

# PROGRESS AND PROMISE: CHICAGO'S NATION-LEADING EDUCATIONAL GAINS



Written by Maureen Kelleher January 2018

**TheJoyceFoundation**



For the last 30 years, the city of Chicago—from grassroots activists to local foundations to City Hall—has undertaken nothing less than the gut rehab of its public education system. Billions of dollars and untold hours of sweat equity from teachers, parents, principals and community leaders have been invested in the improvement of the Chicago Public Schools.

In the daily rough-and-tumble of the political and fiscal challenges faced by the district, it can be difficult to see the return on this massive collective investment. But the rehab effort is working, and today's students are reaping real benefits. Hard data show the progress: improved test scores, more graduates and more college-goers.

Recently, new research from Sean Reardon, Professor of Poverty and Inequality in Education at Stanford University, shows that Chicago's public elementary schools are helping students who start off behind in third grade nearly catch up to the national average by the end of eighth grade. This rate of learning outpaces what happens in 96 percent of all U.S. school districts: urban, rural and suburban. Such a remarkable achievement deserves careful attention, both to understand why it is happening and to discover what lessons could be applied elsewhere.

Reardon's new findings are not the only evidence of Chicago's progress. Chicago elementary-school students are the main driver of Illinois' test score gains on both the state achievement exams and the National Assessment of Educational Progress, a rigorous yet low-stakes test that shows how students compare across the United States. By 2017, Chicago's high school graduation rate had risen to 77 percent, within six percentage points of the most recently calculated national graduation rate.



*Janice Jackson (Chicago Public Schools) at the CPS Forum*

More of those graduates are starting college. According to an October 2017 report from the University of Chicago Consortium on School Research, a research-practice partnership that supports improvement in Chicago's public schools, the share of Chicago Public Schools graduates enrolling in 4-year colleges and universities—44 percent—outpaces that of other urban districts, which range from 23 to 38 percent. Across the country, the 4-year college enrollment rate for students graduating from low-income high schools stands at 29 percent, far lower than college enrollment in CPS.

Increasing bachelor's degree completion hasn't come as quickly, but there has been some progress. According to the report, the number of CPS ninth-graders expected to earn a bachelor's degree within 10 years of beginning high school climbed from 11 percent in 2006 to 18 percent in 2016. For those students who start college right after high school, the rate is 16 percent, compared to 22 percent for public school students nationally.

"We're seeing gains on top of gains on top of gains," said Elaine Allensworth, the Lewis-Sebring Director of the University of Chicago Consortium on School Research.

In early November of 2017, The Joyce Foundation and the Spencer Foundation convened a group of Chicago's civic and educational leaders to discuss the research findings, reflect on the root causes of improvement and start a conversation on next steps for research, practice and policy. This document reviews the data that make the case for the remarkable educational resurgence in CPS, outlines new research questions to understand why the district has made such strides, and suggests new policy approaches that could maintain and extend these gains.

**For more information on the research and data presented at the Joyce and Spencer Foundations forum:**

**Test Score Growth Among Chicago Public School Students, 2009–2014**

*Authors: Sean Reardon, Professor of Poverty and Inequality in Education at Stanford University and Rebecca Hinze-Pifer, Center for Education Policy Analysis. 2017.*

**The Educational Attainment of Chicago Public Schools Students**

*Authors: Jenny Nagaoka, Deputy Director of the University of Chicago Consortium on School Research, Alex Seeskin, Chief Strategy Officer at the Urban Education Institute, and Vanessa Coca, Senior Research Analyst. 2017*

**Upstate/Downstate: School Effectiveness in Illinois**

*Authors: Paul Zavitkovsky, Leadership Coach at the Center for Urban Education Leadership at the University of Illinois, and Steve Tozer, Director of the Center for Urban Education Leadership. 2017*



# HIGHER TEST SCORES, GPA'S AND GRADUATES SHOW CHICAGO'S EDUCATIONAL RESURGENCE

The Joyce and Spencer Foundations' event brought three researchers together to share recent research on progress in Chicago Public Schools: **Prof. Sean Reardon** from Stanford University; **Elaine Allensworth** from the Chicago Consortium, and **Paul Zavitkovsky**, with the University of Illinois Chicago's Center for Urban Education Leadership.

