditionalists tend to subscribe to an objective view of knowledge and to see the teacher's role as one of classroom expert and conveyor of information. As such, they instill in students a pre-determined body of knowledge and skills.

Progressive. This category includes schools that subscribe to educational philosophies and/or practices aligned with “progressivism,” which places a premium on individual development. Learning is approached holistically and includes paying attention to students’ emotional, spiritual, physical, social, and intellectual needs. Classroom activities are often student-centered, hands-on, project-based, and cooperative in nature. Students assume ownership of tasks and accountability for their learning, and they are encouraged to work without teacher intervention or constant supervision. In fact, the teacher often relinquishes the role as expert and assumes the role of facilitator or resource person. In common parlance, the “progressive” teacher is a “guide on the side,” not a “sage on the stage.”

Vocational. These schools seek to equip students with practical, career-related skills that will help them make the transition from school to work. Students—usually teens—participate in apprenticeship and on-the-job training programs designed to give them work experience, job-specific skills, and marketable credentials.

NCLB encourages school districts to convert underperforming, traditional public schools into charters, but this policy assumes that charter status will improve performance regardless of the educational approach employed.

General. Charter schools in this category, including “conversion” schools that were previously operated by a district, are essentially indistinguishable from conventional neighborhood public schools. These schools do not adopt innovative curricula or distinctive instructional strategies that distinguish them from mainstream public schools. As charter schools, however, they are supposed to operate with greater freedom and accountability.

Alternative delivery. This category includes schools that provide most instruction outside of traditional school buildings or classrooms, such as “virtual” charter schools. Often, individual learning plans are crafted for students, who typically study at home. Teachers guide and/or monitor their progress from afar as the youngsters work independently or, more often, under their parents’ tutelage. Students must complete required state testing because they’re enrolled in a public charter school, but content and pedagogy remain flexible.

Alternative delivery schools differ from others by their mode of delivery, not by instructional or curricular themes. It is difficult to determine the instructional theme in many of these schools. By creating a separate category, we avoid making assumptions regarding their philosophies (e.g., most homeschooling is probably traditional) and reduce descriptive and statistical error. Some “virtual” charter schools have clear, uniform, pre-set curricula, and these may be either traditional or progressive, though seldom “vocational.”

STUDENT POPULATION

Open enrollment. These schools do not target specific student populations for admission. That is, they are not designed explicitly to serve students with specific needs, such as those with disabilities, dropouts, and so forth. Instead, they serve any population of students within the grade levels they offer, typically on a first come or lottery basis.

Targeted student population. These schools serve students with specific needs or attributes. Many of these youngsters have not enjoyed success in the mainstream educational environment due to risk factors, disabilities, or (ironically) giftedness. Further, many of these schools describe themselves as providing a second chance for success by offering remediation (i.e., “dropout recovery”). But the school’s overriding mission typically has more to do with serving a particular type of student than with employing any particular curriculum or pedagogy.

DISTRIBUTION OF SCHOOLS WITHIN THE CHARTER SCHOOL TYPOLOGY

When the 1,182 charter schools in our sample with identifiable types were placed into the typology (See Figure 1, above), several findings emerged:

- ▲ A plurality of schools (29.5 percent) are classified as **general**, with more than half of those aimed at a targeted population, most frequently at-risk students and/or students with disabilities. These schools tend to self-identify as “standards-based,” consistent with traditional public schools, or to emphasize structural differences, such as size or length of school year, rather than innovative curricula or distinctive instructional strategies.
- ▲ **Progressive** charter schools come in a close second (29 percent) and are overwhelmingly designed for an open-enrollment student population.
- ▲ **Traditional** charter schools come in third (23.1 percent). Most are also designed for an open-enrollment student population.
- ▲ **Vocational** charter schools, more than any other category, are aimed at particular student groups. Two-thirds of the vocational charters studied were focused on specific student populations. Approximately three-quarters of these are of the “dropout recovery” variety.
- ▲ **Alternative delivery** charters make up a small fraction of the sample (6.2 percent), and almost all of them serve general enrollments.
- ▲ Just over a quarter of all charter schools serve targeted student populations.

