Raising the BAR

Why Public Charter Schools Must Become

EVEN MORE INNOVATIVE

Prepared with Public Impact

The Mind Trust

ABOUT THIS REPORT

To inform this report, The Mind Trust and Public Impact conducted a multi-level research review guided by a group of multi-sector national experts.

NATIONAL ADVISORY BOARD

Given the breadth and complexities of the charter ecosystem, Public Impact convened a group of experts on education reform, charter and independent schools, philanthropic involvement in the charter sector, and noneducation sectors that have experienced dramatic innovation to guide our research process and analysis and to brainstorm on sustainability and innovation challenges facing the charter sector and potential solutions. Members of the advisory board are:

- **Seth Andrew,** founder, Democracy Prep Public Schools
- **Matt Candler,** founder and CEO, 4.0 Schools
- **Stacey Childress,** CEO, New Schools Venture Fund; former deputy director, Bill & Melinda Gates Foundation
- **John Chubb,** president, National Association of Independent Schools
- **Jeff Cohen,** managing director, FSG
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- **David Shane,** chair of advisory committee; COO, USA Funds; former CEO, LDI Ltd.; former board member, Indiana State Board of Education
- **Michael Ulku-Steiner,** head of school, Durham Academy; former headmaster, The American School in Switzerland
- **Caitrin Wright,** partner, Silicon Schools Fund

DATA ANALYSIS

We selected four states with comprehensive charter school financial data and conducted an analysis of the financial expenditures of 763 schools. Analysis of 14 different categories/types of expenditures yielded valuable insights about schools that are achieving solid results with students but spending less than other charter schools in their state.

INTERVIEWS IN THE FIELD

To better understand results of the data analysis, Public Impact also conducted interviews with five charter operators included in the data set. We also interviewed seven additional charter school operators from across the country and two school finance experts to gain insights into financial sustainability challenges at different stages of charter school development and strategies that innovative operators have implemented to develop their models.

LITERATURE REVIEW

We reviewed the existing literature, including reports; issue briefs; and news articles about the operational models that charter schools use, philanthropic involvement in the charter sector, and industries outside of the education landscape that have seen dramatic changes to their business models.

FOCUS GROUP ANALYSIS OF SCHOOL MODEL INNOVATION POSSIBILITIES

In an effort to brainstorm possible school model innovations, we conducted several sessions with consultants and experts in the education field to reconsider and challenge design elements of the standard charter school model.

Special thanks to: Bryan C. Hassel, Gillian Locke, Juli Kim, Elaine Hargrave, Emily Ayscue Hassel, and Nita Losopunkul at Public Impact; and Adam Kernan-Schloss, Emily Yahn, Kenneth Moore, Hanna Chang, and Ashley Messina at KSA-Plus Communications, Inc.

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Please cite this report as:
Public Impact: Hassel, B. C., Locke, G., Kim, J., Hargrave, E., & Losoponkul, N.; and The Mind Trust. (2015). *Raising the bar: Why public charter schools must become even more innovative.* Indianapolis, IN: The Mind Trust. Retrieved from www.themindtrust.org/raising-the-bar.

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October 2015

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Executive Summary

In their first 24 years, public charter schools have demonstrated that they can be a significant force for improvement in U.S. public education. Since the passage of the first charter school law in Minnesota in 1992, the sector has spawned more than 6,700 new public charter schools serving 2.9 million students in 43 states and Washington, D.C.[1] What's more, a growing research base indicates that charter schools, especially those in urban districts, often produce better outcomes for students.[2]

Despite successful growth in numbers and quality, the charter sector faces future challenges: further improving student achievement; serving more students with disabilities, English language learners (ELLs), and other underserved populations; and building the capacity to serve the 1 million-plus students already on waiting lists and the millions more who deserve higher-quality education.

Public charter schools will not meet these challenges by doing more of the same. Instead, the sector needs a new wave of innovation to capitalize on the enormous potential that charter schools have to improve public education substantially for U.S. students. **Simply put, the sector needs to be better, broader, and bigger.**

THE INNOVATION IMPERATIVE FOR THE PUBLIC CHARTER SCHOOL SECTOR

Better. Urban students are better off today because of the advent and growth of the charter sector. But edging traditional district schools is not nearly sufficient to meet the demands of today's global economy and society. Two alarming achievement gaps illustrate the point:

- In 2012, the United States ranked 17th in reading and 27th in math on the Programme for International Student Assessment (PISA) test among the 34 members of the Organisation for Economic Co-operation and Development (OECD), an international forum of the world's most advanced and emerging countries that administers the PISA.[3]
- Large U.S. cities, where most charters are located, lag behind the U.S. average in student performance on the National Assessment of Educational Progress (NAEP). Only 11 percent of Milwaukee's 8th graders, 9 percent of Cleveland's, and 3 percent of Detroit's are proficient in math, compared to 34 percent nationally.[4]

To meet the century's global challenge, the charter sector needs to be not just better than traditional schools are today, but substantially better.

Broader. The charter school success story is largely about lifting the educational fortunes of low-income, urban young people, most of them children of color.

But these groups of students still need greater access to high-quality public charter schools. In addition, other significant subgroups of U.S. students, including students in rural areas and small towns, "disconnected" youth, students with disabilities, and ELLs, have not benefited as much from the spread of high-quality charter schools. So in addition to getting "better," the sector also needs to become "broader," meeting the needs of an increasing portion of underserved students.

Bigger. High-quality public charter schools simply need to reach more students. According to the National Alliance for Public Charter Schools, charter waiting lists nationally are long and growing,[5] with 1 million-plus students on waiting lists today. But many more students do not have high-quality school options, including many of the 11.4 million students who live in poverty in the United States;[6] the more than 800,000 9th graders in 2009–10 who failed to graduate four years later;[7] and the 2.5 million 12th graders who did not meet the proficiency standards in math on the NAEP in 2013.[8]

THE INNOVATION CHALLENGE

It may be tempting to think that the charter sector can meet the challenges of "better, broader, and bigger" simply by intensifying its efforts, but that seems unlikely. Intensifying efforts might give the sector results that are incrementally better, but **the leap needed in performance is quantum, not incremental.** It is hard to see the sector enabling the United States to reach the heights of the world's best just by trying harder.

A better, broader, and bigger public charter sector will require innovation that breaks the mold of most schools today. Though a small subset of charter schools has pioneered school designs that radically innovate in the use of time, talent, space, and technology, most public charter schools resemble traditional district schools.

What will it take to tip the scales to innovation? Charter school operators are the key to the next wave of innovation, but they alone will not tip the charter sector toward a new wave of innovation. Policymakers, city-based education organizations, and philanthropic funders also can help spark innovation that helps the charter sector educate students even better, serve an even broader population, and grow to meet the need for high-quality school options.

School operators. To see massive gains in the sector's ability to be better, broader, and bigger, school operators must explore **entirely new models of schooling,** particularly those that challenge the traditional school model in use of time, space, technology, and people's roles in school. In addition, school operators will need to reconsider how students experience learning in schools, creating new models that give students personalized and authentic learning experiences that motivate them to be engaged in their learning.

This kind of path-breaking innovation can come to the public charter sector via several pathways:

- **New entrants.** Entrepreneurs free from past routines and biases can think creatively about ways to satisfy unmet needs that introduce new and breakthrough approaches that ultimately grow in reach to disrupt the established norms of the current education model.

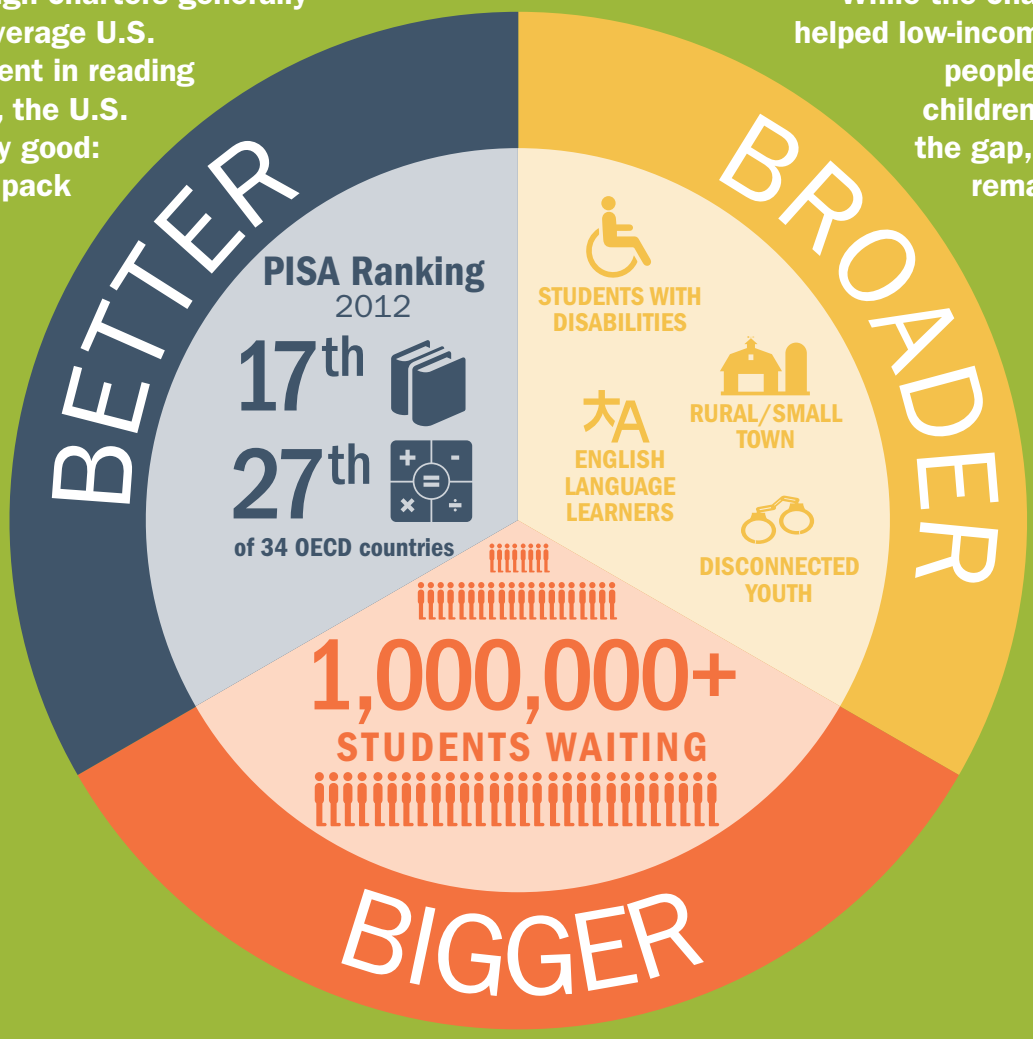
It may be tempting to think that the charter sector can meet the challenges of "better, broader, and bigger" simply by intensifying its efforts, but that seems unlikely.

BETTER...BROADER...BIGGER

The public charter sector faces three daunting challenges that it must meet to achieve its potential — and cannot meet without more innovation.

Even though charters generally exceed average U.S. achievement in reading and math, the U.S. is not very good: middle of pack or worse.

While the charter sector has helped low-income, urban young people (most of them children of color) close the gap, many students remain significantly under-served.



Although the charter sector has grown, waiting lists are long...and getting longer.

- **Current high-performers.** Charter operators with strong track records and high performance also can spark innovation, most likely by creating new schools using an entirely different model. Achievement First's "Greenfield" schools and Match Education's "Match Next" are early examples.
- **Collaboration between current and new.** Existing high-performing networks can offer incubation space for new entrants, benefiting from their innovations while providing a venue for rapid prototyping and improvement.

In addition to wholly new models, **ambitious improvements to existing models** also can help meet the innovation challenge. By reconsidering how facilities are used and funded, how to reach full enrollment capacity immediately or more quickly, how to support services with other schools and networks, and how to maintain steady revenues by "backfilling" (filling vacant seats each year), charter school operators may free themselves from spending a lot of energy — and philanthropic resources — that could instead be focused on investments in innovation.

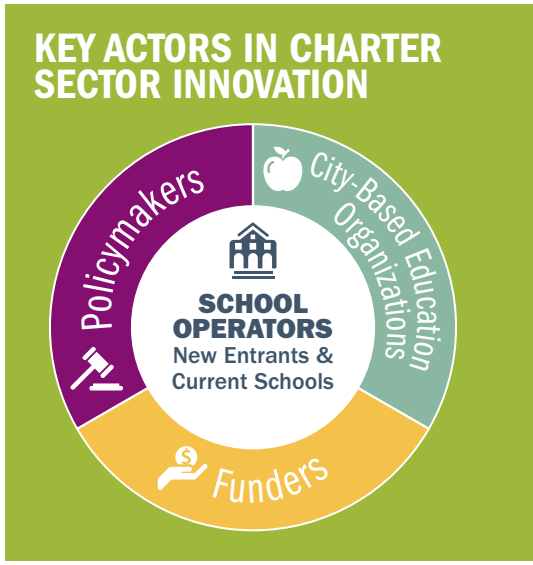
Policymakers. To foster the development of break-the-mold models, policy leaders will need to consider bold policy changes that create a climate for innovation. These ideas include:

- **Investing public dollars in innovation-seeking entrepreneurs.** The vast majority of federal, state, and local funding for schools supports the ongoing operations of existing schools. Very little public funding supports innovation, especially innovation designed to produce new models.
- **Deliberately authorizing for innovation.** Whether by creating new authorizers with a specific mandate for innovation or by setting up independent innovation divisions within authorizers, policymakers can foster more risk-taking in authorizing new schools while maintaining high standards for student performance.
- **Enabling more rapid innovation via "micro-charters."** Innovation could proliferate more rapidly via very small schools that can be more easily launched and more easily closed if they do not succeed.

City-based education organizations. "Harbormasters" and others who coordinate efforts to improve education within a city or particular geographic area also have great potential to drive the changes necessary to support innovation in the charter sector. To help develop new models, city-based organizations can incubate break-the-mold models, support small-scale pilots, or work to attract talented entrepreneurs to develop break-the-mold innovations. City-based organizations also can help build an infrastructure of charter school supports that allow charter school operators to refocus energy currently spent on operation activities on innovation efforts; for example, the development of a network of administrative support providers or structures that support financial benchmarking. City-based organizations also could advocate for policies that support innovation and collaborate to spread innovative ideas from one city to the next.