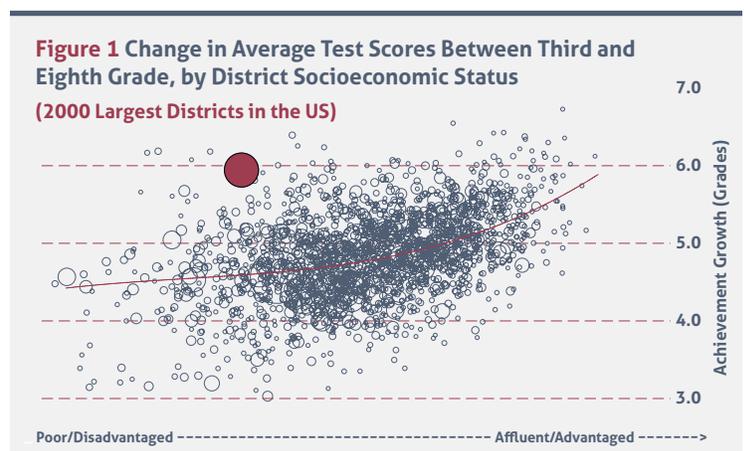
Reardon's research compared the gains in Chicago to the gains made in about 11,000 districts across the country. Using each state's individual student scores on state tests, Reardon and his colleagues built a massive database of nationally comparable, district-level test score data and used it to track growth in reading and math scores among elementary school students across the nation between 2009 and 2014.

Among districts nationally—urban, suburban and rural—Chicago stood out in two ways:

Year-over-year, successive classes of CPS students showed improved academic skills as measured by test scores.

Perhaps most important, Chicago students learned much faster than did students almost anywhere else in the country. Chicago 3rd-graders score below national averages in reading and math. But by eighth grade, Chicago students have nearly caught up to their peers around the country. Students of all racial and ethnic groups made rapid progress, the research shows.

The bottom line: CPS elementary students made six years' worth of learning gains in five years. (See Figure 1)



*Dots represent the 2,000 largest school districts in the U.S. and the growth their students made on state tests between 3rd and 8th grade. CPS students (large red dot) made six years of growth, better than 96% of districts. Source: Stanford Prof. Sean Reardon*

The data show Latino students made such rapid gains, they narrowed the white-Latino achievement gap. While black CPS students also made gains, their rates of progress were similar to white students, holding the white-black achievement gap steady, rather than narrowing it.

"In many districts, the gaps get wider by eighth grade," Reardon told the convening.

Research by Zavitkovsky, a leadership coach and assessment specialist with the University of Illinois-Chicago's Center for Urban Education

Leadership, adds to the positive picture. He noted that Chicago students of all ethnicities are out-performing their peers across Illinois. For example, his research shows that 60 percent of Chicago’s Latino 4th graders scored at or above statewide reading norms in 2017, compared to 51 percent in the rest of Illinois. And 27% of Chicago’s black 8th graders scored at or above statewide norms in math, compared to 25% in the rest of Illinois. (These figures exclude children identified as English learners.)

In fact, the improvement in Chicago has been driving the overall state test score gains, he said.

Overall, Illinois state test scores have held steady recently, after making some achievement gains in earlier years. But without Chicago’s improvements, that flatline would have become a decrease, he said. (See Figure 2)

“The entire distribution of students has moved up, not just the low-achieving students,” Zavitkovsky told the gathering. He also noted that while more affluent black students are making academic gains like those of students from other ethnic groups, low-income black students in CPS have not made progress as quickly. Nonetheless, they outperform their peers in other parts of Illinois.