AVERAGE ENROLLMENT BY TYPE

Examining these categories by size of school produced several noteworthy patterns (see Figure 2). Among open-enrollment schools, those in the progressive category tend to have the fewest students (228), while schools in the general category—some of the traditional public schools that converted to charter status—have the most (430). Alternative delivery schools tend to be relatively large, but their targeted-population schools tend to be larger than their open-enrollment schools. Of course, the implications of enrollment size in alternative delivery schools likely differ from those of other types, since class sizes, student-teacher ratios, and other typical issues are not necessarily evident.

FIGURE 2
Average enrollments within the charter school typology

| | Open Enrollment | Targeted Student Population |
|----------------------|------------------------|------------------------------------|
| Traditional | 324 | 127 |
| Progressive | 228 | 173 |
| Vocational | 294 | 200 |
| General | 430 | 230 |
| Alternative Delivery | 341 | 363 |

STUDENT DIVERSITY

Examining minority student populations as well as pupils qualifying for free/reduced lunch yielded significant differences by school type (see Figure 3). In three cases (traditional, progressive, and alternative delivery), schools that target specific student populations (overwhelmingly special-education and at-risk students) enrolled greater percentages of minority and free/reduced lunch students than those of the same types with open enrollments. These figures may be skewed, however, due to the small number of these schools. In addition, schools in the alternative delivery/open-enrollment category enrolled significantly smaller percentages of poor and minority pupils.

FIGURE 3
Average percentages of minority and free- and reduced-lunch students within the charter school typology

| | Open Enrollment | | Targeted Student Population | |
|----------------------|------------------------|------------------------------|------------------------------------|------------------------------|
| | Percent Minority | Percent Free & Reduced Lunch | Percent Minority | Percent Free & Reduced Lunch |
| Traditional | 48 | 40 | 61 | 46 |
| Progressive | 43 | 36 | 63 | 61 |
| Vocational | 59 | 49 | 55 | 47 |
| General | 52 | 47 | 51 | 41 |
| Alternative Delivery | 20 | 13 | 34 | 25 |

Such patterns make sense intuitively. The alternative delivery type includes a large proportion of students in home study situations—a population not typically distinguished by ethnic or socioeconomic diversity. Moreover, at-risk students are more likely to be from lower income households and/or minority groups. Thus, one would expect higher percentages of these groups in schools serving targeted student populations. More surprising, however, are the somewhat lower percentages of poor and minority students in vocational and general charter schools that serve targeted student populations.

AGE OF SCHOOL

In almost all cases, schools that target specific populations have been operating for fewer years than their thematic counterparts (see Figure 4). The exceptions are alternative delivery/targeted student population schools, which, on average, have operated more than two years longer than open-enrollment schools in the same category.

FIGURE 4
Age of school

| | Open Enrollment | Targeted Student Population |
|----------------------|------------------------|------------------------------------|
| Traditional | 2.68 | 1.87 |
| Progressive | 3.03 | 1.87 |
| Vocational | 3.10 | 2.75 |
| General | 3.00 | 2.74 |
| Alternative Delivery | 3.22 | 5.50 |

ACADEMIC ACHIEVEMENT AND CHARTER TYPES

Beyond curricular and demographic variations among charter schools, there also appear to be achievement variations. For example, students in traditional schools outscore students in vocational schools. Progressive schools post higher test results than alternative delivery schools. Such differences held up even after adjustments were made for minority student populations and poverty indicators. However, the picture looks different when we analyzed student achievement gains over time; the school types that start out farthest behind make the most progress. Still, it's difficult to know which of these variations may be due to school effectiveness and which could be attributable to some unmeasured difference in the student population, such as motivation.

HOW WE MEASURED ACHIEVEMENT DIFFERENCES

To test achievement differences among types, we collected assessment data for each school. Unfortunately, it was not possible to use 2001-2002 school year data, as we did when analyzing school demographics. This is because some states changed assessments (Texas switched from TAAS to TAKS in 2003), while others did not test at every grade level, severely limiting sample sizes.

