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Universal student enrollment systems: The more policies change, the more enrollment patterns stay the same

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**Universal Student Enrollment Systems:
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*Lauren Sartain, Riley Lewers, and
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Universal Student Enrollment Systems: The More Policies Change, the More Enrollment Patterns Stay the Same

By Lauren Sartain, Riley Lewers, and Lisa Barrow*

April 2022

Urban school districts nationwide have increased within-district choice for families. In response, district policymakers are overhauling the systems for applying to and enrolling in schools, with the goal of making it easier and more equitable for students to enroll in schools that are a good fit for them. These universal enrollment systems offer a one-stop shop for students to learn about different options, submit applications, and receive and accept offers. Using the implementation of such a system in Chicago Public Schools, we examine how applications to, offers from, and enrollment in different types of high schools (e.g., high-performing vs. low-performing schools, charter vs. neighborhood schools) changed. The largest gains appear to be from streamlining applications and offers, with students receiving a single-best offer and schools having more certainty around their incoming ninth-grade class. We do not see changes in the shares of students enrolled at high schools with high graduation rates or at charter schools that can be attributed to the new system. These findings suggest that while universal enrollment systems can improve and simplify the application process, they are not a panacea for inequitable access to attending high-performing schools.

Keywords: School Choice, Student Enrollment, School Quality, High Schools.

JEL classification: I20, I21, I24, I28.

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I. School Choice in Urban School Districts

In the 1990s, large urban school districts across the United States began greatly expanding public school choice (Schneider et al. 2000). The transition to choice systems has been especially pronounced at the high school level where, historically, residential addresses determined school enrollment. In many urban districts today, public school students choose from many options, including career academies, art schools, accelerated college preparatory schools, and charter schools. Students may also be choosing from different programs within a school, all requiring applications for admission. Within-district choice introduces a new set of policy decisions for district officials about how to assign students to schools.

At one extreme, decentralized systems have individual programs developing their own procedures meaning families may have to navigate multiple application processes (Harris et al. 2015). This can be especially burdensome for families facing transportation barriers or limited access to information about application requirements (Shapiro et al. 2019). Another concern is the lack of coordinated admissions decisions that can result in some students holding multiple offers while others receive none. This inefficiency creates uncertainty for students and complicates planning for school leaders. At the other extreme, enrollment systems can be fully centralized for all district schools. Families complete one application and rank school and program choices in order of preference. These systems typically result in each student receiving a “single-best offer,” eliminating the problem of students holding multiple offers and ensuring students get the best possible match (Abdulkadiroğlu et al. 2005). In reality, most urban districts have partially centralized enrollment systems that fall somewhere between these two extremes.

Although many urban districts have adopted major changes to enrollment systems, there is little evidence on how these policies have changed student enrollment patterns. In this brief,

we use Chicago Public Schools's (CPS) recent adoption of an online application portal, GoCPS, as a case study to investigate how students respond to the introduction of a centralized application system. We consider whether application, offer, and enrollment patterns have changed in the years since the introduction of GoCPS. We observe changes in application and offer patterns after its adoption but find little subsequent change in student enrollment patterns. Student enrollment in highly rated schools was already on the rise, and that trend continued under the GoCPS system. Despite concerns that reduced application costs might weaken interest in neighborhood schools, we find a slight increase in applications to and enrollment in neighborhood schools. One clear result of the centralization is a reduction in the number of applications submitted and offers made by programs. These findings suggest that GoCPS has successfully reduced some enrollment uncertainty for both families and schools.

II. A Case Study: School Assignment in Chicago Public Schools

CPS is an urban district with extensive school choice. Each CPS ninth-grade student has a default in-zone high school determined by where they live. They may also apply to programs at other neighborhood schools, test-in selective schools, charter schools, and other city-wide options. Choice is widespread among CPS students, with about 77 percent of ninth graders enrolling outside of their in-zone school and 91 percent completing a high school application (Barrow & Sartain 2019). Prior to the implementation of GoCPS, eighth grade students and families encountered a hodgepodge of application processes. Applications to individual charter schools had to be submitted to schools or charter management organizations directly; applications to some large programs like IB and CTE were managed by the district; others went to high schools directly. Deadlines varied. Further, students could receive and accept multiple

offers. The uncertainty about who would enroll at what school meant that student enrollment could fluctuate well into the school year making planning difficult for schools.