Funders. The innovation challenge for funders is twofold. First, the philanthropic sector needs to be willing to take much greater risks in supporting the development of break-the-mold models. Funders understandably like to bet on winners, the proven models with a near guaranteed "return." But reaching a new level of success, breadth, and scale demands more risk-taking. Funders can venture into this territory with more confidence by:

- **Investing in intermediaries that are comfortable with risk and skilled at due diligence and have the support needed to make smart bets.** National funds, such as NewSchools Venture Fund and the Next Generation Learning Challenges; regional funds, such as the San Francisco Bay Area's Silicon Schools Fund; and city-based funds, such as The Mind Trust's Charter School Design Challenge, specialize in investing in innovative models.
- **Creating innovation divisions within their grant-making operations, giving the new divisions license to take risks that the mainline foundations cannot.** For example, the Charter School Growth Fund (CSGF) has created a Next Generation School Investments division that has its own staff and takes a different investing approach than CSGF as a whole.
- **Entering the innovation space first by investing in already successful charter operators to create breakthrough models.** Investing in proven operators seeking to create new models may provide some degree of comfort about risk because funders have some assurance of the strength of the management team and its commitment to creating excellent schools.



Second, the philanthropic sector can support the organizations that can, in turn, foster innovation, including city-based education organizations and incubators, innovation-oriented authorizers, and organizations that provide or can help charter founders develop the breakthrough school models that American students deserve.

The Innovation Imperative
FOR THE PUBLIC CHARTER SCHOOL SECTOR

As the public charter sector approaches its 25th birthday, it faces a set of challenges:

- Further improving student achievement in an era that demands higher and higher levels of learning;
- Serving more students with disabilities, English language learners (ELLs), and other underserved populations; and
- Building the capacity to serve the 1 million-plus students already on waiting lists and the millions more who deserve higher-quality education.

Simply put, the sector needs to be **better, broader,** and **bigger.**

Charter schools will not meet these challenges by doing more of the same. Instead, the sector needs a new wave of innovation to capitalize on the enormous potential that charter schools have to improve public education substantially for U.S. students. This report:

- Explains **why innovation is a must** for the charter sector's future.
- Explores **why the sector is not yet as innovative as it needs to be.**
- **Makes recommendations** for how school operators, funders, city-based education reform organizations, and policymakers can dramatically increase the level and quality of innovation in the charter sector in the coming years.

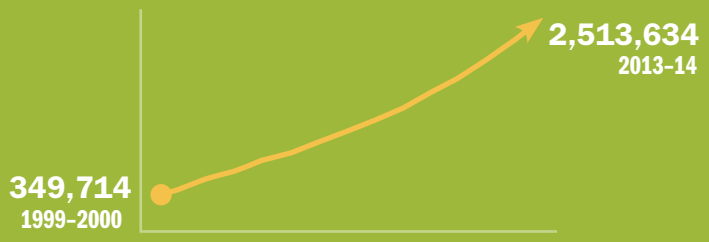
AN URBAN SUCCESS STORY

Make no mistake: The first 24 years of the charter sector have demonstrated that charter schools can be a significant force for improvement in U.S. public education. From the passage of the first charter school law in Minnesota in 1992, the sector has spawned more than 6,700 new public schools serving 2.9 million students in 43 states and Washington, D.C.[9]

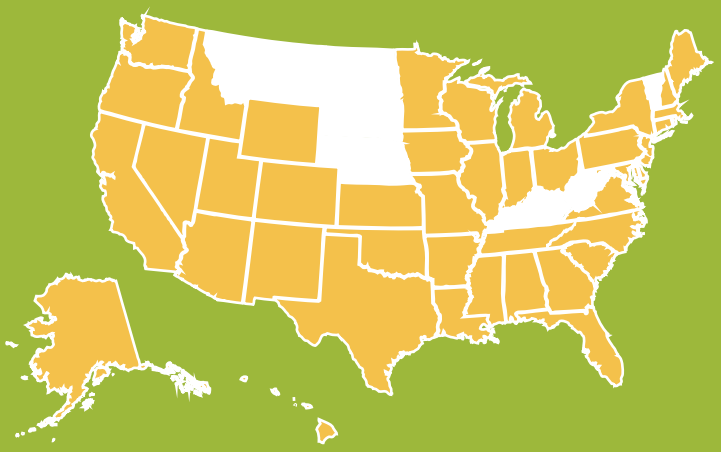
And the sector's story has been not just one of growth but also of quality. A growing research base shows that charter schools, especially those in urban districts, often produce better outcomes for students.[10] For example, the most recent study from Stanford University's Center for Research on Education Outcomes (CREDO) found that students in urban charter schools in 41 regions achieved an average of 40 additional days of learning growth in math and 28 additional days in reading per year when compared to similar peers in traditional public

IMPRESSIVE GROWTH, ENCOURAGING SUCCESS

Since 1999, a 600%-plus increase in public charter school enrollment



Now in 43 states and DC*



CREDO: In many urban areas, public charter students outperform students in traditional schools

+28

*additional days of learning in **READING***

+40

*additional days of learning in **MATH***

*At the time this report was written, the Washington state supreme court had ruled the state's charter law unconstitutional. Public charter schools in Washington remain open pending motions to the court to reconsider its decision.

schools.[11] The study also found that the gains that black, Hispanic, low-income, and ELL students make in charters are even greater. In some districts the charter advantage is huge, with charter students learning four months more than similar peers every year.

To be sure, not all charter schools are outperforming their peers; the same study found that in 14 regions, charter schools underperformed traditional public schools in math, reading, or both. The nation's authorizers and policymakers need to continue improving their screening of charter applications up-front and closing or replacing struggling charter schools. But on the whole, urban charter schools are producing significantly better results than traditional public schools, demonstrating the strong potential of the sector to make a difference at scale for students.

Better

Better. Urban students are better off today because of the advent and growth of the charter sector. But edging traditional district schools is not nearly sufficient to meet the demands of today's global economy and society. To meet those demands, the charter sector needs to be not just as good as it is today, but substantially better than its current performance.

To see why, consider a pair of wide achievement gaps. One is the gap between the United States and other nations with respect to top-performing school systems. On the 2012 Programme for International Student Assessment (PISA), a highly regarded exam administered globally, the United States ranked 17th in reading and 27th in math among the 34 members of the Organisation for Economic Co-operation and Development (OECD), an international forum of the world's most advanced and emerging countries that administers the PISA. For example, the United States is behind Slovenia, Ireland, and Russia in math performance and behind Poland and Estonia in reading.[12]

The second gap is between large urban school systems — where most public charter schools are located — and the U.S. average. Even as the United States lags leading countries, the nation's big cities trail even further behind. Four cities in the CREDO study in which charters outperformed their district peers — Cleveland, Detroit, Milwaukee, and Philadelphia — administered the National Assessment of Educational Progress, or NAEP, in 2013. All four substantially underperformed the national average in both math and reading at the 4th- and 8th-grade levels.[13]

> To meet those demands, the charter sector needs to be not just as good as it is today, but substantially better than its current performance.

In this context, simply beating out the neighboring district is not meeting nearly a high enough bar. To meet the challenge posed by today's rising global standards, the charter sector needs to aim higher — chasing not just local peers, but the international standouts that have surged ahead of the United States educationally in recent years.

The charter sector also needs to be "better" in more than just test scores by more effectively preparing students for education and career after K–12. The

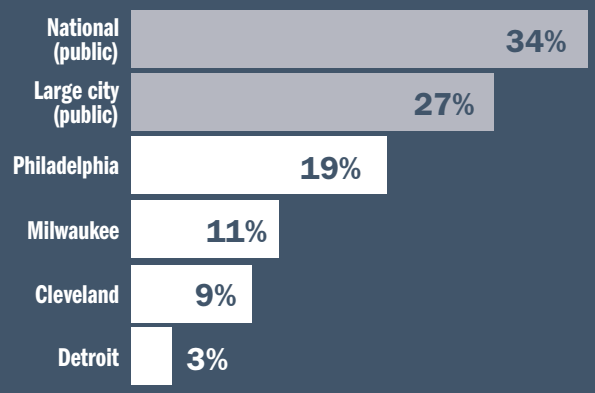
SLIGHTLY "BETTER" IS NOT GOOD ENOUGH

The United States lags other economically developed countries in math and reading

of 34 OECD countries (PISA 2012)

And even in cities where charters outperform traditional schools, overall performance is low

% proficient, 8th-grade math, 2013, NAEP



CREDO data show that, on average, urban charters have been relatively successful in increasing students' test scores on state academic assessments. But even many higher-performing charter operators have come to realize that higher test scores are necessary but not sufficient for success in the next stage. The Knowledge is Power Program (KIPP), for example, has launched a major effort to get its graduates "to and through college." While KIPP's students are much more likely than average to complete college, their current completion rate (45 percent) still lags KIPP's goal of 75 percent, which is more on par with the completion rate of suburban and affluent young people.[14]

For KIPP, better than average is not good enough. **The charter sector as a whole needs to adopt that same spirit,** aiming not just to be better than today's average performance, but to achieve the levels of educational effectiveness required for student success in postsecondary education and careers in a globally competitive, knowledge-based, technology-driven economy and world.

Broader

Broader. The charter school success story is largely about lifting the educational fortunes of low-income, urban young people, most of them children of color. As discussed below, these groups of students still need greater access to high-quality charter schools. But in addition, other significant subgroups of U.S. students have not benefited as much from the spread of high-quality charter schools. So in addition to getting "better," the sector also needs to become "broader," meeting the needs of an increasing portion of underserved students. Some of the specific groups that could benefit from the charter sector's focus include:

- **The most "disconnected" youth.** Some of the nation's most pressing educational needs lie among students who may be low-income or students of color but who also face other severe challenges that are barriers to their educational success. These youth include:
  - The 1 million-plus young people ages 16–19 who are not in school and do not have a high school diploma;
  - The more than 400,000 teenagers who become mothers each year;
  - The approximately 150,000 children in foster care; and
  - The more than 60,000 youth residing in incarceration facilities.

  Although charter schools already address some of these students' needs, the charter sector has the opportunity to lead the nation in developing innovative new models to address these challenged populations.[15]

- **Students with disabilities.** The national discussion on charter schools and students with disabilities often focuses on whether or not these students are underrepresented in charter schools and what charter schools' legal obligations should be to serve students with all kinds of disabilities.[16] But beyond inclusion, the charter sector has a compelling opportunity to lead the nation in developing new educational models that serve students with disabilities well.

  The need is great: In 2011–12, 6.4 million 3- to 21-year-olds were served under the Individuals with Disabilities Education Act, Part B, the federal legislation that addresses the needs and issues of students with disabilities. And students with disabilities lag their nondisabled peers substantially; on the 12th-grade NAEP exam, for example, only 6 percent and 10 percent of students with disabilities were proficient in math and reading, respectively, compared to 28 percent and 40 percent of students without disabilities.[17]

- **English language learners.** ELLs attend charter schools in about the same proportions as traditional public schools, but gaps in national data make it impossible to pinpoint the precise enrollment picture for these students.[18] Whatever the current state, this is a large and growing population of students — an estimated 4.4 million public school students in 2012–13[19] — with a high level of educational need, a compelling area for charter school innovation. The population of school-aged children of immigrants is projected to grow by 45 percent between now and 2020, accounting for *all of the nation's growth in the school-aged population.*[20] Achievement gaps between ELLs and their English-speaking peers are wide. On the 12th-grade NAEP exam, for example, only 3 percent and 2 percent of ELLs were proficient in math and reading, respectively, compared to 26 percent and 39 percent of non-ELL students.[21]

- **Rural and small-town students.** Meeting the needs of rural students is another area ripe for charter school innovation. About one in every three K–12 U.S. students resides in a rural area. Yet, only *one in six* charter schools is rural.[22] And only 111 charter schools nationally serve the most remote rural areas.[23] The practices and models that seem to work well in urban settings may only partially be adaptable to rural communities, which face different challenges due to their distance from urban centers, lack of access to technological and other infrastructure, and other factors. A new round of innovation could help the nation address these challenges in unprecedented ways.[24]

MANY STUDENTS REMAIN UNDER-SERVED

The most "disconnected" youth

1 million+ teens not in school and no diploma

400,000+ teenage moms each year

150,000+ children in foster care

60,000+ youth in prison

6 million-plus students with disabilities

4.4 million English language learners

1 in 3 students in rural areas and small towns

Bigger

Bigger. Finally, high-quality charter schools simply need to reach more students. To see why, consider the demonstrated demand for charter schools illustrated by how many students sit on charter school waiting lists. According to the National Alliance for Public Charter Schools, charter waiting lists nationally are long and growing,[25] with 1 million-plus students on waiting lists today. And in several cities, large numbers of students are waiting for places.[26] For example:

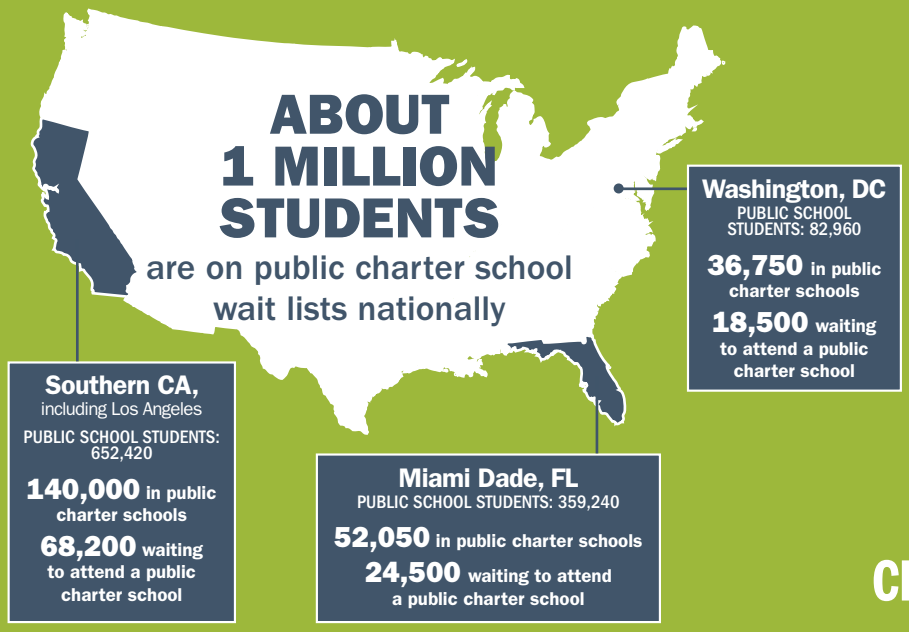
- In Miami-Dade County, 52,050 students attended charters, while 24,500 sat on waiting lists.
- In Southern California, including Los Angeles, 140,000 students attended charter schools, with 68,200 on waiting lists.
- In Washington, D.C., 36,750 students enrolled in charter schools, leaving 18,500 on waiting lists.

