



Charter schools

Investing in innovative education

October 2018

In 1992, the first charter law was passed. Since then, the number has grown to more than 7,000 charter schools nationwide¹, with a concentration in Arizona, California, Michigan, Texas and Utah. This proliferation has been driven by the stress on and deterioration of the traditional public school system. At Tortoise, we believe this brings tremendous opportunity. Charter schools receive approximately 25% less funding per pupil, and have to cover facility costs. We provide a consistent source of capital in a dislocated and fragmented market to help fund charter schools that fuel the growing education needs in America.

America's education system: A work in progress

America has enjoyed a rich history of educational instruction that began in the early colonial days. Students were often taught by parents or private tutors at the home. In 1635, The Boston Latin School became the first established American public school, as a boys-only college preparation school. Early alumni included Founding Fathers John Hancock, Samuel Adams and Benjamin Franklin.² Following the American Revolution, Thomas Jefferson called for the establishment of a formal educational system funded by tax dollars, but it would take several more decades before this vision became reality. By the mid-1800s, public schools began to emerge in communities that could afford them. By 1918, all American children were required to attend elementary schools.³ In time, education became broadly available to all children, regardless of race, though many schools were segregated. In 1954, the U.S. Supreme Court ruled that segregation of America's public schools was unconstitutional. Desegregation of schools began in earnest between the 1960's and 1980's with improved outcomes and benefits in affected districts, including increased per-pupil spending, higher graduation rates and improved wage earnings post-high school, particularly for black students born between 1950 and 1975.⁴

America's educational system remains an essential building block of our society. However, the educational system of today has evolved in favor of providing options. Children often have a number of school choices ranging from public, private, charter schools, home school and even online options. Support for school choice is gaining traction across the country with more and more students selecting schools that meet their unique needs and can help them achieve their dreams. And as school choices have evolved, funding sources now range from federal, state, philanthropic and private.

Review of school choices

While educational paths vary by community, parents and students often have the following options to explore:

District schools are familiar to most of us. These public schools must adhere to education standards set by the state education board and are bound by federal, state or local laws regarding education. They are governed by the school district, which is run by a school board.

Charter schools are public schools that have the freedom to be more innovative while held accountable for student achievement. They are open to all children, however due to heightened demand, some have limited capacity. These schools are mostly privately- run, nonprofit schools, that operate under a "charter" contract with their respective authorizing body. They do not typically require applications or entrance exams and they do not charge tuition.

Magnet schools emerged within the traditional public school system and likewise are accountable to the local school board and state. While they are held to the same curriculum standards as traditional public schools, they often offer a particular academic theme or focus. There are more than 4000 magnet schools in the U.S. with many requiring entrance exams for admission.

Online or virtual schools offer an alternative to traditional schools through an online curriculum. They typically serve students K-12, do not charge tuition, use state-certified or licensed teachers and follow state requirements for standards and assessment. They can be offered year-round.

Home schooling harkens back to early education in America. Today, families elect to homeschool for a variety of reasons including religious views, safety and academic quality. Homeschooled children are often taught by parents or tutors using their own materials or materials from companies specializing in homeschool resources. Each state has an accountability measurement for homeschooled children.

Private schools are non-governmental schools that are often affiliated with a religious faith. They are not administered by federal, state and local governments. Because they do not accept public funding, they rely on tuition and philanthropic grants as their funding source and they can be selective when it comes to admission. Admission often involves an application process, including entrance exams and interviews. Private schools are autonomous at the federal level, but must adhere to basic state guidelines.

A comparison of school options

	Public schools	Charter schools	Magnet schools	Online/virtual schools	Home schools	Private schools
Apply to attend	No	Some	✓	✓	No	✓
Free to attend	✓	✓	✓	Some	✓	No
Entrance Exam	No	No	Some	Some (such as a writing or readiness assessment)	No	✓
Special Education Services	✓	✓	✓	Some	✓	Some
Funding	Publicly-funded (state and local)	Publicly-funded (state, federal, local) and private funding	Publicly-funded (state and local)	Publicly-funded (state and local)	No	Tuition and philanthropic grants
Regulations	State and district regulations	Follows charter standards to secure state funding	State regulations	State regulations	Some states	Autonomous at federal level
Teacher Certifications	✓	Varies by state	✓	✓	No	No
Curriculum Flexibility	No	✓	✓	✓	✓	✓
Selectivity of admitting students	No	No	No	Yes, in some cases such as behavioral expectations or continuous learning requirements	NA	✓

Why school choice matters

As a key cornerstone of freedom, America's education system is striving to provide families school choice options. Demographic and socioeconomic issues that impact the U.S. housing market directly impact the education system because racial inequities pervade the U. S. housing market. Often, educational choice based on residence limits equal opportunity education. All else equal, families have more choices when there are more schools.