Data over a longer period than Reardon’s research suggest the elementary gains have deep roots and are not the result of teaching to the test or other efforts to game the system. Scores on the National Assessment of Educational Progress, or NAEP, a national, low-stakes test, show Chicago’s elementary students have been making steady, substantial gains since 2003. Both low-income and more affluent students are making gains. (See Figure 3)

But “there’s a lot more going right than test

**Figure 2 Chicago Math Scores Catch up to Other Illinois Districts**

**In 2001**

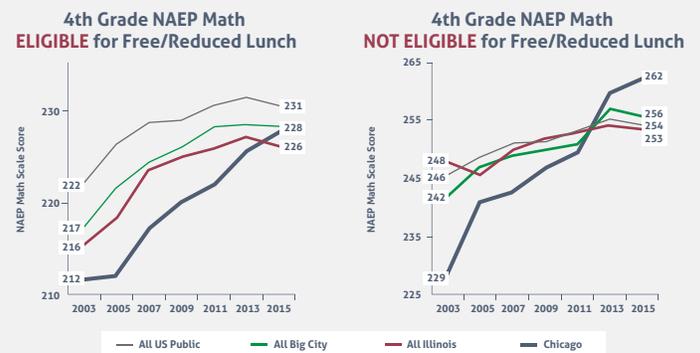
**3%** of all districts in central and southern Illinois scored about the same or lower than Chicago on statewide math exams

**In 2016**

**51%** of all districts and **74%** of all K-12 large unit districts, in central and southern Illinois scored about the same or lower than Chicago on statewide math exams



**Figure 3 Chicago's NAEP Gains Leading Illinois**



*Low-income Chicago students are making faster gains on the National Assessment of Educational Progress than their counterparts in the rest of Illinois. Source: Paul Zavitkovsky.*

scores,” noted Elaine Allensworth from the Chicago Consortium.

The Consortium has done deep research on what is happening in Chicago’s high schools. And its illuminating 2007 research report, “What Matters for Staying On-Track and Graduating in Chicago Public Schools,” helped guide the district’s efforts and propel positive gains. That research found that “on-track” freshmen are three and one-half times more likely to graduate from high school in four years than students who are off-track.

Between 2006 and 2016, the number of 9th-graders who finished their first year of high school “on-track to graduate” increased by 27

percentage points. This has, in turn, spurred an increase in graduation rates. In 2006, less than two-thirds of high school freshmen earned a diploma in four years; a decade later three-quarters of them did.

“In the most recent years, the groups that showed the biggest improvements have been black and Latino young men,” Allensworth noted.

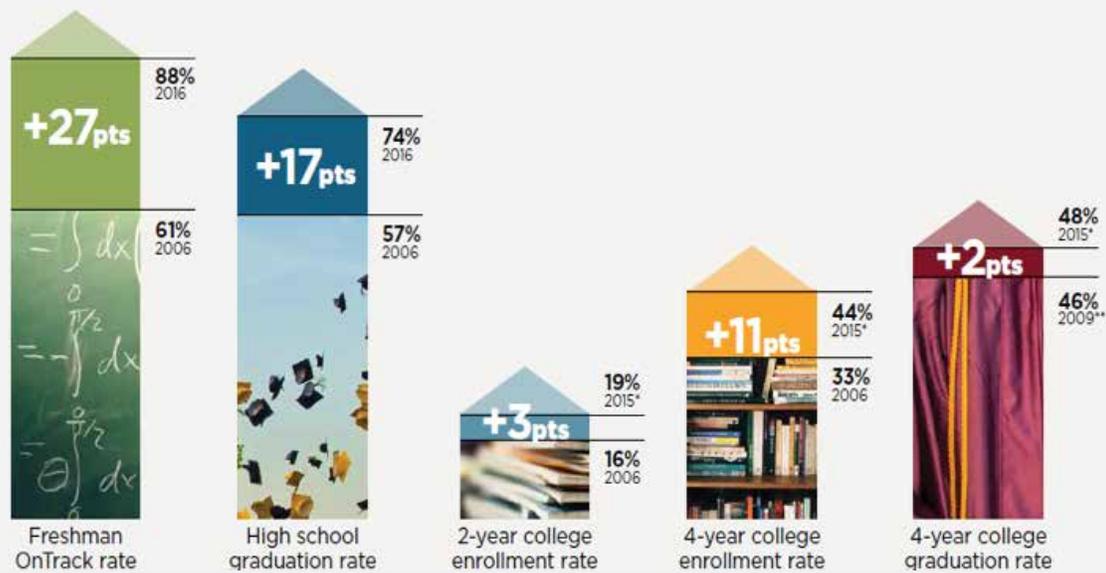
The increases in on-track and graduation rates have been accompanied by increases in educational achievement. Scores on the 2016 ACT college entrance exam were up by about 1.4 points since 2006, to an average of 18.4. The share of CPS graduates with an ACT of 21 (the threshold required for admission to more competitive 4-year colleges) also rose, from 23 percent of 2006 graduates to one-third of 2016 graduates. Between 2011 and 2016, the number of CPS high school students taking Advanced Placement exams rose by 42 percent and the number of students earning

a 3 or higher rose by 88 percent, according to the Chicago Public Schools.