Even more compelling are the vast numbers of students nationally who are not receiving the education they need to be successful in today's world. In 2014–15, 2.9 million students attended charter schools. Yet:

- 11.4 million students live in poverty in the United States.[27]
- 3 million 16- to 24-year-olds are not enrolled in high school and have not earned a high school diploma or alternative credential.[28]
- More than 800,000 9th graders in 2009–10 failed to graduate four years later.[29]
- Approximately 2.5 million 12th graders did not meet the proficiency standards in math on the 2013 NAEP.[30]

With daunting numbers like these, the nation needs to expand high-quality options for students. Although not all charter schools provide high-quality options, increasing access to those that do must be part of the national strategy to meet all students' needs. While charter school enrollment is growing each year, current growth rates are not sufficient to meet those needs. Over the past 10 years, the number of students in charter schools has grown at a cumulative annual rate of just under 11 percent. At that rate, in 10 years half of America's low-income students still would not **have a slot even in an above-average charter school, much less one of the very best.** And if the number of low-income students rises, as demographers predict, an even smaller fraction of low-income students would have access to great charter seats.[31]

TOO FEW STUDENTS ARE REACHED



11.4 million
students in poverty

800,000
9th graders don't graduate in four years

Charter schools can help.

WHY INNOVATE?

With this kind of growth and success, why does the charter world need a new wave of innovation? Because as it reaches its first quarter century, the sector faces three daunting challenges that it must meet to achieve its potential — and cannot meet without innovation. Simply put, the sector needs to be **better, broader,** and **bigger.**

It may be tempting to think that the charter sector can meet the challenges of "better, broader, and bigger" simply by intensifying its efforts, but that seems unlikely. Intensifying efforts might give the sector results that are incrementally "better," **but the leap needed in performance is quantum, not incremental.** It is hard to see the sector enabling the United States to reach the heights of the world's best just by trying harder.

"Broader" too demands innovation. The strategies that have worked well in urban, high-poverty environments — like increasing learning time, adopting highly disciplined school cultures, and becoming magnets for high-quality teaching talent — do not necessarily translate into all the other settings wherein students need better options. The sector will need to develop new strategies both to reach underserved student groups and to serve them exceedingly well.

Finally, "bigger" also requires the sector to do things differently. One particular imperative is to find ways to be more productive, or rather drive more effective results with lower long-term reliance on supplemental funding, including philanthropic funding. As described in more detail in this report, although charter schools actually receive less private giving than traditional public schools, they rely on this philanthropic capital to grow and persist. Decreasing that reliance demands innovations, as well as policy changes, focused on the financial sustainability of the sector.

Some may argue that as enticing as innovation may sound, it is not appropriate for schools to be the sites of major departures from educational norms. "That is experimenting on children," critics might suggest.

This argument might hold some water if our public education system was by and large meeting students' needs and was only in need of tweaking and incremental improvement. But the reality is far different. Incremental improvement has been the norm for decades, and the results have been tragically disappointing.

- According to the ACT, after years of focus on college readiness for all, only 4 percent of African-American high school graduates were college ready in 2011.[32]
- Between 2003 and 2013, despite major national concentration on closing the achievement gap for low-income students, the proficiency gap on NAEP's 8th-grade math test between higher-income and low-income students actually increased, with more affluent students nearly two-and-a-half times more likely to meet or exceed the standard.[33]

> Incremental improvement has been the norm for decades, and the results have been tragically disappointing.

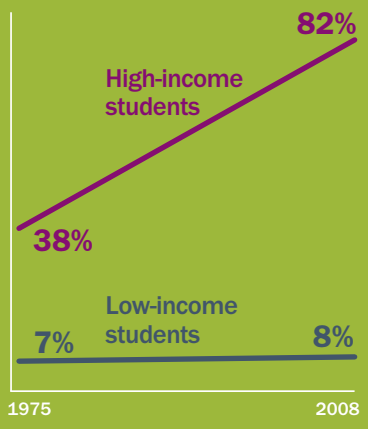
- From 1975 to 2008, during which time the college completion rate among high-income students skyrocketed to 82 percent, the rate for low-income children moved from 7 percent to 8 percent.[34]
- 11 in 12 students from low-income families do not go on to complete college.

Facts like these reveal the failure of incremental change and raise many moral questions. Innovation is not dangerous experimentation. Sticking with incremental change is more or less a certain path to continued failure for the students who most need an effective education. The moral compass turns toward the imperative of new models, and the charter sector is in the best position to fulfill that imperative.

THE MORAL CASE

College Completion Rates

While the college completion rate among high-income students rose to 82 percent from 1975 to 2008, the rate for low-income children moved only from 7 percent to 8 percent. Sticking with incremental change almost certainly will produce continued failure for the students who most need an effective education.



The Innovation Challenge

FOR THE PUBLIC CHARTER SCHOOL SECTOR

The level of innovation in the public charter sector is nowhere close to what is needed. A large number of charter schools don't break the mold. Relative to the total number of charter schools, not many models are dramatically different from the norm.

Of course, innovative charter schools offer glimpses of the possible. Some charter schools have pioneered school designs that break the mold, such as the schools profiled in *Breakthroughs in Time, Talent and Technology: Next Generation Learning Models in Public Charter Schools,* a 2014 brief from the National Alliance for Public Charter Schools.[35] But these schools are distinguished as outliers, not the mainstream of the charter sector.

Instead, most charter schools resemble traditional district schools in several ways by:

- **Having a similar personnel structure.** Most charter schools have the same organizational structure as district schools, with a principal, a set of teachers assigned to specific classrooms, and various support and administrative personnel.[36] In addition to school leaders, many charter schools and networks must employ administrative and back-office support staff.[37] Paying competitive salaries and benefits for all of these positions can prove very costly.
- **Configuring school space like typical schools.** Although many charter schools occupy unconventional facilities, such as shopping malls and office buildings, most charter schools structure their space more or less like a typical school: Buildings are large, with several distinct classrooms. In addition, these buildings are often difficult to obtain, as well as expensive to purchase or rent, especially if they require significant renovations. Further, charter schools, like most schools, do not use school space in the evenings or weekends, so buildings spend several hours a day, and many hours a week, underutilized.
- **Using a traditional bell schedule.** A set schedule dictates the amount of time students spend on each content area, regardless of whether students have mastered the material.
- **Using traditional grade levels.** Students are grouped into age-based grade levels, with all 9-year-olds (for example) expected to be at a similar academic level across all subjects.
- **Using technology primarily to support or supplement classroom instruction.** Many charter schools incorporate technology into the school day, but it is often used for research, word processing, or learning games, not as a core component of content delivery and self-directed student learning.

RESEARCH SAYS...

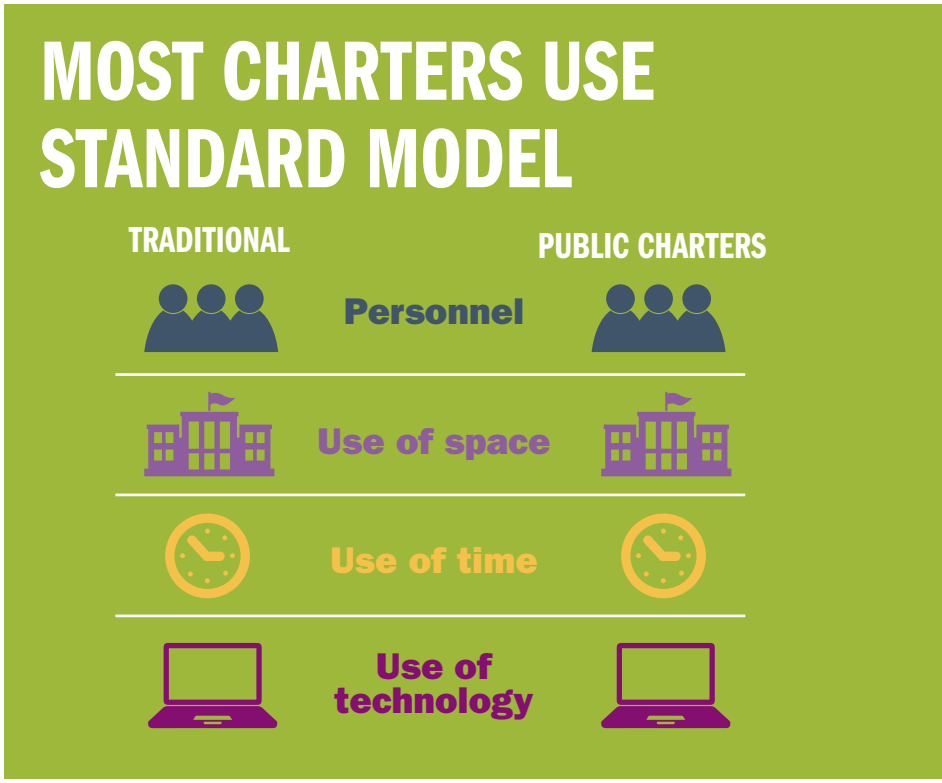
Recent research confirms this overall impression. While studies reach different conclusions about the types of innovations that do surface in the charter sector, they all conclude that the charter sector is not producing the level of break-the-mold, transformative innovations early pioneers may have envisioned. For example:

- A review of research on charter schools and innovation conducted by the Center on Reinventing Public Education (CRPE) concluded: "Charter schools have not yet been shown to be much more (or less) likely to invent brand new curricular or instructional approaches."[38] Rather, "innovation" has generally taken the form of experimenting with governance and incorporating best practices into school models. For example, the charter sector has allowed school governance to come from organizations separate from local school boards and routed funding directly to individual schools, two practices that were previously uncommon. Schools also may "repackage" existing instructional approaches to create new instructional designs. The CRPE report points to Knowledge is Power Program (KIPP) schools, which combine high-quality educators, increased instructional time, a strong culture of achievement, and a college prep-focused curriculum. While this combination has proven successful, it does not fundamentally "break the mold" of traditional schooling. So, although charter schools do try different approaches to schooling, by and large they do not look dramatically different from other schools.[39]

- According to a survey of 203 charter schools and 739 traditional public schools in 36 states by the National Center on School Choice at Vanderbilt University, charter schools overall are not more innovative than traditional public schools. The survey indicated that, while charter schools sometimes differ in student grouping structures and staffing policies, such as "looping" teachers with the same group students for multiple years or use of merit pay, they are not more innovative than the district schools in the sample in core aspects of schooling.[40]

- A study by the American Enterprise Institute (AEI) examined a sample of charter school websites, coding each school based on its programmatic focus. The report found that about half of charter schools in the sample employed a "general" program, without any specialized theme or approach. The other half featured some kind of academic focus, like Montessori or STEM. While this finding indicates some degree of *programmatic diversity* among charter schools, it does not suggest that charter schools are, by and large, breaking the mold of the traditional school model.[41]

- Even schools that have prioritized innovation have had difficulty implementing new models. In 2014,



CRPE examined eight schools that received the Bill & Melinda Gates Foundation's Next Generation Learning Challenge (NGLC) grants to improve college readiness through innovative personalized learning. Each of the schools had an innovative approach to educating students, but when schools faced revenue shortfalls due to difficulty recruiting enough students to enroll, many reverted to more traditional spending patterns. So, rather than spending an average of 34 percent of their budget on personnel and 27 percent on technology, the schools spent 58 percent on personnel and 10 percent on technology. As a result, some schools were not able to fully implement all of their innovative personalized learning strategies. For example, one school defunded the user fee for software that could pull student performance information from multiple digital learning applications into one "dashboard." Without the dashboard, one teacher reported that she stopped using the performance information regularly, which likely compromised the school's emphasis on data-driven instruction.[42]

Researchers analyzed charter school spending patterns for this report, leading to similar conclusions. They selected four states with comprehensive charter school financial data and conducted an analysis of the financial expenditures of about 763 charter schools.[43] They plotted school performance against spending, identifying schools that were outliers — achieving more than one would expect for the amount they spent. The researchers hypothesized that these highly "productive" schools also might be the most innovative — finding new ways to produce improved results within their resources. Yet interviews with school officials in a sample of these schools yielded the conclusion that

THE WORLD HAS CHANGED...

SINCE "COMMON SCHOOLS" BECAME THE NORM FOR PUBLIC EDUCATION MORE THAN A CENTURY AGO

TRANSPORTATION has radically transformed. Traveling across the United States took four weeks in the 1850s, but now, a flight from New York to Los Angeles spans just six hours.

The **TELEPHONE** had not yet been invented, yet now most Americans have their own personal cell phone and can call from practically anywhere. Those same cell phones now contain more computing power than computers that once filled large rooms.

DISEASES such as influenza and tuberculosis that once meant near certain death are routinely prevented or handled by modern medicine.

And while **LIFE EXPECTANCY** in 1900 was 46 years for a typical male, a male born in 2015 can expect to live at least 30 more years.

...BUT NOT PUBLIC SCHOOLS

innovation was not a prominent part of their stories. Instead, solid management and educational practice led to the results, not break-the-mold innovations.

In short, public charter school gains to date have been driven mainly by trying to optimize results within the existing educational model. Taken as a group, charter schools are an effort to improve an existing educational model, not create new ones. In that regard, they share with the traditional K–12 schools a status as a vivid outlier from the rest of America. Since "common schools" became the norm for public education more than a century ago, the norm for cross-country transportation has radically transformed. Traveling across the United States took four weeks in the 1850s,[44] but now, a flight from New York to Los Angeles spans just six hours. The telephone had not yet been invented, yet now most Americans have their own personal cell phone and can call from practically anywhere. Those same cell phones now contain more computing power than computers that once filled large rooms.[45] Diseases such as influenza and tuberculosis that once meant near certain death are routinely prevented or handled by modern medicine. And while life expectancy in 1900 was 46 years for a typical male,[46] a male born in 2015 can expect to live at least 30 more years.[47]

WHY DON'T WE SEE MORE INNOVATION?

The fact that more innovation has not taken off among charter schools is not terribly surprising, given that U.S. schools as a whole have not changed dramatically for more than a century. The typical school model used today emerged in the mid-1800s, when compulsory school attendance laws made the hitherto standard one-room schoolhouse model inefficient. With encouragement from education reformer Horace Mann, schools began adopting the German system of "common schools," which assigned students to age-based grades, each with its own classroom and teacher.[48] Grade-specific textbooks followed, as well as uniform curricula that outlined concepts students should learn at each stage of their education.[49]

In the early 20th century, Carnegie Foundation for the Advancement of Teaching trustees developed units of time that students had to spend in a given course to be prepared for college. More than 100 years later, the "Carnegie unit" still often determines how much time students must spend in various courses to be eligible for high school graduation.[50]

The fact that more innovation has not taken off among charter schools is not terribly surprising, given that U.S. schools as a whole have not changed dramatically for more than a century.