Data from the 2003-04 and 2004-05 school years were better suited to this type of comparison, though even these weren't perfect. The sample sizes are still relatively small, and Michigan had to be dropped from the achievement study, because the Wolverine State did not collect achievement data with regularity. Therefore, the final sample used in this study for purposes of achievement analysis includes 722 schools, down from the 1,182 represented in the demographic study.

Changes in the sample also required an alteration to the typology. Specifically, the smaller sample generated prohibitively few schools in some of the types. Therefore, the typology was partially collapsed. The student population columns were combined for four of the row types—traditional, progressive, vocational, and alternative delivery. Thus, only the “general” type distinguishes by student populations.

*Charters are not the undifferentiated mass
imagined by many researchers.*

School scores represent the overall academic performance for several grade levels. (See Figure 5 for the grades in which assessment data were collected.) For example, many charter schools serve grades K-8. In such cases, their scores represent an average of grades 3 and 6 in 2003-04 and grades 4 and 7 in 2004-05. Grades for high school data differed in Florida due to availability.

FIGURE 5
Grade Levels at which Assessment Data were Collected

| | 2003-04 | 2004-05 |
|------------|-----------------|-----------------|
| Arizona | Grades 3, 6, 10 | Grades 4, 7, 11 |
| California | Grades 3, 6, 10 | Grades 4, 7, 11 |
| Florida | Grades 3, 6, 9 | Grades 4, 7, 10 |
| Texas | Grades 3, 6, 10 | Grades 4, 7, 11 |

These data were analyzed two ways.

1. **Absolute performance differences.** This shows which school types score best, relative to one another. We used both years of data (2003-04 and 2004-05) to perform this analysis.
2. **Gain scores.** This shows the rate of change from 2003-04 to 2004-05, based on school type. In short, which types accomplished the greatest achievement gains? Some types show significantly greater gains than others, but because their students started out so far behind, their overall performance is still relatively low.

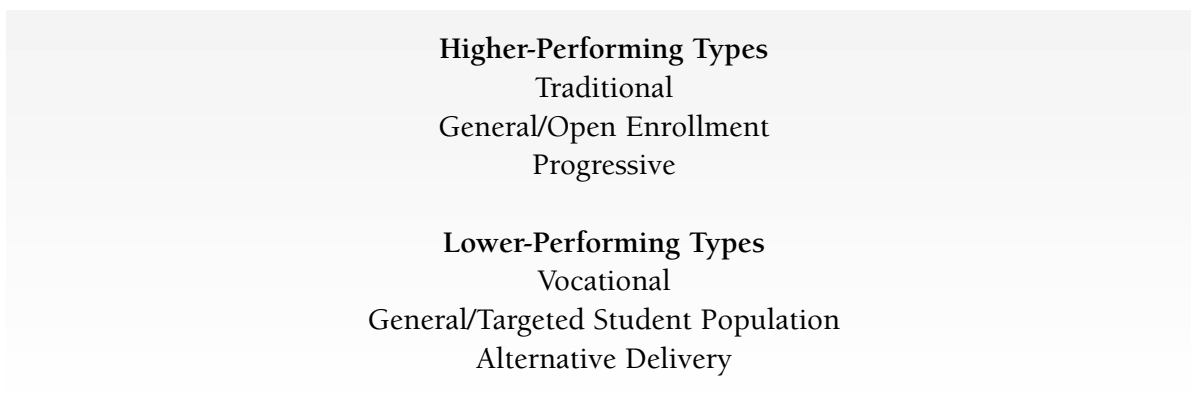
In both cases, the reading and math data were analyzed separately and together. Analyzing combined scores gives a good overall picture of student performance, while the examination of separate subject scores allows us to draw finer distinctions about the performance of each type. We also controlled for the following variables: percent minority, percent free and reduced lunch, school size, and years in operation. Prior research has indicated each of these influenced achievements in schools. Therefore, we needed to take these into account in order to isolate the effect of school type on performance.