With traditional public schools structured by districts, the only option for some families seeking quality school choice is to relocate. Historically, middle-class families with more financial resources move to better school districts, compared to lower income families who are generally limited to schools that serve highly segregated, underserved neighborhoods.

With competition of school choices along with close community relations, students typically receive a better education. Anecdotally, children tend to excel in school and stay enrolled longer when families, schools, communities and funders work together to support learning.

Charter schools

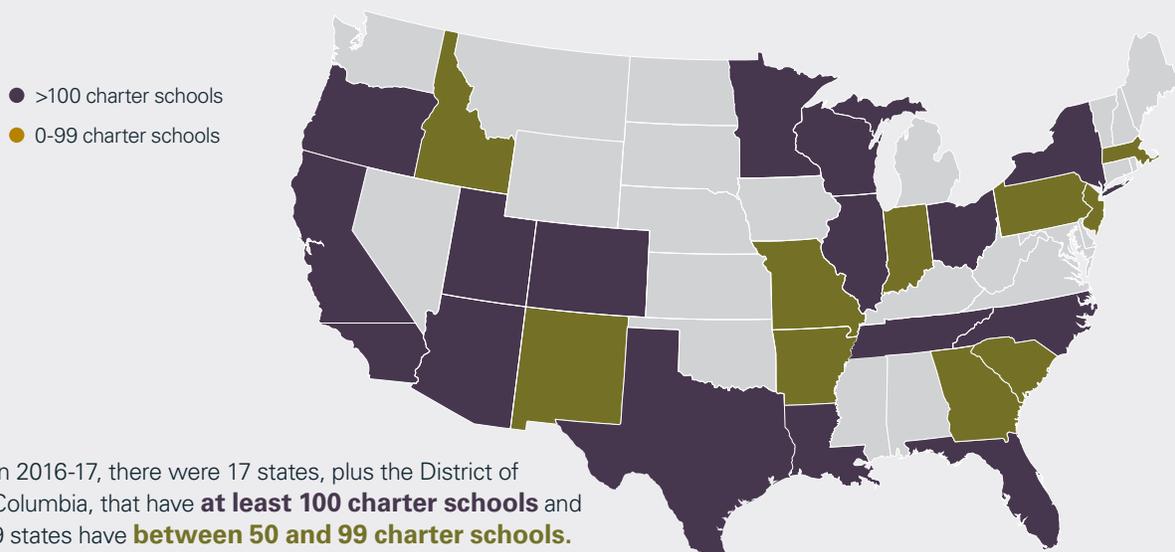
In response to an increasing desire for school choice, many of today's American communities are turning to the charter school model, which focuses on developing students holistically and utilizing innovative teaching approaches.

Charter schools create a "charter" or performance-based contract between the authorizers and its governing board. This charter typically defines the roles and responsibilities of the schools.

Minnesota passed the first charter law in 1992. Now, there are 44 states and the District of Columbia with approximately 7,000 charter schools nationwide in operation educating an estimated 3.2 million students and employing an estimated 129,000 teachers. 85% of charter schools operate as nonprofit 501(c)(3) organizations.

Charter schools are growing in popularity. Between the fall of 2016 and 2017, there was a 5% increase in charter school enrollment growth. In the past 12 years, public charter school enrollment in the U.S. has tripled to more than three million students today. However, the demand for charter schools still outpaces the supply due to lack of accessibility and waitlists. Only 7% percent of public school students have the opportunity to attend a charter school.⁵ As momentum builds, charter schools offer families, often those in underserved communities, freedom, options and arguably a better education platform.