But aren't charter schools supposed to break this pattern, finding paths to innovation that are not open to traditional public schools? Everyone shares some responsibility:

- **Authorizers.** Authorizers are the agencies that decide which operators receive charters to run schools. As a result, they are positioned to either foster or discourage innovation. Early charter school authorizing in many places was a wide-open spigot. As a flow of unqualified founders ensued, many authorizers felt burned. The result, some researchers found, is considerable risk-aversion among charter authorizers. For example, a recent study of charter school application requirements conducted by AEI found that even though authorizers say they want to see innovative applications, they are increasingly wary, creating more requirements for approval. Researchers examined every online charter application available nationally from a nondistrict authorizer, studying authorizers that together cover about one-third of all charter schools in the United States. They write:

  > *Authorizers squelch the potential for continued innovation by narrowly prioritizing school models that may have been innovative yesterday (for example, models that incorporate science, technology, engineering, and math into a school's curriculum) rather than actually encouraging schools to experiment anew and keep taking risks.*[51]

- **Funders.** As discussed later in this report, the average charter school receives more than $500 per student per year from private donations — more than $125,000 for a typically sized charter school. And in the start-up phase, charter founders are generally even more reliant on philanthropy as they wait for public funds to flow once they are open. Funders, then, potentially

have a strong influence on what school founders do. High-profile efforts, such as the NGLC and NewSchools Venture Fund's recently announced "Catapult" program, fund some innovative new models. But many funders, including some whose wealth derived from radical innovation, often take comfort in supporting the expansion of proven models rather than the development of as-yet-unproven ones. This is one reason that between 1999–2000 and 2011–12, the proportion of charter schools that were part of nonprofit networks of schools (CMOs) doubled from about 10 percent to more than 20 percent.[52] Funder risk-aversion likely leads more founders to pursue models that are familiar rather than ones that break the mold.

> The sector is trying hard but limiting its gains because it is working within the premises, assumptions, and limitations of the existing educational model when it could be innovating more truly new educational models.

- **Families.** Families seeking better schools for their children are not necessarily looking for innovation; instead, they may pursue the solid and traditional as a perceived surer bet for their children's academic success and happiness. As noted previously, some schools in the NGLC portfolio — an effort to foster more innovative models — learned this the hard way. Across the eight schools CRPE studied, seven were unable to attract as many students as they were set up to serve. The median school, in fact, found itself with 14 percent fewer students than it hoped.[53] Charter schools' existence hinges on their ability to attract students — and that fact seems to tip the scales even further against innovation.

- **Policymakers.** In theory, charter schools receive freedom from all of the constraints that tie down traditional public schools. In practice, charter laws in many states keep many of these constraints in place.[54] And charter schools remain subject to state accountability and assessment systems, which tend to focus schools' efforts on approaches designed to raise students' math and reading scores and potentially divert attention from other educational goals. At the same time, many uses of technology, different facilities arrangements, and divergent staffing models are perfectly legal under today's charter school laws, and yet innovation remains limited. Policy seems more a future worry that drives present constraint: Why should the sector try spawning more schools that fundamentally seek to break the mold if policy barriers will just get in the way much more than they do today?

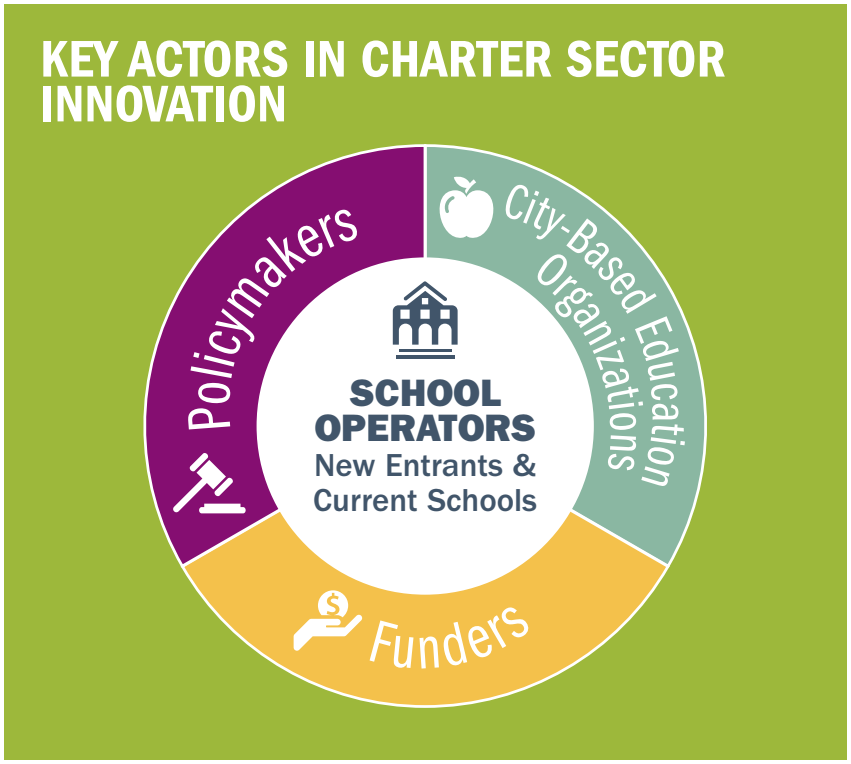
- **School founders themselves.** School founders react to all of the forces above when they decide to develop more or less traditional schools. But they have barriers of their own. One is what noted education scholars David Tyack and William Tobin called "the grammar of schooling." Most

school founders attended schools that followed "the established institutional forms of school" that have become so prevalent they are like an unconscious "grammar."[55] These forms may be so engraved in some founders' mindsets that they do not even consider challenging those institutional forms. In addition, devising radical but successful innovations is not easy. It takes a mindset and skill set that are not widespread. Even in many for-profit sectors, observers wring their hands over the lack of innovation, sparking a vast industry of book writing and consultancies to help organizations become more innovative. Just look at the covers of *Harvard Business Review* — looking only at May through July 2015, the publications include features such as "It's Time to Blow Up HR and Build Something New," "You Need an Innovation Strategy," and "Make Better Decisions: How To Outsmart Your Biases And Broaden Your Thinking." **But with all the scale-tipping listed above, school operators have little incentive to engage in the work required to devise, test, and perfect fundamentally innovative designs.**

The summary picture is of a sector trying hard but limiting its gains because it is working within the premises, assumptions, and limitations of the existing educational model when it could be innovating more truly new educational models. The hearts and minds of the sector, its leaders and staff, share an intense focus on student success. Motive and goal are not issues; method is. Education model innovation is at least one, and likely the primary, avenue to greater educational value — better educational results with improved use of available resources.

TIPPING THE SCALES

Because innovation is an imperative for charters, the sector needs to find ways to tip the scales in that direction. The rest of this report outlines strategies that various actors can take to spark a new wave of innovation that helps the sector better educate students, serve an even broader population, and grow to meet the universal need for higher-quality, more educationally effective school options.



As the figure on this page illustrates, **school operators** are the key to the next wave of innovation and new school models in the charter sector. As with the first 25 years of charter schooling, these entrepreneurs will be the driving force of the sector's growth, development, and success. Both **new entrants** and **current schools** have critical roles to play.

But because the scales of today's charter sector are tipped against "breaking the mold," other actors within the sector also are essential to resetting the balance to unleash much more innovation. These are:

- **Policymakers,** who set the framework that either incentivizes, enables, and funds new models or discourages them;
- **City-based education organizations,** which can be the force that leads the sector toward break-the-mold innovations in their locations; and
- **Funders,** who can support all of the above work financially, take calculated risks, and incentivize financially sustainable innovations.

The following sections address each of these actors in turn.

School Operators

Rather than say "these are the innovations you *should* pursue," this section offers some options for consideration on two questions:

- How might the sector produce **entirely new models of schooling,** models that truly break the mold of traditional schooling in ways that enable the sector to be better, broader, and bigger?
- How might operators develop **ambitious, innovative improvements to the existing model of schooling** that address these same goals?

Operators can both develop brand-new models of schooling...and make major improvements to their current approaches.

While new models are needed, many existing schools could benefit from innovations within their model as well. One positive and important outcome of such innovation could be **less ongoing reliance on philanthropy.**

ENTIRELY NEW MODELS OF SCHOOLING

To see massive gains in the sector's ability to be better, broader, and bigger, entirely new models of schooling must be part of the package. Several **focal points of innovation** seem most promising for entrepreneurs to pursue and the **likely pathways to break-the-mold innovation** within the sector. School operators seeking to break the mold could focus on any number of facets of the traditional school model. Which potential focal points have the greatest potential for transformation?

Focal points of innovation. Four areas seem ripe for break-the-mold thinking. All four are, of course, already the focus of substantial discussion and at least some degree of piloting within the sector. But none of the four areas has produced widespread innovation with enough depth and scale to be transformative. These are:

- **Use of time.** The charter sector has already focused the nation's attention on the question of time — but usually by prompting educators to figure out how to add more time to students' learning experiences, whether through longer school days, weeks, or years. The next frontier is fundamentally rethinking how time is used within whatever that finite total may be. Innovators have the chance to think afresh about how students move through the day, the mix of activities in which they engage, and how they

interact with adults and each other across time. Middle schools engaged with the nonprofit **New Classrooms,** for example, reorganize their math instruction around computer-generated "playlists" that guide students from one instructional activity to another, based on data generated by the students' past performance. So a student may move between teacher-led instruction, online learning, collaborative project work, and other modes of learning over the course of the day or week, following a personalized path to learning math.[56] In traditional schools, time is the constant and achievement the variable. Ideally, schools personalize learning so that all students reach or exceed high standards even if they take different, and sometimes longer, paths.

- **Use of space.** Charter schools have been pioneers in securing less expensive facilities by dispensing with some of the trappings of the traditional school. But what about changes in the use of space that actually facilitate a transformed learning environment? School operators have the chance to move away from the standard long hallways flanked by self-contained classrooms, redesigning the space to match the school's instructional design and support the school's culture. **Generation Schools,** for example, feature three different learning spaces within one larger space through which students rotate for direct instruction, individual tech-supported work, or small group collaboration.[57] Schools also can find ways to use the broader community as their "classroom," enriching students' educational experiences while also changing schools' need for space.

- **How people work in schools.** The role of adults, and particularly the role of the teacher, appears to be another fertile area for innovation in light of the centrality of people to the success of any kind of schooling.[58] Some possible dimensions for innovation in teacher roles:

  - **Specialization.** In the traditional elementary school model, a teacher teaches the same group of students in all core subject areas. Some schools are shifting away from this model and allowing elementary level teachers to focus on teaching just their best subjects. These specialized teachers plan and deliver lessons for multiple classes, while other teammates take care of students the rest of the time and cover administrative work.[59] Secondary school teachers could specialize as well, focusing on aspects of content or teaching roles in which they particularly excel. School operators have range and latitude for rethinking roles so that adults focus on what they do best rather than having all teachers do the entire teaching job.

  - **Teams and team leaders.** Building schools around teams led by teachers with great leadership skills is another way some schools can rethink teacher roles. Charter operators are able to maximize staff quality when great teachers not only teach but also lead other teachers, sharing strategies and best practices for classroom success. A well-led

TRANSFORMATIVE POSSIBILITIES

USE TIME CREATIVELY

Some schools have reorganized their instruction around computer-generated "playlists." A student may move between teacher-led instruction, online learning, collaborative project work, and other modes of learning over the course of the day or week.

USE SPACE CREATIVELY

Schools also can find ways to use the broader community as their "classroom," enriching students' educational experiences while also changing schools' need for space.

REVAMP ADULT ROLES

Using specialist teachers, teams, paraprofessionals, volunteers, and others can help free up more time for teachers to teach.

RETHINK THE STUDENT EXPERIENCE

The approaches above should lead to education that is more personalized, engaging, and relevant.

team of teachers can reach more students than a teacher working alone can, which can lead to savings that can be used to pay teacher-leaders more and also make schools more financially sustainable.[60]

The key question is how to unleash the creativity of school operators to act on these possibilities.

- **Creating time for teachers to actually teach.** By using paraprofessionals, volunteers, and technology strategically, operators can run schools with a smaller, and therefore more highly selective and better paid, teaching force. Fewer teachers can oversee more students because one teacher can target instruction with one group of students while the others oversee other students in small group activities or independent work using digital content.[61] At **Carpe Diem Schools,** for example, four paraprofessionals and a learning center manager supervise up to 300 students learning independently via digital content while a small group of highly paid core content teachers pull out smaller clusters of students at the same skill level for direct instruction.[62]

- **The student experience.** No changes in the last three categories will have the intended impact unless what students experience in schools changes fundamentally. This is the end that all other forms of innovation are designed to achieve.

Many aspects of the student experience seem particularly ripe for transformation, including:

- **Personalization.** Through changes using technology, time, space, and educators, school operators can dramatically increase the degree to which each student receives an education much closer to his or her real needs than today's one-size-fits-all system provides. **Summit Public Schools, Intrinsic Schools,** and **AltSchool,** profiled on pages 21, 22, and 35 reflect some of the early potential for personalization.

- **Motivation.** Children are not vessels that can have knowledge and skill poured in; they must be actively engaged in true learning. Yet students' self-motivation and the external motivation they receive from their families vary widely. Schools of the future have the chance to rethink the experience so more students are more actively engaged more of the time in schools. For example, the **Brooklyn Laboratory Charter Schools'** model is centered on blended and personalized learning that meets the individualized needs of their students — a majority of "Lab" students live in or near poverty, one-third have special needs, 20 are in transitional housing, and 14 are involved in the juvenile justice system — and that allows all students to participate meaningfully in their own education. To support the model, the Lab has developed its own learning management system platform that gathers information about learners and their experiences and

fuses this information with operational and assessment data to generate data that inform both teaching and learning.[63]

- **Authenticity.** Children, especially as they grow into teenagers and young adults, benefit from educational experiences that are as authentic as possible and develop their capabilities to carry out the activities they will encounter in higher education, the workplace, the community, and their personal lives. Finding ways to make schooling more preparatory for the "real world" is another innovation challenge for new school models. For example, Generation Schools operate two public schools in New York City and Denver. They are meeting this challenge by dedicating up to 300 hours per year to project-based college/career exploration and exposure activities tied to academic standards. They build dedicated time for college/career readiness into the school day and year by using various schedule configurations. This includes extending the school year and suspending regular classes for one month of the year to allow students to explore high-growth industries tied to college and career pathways. During this time, a separate rotating team of teachers lead the students through the "Intensive Experience" program, allowing regular teachers to take vacation and spend time together in collaborative planning.[64]

This list is meant to be a start — not an endpoint — of a discussion about potential focal points of innovation. The key question is how to unleash the creativity of school operators to act on these possibilities.