GoCPS streamlined the high school application process for students entering high school in Fall 2018. GoCPS is a web-based application portal that is also a comprehensive source for information about school location, performance, program offerings, and application requirements for all high school programs within CPS, including the district's 43 charter high schools.

Research has shown that easy access to information on school quality affects application choices (Valant & Weixler 2020), suggesting another channel through which the introduction of GoCPS might alter application patterns. Prospective ninth-graders fill out at most two applications within the GoCPS portal: one for the 11 selective enrollment programs and another for all other high school programs.¹ Students rank programs in order of preference for up to 6 selective high schools and 20 choice programs on each application; the typical applicant ranks only 2 selective high schools and 7 choice programs (Barrow & Sartain 2019). There is a single application deadline, and in spring of their eighth-grade year a typical student has two options: their in-zone neighborhood high school or a single best offer from their choice application.

The implementation of GoCPS is just one example of a broader policy shift. Across the country policy-makers have adopted centralized application systems to assign students to schools in choice systems. These systems differ in several dimensions across districts. (See Table 1.) Some districts require applications for all 8th graders regardless of the type of school they want to attend. Elsewhere, students have a default in-zone school and only have to apply to attend choice schools such as magnet or selective schools. Charter schools typically operate applications separately from other district schools. Districts also must decide how admission decisions are handled. The vast majority of districts admit via lottery, but schools often prioritize

¹ Only 16 percent of ninth graders enrolled in a selective high school in 2018-19 (Barrow & Sartain 2019).

certain students within the lottery such as those with an older sibling attending the school. Others use points based on application components, such as test scores, grades, or auditions, and those with the highest number of points are admitted first.

Table 1. School application process in a sample of large urban districts

New York City, Boston	<ul style="list-style-type: none"> • No default high schools; all 8th graders must apply • Every school is on the common app except for charters and specialized/exam schools which have different requirements
New Orleans	<ul style="list-style-type: none"> • Similar to New York City and Boston, but all high schools are charter schools
Chicago, DC, Denver	<ul style="list-style-type: none"> • Students can attend default high school without applying • Every high school is on the common app except for non-public charters in DC • Selective schools may have additional requirements
Miami-Dade, Houston, LA	<ul style="list-style-type: none"> • Students attend neighborhood high school by default • Application process for other high schools is less unified, with only magnets and/or charters using a common app • Must submit a separate transfer application to attend a different neighborhood school than assigned

Notes. Information compiled by authors from individual district websites.

III. Data and Context

We examine whether the centralized enrollment system in Chicago led to changes in patterns of ninth-grade applications, offers, and, ultimately, student enrollment. To answer these questions, we compiled the following sources for the 2015-16 through 2021-22 school years.

Details about data and analysis are included in the appendix.

- Publicly available data from the district’s website on school-level student enrollment, school accountability and performance, and school type (e.g., neighborhood, charter); and
- Data on applications to and offers from all district programs for GoCPS years, as well as from programs that were centralized prior to GoCPS.

We begin with some important context about CPS:

Declining enrollment. Total CPS enrollment fell by 16 percent between Fall 2015 and Fall 2021, while ninth-grade enrollment declined by only 4 percent. (See Appendix Figure 1.)

Limited seats at top-rated schools. Proponents of school choice often argue that all students should have access to high-quality schools. The CPS school accountability system is based on a number of different metrics, and the top-rated schools are given a performance rating of Level 1+ or Level 1. According to a district-commissioned report, 99 percent of the seats at high schools with consistently high performance ratings are typically filled (ARA 2020-21), limiting the ability for more students to enroll in top-rated schools.