The number of charter public schools continues to grow



Source: National Alliance for Public Charter Schools

Education quality/oversight

Operating as a public school, charter schools must abide by the same federal and state laws as well as health and safety standards. Charter schools are also held accountable to academic benchmarks or a number of other established protocols set forth in their charter agreement. If a charter school is not meeting its academic standards, a school can be shut down. The Center for Research on Economic Outcomes at Stanford University conducted one of the largest national studies comparing traditional public and charter schools. Below outlines a few of their findings:

- Charter school students received 58 additional learning days in math and 41 additional days in reading relative to traditional public schools.
- When learning gains for urban charter school students are presented for regional comparison, those with larger learning gains in charter schools outnumber those with smaller learning gains two-to-one.

As schools compete with one another and come under consistent pressure to improve their services they will likely develop more effective techniques for meeting demand. Underperforming schools could face losing students. In the meantime, top performing schools, will likely flourish, and over time, new schools will appear.

Assessing charter school impact in improving quality of education and closing achievement gaps

One of the strongest arguments emerging in favor of charter schools is the positive impact they are making on urban test scores. According to the National Assessment of Educational Progress' (NAEP), "The Nation's Report Card," charter schools in 2017 outperformed district schools across all four grade and subject levels in large cities. The results are compelling with big city charter school students' test scores improving by an average of 11 points over the past ten years, while traditional public school students improved by an average of only five points. This data validates the effectiveness of charter schools helping students from lower-income backgrounds make up lost academic ground.

Educational leaders in states and cities who are deeply committed to the charter school model are using a cooperative approach, to ensure that charter school authorizers award and revoke charter contracts based on the delivery of quality education. Legislators in Colorado and Florida have made funding fairness a priority, closing the gap between funding received by district and charter schools for instruction and facilities.

Monitoring test scores can help highlight high-performing schools and serve as a model for other schools with students who ultimately benefit from successful charter school educational practices.

Non-traditional credit analysis

It goes without saying that traditional credit analysis is critical for investors assessing charter school investments. However, employing a non-traditional credit analysis approach can be equally important when assessing business planning and budgeting. Failing to plan for unexpected and costly events could impede success for a charter school or perhaps even cause it to shut its doors.

Students with special needs

Charter schools share the responsibility of serving special needs students with traditional public schools, albeit it at smaller percentages. One challenge for charter schools is anticipating when a student with special needs will enroll. Special needs students require specifically trained teachers and staff, smaller classes and special facilities or equipment, all of which must be factored into budget projections. As charter schools gain in popularity, parents may begin to enroll special needs students at a faster pace and schools will need to factor in the anticipated yearly budget costs.

Truancy

Another challenging and fundamental budgeting item for charter schools is anticipating student funding. Historically, funding had primarily been based on enrollment numbers, however, some states are switching to average daily attendance, or ADA, which can cost schools millions of dollars if absent rates are high. Charter school start-ups have the additional challenge of anticipating student attendance or truancy without historical data to support expectations.

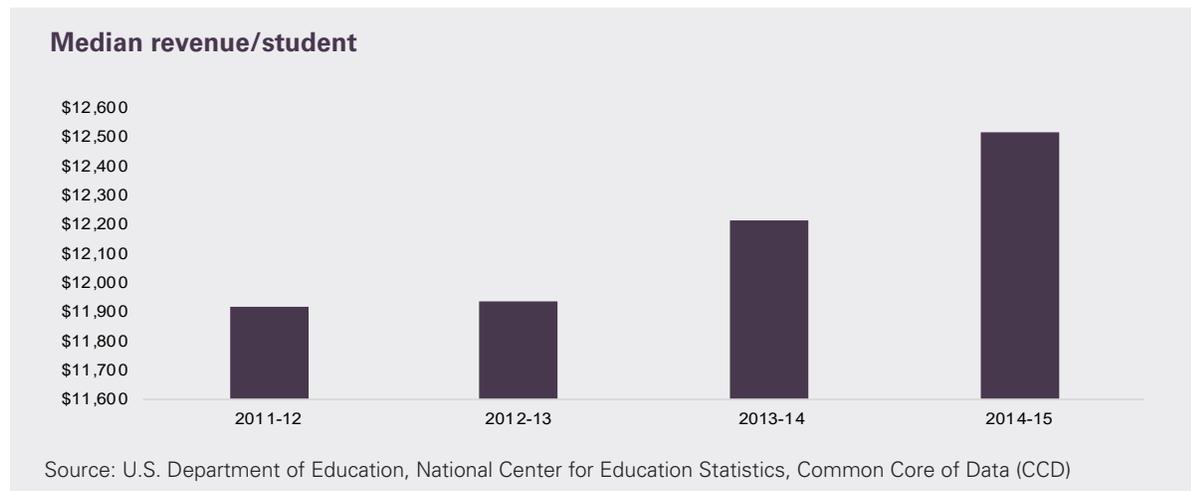
Changing the academic landscape

The charter school model has struck a positive chord in many communities where school choice is an option and quality traditional public school options are clearly lacking and not keeping pace with basic academic standards. The vision of an autonomous yet accountable public school, with the freedom to try out new ideas and improve student learning, aligns with trending education reform tactics and fosters greater competition amongst schools.