Three likely pathways. For the charter sector to realize the potential of innovation, where should it look? Three main pathways seem most promising:

PERSONALIZING LEARNING: SUMMIT PUBLIC SCHOOLS

Located in California and Washington state, Summit Public Schools incorporated personalized learning into its model after receiving feedback from alumni who had struggled in college. According to those Summit alumni, some had to take remedial courses, especially in math, because the high support culture at Summit led to challenges in self-directing and managing time once on their own.[65]

In partnership with Khan Academy, Summit piloted a new school model incorporating personalized learning in 2011. The model was first used in two new high schools with 200 9th graders, but it was only used for math instruction. When all students demonstrated growth that year, Summit doubled the number of students in the math pilot the following year, and in 2013 it adopted a whole-school model with personalized learning in all subjects.

Summit's personalized experience is focused on students becoming active participants in their education so they can build the knowledge and skills that will help them succeed in college and the workplace, such as critical thinking, collaboration, and perseverance. Students connect long-term goals and aspirations to their daily decisions and actions and engage in deeper learning projects where the content they learn in preparation for college is applied to real-world situations.

The Summit model divides student time among different learning experiences: teacher-facilitated, interdisciplinary project time; personalized learning time focused on content mastery; digital or teacher-led time focused on developing numeracy skills; and mentoring time to talk about both immediate and long-term goals.

Summit uses different technology tools to support the personalized learning component of its instructional model. All students have their own Chromebook, and both teachers and students use a "Personalized Learning Plan" dashboard to monitor and track progress on learning goals.

- **New entrants.** Clayton Christensen and other scholars of "disruptive innovation" note that fundamentally new models often arise from new entrants to a market — organizations that are less constrained from past routines, biases, and the pressures that come from rewards they earn from satisfying an existing customer base. Additionally, because they would ultimately attract families and staff explicitly interested in breakthrough approaches to education, new models that start from scratch can make the significant departures from the traditional school model that are more difficult to make within an established school. School operators also understand the local context within which a new model would operate, so they can design models that directly respond to community needs. For example, Melissa Zaikos of Intrinsic Schools developed a new model to reach disadvantaged middle and high school students in Chicago with rigorous curricula, as well as to give students the skills they were not getting for success beyond

STARTING A COMPLETELY NEW SCHOOL: INTRINSIC SCHOOLS

The Intrinsic model, located in Chicago, delivers instruction in large, flexible spaces, or "pods," that accommodate up to 65 students. Each grade level has a math and a language arts pod and separate classrooms for science and social studies. Pods are led by two teachers and a special education teacher in each. Students spend 100 minutes every day in each core subject, with science, social studies, music, and PE offered on alternating days. Within each pod, groups of students rotate between independent work (using a "coastline" of computers situated around the edge of the room), small group work, and in-person instruction.

What spurred the need for a new model?

Founder Melissa Zaikos noticed that some educational models were successfully using rigorous curricula with disadvantaged students but wanted to find a way to accomplish this at a larger scale. She also saw that a highly structured environment does not develop students' ability to work independently, a skill needed for postsecondary success. Finally, she sought to develop a staffing structure that focused on staff development and retention and did not rely on overworked, inexpensive but inexperienced teachers. Therefore, she set out to develop a rigorous, scalable instructional approach that also emphasized self-directed learning, all while retaining excellent, experienced teachers.

How does the new model address the need?

The Intrinsic model uses digital content to free teacher time for rigorous, targeted in-person small group instruction. Learning in a digital environment also allows students to take ownership of a portion of their learning, which develops their ability to work independently and manage their own time. Large, flexible instructional spaces allow students to rotate through a variety of learning modalities while teachers can regroup students for targeted instruction according to skill level. Teachers work in teams and typically have at least 100 minutes every day to coordinate lessons and plan for differentiated instruction within a given pod. Giving teachers protected time to collaborate during the school day supports a more reasonable workload and has contributed to high staff retention.

What was the process for developing the model?

Zaikos knew that using large, flexible spaces instead of classrooms would accommodate a variety of learning modalities, such as digital content and in-person instruction, and allow teachers the ability to continually regroup students according to skill level. This setup also would increase teacher collaboration, flexibility, and autonomy, which she hoped would lead to better retention.

While Zaikos conducted a small pilot over fall and winter break with students at another school, she did not have the space needed to truly test the planned model. So Intrinsic opened as a new school that operated in a temporary office space while the facility was built. The first year in this space functioned similarly to a pilot: The staff and leadership team learned lessons that impacted the concurrent facility construction. For example, they better understood the resources each classroom would need, so they were able to outfit the new building with the right flexible furniture and equipment.

What supports were essential?

Philanthropy from both national and local funders was crucial for Intrinsic's start. Much of the start-up funding came from a Next Generation Learning Challenge grant, but the school also received support from two private foundations: the federal Charter Schools Program and the Charter School Growth Fund (CSGF). Providing start-up funding is an ideal role for philanthropy and other short-term investors to play, not funding schools in perpetuity.

CSGF required a business plan, which forced a rigorous conversation about financial sustainability prior to opening the school. CSGF also encouraged school leaders to travel to other innovative schools around the country. School leaders at these schools offered important guidance for tweaks to the Intrinsic model, as well as suggestions for areas where Zaikos should seek external assistance.

Zaikos and the school's assistant principal also attended training at Relay Graduate School of Education between the first and second year of operation. The training was extremely helpful, especially in regard to blended learning, and Zaikos believes that having had that experience before opening the school would have better prepared her for Intrinsic's first year.

high school (see "Starting a Completely New School: Intrinsic Schools").

- **New models from within existing high-flyers.** Although new entrants may contribute a signification proportion of break-the-mold models, today's high-performing school operators also have a role to play. Clayton Christensen, Michael Horn, and Curtis Johnson write in *Disrupting Class* that existing organizations sometimes do break the mold. But usually they do so by using some kind of "separation tool" — a mechanism to create space for an innovative new model to take form, be tested and perfected, and ultimately grow if successful. Two possibilities for making such space in the charter sector are:

  - **"Greenfields."** Some highly regarded charter operators, such as **Achievement First** and **Match Education,** have set out to create wholly new models of schools while continuing to run their existing successful models. In Achievement First's case, the "Greenfield School design project" is "engaging in more unconstrained thinking, research, and design work with the goal of opening two new schools in 2015 that might ultimately show us what a big leap looks like."[66] Achievement First's new schools feature a highly personalized education approach, a broadened focus on "habits of success" in addition to standard academics, and an unusually wide array of enrichment opportunities for students. In Match's case, the project is called "Match Next" (see "Innovating from Within: Match Next").

  - **Small-scale piloting.** In addition to clearing space for fresh thinking, Achievement First and Match also took advantage of their existing schools and used them as testing grounds to pilot key innovations with teachers and students before taking them live as whole schools. In small-scale piloting, schools can use existing resources without the expense of locating additional space and staff required to start an entire new school. They have the space to tweak an innovative idea over time based on successes and challenges that surface in the pilot and do not have the success of an entire school riding on a new idea. Students experience some fundamentally new approaches, but typically for a small portion of their school day until an innovation proves worthy of expansion.

INNOVATING FROM WITHIN: MATCH NEXT

All Match Charter Public Schools rely heavily on full-time tutors, most of whom have recently graduated from college. Low student-to-tutor ratios allow for personalized learning support and strong student relationships with an adult.[67]

What spurred the need for a new model?

In response to the difficulty that nearly all high-performing charter schools have finding excellent teachers, Match leaders wanted to experiment with a model that is primarily staffed by full-time tutors, or the "Match Corps." In addition, Match leaders recognized that it had high-performing teachers who were looking for more leadership but wanted to stay connected with students. Match leaders also wanted to provide a space that could be a dynamic testing ground for technology. Match's founder, Mike Goldstein, hired Ray Schleck, a former Match Corps member and teacher and now principal at Match Next, to help design and plan the school's launch.

What is the new model?

Match Next uses even more tutors than other Match schools, with approximately one tutor per six students who provides personalized instruction and supports social-emotional development. Tutors also take responsibility for grading and other administrative tasks. Meanwhile, a few master teachers (about one for every 50 students) develop curricula, prepare lessons, lead tutorials, and coach teams of tutors. This staffing mix allows Match Next to offer master teachers more compensation than what they might earn in other schools and hire enough other adults (tutors) to provide the high touch that is so important to the model.

The school also has a full-time technology director who is responsible for searching for new technology; tweaking ways to use it; and testing out approaches, content, or hardware. The director stays apprised of the challenges teachers and tutors have in classrooms so he can work on solutions. When he finds a potential solution, he tests it out on a small scale with a few students and tutors. And if it is useful, Match Next will gradually roll it out as an option for teachers.

What was the process for developing the model?

Schleck had one planning year, during which he experimented with ways to improve the tutoring experience for the tutors and students at Match's elementary school campus, Match Community Day. When he had developed ideas for the new model, he had the chance to coach an entire room of tutors and students for three weeks then receive feedback from participants on the instructional approach. He also spent planning time fine-tuning the ways in which Match Next would incorporate technology into the tutoring experience. Finally, he hired two master teachers to help run the pilot.

The following year, Schleck and the two master teachers piloted the model for all 50 4th graders at Match Community Day, but only for three hours of each school day. After a full pilot year, the Match Next school opened in 2014 with 50 5th-grade students. Match Next expanded in 2015 to serve approximately 150 students in the 5th and 6th grades.

What supports were essential?

A key factor is that Schleck can focus solely on instruction and culture while the Match central office takes care of back office supports. "If I had to worry about money, research, policy, and facilities," Schleck shared, "we would never have been able to get this model off the ground."

Match Next also benefited from the ability to test different approaches on a very small scale, and then as a year-long pilot, at Match Community Day. This gave the leadership team time to try out different aspects of the model and use feedback to refine the ultimate model.

Philanthropy also has been important in the planning and initial year of Match Next. Grants, including a Next Generation Learning Challenges grant, made the planning year, pilot, and scale-up years possible.

Schools trying something new on a small scale also will likely already have gained parents' confidence, so parents will be more likely to accept inventive efforts because they trust that the school will not sacrifice instructional excellence for innovation's sake. For example, the Match Next model was piloted at another school in the Match Charter Public School network for a half of each school day with one grade level. This offered an entire year to perfect the model before opening the Match Next campus, and proof points developed during the pilot positioned the school to recruit students and teachers.

> Existing school operators also can help new entrants get started by enabling innovators to use their classrooms, teachers, and students for pilots.

- **Collaboration between new entrants and current school operators.** It is also possible for existing school operators to help new entrants get started by enabling innovators to use their classrooms, teachers, and students for pilots. The idea sounds counterintuitive: Why would a current operator want to help spawn another, which might then compete for students, funding, and/or talent? But in practice, some existing school operators may be willing to do so. They may have reached a limit on their own growth but want to keep contributing to the expansion of school options in the city, especially if they have long

bricolage
academy of new orleans

DEVELOPING A MODEL TO MEET AN UNMET NEED: BRICOLAGE ACADEMY

In New Orleans, where public schools have traditionally enrolled high numbers of low-income students of color, Josh Densen set out to create a school with a purposely diverse student population and a creative, problem-solving curriculum. With the help of 4.0 Schools, Densen piloted his new school in a series of "pop-up classrooms" and invited parents and teachers along to view the experimental classroom in progress.

What does the model look like?

The Bricolage curriculum heavily emphasizes critical thinking, problem solving, and creative reasoning with the goal of preparing its students to be innovators. Teachers and staff use innovation, rapid iteration, and design thinking in all facets of educating their students. The school also operates on the premise that all parents, regardless of income level, race, or ethnicity, are seeking a high-quality educational experience for their children. The school therefore actively attracts, recruits, and maintains a much more socioeconomically diverse student body than those of other New Orleans schools.

What spurred the need for a new model?

Founder Josh Densen was underwhelmed by public school options in New Orleans for his soon-to-be kindergartner. Most schools used a "no excuses" model, which typically features strict discipline; high academic expectations; and regimented, extended instructional time.[69] They also tended to enroll students from similar racial, ethnic, and socioeconomic backgrounds. Confident that other parents also wanted an alternative for their students, regardless of their socioeconomic status, Densen decided to create a new kind of school that would meet this need. He envisioned a school that inspired creativity among its students, similar to what the area's private schools offered affluent families, but that also served students from a wide range of socioeconomic backgrounds.

In designing his model, Densen benefited from his strong background in education reform, including stints with Teach For America in the San Francisco Bay Area, Knowledge is Power Program (KIPP) in New York City, and the Achievement Network. He also was a member of New Orleans' nonprofit incubator, 4.0 Schools' first Essentials program, designed to support entrepreneurs in moving their ideas forward. Densen gained insights on the lean start-up method of entrepreneurship and applied his learning to his development process.

What was the process for developing the model?

Development of the Bricolage model benefited from an iterative process in which Densen collected inputs and used those to test and refine his school model. First, he held focus groups around New Orleans to identify the needs of local families, articulate his ideas, and get

waiting lists of families they cannot serve. Or they may see hosting a new entrant as a low-cost, low-risk way to seed some innovation they themselves may be able to adopt at some point.

For example, **FirstLine Schools,** a successful operator in New Orleans, allowed Josh Densen to use a classroom after school to pilot the instructional model for **Bricolage Academy** and to recruit eight FirstLine students to participate. Sharing space for the pilot did not present any costs for FirstLine, and it supported both FirstLine and Densen's belief in creating great schools for every New Orleans child (see "Developing a Model to Meet an Unmet Need: Bricolage Academy").[68]

feedback on his proposed school model. Confident that his idea was workable, and buoyed by the feedback he received from the groups, Densen decided to hold a small pilot class to test the instructional approach. He began with a small group of 3- to 7-year-olds at a local museum event room. "It was a failure," he recalled, because students were at different grade levels and did not engage with the lesson. However, in reflecting on the challenges with the first try, he also realized that there was no shared classroom culture among the students.

With this in mind, he piloted the instructional approach again, but this time with the same age group of students in eight sessions over a two-and-a-half month period. A colleague at a FirstLine charter school, Samuel Green Charter School, allowed Densen to use a classroom after operating hours, so he held regular weekly afterschool sessions with a pilot class of 16 diverse students — eight socioeconomically disadvantaged students from Samuel Green and eight affluent students from magnet and private schools.

This pilot yielded several important lessons that helped inform refinements to the school model. The pilot shed unexpected light on how children from different school models interacted with learning; the less affluent students often demonstrated more advanced technical skills while affluent students were more open to creative thinking. The pilot also revealed that students generally were not familiar with a workshop approach to instruction and required a few sessions to become comfortable. Additionally, the pilot illuminated the value of students' making their own academic choices and provided lessons about the need for teachers to instruct students on how to make choices and model problem-solving behaviors. Densen used these lessons learned to refine the Bricolage model and launched it as a standalone school the following year.