ABSOLUTE PERFORMANCE BY TYPE

When the six types of charter schools were analyzed for absolute performance, two distinct groups emerged. The higher performing group includes the traditional, general/open enrollment, and progressive types, while the group with lower scores includes the vocational, general/targeted student population, and alternative delivery types (see Figure 6). The difference between the two groups is statistically significant.

FIGURE 6

Absolute performance by type, adjusted for demographics



More subtle differences emerge when performance is broken out by subject. On reading alone, the traditional and general/open enrollment categories performed better than the progressive type. Among the lower performing charter types, there were no statistically significant differences in performance. (See Appendix B for the adjusted, absolute means by type.)

GAIN SCORES

When gain scores are compared, the achievement hierarchy displayed above inverts; the lowest-performing types made the greatest progress over time. Specifically, vocational schools show the greatest gains overall. In math, alternative delivery schools made the greatest gains. However, only a few of the differences between types were statistically significant, namely those between:

- ▲ Vocational and traditional (with vocational schools making significantly greater progress in both reading and math);
- ▲ Vocational and general/open enrollment (with vocational schools making significantly greater progress in reading, and reading and math combined); and
- ▲ Progressive and traditional (with progressive schools making significantly greater progress in math, and reading and math combined).

CONCLUSIONS

For the statistically savvy reader, some of these findings come as no surprise, especially that school types starting out behind made the greatest progress over time. After all, few schools show consistently strong gains every year. Rather, schools regularly post strong gains one year and weak gains (or even losses) the next. It stands to reason, moreover, that schools with low year-one scores have more room to change (or grow) than those with higher starting scores.

Nevertheless, these results do suggest discernible differences in charter achievement based on type, even after controlling for indicators of at-risk populations. Could that point to a difference in school quality that is associated with school type?

Perhaps, although it is also quite possible that achievement differences reflect subtle variations in student populations served, such as in the vocational and general/targeted student population types. Yet, at least one type challenges that conclusion—alternative delivery. This type overwhelmingly includes home educated students, who some prior studies indicate perform well academically. Nevertheless, the alternative delivery type consistently showed the lowest overall achievement scores.

The gain score analysis is also problematic. The relatively small gain scores and the general lack of statistical significance between them undermine the ability to ascribe differences strictly to school type rather than characteristics students may bring, and which attract them, to certain types of schools. Analysts term this selection bias, and it's an issue whenever an element of participant choice is present in a study like this.

Other limitations also suggest caution. First, these results come from test data pooled across states with differences in standards, assessments, and cut scores used to create the proficient and advanced categories. Second, achievement was measured at the school level rather than the student level. Scores aggregated at the school level are susceptible to error due to a number of factors, including student mobility, test differences across grades, measurement error, etc. Future research would benefit from student level data and a consistent measurement tool.

Third, only two data points, 2003-04 and 2004-05, make for a fragile growth model. With NCLB requirements that mandate the assessment of students annually in grades 3 through 8, future research will be able to provide a fuller longitudinal picture.

For these reasons, this study can only suggest differences in student achievement by charter school type. As states develop their comprehensive testing systems as required by NCLB, researchers should seize the opportunity to tackle this problem again, using stronger data and better analytical tools. This is particularly important, since researchers, journalists, and policymakers often treat charter schools as an undifferentiated mass. There's reason to believe that types—and more importantly, distinct educational approaches—matter a lot. America deserves to know which work best.