Investment opportunities emerge as charter school adoption gains momentum

Federal support of education policy

The Trump administration has helped spotlight charter schools with a commitment to fund the school choice movement, led by U.S. Secretary of Education Betsy DeVos. As former chairwoman of the American Federation for Children, she has been a long-time advocate for school choice. As part of the Trump administration's educational policy, \$20 million has been redirected to states as block grants for use to build programs that develop and expand school choice of any model type. States can then pass the money on in the form of vouchers to low-income families. There are obstacles to a federal voucher system including state constitutional amendments, enacted by a majority of states, which prohibit direct government support to religious schools. There is also a perceived risk that the repurposed federal dollars would come from Title I funds, the federal program meant to provide additional funding to school districts that serve at-risk students. This development, supported enthusiastically by Ms. DeVos, is expected to advance federal funds to support the charter school movement.



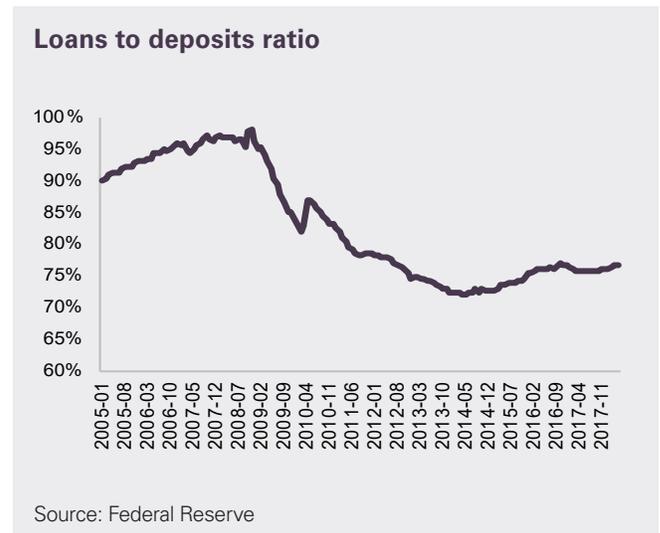
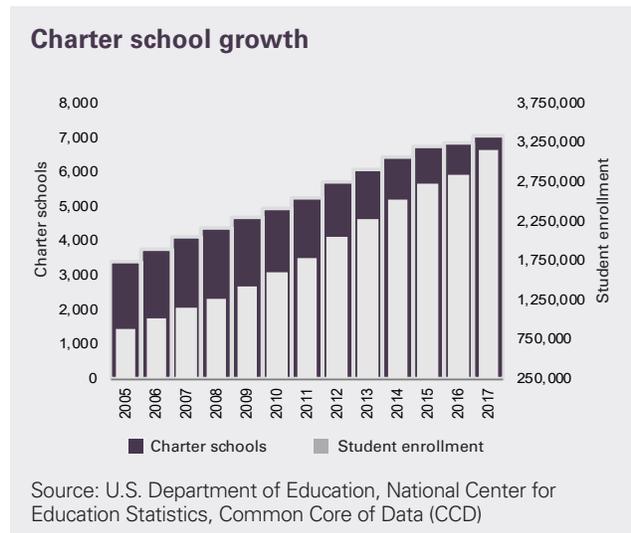
The role of state funding

Similar to traditional public schools, charter schools are funded primarily by public funds through a mix of state and local sources as well as private and philanthropic investments. Charter schools receive funding based on enrollment numbers on a per pupil enrolled basis. Depending on the state, the amount received per student varies. It is estimated that across the country, charter schools receive approximately 25% less per pupil per year in funding than area district-run public schools and still have to cover facility costs, which can average 15-20% of revenue.⁵

One of the largest discrepancies in funding between the public and charter schools is how the facilities are funded. Many states do not provide any funding to cover the cost of charter school facilities, resulting in the need for many charter schools to seek creative funding solutions.