Another benefit: Teachers and funders could come observe the interactions of the children, allowing them to witness the potential of the model firsthand. The "pop-up" school created a community buzz and excitement that pushed the project forward.

What supports were essential?

Densen secured an initial grant to cover the costs of materials and salaries for himself and Michele Murphey, the Bricolage Director of Academics, while they piloted the model. Having a pilot site that funders could visit helped secure additional grants totaling nearly $1.5 million to start and support the school in its first three years. The largest grants came from the Walton Family Foundation and New Schools for New Orleans, a city-based organization that, among many activities, invests in New Orleans charter schools through a grant from the Laura and John Arnold Foundation. Although the amount spent per pupil was well above the average state per-pupil funding in the first year of operations, it decreased significantly in the second year, and Densen anticipates it will drop again in the third year.

The in-kind donation of classroom space was also crucial. In addition to providing a space for the leaders to perfect the model, it offered a space for parents and funders to observe, which translated to families eager to enroll and funders who offered financial support.

Schools can use facilities more efficiently in a variety of ways without sacrificing the quality of student and staff experience.

AMBITIOUS IMPROVEMENTS TO THE EXISTING MODEL

Ambitious improvements to the traditional school model also could help the sector grow to meet student need and demand — especially improvements that help the sector become less reliant on philanthropy. Key ideas include:

- Using and funding facilities more efficiently
- Starting new schools by taking over failing schools
- Rethinking start-up economics
- Backfilling, or filling vacant seats every year
- Sharing functions across schools and networks

If charter school operators adopt these suggestions, they will have to spend less energy figuring out how to cover costs and therefore have increased capacity for implementing the suggestions below for becoming more innovative. And donors could focus their resources on investments in innovation, as discussed in this report.

None of these ideas is revolutionary. Any of them can be found in today's charter schools in some measure. But many of them are not widespread. And many of them could be combined in ways that would have a fairly significant effect on charter schools' cost structures — much more than any one idea alone. School operators could pick and choose the ones that seem most likely in their context to help them become more sustainable while maintaining or increasing the quality of their schools.

Use and fund facilities more efficiently. As previously discussed, expenses related to acquiring and maintaining facilities typically represent a large portion of a charter school's budget. Schools can use facilities more efficiently in a variety of ways without sacrificing the quality of student and staff experience.

Revise schedules to educate more students within the same space. Schools can change schedules to accommodate more students in the same space, thereby increasing per-pupil revenue while holding constant facility-related expenses. As a result, the amount per pupil spent on facilities decreases. For example, a high school could stagger class schedules so that one group of students takes core classes from 7 a.m. to 12 p.m. and then leaves campus to participate in off-campus internships, career studies, or community college courses. Another group of students could engage in off-campus learning from 10 a.m. to 12 p.m. and then head to campus for core classes from 12:30 p.m. to 5:30 p.m. Teacher schedules would be staggered accordingly, with one group providing instruction in the morning and another group providing instruction in the afternoon. While it would require scheduling flexibility from families and staff, this would allow up to twice the number of students to use one facility than the typical model, which uses the school building for only eight or nine hours each day.

Aggregate schools into large purchasing or leasing groups or otherwise enhance their credit through increased scale.[70] These groups can create lower-cost financing agreements by pooling several schools' credit and reducing lender risk.

Share or use less space. Charter schools could co-locate in buildings with each other or pursue shared space within district facilities. For example, at the **Julia Richman Education Complex** in New York City, six different district schools share one large building.[71] They have separate classrooms, offices, restrooms, and stairways but share a student

IMPROVE THE CURRENT MODEL

SAME SPACE, TWICE AS MANY STUDENTS

Group A

7:00 a.m. – 12:00 p.m.
Core classes on-campus

12:30 – 5:30 p.m.
Off-campus internships, career studies, or community college courses

Group B

7:00 a.m. – 12:00 p.m.
Off-campus internships, career studies, or community college courses

12:30 – 5:30 p.m.
Core classes on-campus

SAME BUILDING AND STUDENTS, BUT EVERYTHING ELSE IS NEW

KEEP

NEW

Leadership team, systems, instructional approach, and staff

OPEN MORE THAN ONE GRADE AT A TIME

Open 1 grade a year

K–5 school in year 1

60 students
x $8,000

$480,000 available

Open all 6 grades in 1 year

K–5 school in year 1

360 students
x $8,000

$2,880,000 available

"BACKFILL" TO SERVE MORE STUDENTS

"You have a space, there are 2,500 kids on a wait list — why would you not fill the space?"

Principal Stacey Gauthier, Renaissance Charter School, New York City

WHAT DO YOU DO BEST?

Share your expertise, and buy services for areas you're not strong in

SHARE

ELL
Curriculum
Instruction
Teacher training

BUY

Leadership
Back office
Special education

health center, professional development institute for teachers, theater, art gallery and several art studios, sports facility, library, cafeteria, and large auditorium. In some other cities, such as Washington, D.C., Denver, and Los Angeles, charter schools also share space with traditional schools.[72]

Charter schools also can share spaces with nonschool organizations. Many communities have publicly funded assets such as public libraries, community colleges, museums, and community centers that are unused for significant portions of time during the week. Some schools have found ways to take advantage of these spaces for all of or a portion of student learning time. Such arrangements help these schools defray facilities costs because either they are using community spaces exclusively or in combination with a smaller or otherwise less expensive home-base facility. Examples of community spaces where charter schools co-locate include the Henry Ford Museum (**Henry Ford Academy**[73]) in Dearborn, Michigan; the San Diego Library (**e3Civic**[74]) in California; a community health center (**Codman Academy**[75]) in Dorchester, Massachusetts; and Gary Comer Youth Center (**Gary Comer College Prep,**[76] part of the **Noble Street Charter School Network**) in Chicago.

An operator can "restart" a school by taking over either an entire failing district school or a failing charter school, replacing the school's existing leadership team or school operator organization.

By sharing space with another school or organization, charter schools are not responsible for financing an entire facility, which can help reduce a large expense. However, some operators maintain that having their own facility is important for recruitment and school culture, so they may not want to co-locate permanently with other organizations in the same building. These operators could still reduce start-up expenses by incubating in existing community spaces, especially with small schools or schools planning to grow one grade at a time.

Start new schools by taking over failing schools. An operator can "restart" a school by taking over either an entire failing district school or a failing charter school, replacing the school's existing leadership team or school operator organization. The school's governance also changes because the school either transitions from a district to a charter school or changes from one charter school board to a new board.[77] However, the new operator has an existing, fully outfitted facility and fully enrolled school with which to work, creating potential financial savings relative to starting a new school from scratch. For example, **Mastery Charter Schools,** a charter network in Philadelphia, has used this strategy for 10 of its 15 charter schools. These schools kept the same building and students, but Mastery brought in a new leadership team, systems, instructional approach, and staff.[78] The school reports that it does not require any philanthropic funds for academic programs and requires additional funds only for special renovations, school expansion, and extra-curricular activities.[79]

A new operator may also "phase-in" control of a school. For example, in Nashville, Tennessee, **LEAD Public Schools-operated Cameron College Prep** took responsibility for one grade per year at the chronically underperforming Cameron Middle School. The conversion began in fall 2011 and was completed in fall 2014.[80]

Of course, turning schools around is difficult work, and some operators may shy away from this approach, preferring to build new schools "from scratch." Still, if an operator's mission is to provide an excellent education to all students, the "restart" approach certainly has the potential to serve students needing better options while sidestepping the challenge of locating and acquiring a suitable facility.

Rethink start-up economics. Many charter schools open with one or two grades then gradually add grades over time until the whole school is built out. This desire is understandable. And in some cases, such as a language immersion school or other special program that must build specialized knowledge from the ground up, it may be the only sensible way to build a new school. But there is no evidence that phase-ins actually result in better schools. The phase-in mentality is more conventional wisdom than proven best practice. Certainly some successful operators open entire schools at once.

- **Democracy Prep Public Schools** has opened schools with all grades at once successfully in turnaround situations. One example is **Harlem Prep Charter School,** which went from the 3rd percentile on New York City's overall school performance metric to the 96th percentile in the first year under Democracy Prep leadership, rising from a "D" to an "A."[81]

- **Mastery Charter Schools** also opens in all grades at the same time and has seen similarly positive results, exemplifying its motto: "Same students. Same buildings. Different results." At Mastery, where 86 percent of students qualify for free or reduced-price lunch, 96 percent of high school seniors earned college or postsecondary acceptance. One of its early elementary schools, Thomas Elementary, has had a 51 percent increase in math proficiency after Mastery took responsibility for the entire school.[82]

Phasing in would be less of a challenge if it did not create such high per-pupil overhead costs in early years because there are fewer students over whom to spread facilities and administrative staff expenditures. These costs compel many schools to seek start-up philanthropic support to make up the shortfall. Given that economic reality, charter operators should give strong consideration to opening with all grades they plan to serve, with each grade fully enrolled.

Opening a new school at full enrollment would increase per-pupil revenues in early years and lower per-pupil overhead costs. A new standalone school starting at full capacity or through school turnaround also would generate more funding to offset operational expenses related to facilities and staff administration.

Phasing in one or two grades at a time has a real cost.

To compare the costs between a school opening at full enrollment and phasing in one grade level at a time, consider a K–5 charter school with fixed costs (e.g., interest payment, utilities, school leader salary, office assistant, etc.) at $415,000. If the school opens with just three classes of 20 kindergarten students, it would have 60 students in its first year. Assuming each student generates $8,000, per-pupil funds would total $480,000. This only leaves a remainder of $65,000, not nearly enough to pay the three classroom teachers and all of the other classroom and student-based costs. This school would have no choice but to turn to philanthropy to make up the difference. In contrast, if the school

opens at full enrollment with three classes of 20 in each grade, enrollment would be 360 students, generating per-pupil public revenue of $2,880,000. After fixed costs, the school would have $2,465,000 to spend, enough to cover all costs without turning to philanthropy for ongoing costs.

Backfilling serves more students and reduces the need for philanthropic support.

When opening schools all at once, operators should develop plans for remedying the challenges that lead some operators to prefer phase-ins. For example, they may need to devote extra attention and resources in the school's first semester of operation to building a strong culture across all grades. Or, they may consider opening a summer school to set expectations for students in the weeks before school starts. Skipping the phase-in should not mean skipping the culture-building work that phase-ins are designed to facilitate.

Alternatively, if charter operators feel that a phase-in approach to start up is nonnegotiable, they may consider some of the shared space strategies discussed earlier in this report. By sharing space with other schools or community organizations in their early years, schools can reduce start-up expenses related to facilities acquisition.

Backfill. For the same culture-building reasons that many charter operators prefer to grow their schools one grade at a time, many operators do not provide an opportunity for new students to fill seats that open up after the beginning of the school year or sometimes in subsequent school years.[83] However, charters could "backfill," or fill vacant spots when students leave the school. The question of backfilling has sparked a lively debate in the charter world.[84] Much of the debate focuses on whether charter schools should be *required* by law or their authorizers to backfill. However, school operators should consider backfilling even if they are not required to do so.

The argument for backfilling is twofold. First, it expands the reach of charter schools, increasing opportunities for students to access high-quality education options.[85] With long waiting lists at leading charter schools, one could argue that schools have a moral obligation to consider backfilling rather than leave seats unfilled while families are desperate to enroll their children.[86] Second, by backfilling seats as they open up, charter schools could generate more total funding rather than lose the per-pupil revenue that follows students when they leave. While charter-funding mechanisms vary greatly from place to place, in general charters' funding rises and falls with their enrollment.

Ravi Gupta, co-founder and CEO of the **RePublic Schools** network based in Nashville, Tennessee, says that at RePublic schools — and almost every other charter school nearby — backfilling is crucial

because per-pupil funding is low. If the school did not replenish the lost funding from students who withdraw, it would be difficult to make ends meet. While it can be difficult to remediate students who are behind, the network has developed differentiation systems to help new students who need additional support.[87]

To see the financial power of backfilling, picture a charter school serving 5th to 8th grade that enrolls a new cohort of 60 5th-grade students each year. Assuming it has average attrition for the sector (8 percent), about four students would leave each year. If the school chooses to fill all vacated seats, maintaining the 60-student cohort size for all four years, it would receive a constant $480,000 per year, calculated with per-pupil funding at $8,000. On the other hand, if the school does not backfill, it would receive $480,000 the first year when the cohort enters 5th grade but lose an additional $32,000 for that cohort each year after that because there are fewer students, adding up to a total funding loss of $192,000 over the four years — 10 percent less funding than if it had backfilled. Choosing not to backfill ultimately leaves less money to spend on instruction per pupil, possibly prompting a need for philanthropy.

The counter argument to backfilling is that by enrolling students in its upper grades, a school risks destroying the school's culture and/or swamping the school's staff with remediation needs. Some have suggested that these factors may outweigh the potential value of backfilling.[88] But the experience of some leading charter networks suggests that backfilling can coexist with very high performance. Democracy Prep is one example, a network whose results were highlighted in the previous section.

Another example is New York City's **Renaissance Charter School,** which serves 73 percent low-income students. Principal Stacey Gauthier said, "You have a space, there are 2,500 kids on a wait list — why would you not fill the space? It never crossed my mind — 'Wow, don't backfill because you might have to work harder to make that kid a Renaissance kid.'" The schools results have remained strong with backfilling; graduation rates have remained consistently high at 92–97 percent since 2005, and college acceptance among graduates has remained at 100 percent for the past two years.[89]

Share functions across schools and networks. If charter schools have to keep up with all of the tasks associated with traditional school districts, such as back office and finance functions, in addition to providing excellent instruction, they understandably have a variety of costs to cover. But as John Chubb, president of the National Association of Independent Schools, points out, "doing everything yourself is not efficient."[90] Matt Candler, founder and CEO of **4.0 Schools,** agrees, suggesting that instead of being "100 percent good at everything," schools should be effective in some things and purchase other services from organizations that are "100 percent good" at those services, from back office support services to special education instruction.[91]

> Charters cannot be 100 percent good at everything. They should purchase more services from those with special expertise.

For example, Raj Thakkar, while CFO at **Explore Schools** in New York City, developed a spin-off organization, **CSBM Inc.** (Charter School Business Management), that allowed him to continue to manage Explore's finances but also serve other charter schools.[92] Similarly, **Uncommon Schools** has started to train other schools in their instructional and leadership approaches,[93] so other schools that want to improve instruction do not have to develop their own trainings. If schools can leverage services like these, they also may free up capacity to focus on innovations within their existing models.