More students also are graduating with a 3.0 GPA. Research has shown that students graduating with a 3.0 or higher GPA are more likely to graduate from college. A decade ago, only about one-fifth of CPS graduates had earned such a high GPA. But today that share stands at one-third. And these changes are beginning to make headway in raising the most important metric of all: college graduation for CPS graduates.

Overall, Chicago’s public high school students are showing much more positive outcomes than they were a decade ago. (See Figure 4) Demographics, and even higher academic achievement in elementary school, aren’t enough to explain the strong, rapid progress in CPS high schools, said Allensworth. “It suggests the high schools are doing a better job supporting students to do high school work.”

**Figure 4 Educational attainment has been rising in Chicago**



Source: The University of Chicago Consortium on School Research

# WHAT IS DRIVING CHICAGO'S EDUCATIONAL IMPROVEMENT?

While all three researchers felt confident the evidence reflects real improvements in the teaching and learning in Chicago, the precise factors driving the progress, especially in the elementary schools, have yet to be fully understood. But the drive toward improvement stretches back to 1987, when then- U.S. Secretary of Education Bill Bennett's asserted that Chicago's public schools were the worst in the nation. His remarks galvanized the entire city to revamp school governance, a move that set off successive waves of school reform.

Education experts and observers have suggested many reasons for the improved outcomes, including improvements in instruction for English learners, the rise of charter schools and competition, and the advent of turnarounds managed by the Academy for Urban School Leadership.

Ray Hart, director of research for the Council of Great City Schools, pointed to changes in Chicago that parallel efforts in other cities: scale, standards and teacher effectiveness. And a "mindset of improvement" across the district matters most, he suggested. "Those that invested in improving teachers, principals and district leadership are seeing results."



Panelists and audience members at the Joyce/ Spencer Forum suggested some key elements that likely have driven better student outcomes.

## USING DATA AND RESEARCH TO GUIDE POLICY AND PRACTICE

Chicago has been a national leader in demonstrating the value of collaboration between a district and a research consortium that can regularly analyze policy impact over the long haul. The University of Chicago Consortium on School Research has studied virtually every major policy shift the district has undertaken. That research has been embraced by the district, practitioners and policy makers, who use it to alter course when policies are not working or to double-down when they are. The enthusiastic adoption of the Consortium's Freshman On-Track research is but one example of research that led to changes in practice and policy.

Chicago Public Schools CEO Janice Jackson said the "the relationship with the Consortium and the effective use of data we have in Chicago" is the key driver of progress. Though the Consortium has had data-sharing agreements in place

with CPS for decades, their partnership grew notably closer in the early 2000s, under the administration of then-CEO Arne Duncan. It was in that era that the Freshman On-Track indicator was implemented in CPS high schools.

The commitment to smart use of data and research has permeated the system. Veteran central office staff and principals kept this emphasis alive through a whirlwind of leadership changes at the top. “They have been the center of the focus on data. They have been courageous to look those numbers in the face and not run away,” said Sara Ray Stoelinga, Director of the University of Chicago’s Urban Education Institute.

## **STRONGER PRINCIPAL QUALITY**

The city’s longstanding efforts to strengthen principal quality also were highlighted as a key driver of Chicago’s success. Since the early 2000s, the district has had a laser-like focus on improving the quality of the principal pipeline, helping sitting principals improve their practice, and retaining the best and brightest. In 2013, 150 Chicago schools were led by high-quality principals. By the end of this school year, that number is on track to more than double to 350, according to the Chicago Public Education Fund.

And CEO Jackson, a former CPS high school principal, noted that CPS has one of the highest principal retention rates of any large urban system in the nation: 85 percent. “There’s a lot of support for principals and that’s not common in every school system.”

Research has shown that high-quality principals help improve student outcomes.