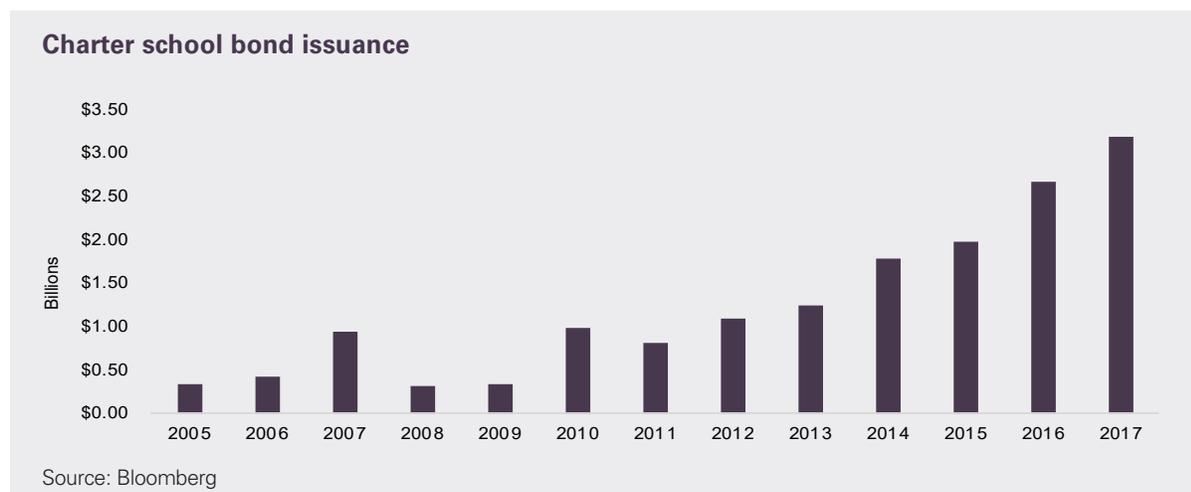
Private investment sources

The remarkable growth of charter schools juxtaposed to the significant decline in bank loan to deposit ratios (as depicted in the chart below) along with broker/dealer underwriting declines, has left a major gap in financing charter school projects.



Charter schools are gaining interest from high yield municipal investors seeking out charter school bonds for their attractive value play. With the absence of traditional financing sources, this has become even more common. Charter schools represent 3.5% of the steadily growing high yield municipal market as the model proves resilient across economic cycles. In addition, demand is growing for this \$10 billion charter bond market with expectations that 400 schools will be formed over the next several years, according to the National Alliance of Charter Schools.⁵

Bond issuance showed steady growth until 2008 when the market declined dramatically. Since then, the bond market has rebounded with record volume in 2017.



Conclusion

While still a relatively small part of America's education make-up, charter schools represent a breath of fresh air and freedom of choice for families seeking a tuition-free, publicly-funded and privately-operated option for their children. While charter schools operate autonomously in terms of curriculum, structure and budget management they are accountable to their charter objectives and applicable federal and state laws that support stewardship of public funding and achievement of academic standards. As the model improves and demand increases, more investors are expected to support this asset class because of the attractive returns and positive support of vibrant, healthy communities that can offer quality education for all.

¹ U.S. Department of Education

² The Freedom Trail Foundation

³ Education Law

⁴ The National Bureau of School Desegregation and School Quality

⁵ National Alliance for Public Charter Schools

⁶ Michigan Association of Public School Academies

Disclaimers

Nothing contained in this communication constitutes tax, legal or investment advice. Investors must consult their tax adviser or legal counsel for advice and information concerning their particular situation. This piece contains certain statements that may include "forward-looking statements." All statements, other than statements of historical fact, included herein are "forward-looking statements." Although Tortoise believes that the expectations reflected in these forward-looking statements are reasonable, they do involve assumptions, risks and uncertainties, and these expectations may prove to be incorrect. Actual events could differ materially from those anticipated in these forward-looking statements as a result of a variety of factors. You should not place undue reliance on these forward-looking statements. This piece reflects our views and opinions as of the date herein, which are subject to change at any time based on market and other conditions. We disclaim any responsibility to update these views. These views should not be relied on as investment advice or an indication of trading intent.

Past performance is no guarantee of future results.