APPENDIX A

Charter school typology with distribution by instructional sub-types

| | Open Enrollment | Targeted Student Population |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Traditional 268 (23.1%) | math-science: 10 (.8%) Core Knowledge: 57 (4.9%) back-to-basics: 133 (11.4%) college prep: 48 (4.1%) International Baccalaureate: 2 (.1%) Edison: 10 (.8%) | back-to-basics/at risk: 4 (.3%) college prep/alternative: 1 (.0%) college prep/at risk: 2 (.1%) college prep/gifted: 1 (.0%) |
| Progressive 337 (29%) | multicultural: 12 (1.0%) ethnocentric: 13 (1.1%) dual language immersion: 33 (2.8%) international/global: 5 (.4%) progressive: 46 (3.9%) multiple intelligences: 19 (1.6%) constructivist: 8 (.6%) problem-based: 5 (.4%) project-based: 36 (3.0%) experiential: 26 (2.2%) Montessori: 53 (4.5%) Paideia: 1 (.0%) Waldorf: 14 (1.2%) environmental: 7 (.6%) technology: 9 (.7%) arts: 42 (3.6%) | ethnocentric/alternative: 1 (.0%) dual language immersion/at risk: 1 (.0%) progressive/special ed.: 1 (.0%) progressive/at risk: 1 (.0%) project based/at risk: 2 (.1%) experiential/alternative: 1 (.0%) experiential/gifted: 1 (.0%) |
| Vocational 143 (12.3%) | vocational: 34 (2.9%) technical: 1 (.0%) school-to-work: 2 (.1%) entrepreneurship: 10 (.8%) business: 3 (.2%) | vocational/alternative: 27 (2.3%) vocational/at risk: 38 (3.2%) technical/alternative: 6 (.5%) school-to-work/alternative: 10 (.8%) school-to-work/at risk: 11 (.9%) entrepreneurship/at risk: 1 (.0%) |
| General 342 (29.5%) | general: 110 (9.4%) conversion: 43 (3.6%) | general/alternative: 81 (6.9%) general/special education: 22 (1.8%) general/at risk: 86 (7.3%) |
| Alternative Delivery 73 (6.2%) | home study: 57 (4.9%) virtual: 9 (.7%) hybrid: 3 (.2%) | home study/at risk: 2 (.1%) virtual/alternative: 1 (.0%) virtual/at risk: 1 (.0%) |

CHARTER SCHOOL TYPOLOGY WITH INSTRUCTIONAL SUB-THEMES

We have created a list of sub-themes of charter schools within the typology. These types were developed using descriptions provided on school websites, on state departments of education websites, in school accountability reports, by state-wide charter school associations, and/or by direct correspondence with schools. A distribution of sub-themes, along with the number of schools in each category, is displayed on page 9. An explanation of each sub-theme follows.

DESCRIPTIONS OF INSTRUCTIONAL SUB-THEMES

TRADITIONAL

These schools stress high standards in academics and behavior, rigorous classes, lots of homework, and other earmarks of a “back-to-basics” approach. Their classes tend to be teacher-centered, students are industrious and well behaved, and the courses are full of challenging, prescriptive aca-

*Traditionalists subscribe to an objective view of knowledge
and see the teacher's role as one of classroom expert*

demic content. Traditionalists tend to subscribe to an objective view of knowledge and to see a teacher's role as one of classroom expert and conveyor of information. As such, they instill in students an accepted body of information and skills previously established by others.

Many, if not most, **college prep** and **math-science** charter schools (including **International Baccalaureate**) fit this description. They offer a series of advanced classes (usually Advanced Placement or “honors” courses), set high standards for achievement, and use rigorous content. These charters often subscribe to more traditional approaches to teaching and learning, i.e., didactic pedagogy.

Likewise, schools that identify themselves as **back-to-basics** emphasize high standards both in skill areas, such as reading, math, writing, and spelling, and in familiar academic disciplines, such as science, history, and geography. Instruction is teacher-centered and includes drill, prescribed content and goals, and some competency testing.

One of the more popular back-to-basics programs used by charter schools is E. D. Hirsch's **Core Knowledge** sequence. It provides a detailed outline of content for the fine arts, geography, history, language arts, mathematics, and science. Though Core Knowledge does not specify instructional methods as do other popular back-to-basics programs (e.g., Direct Instruction), its approach is prescriptive.

Another proprietary program is **Edison Schools**. With specific academic standards in a core curriculum, structured assessments, and teacher-centered pedagogies, Edison Schools exemplifies a more traditional, “basics” approach. Curriculum in the younger grades includes reading, writing, math, science, history, language, art, and physical education. The upper grades expand on these by including instruction in government, literature, economics, and various Advanced Placement courses for college prep.