From the University of Illinois-Chicago’s work to raise the bar for principal preparation to the

Chicago Public Education Fund’s efforts to ease the hiring process and provide high-quality development for experienced principals, Chicago is a national leader in growing a cadre of talented, effective instructional leaders to take the helm in increasing numbers of its schools.

“Changes in principal practice have been a cornerstone of the work,” said Greg Jones, principal at Kenwood Academy High School. Good principals hire and support good teachers, leading to stronger classroom instruction, he noted. “Our teachers today are better teachers than we were as teachers. I’m seeing how our teachers are using data to influence student outcomes, and teacher teams.”

## **IMPROVED TEACHING**

Both the quality of teachers hired and the level of instruction they bring to classrooms also has improved, many attendees observed. While the roots of that work stretch far back in time, two policy moves in 2012 accelerated the work: a new teacher evaluation system and the rollout of more challenging academic standards.

After Illinois lawmakers passed a mandate for tougher teacher evaluations, CPS was one of the first districts in the state to devise and implement a new system. The new system uses principal observations and student achievement to determine teacher effectiveness. A 2016 report by the Consortium found that most teachers and principals believe the new evaluation system will lead to better instruction and student learning.

New state report card data show that the district has made a huge shift from rating nearly all its teachers at the top of the scale to now rating 89 percent of teachers in the highest two categories

and assigning 10 percent to “developing,” for teachers who most need to improve.

At the same time, the adoption of higher academic standards significantly raised expectations for student learning in reading and math. CPS teachers analyzed the standards and worked collaboratively to plan lessons that would help students master them progressively over time. “We stopped teaching to the test,” Jackson said. “We started talking about curriculum in a whole different way.”

Many district leaders and practitioners point to teacher and principal collaboration as a key piece of the sustained progress in the city. UEI’s Stoelinga pointed to the Network for College Success, which works closely with 15 neighborhood high schools to help them develop teams of adults who can understand and use data to improve school practices. The Network uses data to facilitate professional learning in schools, which helps build the capacity of the school leader.

“When teachers see themselves as the diagnosticians and not the problem to be diagnosed, it changes everything,” said Steve Tozer, founding coordinator of the Ed.D. Program in Urban Educational Leadership at the University of Illinois-Chicago.



## MORE FRESHMEN ON TRACK TO GRADUATE

The Consortium research on keeping high school students on-track to graduate has been a major driver of positive student outcomes. The research has shown that freshmen who earn at least five credits their first year and have no more than one F in a core academic subject are three and a half times more likely to graduate than those who are off-track. This finding has been translated into a core metric that drives the work of high school staff in CPS. To ensure students meet the “on track” standards, teams of adults monitor freshman attendance, grades and discipline referrals.

Using this measure, schools can quickly try out new strategies to support freshmen, gauge results and tweak as needed, said Sarah Duncan, co-founder of the Network for College Success. Attendance and GPAs can be tracked week-to-week, and changes in both are quickly apparent, allowing educators to intervene quickly. If a school tried a voluntary after-school tutoring program, for example, it could assess effectiveness in just a few weeks. “You can tell quickly if it is working or not and make changes.”

In 2011, 69 percent of Chicago Public Schools’ freshmen were on track to graduate. This year, it’s 89 percent, according to the district. That has propelled the graduation rate to an all-time high. About 77 percent of CPS students graduate high school within five years.

# WHAT'S NEXT? EXPERTS OFFER SUGGESTIONS

## DEEPEN EARLY LEARNING FROM BIRTH THROUGH FIVE

As the Reardon data clearly reveals, Chicago's third-graders start behind the eight-ball. Many conference attendees pointed to early education as a key to improving academic and life outcomes. Research is clear that students enrolled in high-quality early learning opportunities fare better than those who do not.

"To take the next big step, we have to prevent the [achievement] gap from opening," said Geoffrey Nagle, president of the Erikson Institute, one of the nation's leading graduate schools in child development. "It's not just preschool, but the whole early childhood experience. And it's not just on the schools. It's a city issue. It's a community issue. We have to get upstream and attack this from birth."