Expansion of charter schools. Roughly one-third of all CPS high schools are charter high schools. (See Appendix Figure 2.) The charter sector grew substantially in a relatively short period of time, leading to enrollment concerns for other CPS high schools. In fall 2002, only 3 percent of first-time ninth graders were enrolled in a charter school compared with 26 percent in 2016 (Barrow & Sartain 2017).

IV. Lessons Learned from Chicago

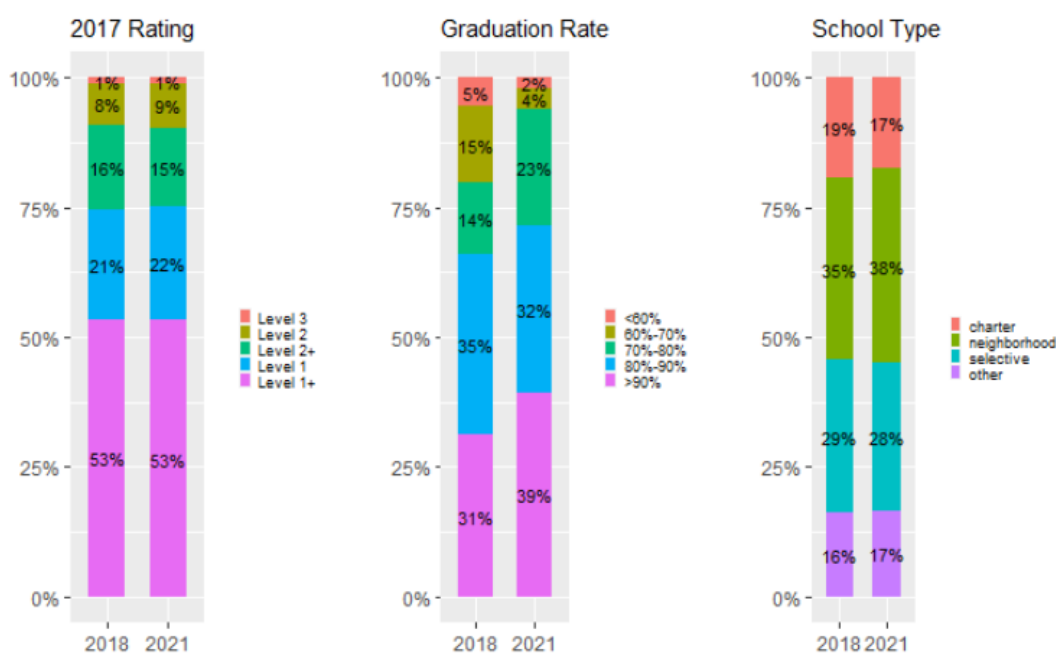
A. Did application patterns change with the adoption of GoCPS? Yes and no

Applying to schools and programs is an important step for a student wishing to enroll in a high school other than their zoned school. Ultimately, in a centralized single-best offer system, where students enroll is strongly correlated with where they apply, so we start with an investigation of applications. Because applications and offers were decentralized prior to GoCPS, we have an incomplete picture of application patterns to high schools before 2019. Therefore, we focus on how applications changed in the years following the introduction of GoCPS, as families, students, and schools learned more about the ins and outs of the system. Figure 1 shows the distribution of applications to schools by performance rating generated by the district's

school accountability system (Level 1+ is the highest rating), graduation rate, and school type over time. The percent of applications to top-rated schools have remained stable. Applications to high schools with higher graduation rates increased over this period, above and beyond the overall improvements in CPS graduation rates. With school type, there is a statistically significant increase in the share of applications to neighborhood schools with a corresponding decline in charter applications. (See data appendix for statistical tests.)

Figure 1. Applications by School Characteristics over Time

Applications have increased to neighborhood schools with a decline in applications to charter schools. Applications to schools with high graduation rates have also increased.