Policymakers

Policymakers have a critical role to play in tipping the scales of the charter sector toward innovation, including the creation of entirely new models. As a baseline, policymakers need to create a good basic climate for high-quality chartering. The outlines of such policies have been well-explained elsewhere:[94] funding charter schools equitably, including for facilities; providing charter schools with expansive autonomy, including the ability of successful charter schools to expand and serve as many students as possible; and setting and acting on clear performance expectations.

Here, we focus less on those basic policies and more on a set of steps that would specifically support the development of break-the-mold school models and ambitious improvements to the traditional model. These include:

- Investing public dollars in innovation-seeking entrepreneurs;
- Deliberately authorizing for innovation; and
- Enabling more rapid innovation via "micro-charters."

INVEST PUBLIC DOLLARS IN ENTREPRENEURS

The vast majority of federal, state, and local funding for schools — charter and district — supports the ongoing operations of existing schools. Very little public funding supports innovation, especially innovation designed to produce new models. While philanthropy can and should play a key role in such investments — a topic we explore in this report — that sector is likely insufficient to meet the need. As Public Impact's 2011 report on this topic concluded:

> *National and local philanthropies have invested substantial sums in charter schools and have fueled the early successes of incubators, but dramatic growth will require a shift to reliable, sustainable sources of funding to grow what has worked. Public funding can provide this sustainable support while allowing careful monitoring of the results achieved by incubators and incubated schools to refine and potentially expand investment.*[95]

That report called on policy leaders to direct more public funding to incubating new models through a variety of channels, including:

- **Redirecting existing funding streams,** such as the federal Charter Schools Program grant funding or School Improvement Grants, into development and start up of break-the-mold models; and

- **Using "social investment bonds,"** a financial mechanism that enables private investors to front the funds needed for innovation today and then be paid back with public funds over time — but only if the innovations produce the results and/or financial savings promised.

Public funding for innovation does not have to mean public agencies making "bets" on which prospective models merit investment. Instead, public funding could flow to intermediary organizations, such as local charter incubators or national and regional investment pools, such as the **Charter School Growth Fund, NewSchools Venture Fund, Silicon Schools Fund,** or the **Next Generation Learning Challenges.**

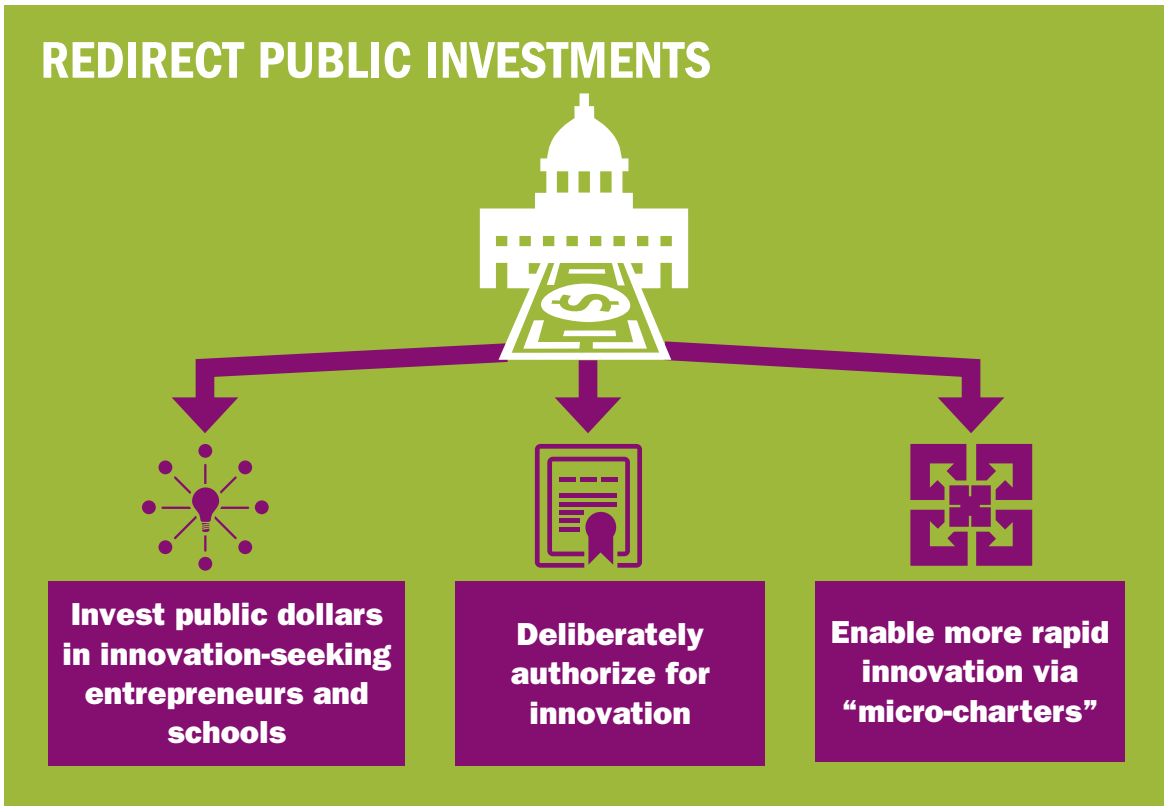
DELIBERATELY AUTHORIZE FOR INNOVATION

As noted above, some studies have found that authorizers, in general, lean toward approving "proven" models rather than those that represent wholly new approaches that have not yet been shown to work. The urge is understandable, especially because policymakers increase scrutiny and accountability for authorizers themselves based on the results of the schools in their portfolios.

In light of that natural tendency, how can policymakers support more adventurous authorizing? Here are two possibilities:

- **Special-purpose authorizers for innovation.** Experts at **Education|Evolving** have suggested the idea of "single-purpose authorizers," now enabled in Minnesota law. The idea is that in addition to general-purpose authorizers, like almost all of today's authorizers, the charter sector could benefit from having some authorizers focused on specific purposes — in this case, fostering break-the-mold school models.

- **Innovation divisions of existing authorizers.** Alternately, existing authorizers could set up semi-independent divisions to carry out authorizing for innovation. Such a division would create different application processes, approval criteria, and approaches to monitoring and holding schools accountable for results than its parent authorizer. It likely would employ different staff who could focus entirely on the innovation mission. These



steps would enable the authorizer to foster innovation without muddying the waters of its parent authorizer's portfolio.

Policymakers could help make these approaches happen, but the key would be creating an accountability structure for such authorizers that included some degree of **tolerance of failure.** An authorizer or authorizer-division solely focused on innovation would need to take risks, granting charters to unproven approaches. The authorizer must still set a high bar for innovative applicants, including conducting due diligence and scrutinizing the capabilities of applicants to pull off their ideas; the plausibility of the proposed approach; and the operator's plan to test, iterate, and improve the innovation over time. But the authorizer's accountability requirements would need to accommodate the likely reality that at any one time, some fraction of the portfolio's schools would not be successful. Like a traditional authorizer, an innovation authorizer would still be expected to close schools that ultimately did not make the grade, but at any one time it would have a more mixed portfolio because of the presence of unsuccessful but not-yet-closed innovative schools.

For policymakers, making the case that they currently "tolerate failure" routinely in existing schools should help take a potentially sharp political edge off the concept of innovation.

Such an approach could pay off well for authorizers. Some of the innovative schools they approve likely would prove successful — potentially substantially more successful than more traditional schools in the authorizers' portfolios. And even in cases of failure, authorizers and educators would learn valuable lessons about what was tried, how it was implemented, and what factors undermined success. This would provide more data than results from a more traditional school that opens and fails.

Authorizers taking this approach would need to address concerns from parents and policymakers about their children attending unproven schools, a concern discussed above. One advantage of the charter sector is that its schools are schools of choice, meaning that no parent has to send their child to a more cutting-edge school. Parents interested in an entirely new approach could have that without imposing the innovation on families more comfortable with traditional schools. And for policymakers, making the case that they currently "tolerate failure" routinely in existing schools should help take a potentially sharp political edge off of this concept.

ENABLE MORE RAPID INNOVATION VIA "MICRO-CHARTERS"

"Micro-chartering" is a strategy particularly suited to small charter school models that test new ways of educating students. With micro-charters, individuals or organizations contract to serve small numbers of children — perhaps just two or three classrooms — and thus hold potential for creating more pockets of innovation and experimentation on a smaller, less risky scale. Authorizing these small schools would enable great teachers and excellent charter operators to reach students without the massive start-up and

facilities costs associated with starting full-size charter schools. With smaller constituencies and asset bases, and perhaps shorter-term charters, micro-schools that do not work could be closed much more easily.[96]

In some states, authorizers are already empowered to charter micro-schools; in others, state policy changes would be needed. And even in states where micro-charters are already technically possible, an explicit micro-school section of the charter law could help spur more activity and introduce features, such as shorter-term charters to enable micro-schools to "fail fast" that may be more suitable to micro-schools than to full-scale charters.

The emergence of micro-schools in the private school sector potentially foreshadows what micro-charters could grow into. These small, private schools provide families dissatisfied with public school options alternatives to homeschooling or traditional private education and emphasize personalized instruction and learning.[97]

DEVELOPING MICRO-SCHOOLS: ALTSCHOOL

San Francisco-based AltSchool is currently among the most notable emerging micro-school networks.[98] A combination of laboratory and school networks, AltSchool opened with one school in fall 2013, added three schools in fall 2014, and opened two more in fall 2015 in Palo Alto, California, and Brooklyn, New York.[99] AltSchools are private schools with small learning communities of K–8 students. Each community serves approximately 40–150 students who are divided into classrooms of about 20–25.[100] Ages are mixed within classrooms, and the student-to-teacher ratio is low, typically two teachers per class. Situated in storefronts on city streets, AltSchools do not have traditional gymnasiums or cafeterias but rather use flexible classroom space with open floor plans and modular furniture.[101,102] Flexible space promotes the student-centered learning that is core to the AltSchool model, which centers on a digital platform that guides student learning and tracks student progress.[103]

Classrooms are set up to support continuous improvement by collecting audio and visual data on classroom interactions and student movement among activities.[104] AltSchool's staff of teachers, engineers, designers, and operators use this and other feedback to refine the school's digital platform and build products to better support effective teaching.[105] AltSchool hopes to use this continuous research and development process to ultimately develop affordable software that public schools could use to streamline instruction and administration.[106]

City-Based
EDUCATION ORGANIZATIONS

City-based organizations build and coordinate efforts from a variety of stakeholders — including district leaders, school teachers and leaders, funders, education support organizations, and policymakers — to improve education in their cities.[107]

CITIES LEARN FROM OTHER CITIES

Education Cities members

They can use their local connections to convene and influence stakeholders, elevate ideas, and create their own initiatives to drive change. They therefore have great potential to drive the changes necessary to support innovative local charter sectors in several ways:

- Incubating new models
- Supporting ambitious improvements in existing models
- Advocating for policy changes
- Collaborating across cities

INCUBATE NEW MODELS

City-based organizations could operate "incubators" that focus on developing new models. Incubator programs could offer a variety of supports to individuals with great ideas for new school models, including funds for planning time and connections with area school and community leaders. **The Mind Trust** in Indianapolis, **The Tennessee Charter School Center, Charter School Partners in Minneapolis-St. Paul,** and **New Schools for New Orleans** (NSNO) all have had or currently have incubator programs for such new school models (see "The Mind Trust's Charter School Design Challenge").

"Incubation" is partly a matter of providing funding, space, and help. But also critical is **attracting talented entrepreneurs to launch new models in the first place.** City-based organizations can play a pivotal role here. City-based organizations can look beyond the education landscape for innovators capable of developing the kind of break-the-mold models that the charter sector needs. They can partner with funders to create incentives for experienced out-of-sector innovators to use their design expertise for school design. For example, Max Ventilla left his job as head of personalization at Google before founding **AltSchool,** a network of one-room private schools that use proprietary software to personalize learning and streamline administrative tasks (see "Developing Micro-Schools: AltSchool").[108] Attracting similar-caliber individuals could yield new models that fill city-specific needs.

While incubation brings to mind the hatching of full-size schools, city-based organizations also can **support small-scale pilots.** For example, **4.0 Schools,** a nonprofit education-focused incubator based in New Orleans, is supporting small-scale pilots through its Tiny Schools Project, but with far less up-front funding than AltSchool. The organization initiated the project to "reduce the risk of creating new schools by testing promising concepts at a very small scale in intimate environments where willing families and students provide high-frequency feedback to school leaders before they build a full scale school." Participants receive coaching, start-up funding, and ongoing support as they pilot innovative new school models.

Participants have already been creative in controlling initial costs for facilities. For example, one model is operating a compressed, two-month version of the school model over the summer in borrowed space. Another is contracting with a local charter school to operate a small version of the model within the existing campus during the school year for just 16 students. Students and families that volunteer to be in the pilot will stay enrolled at the school, so the host school can use per-pupil funds to cover transportation, food, and security.[109] 4.0 Schools anticipates that these and other "tiny schools" will use lessons learned during the pilot phase to grow into full schools within two years and operate without philanthropy after their third year.

THE MIND TRUST'S CHARTER SCHOOL DESIGN CHALLENGE

The Mind Trust

In 2011, The Mind Trust created its Charter School Incubator to launch or expand excellent public charter schools in Indianapolis. Four charter school networks in Indianapolis received grant awards in the Incubator's first phase. In August 2015, The Mind Trust announced the Incubator's second phase, the Charter School Design Challenge, which will seed four transformative, break-the-mold charter school models. The Mind Trust's goal is to "create the next wave of charter schools by identifying the nation's most innovative social entrepreneurs and encouraging them to design transformational, new charter school models that have never before been tried."[110] Successful applicants will have submitted compelling and innovative ideas for new models of schooling and be revolutionary leaders with a vision for a sustainable transformation of public school education.

The Mind Trust will award four $250,000 grants to seed funding for the design of new school models. In addition, The Mind Trust plans to provide additional supports to winners of the design challenge, including site visits to world-class schools across the country; expert consulting on school model design; and support for school start-ups, operations, and management. Further, The Mind Trust and its partners will help designers launch and implement those models in Indianapolis.