At the same time, there is more work to do to ensure equitable access to preschool, said CPS CEO Jackson. While preschool classes in Latino neighborhoods are bursting at the seams, seats in the most disadvantaged African-American neighborhoods are going unfilled. She suggested new efforts in outreach and parent engagement could encourage more low-income African-American families to enroll their children in preschool.

## STRENGTHEN SUPPORTS FOR TEACHERS & PRINCIPALS

Research shows that teachers and principals are the main in-school drivers of student achievement. But our educators need support and time for collaboration to improve their craft.





“Chicago has done a lot of work to get out of the way of amazing educators. We have to learn how to scale that,” said Heather Anichini, president and CEO of the Chicago Public Education Fund, which focuses on principal quality. “The system has to really bet on great principals and teachers to implement what’s right for kids.”

For this bet to work, maintaining time for teachers to collaborate on instructional planning and problem-solving is critical, said Duncan of Network for College Success. “Money would be nice. Time to collaborate is necessary. None of us improves on our own, without feedback and conversation.”

### **GUIDE MORE OF CHICAGO’S HIGH SCHOOL STUDENTS TO AND THROUGH COLLEGE**

Research is clear that the best path out of poverty is post-secondary attainment. Despite progress on graduation and college entrance, not enough CPS graduates earn post-secondary credentials.

Although CPS has made strides on college counseling, too many students still fail to receive the guidance they need to take the right steps after high school. “One of the things kids need is good information about where they can go after graduation,” noted Stephen Raudenbush, Lewis-

Sebring Distinguished Professor of Sociology at the University of Chicago. He mentioned visiting a CPS high school with only 5 counselors for 1800 students. (That works out to a counselor: student ratio of 1:360, well above the American School Counselor Association recommended ratio, 1:250.)

### **EXTEND THE RESEARCH AGENDA ON SCHOOL IMPROVEMENT**

Participants also suggested further areas for research:

- How can the middle school experience for students be improved, both academically and in terms of social-emotional development?
- What happens to CPS graduates in early adulthood—beyond high school and college?
- What role do social workers play in improving students’ academic achievement and their life outcomes?
- How can Chicago learn from successes in other large districts?

A forthcoming Consortium report is in the works to examine achievement among English learners more closely in light of recent district policy changes.

### **COUNTER THE FALSE NARRATIVE THAT CHICAGO SCHOOLS ARE FAILING**

Na’ilah Suad Nair, President of the Spencer Foundation, a newcomer to the city, said she has been struck by the seeming “widespread disdain” for the Chicago Public Schools in the city. “There’s a lot of skepticism about whether CPS is meeting the needs of the most vulnerable students in the city. There’s a long way to go in sharing the message with the community that this improvement is happening, and to ensure that the gains are being experienced evenly across the system.”

Ellen Alberding, President of the Joyce Foundation, suggests a more robust effort to counter the false narrative about Chicago “because we know that investing in Chicago has already paid off, and will continue to do so.”

## DEEP CIVIC COMMITMENT, TIME AND PATIENCE BEAR FRUIT

The Chicago Public Schools still faces obstacles. Overwhelming numbers of students live in poverty. Neighborhood schools are suffering enrollment declines. The achievement gap persists. And long-standing budget concerns continue to nag the district. Yet, CPS students are making remarkable progress.

Gut rehabs, like the one still in progress on Chicago’s school system, don’t happen fast. They take time. They are expensive. They require patience and a deep commitment. That patience and commitment has been demonstrated time and again over the 30 years Chicago has invested in school reform, by everyone from our most

powerful civic leaders to our most dedicated principals, teachers and parents.

With the historic victory of a new funding formula in Illinois now in place, it is possible Chicago Public Schools could turn a corner on the fiscal woes that have been a distraction and a drag on supports for improvement in recent years. Now is the time to dig deep on what is working in Chicago so that, as a city, we can invest more deeply and wisely in our best practices and share them with others across Illinois and the nation.

As positive data mount about Chicago Public Schools, there is a new energy in the city.

“Our story is Chicago’s story; our success is Chicago’s success: it belongs to students, parents, dedicated educators, support staff and principals,” said CPS CEO Jackson. “We all envision a bright future for our students, one in which every student in every neighborhood has the ability and support to achieve success. That shared vision will continue to be the driving force behind the district’s efforts.”