Notes. School accountability ratings are assigned based on an underlying score, and schools may switch ratings from one year to the next. To account for switching of ratings, we assign each school their 2017 rating, the year prior to the introduction of GoCPS. Findings are similar if we use 2021 ratings. We use the high school’s graduation rate publicly available to students at the time of application. Neighborhood high schools have attendance-area boundaries. Selective enrollment high schools admit students based on academic performance. Other citywide high schools are high schools without an attendance area that are neither charter nor selective high schools.

Since the introduction of GoCPS, the total number of applications has declined. In 2019, the ratio of total “applications” (i.e., programs ranked) to total ninth graders was 9.8 relative to 8.1 in 2022. One potential explanation is that there was a lot of uncertainty about how the system

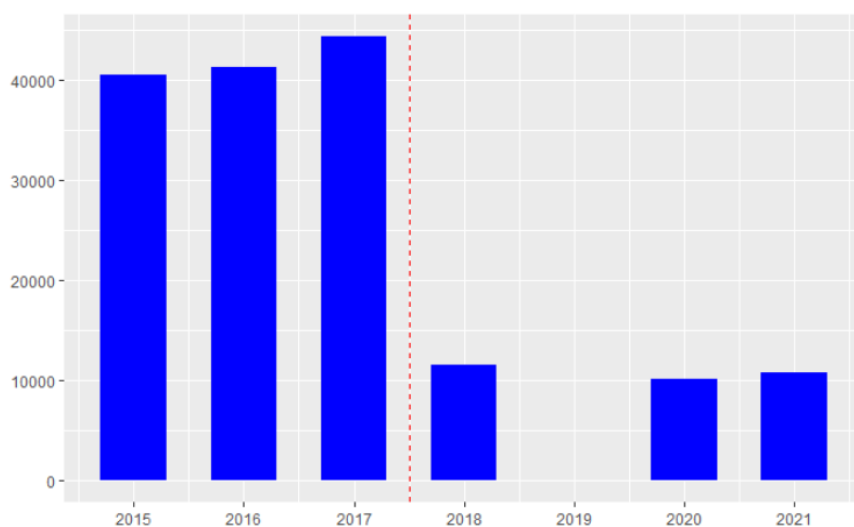
worked in its first year. As a result, students may have cast a wider net in terms of applications to programs. As evidence revealed that many students got an offer from one of their top-three programs, later cohorts of students may have responded by reducing the number of programs ranked. Understanding how students and families approach the application process is an area that could benefit from qualitative research.

B. Did offers decline with the centralization of applications? Yes

A major advantage of a centralized enrollment system is that because students can only receive and accept a single offer, more students receive admissions offers right away without having to get off a waitlist, and no student can accept multiple seats while others have none. The goal is to reduce uncertainty for families but also for schools by ensuring school leaders have better information about next year's enrollment.

Figure 2. Number of Offers Made from Centralized Programs

The number of offers extended declined fourfold with the introduction of GoCPS.



Notes. The data on offers include only programs that were centralized in the pre-GoCPS period (selective enrollment, IB, CTE, and military programs).

By focusing on the programs that were centralized prior to the adoption of GoCPS (selective enrollment, IB, CTE, and military programs), we can learn about changes in offers.

Although applications to these specific programs were centralized prior to GoCPS, students

could still receive multiple offers. We find that the number of offers extended by these centralized programs declined fourfold with the introduction of GoCPS, a direct result of adopting a single-best offer admissions strategy. (See Figure 2.) This is an important finding and likely a large benefit of centralized enrollment systems for school districts.