PROGRESSIVE

This category includes schools that subscribe to educational philosophies and/or practices aligned with “progressivism,” which places a premium on individual development. Learning, therefore, is approached holistically and includes paying attention to youngsters’ emotional, spiritual, physical, social, and intellectual needs. Classroom activities are often student-centered, hands-on, project-based, and cooperative in nature. Students assume ownership of tasks and accountability for their learning, and they are encouraged to work without teacher intervention or constant supervision. In fact, the teacher often relinquishes the role as expert or provider of knowledge and assumes the role of facilitator or resource person. In common parlance, the teacher is a “guide on the side,” not a “sage on the stage.”

Although a few charter schools identify themselves as “progressive,” more use the term “**constructivist**.” Their definitions are virtually identical. According to constructivist theory, knowledge is created by people in the process of learning and is influenced by their values and culture. In teaching and learning, knowledge is constructed when students form their own interpretations of evidence.

Many charter schools use technology in the classroom, but **technology** focused schools most often use constructivist pedagogies. For example, both the Charter School of Technology

*Progressive schools are driven by the belief
that knowledge is constructed when students form
their own interpretations of evidence.*

in Houston and the Minnesota New Country School provide student-centered curricula in which students engage in purposeful and active learning and co-construction of knowledge, with technology as the medium.

Likewise, **experiential** education allows students to construct knowledge, skills, and values from their direct experiences. Experiential education denotes a learning approach involving action on the part of students. Typically, experiential curricula are thematic and exploratory, using hands-on, student-directed, reflective, or project-based activities.

Environmental education programs, which stress learning in natural settings, frequently make use of the experiential approach, particularly among charter schools. The main objectives of environmental education are fostering an appreciation of the environment; developing knowledge, skills, attitudes, values, and commitment that allow for active participation in decision-making; and encouraging students to engage in the resolution of environmental problems. These schools do so with action-oriented, interdisciplinary, learner-centered curricula.

Close cousins to experiential schools are those that structure their learning around **problem-based** and **project-based** approaches. These move beyond a focus on simply understanding concepts. Instead, students begin with an authentic problem or question, learn the issues and information necessary to solve the problem, and conclude the activity with reflection on how to integrate their new knowledge into the existing knowledge base.

Another form of constructivist, experiential education is the **arts-focused** charter school. Generally, arts schools take one of two forms. The first is for those interested in pre-professional arts training. These students need time in a competitive arts environment for concentrated study to advance their skills to the highest possible level. The second comprises students who enjoy the arts and want in-depth arts exploration in an arts-infused curriculum. These students are often bright and creative thinkers who apply their arts interests and skills to future education and

careers in other disciplines. In either form, schools focused on the arts seek to cultivate self-discipline, autonomy, and self-reflection as students work through hands-on, project-based activities.

Waldorf Education, used by some charter schools, is a proprietary example of the second form of arts-focused school. At its core, Waldorf Education is child-centered, holistic, and developmental in nature. Waldorf educators strive to develop the aesthetic, spiritual, and interpersonal sensibilities of the child in ways that enrich, enliven, and reinforce intellectual knowing. To facilitate this, Waldorf integrates handiwork, crafts, music, art, and dance into the academic curriculum. Words such as rhythm, integral, natural, wholeness, and balance dominate the conversation in and around school.

Although not as arts focused as Waldorf, **Montessori** education shares many of the same progressive, constructivist, and developmental tenets. The Montessori view of the child is that of a human person creatively unfolding from within. For this reason, Montessori schools consider the child in his or her entirety—spirit, mind, and heart. Montessori education emphasizes learning through experiences in which the child acts on her or his environment.

Another quasi-proprietary constructivist curriculum used in charter schools is the **Paideia** approach, which encourages students to take control of their own learning and construct their own understanding of the world in which they live. The goal in Paideia is to make 80 percent of learning student-centered, typically accomplished through multiple learning modes, cooperative projects, active learning, and Socratic dialogue.