While The Mind Trust immediately began accepting applications on a rolling basis, it also will host a national innovation summit in Indianapolis in April 2016 to generate interest in the Design Challenge. For starters, The Mind Trust plans to award up to 10 $10,000 planning grants to teams of entrepreneurs to develop ideas for an on-site Design Challenge competition at the national innovation symposium. Then, The Mind Trust will award a $50,000 grant to the team with the best school model to use to further develop a school model design plan to submit to the full Charter School Design Challenge.[111]

SUPPORT AMBITIOUS IMPROVEMENTS IN EXISTING MODELS

Above, we suggested that in addition to entirely new models, school operators could engage in more ambitious improvements to existing models, especially related to decreasing reliance on philanthropy. City-based organizations could help in two ways:

Develop a network of administrative service providers. Because charter schools are already stretched thin, developing better systems for administrative support would create more capacity for them to focus on educational mission, research and development, and innovation. External administrative support also could reduce costs of certain functions because specialized providers can achieve greater scale than a single school or network. For example, the nonprofit organization **ExED** provides charter operators in California with a variety of differentiated support functions, including accounting, compliance documentation, human resources, and board recruitment and training.[112]

City-based organizations could recruit organizations like ExED to expand to their cities, as well as convene charter operators to identify priority needs that such organizations could support. They also could work with existing charters and support organizations to identify service gaps and create new or differentiated services. As Hrag Hamalian, executive director of **Bright Star Schools** in Los Angeles, notes, there are notable differences between what single schools and multi-school operators need, and it is important for support organizations to customize their services accordingly.[113]

Create structures to encourage better financial benchmarking. Benchmarking capacity would help charter schools ground financial decisions in comparable market data. Both the private school sector and urban school districts have benchmarking systems that provide comparative data that inform strategic planning. In the private school sector, a nonprofit organization, the **Independent School Data Exchange (INDEX),** brings together two cohorts of similar private schools that share data on matters particularly relevant to private schools, such as size of endowment, faculty compensation and benefits, and tuition in addition to other school operations and student performance data.[114] **The National Association for Independent Schools** offers DASL, a similar service, for its members.[115] **The Council of the Great City Schools** produces an annual report and web-based system for district schools, which share data on key performance indicators of nonacademic operations of school district management, including finance, business services, human resources, and information technology.[116] City-based organizations could incubate local, regional, or even national benchmarking organizations to support financial sustainability in charter schools.

ADVOCATE FOR POLICIES THAT SUPPORT INNOVATION

Because city-based organizations understand local context and policy environments, they are well-positioned to identify policies that may encourage (or discourage) innovation, like those explored in the previous section. They can lead advocacy efforts for any policy changes necessary to make their respective cities friendly to education innovation.

For example, since Hurricane Katrina, NSNO, as "harbormaster" or coordinator and champion of education reform in New Orleans, has played many roles, including focusing on building the supply of great school operators and talent in the city. But NSNO's "supply-side" strategies would have had little effect if the policy climate had not enabled the growth of a high-quality charter sector. New Orleans faced many potential pitfalls throughout this period. Pressures to overly regulate charter schools could have quashed creativity and scared away top-notch entrepreneurial leaders. Pressures to grant charters to unqualified applicants could have spread mediocrity. And pressures against closing failing schools could have blocked the drive toward improving quality year after year that has been the hallmark of the New Orleans success story. On all of these issues, NSNO played critical roles — in both public advocacy for policy and behind-the-scenes work with the government agencies overseeing the city's schools.

COLLABORATE ACROSS CITIES

City-based organizations across the country also can collaborate to share ideas and determine whether those ideas could work in their respective cities. The work of innovation outlined in this report is challenging for harbormasters because it asks them, the schools they support, and their funders to step outside traditional boundaries. They already are learning a great deal and will learn more as the drive for innovation progresses. Finding ways to share lessons, and collaborate more formally, is a must. Education Cities, a multi-city network of harbormasters, provides a forum for this kind of exchange and partnership.

One way cities can work together is simply by bringing local stakeholders to visit each other's communities. Harbormasters could organize trips to enable local school operators to see innovative models in action in other cities, just as Melissa Zaikos did before launching **Intrinsic Schools** (see "Starting a Completely New School: Intrinsic Schools" on page 22). They also could bring funders and other supporters to see strong examples of harbormaster support at work in other cities around the country.

Funders

Philanthropic funders have critical roles to play in sparking more charter school innovation as well. Research for this report identified two ways in which funders sometimes work against innovation.

First, funders naturally want to back winners. They want to be able to point to school operators they support and highlight how successful they have been with students. This creates a natural draw toward supporting proven models rather than untested new innovations. While understandable, this tendency can limit the amount of capital for innovative models and encourage school operators to hew closer to traditional models than they might desire.

Second, funders' willingness to provide ongoing support for school operators — not just start-up and growth capital — may dampen school operators' drive to find improvements to their models that would make them more financially sustainable. In an effort to be helpful, funders may unwittingly contribute to a reliance on philanthropy that could be minimized with strategies like those discussed above.

So how can funders reverse this? One overarching answer is that funders can support the sort of activities recommended previously for school operators, policymakers, and city-based organizations. Many of these strategies require investment, with the long-term payoff of a more innovative, financially sustainable charter sector. This section highlights some of the more promising ways funders could invest in making the sector more innovative.

INVEST IN ENTIRELY NEW MODELS – EITHER DIRECTLY OR VIA INTERMEDIARIES

The most obvious need is for early investment in entirely new models. Ideally, developing a new model takes considerable time and effort before launching an initial school. As noted previously, this may mean providing an extensive planning period for a new operator, supporting an existing successful operator to create a "greenfield model," or backing a new operator to collaborate with an existing school operator as **Bricolage Academy** did with **FirstLine** (see "Developing a Model To Meet an Unmet Need: Bricolage Academy").

In any of these cases, up-front investment is needed. Ideally, the investment is time-limited — supporting the development of the new model but not its ongoing operation. In this way, philanthropy can focus where it is needed the most: at the creation and early development stage, all the while encouraging schools to move toward sustainability as rapidly as possible.

Risk-taking. It is important to note that funders supporting innovative models must be willing to tolerate results that fall short of expectations. In fact, many experts contend that knowledge gained from

failed philanthropic investments can be beneficial. A tolerance for failure does not force innovators to decide between moving forward with an initiative or abandoning it. Rather, assuming there are clear metrics by which to measure effectiveness, a tolerance for failure allows room to identify successes and failures within the initiative, which can inform future steps.[117] Further, failure provides information about core assumptions, implementation strategies, and metrics used to measure success. Experimenting with a new idea may reveal that these or other aspects of the approach (either on the part of the innovator or the funder) are flawed and can move the effort forward by informing future initiatives.[118]

Philanthropic investment in new education models is akin to venture capital (VC) investing. VC firms invest in a portfolio of companies. They select them carefully, based on judgments about the market, the proposed product and service, and the talent of the entrepreneurs involved. They think all of their investments have a chance of succeeding, but they expect many of them will not. A 10 percent success rate could be viewed as an abysmal outcome in any endeavor. But VC investors might well be overjoyed if out of 10 investments, one turned out to be the blockbuster that gives them an enormous return, even after accounting for the companies that did not take off. In business, the return is measured in dollars. In education, it is measured in student opportunities. Again, parents would knowingly volunteer for these opportunities, weighing the risks involved against the reality of the substandard education their child currently is receiving.

Managing risk. Taking this kind of risk is extraordinarily challenging, especially for long-standing funders with track records of supporting solid, if somewhat traditional, investments. Without past results to examine, how can funders know whether an innovation is a good bet? How can they assess the quality of the plan when, by definition, it is untested? And how can they see in the early years whether their investment is paying off, perhaps warranting further support — or whether the test has failed and the proverbial plug needs to be pulled?

> Philanthropy can focus where it is needed the most: at the creation and early development stage, all the while encouraging schools to move toward sustainability as rapidly as possible.

And taking a step back, how can innovation-minded staff of foundations convince their boards to venture into unchartered territory in the first place?

These challenges suggest some possible steps risk-averse funders can take to move in more of a risk-taking direction over time:

- **Use intermediaries.** Rather than invest directly, funders might consider investing in intermediary organizations that specialize in investing in innovative models. These intermediaries have already developed approaches to the challenges sketched above, and they are developing even more expertise over time. Potential intermediaries include national funds such as **NewSchools Venture Fund** and the **Next Generation Learning Challenges,** regional funds such as the San Francisco Bay Area's **Silicon Schools Fund,** and city-based funds such as **The Mind Trust's** Charter School Design Challenge.

- **Create an innovation division.** Funders also can manage risk by creating an innovation division. This way, the funder's mainline investment strategy can continue apace, even while a new operation forms to make investments in more

break-the-mold models. For example, the **Charter School Growth Fund** (CSGF) has created a "Next Generation School Investments" division, earmarking 20 percent of its $30 million "National Fund II" in a "new wave of high-performing charter operators designing 'next generation' blended school models."[119] This division has its own dedicated staff with strong expertise in innovative new models. And the division takes an approach to investment that differs from CSGF as a whole. As CSGF's website explains:

> *CSGF typically invests in [charter management organizations] with demonstrated track records of academic success. However, CSGF will use a staged and flexible approach to our next-gen investments — making smaller commitments to early stage entrepreneurs developing or testing new models and larger commitments to those looking to grow models with evidence of success.*

- **Start with successful operators seeking to innovate.** Another way to manage risk is to invest in existing, successful operators seeking to create "greenfield" models, similar to the experience of **Achievement First** and **Match Education,** described previously. With a proven operator, the funder has some assurance of the management team's strength and its commitment to creating excellent schools. While any new venture is risky, situating innovation within a known operator provides some degree of comfort.

FUNDERS COULD PRIORITIZE INNOVATION

To seed more innovation, philanthropists must be willing to take more risks and invest more creatively. Several strategies include:

Invest in entirely new models

Manage risk by using intermediaries

Create an innovation division

Conduct market research to pinpoint needs

INVEST IN ORGANIZATIONS THAT CAN TIP THE SCALES TOWARD INNOVATION

In addition to investing in new models, funders also have opportunities to invest in other efforts that can help tip the scales toward innovation and improvements in existing models, especially those that foster less reliance on philanthropy in the long term. Some possibilities:

- **Model providers and design partners.** Individual school operators can create breakthrough models on their own. But funders also might support a new cadre of organizations that can help with this process. One approach is for operators to engage with "model providers," organizations that have created and implemented a new way to organize schooling. Rather than invent its own model, a school operator could engage a model provider that brings experience and systems across multiple schools. School founders also could engage organizations that specialize in design, "design partners" that can lead them through a process of developing a new approach to meeting the needs of their target population. Philanthropy can help model providers and design partners launch and develop their offerings, which then can help multiple school founders and operators on the road to innovation.

- **Market research efforts.** One activity that could support innovation is gauging parent demand for aspects of new models, just as television networks assess audience response by sharing pilots for new shows with focus groups. Even the most innovative, sustainable school model will not see success without support from parents. Therefore, it is essential to understand parent need and untapped "markets," namely, students who are not currently enrolled in charter schools. Additionally, ways in which parents feel their current school does not meet their children's needs could *inspire* innovation.

  To ensure that there would be demand for a given model under development — or to seek inspiration for a new model — organizations can conduct focus groups, interviews, or surveys to assess family reactions and perceived needs.

  But market research is only a start. Innovative schools will need to engage families not only to learn about their preexisting preferences but also to listen sincerely to their concerns and priorities. This should help make family recruitment easier once the new model opens its doors. Two newer schools offer examples of how parents may be engaged:

  - At information sessions for prospective parents, **AltSchool** uses a "human-centered design" approach to solicit parent input about the kind of education and school they want for their children. AltSchool incorporates this feedback into its development process as part of its effort to continuously improve the learning experience for students.[120]

  - **Bricolage** allowed parents to observe their children interacting with other students during the pilot stage (described on pages 24–25 in this report). Bricolage's founder, Josh Densen, said parents and teachers were able to observe how something new could work and it helped create a "buzz" about the school.[121]

> Funders also have opportunities to invest in other efforts that can help tip the scales toward innovation and improvements in existing models, especially those that foster less reliance on philanthropy in the long term.

- **Harbormaster efforts.** The preceding section outlines some key roles harbormasters can play in fostering innovation, including developing shared service networks, creating a financial benchmarking service, and advocating for innovation-supporting public policies. All of these roles themselves require investment.

- **Authorizing for innovation.** As discussed above, if a jurisdiction seeks to authorize more innovative schools, it can do so by creating a special purpose innovative authorizer or by creating a division within an existing authorizer focused on break-the-mold charter schools. Either way, up-front investment will be needed to create a new authorizing system — new selection criteria, a new review process, and new oversight mechanisms that encourage innovation. Funders can help get these new authorizing functions off the ground, an investment that then will pay off in the authorization of break-the-mold charter schools down the road.

Conclusion

As the charter sector enters its second quarter-century, it would be easy for it to rest on its past successes, primarily in raising the bar for core academic performance and college-going in high-poverty, urban neighborhoods. But resting would mean squandering an enormous opportunity facing the charter sector: the chance to make the next 25 years an era of unprecedented innovation in the basic design of U.S. schooling.

The need for innovation is clear. Students need schools that are dramatically **better,** propelling them to new heights of learning during a time when society and the economy increasingly demand, and reward, higher and higher levels of knowledge, skill, and competence.

They need a charter sector that is **broader,** setting the pace not just for urban high-poverty populations but also for a wider array of student groups that desperately need better options.

And as charter waiting lists continue to grow, they need the charter sector to be **bigger,** expanding to whatever scale is required to meet students' needs.

None of this is likely to happen without substantial break-the-mold innovation in the sector. Without it, we likely will see incremental improvements in results. We probably will witness some progress in widening the circle of beneficiaries. And we will continue to watch the sector grow at its current pace. But only through innovation will the sector jump to a fundamentally new level of performance, breadth, and size.

The good news is that break-the-mold innovation is within the sector's reach. We can already see glimpses of it in some pioneering new schools. And we live in a nation of entrepreneurs and inventors. What's needed is to harness this innate innovative power for the creation of school models with unparalleled potential to transform the life prospects of young Americans.

Harnessing that power will require action across the sector.

- Entrepreneurs will need to enter the sector with radically new models.
- Existing operators, too, will need to find ways to break the mold, even as they also pursue ambitious improvements to their existing approaches.
- Policymakers can help by dropping barriers to innovation but also by proactively incentivizing break-the-mold models and creating an authorizing system that welcomes innovation.

- City-based education organizations can incubate and nurture new models while advocating for policies that are more hospitable to new and different schooling.
- And funders will need to take much greater risks, investing substantially in new models even before they are proven to work and supporting organizations that can foster innovation.

Taken together, these actions can set in motion a new wave of enterprise in the charter sector, reclaiming the promise of innovation for the next generation of American children.

The good news is that break-the-mold innovation is within the sector's reach. We can already see glimpses of it in some pioneering new schools. And we live in a nation of entrepreneurs and inventors. What's needed is to harness this innate innovative power for the creation of school models with unparalleled potential to transform the life prospects of young Americans.

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