Multicultural education seeks to create social change involving issues of culture, ethnicity, and language. These goals reflect the belief that traditional schools transmit an “official” culture reflective of the mainstream group, while failing to take into account minority populations. Thus, this approach changes the basic structure of the curriculum by encouraging the examination and exploration of concepts, issues, problems, and concerns from a variety of cultural perspectives. Students learn to think critically and reflect upon the viewpoints of a variety of cultural, gender, religious, and social class groups.

Ethnocentric schools, likewise, seek to create social change by teaching children from their “centeredness” rather than their “marginality.” In general, these schools emphasize change in one or more of these areas: social environment, content, pedagogy, and/or language. Ethnocentric schools seek to provide a social environment that embraces cultural traditions and interpersonal relationship styles designed to improve student self-esteem, achievement, and cultural identity.

Charter schools that subscribe to international or global education also use the lens of culture to educate students. The terms “**international** education” and “**global** education” are often used interchangeably. In both approaches, schools concern themselves with the moral development of the individual by attempting to help students form positive attitudes toward peace, cultural understanding, and responsible world citizenship. The aim is to empower learners and involve them in transformative social action at the local, regional, and world levels, and to build a community based on human dignity, justice, equity, and freedom.

The final sub-theme in this category, Howard Gardner’s **Multiple Intelligences** theory, enjoys growing popularity among charter schools. This progressive way of conceptualizing thinking and learning rejects a one-dimensional understanding of intelligence and instead postulates at least seven intelligences (logical-mathematical, interpersonal, intrapersonal, linguistic, musical, spatial, and bodily-kinesthetic), each focused on problem-solving and/or creative endeavors.

Schools subscribing to this theory use Multiple Intelligences as a planning framework through which teachers can offer students a variety of learning activities. They incorporate each “intelligence” into all curricular areas. Teachers also design activities to help students become aware of and develop their “intelligences.”

VOCATIONAL

These schools cater to students interested in career education, helping them make a successful transition from school to work. Students—usually teens—participate in apprenticeship and on-the-job training programs designed to give them work experience, job-specific skills, and credentials.

In **school-to-work** charters, students acquire an education that allows them to explore careers and work environments, gain necessary job skills, and earn credentials. Additionally, schools and employers collaborate to emphasize the connection between academic preparation and job requirements.

Self-described **vocational** schools operate in much the same way. Students prepare for roles in the labor force, often in trades such as construction, maintenance, cooking, and automotive technology.

Closely related to business education are charter schools that emphasize **entrepreneurship**. These schools work, most often among inner-city youth, to improve students' academic skills and to expose them to the concept of business *ownership* as an employment option.

GENERAL

This category includes charter schools that are essentially indistinguishable from neighborhood public schools. These schools do not adopt innovative, different, or ideological instructional strategies that distinguish them from mainstream public schools. Some of these charters converted from district-operated public schools.

Conversion schools began life as mainstream public schools but converted to charter status. In some cases, entire districts convert to charter status. Most conversion schools go the charter route in order to shed onerous state regulations. Others convert when facing closure or consolidation. When Brooks County Independent School District in Texas proposed closing Encino School, for example, community members responded by writing a charter to keep the school open.

While some of these schools renew their charters, others revert to traditional public school status following the charter's expiration. Conversion to charter status rarely changes the day-to-day operations of many of these schools. Typically, they simply carry over curriculum and teachers.

Not all charter schools in this category are conversions; most are start-ups. We include these schools in this category because they are indistinguishable from mainstream public schools. Typically, their written descriptions provided few clues into their ideological, philosophical, or curricular emphases, which necessitated direct contact. When called and asked about their school, they most often responded, "We are a standards-based school," or "We teach to the state standards." When asked what distinguishes them from the other mainstream public schools in their area, they responded with structural differences, such as size, or simply, "Nothing."

ALTERNATIVE DELIVERY

This category includes schools that provide most instruction outside of traditional school buildings or classrooms, such as "virtual" charter schools. Often, individual learning plans are crafted for students, who typically study at home while teachers guide and/or monitor their progress from afar as students work independently or, more often, under their parents' tutelage. Students must complete required state testing because they're enrolled in a public charter school, but content and pedagogy remain flexible.

Alternative delivery schools differ from others by their mode of delivery, not by instructional or curricular themes. It is difficult to determine the instructional theme in many of these schools. By creating a separate category, we avoid making assumptions regarding their philosophies (e.g., most homeschooling is probably traditional) and reduce descriptive and statistical error. Some “virtual” charter schools have clear, uniform pre-set curricula and these may be either traditional or progressive, though seldom “vocational.”

“Virtual” schools, or distance education programs, are content-driven curricula that use an online internet platform, correspondence methods, interactive television, or a combination of each to educate students. In **home study** charter schools, where parents have more discretion over curriculum and approach, individual learning plans are crafted for each student. Through an online platform, academy instructors act as certified teachers to guide, counsel, and monitor progress, while students work independently or under their parents’ tutelage. While course offerings and grade levels were limited in the early and mid-1990s, advances in technology now enable home study charter schools to offer comprehensive K-12 curricula.

In some cases, these schools serve the needs of students unable to attend a school due to disciplinary issues, such as expulsion, or geographical limitations (as in outback Alaska). Others serve medically fragile youngsters or others who, for various reasons, would not thrive in daily contact with other pupils. More often, virtual charters cater to home study students. For example, Michigan’s first charter school was a distance learning network of home schoolers from all over the state, not just the chartering district.

A slight variation on this theme includes **hybrid** schools, in which students spend part of their time in home study and part of their time in a bricks-and-mortar school. Often, students attend the bricks-and-mortar classes that parents feel ill equipped to teach or that rely on interaction with peers, such as music, physical education, etc. Thus far, the number of schools in this sub-type, generally confined to California, remains small, due in part to budget cuts imposed in 2001.

DESCRIPTIONS OF STUDENT POPULATIONS

The Targeted Student Population column breaks down schools that do not follow an open-enrollment policy. These schools attract at-risk, alternative, gifted, and special education students, categories which are defined below.

AT RISK

Traditionally, “at-risk” described minority students, students from low-income families, or students from single-parent homes. The term has grown of late, however, to encompass students who are facing health problems, violent behavior, pregnancy, or substance abuse, to name a few. Not surprisingly, these schools enroll more than a normal share of non-cooperative, truant, or otherwise “problematic” students.

ALTERNATIVE

Students attending alternative schools generally have not done well in a mainstream educational environment, though they are not necessarily “at risk.” These schools often describe themselves as providing another chance through remediation and/or innovation. The schools are driven not by curriculum, but rather by student needs. Students typically work under a performance contract and often split their time between school and an outside job. Not surprisingly, these schools usually have close ties to community businesses or industries.

GIFTED

Gifted students are considered to have potential for exceptional academic achievement. Schools catering to these students work to challenge and stimulate them and develop their full capacities.

SPECIAL EDUCATION

Special education students are students who, under federal law, have a right to an individual education plan because of an identified cognitive or physical disability. Schools that cater to students with disabilities are able to concentrate resources and expertise in ways that traditional public schools may not.

APPENDIX B: STUDENT ACHIEVEMENT RESULTS BY TYPE

Adjusted, Absolute Means by Type

| | Reading | Math | Reading and Math |
|-------------------------------------|----------------|-------------|-------------------------|
| Traditional | 63.827 | 57.550 | 60.488 |
| Progressive | 54.131 | 49.567 | 51.529 |
| Vocational | 35.000 | 38.454 | 32.584 |
| General/open enrollment | 63.413 | 57.848 | 59.885 |
| General/targeted student population | 45.058 | 32.369 | 38.234 |
| Alternative delivery | 32.233 | 22.927 | 27.731 |

Mean Adjusted Gain Scores

| | Reading | Math | Reading and Math |
|-------------------------------------|----------------|-------------|-------------------------|
| Traditional | .159 | 2.048 | 1.004 |
| Progressive | 6.560 | 8.620 | 7.521 |
| Vocational | 16.432 | 10.761 | 10.417 |
| General/ open enrollment | -1.389 | 2.296 | .663 |
| General/targeted student population | 5.685 | 2.939 | 3.513 |
| Alternative delivery | 5.591 | 12.361 | 9.163 |