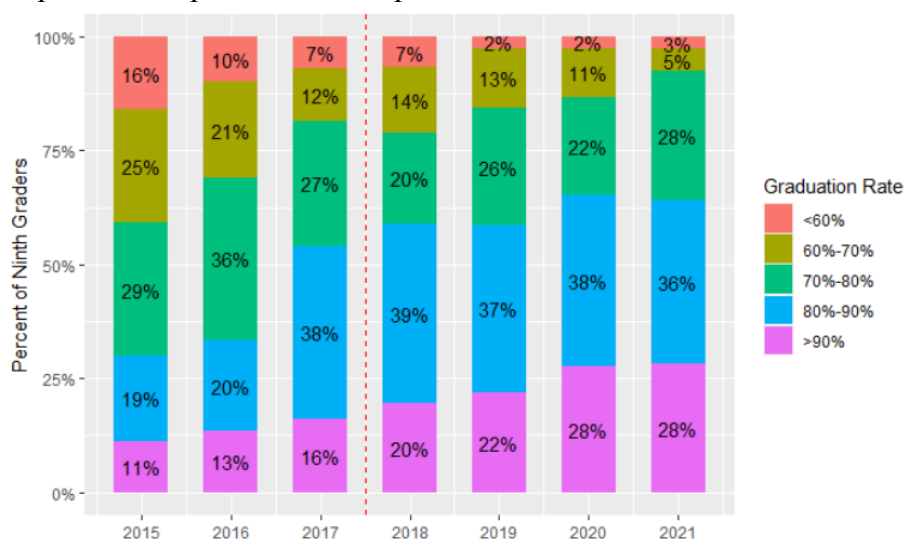
C. How did students respond in terms of high school enrollment?

1. Did GoCPS increase enrollment at higher-performing schools? No

We investigate trends in ninth-grade student enrollment by high school graduation rates and accountability ratings.

Figure 3. Enrollment by Graduation Rate

Ninth grade students are increasingly likely to enroll in high schools with high graduation rates; this continues a pattern that preceded the implementation of GoCPS.



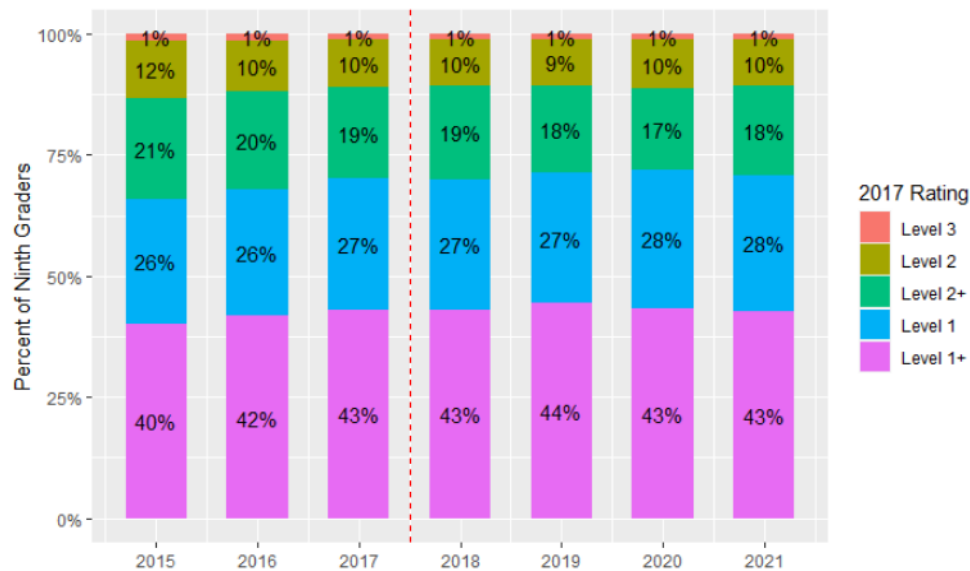
Notes. See Figure 1 notes.

Figure 3 shows the distribution of ninth-grade enrollment by high school graduation rate from Fall 2016 to Fall 2021. CPS high schools experienced large increases in graduation rates over this period. In 2015-16, less than a third of ninth-graders attended a school with a graduation rate of over 80%. By 2021-22, this number had risen to nearly two-thirds. However, we cannot attribute this increase to the policy change because it is not a statistically significant deviation from the pre-GoCPS trend. (See Appendix Table 2 for statistical tests.)

Figure 4 presents ninth-grade enrollment by high school accountability rating. In the years leading up to GoCPS, enrollment at highly rated Level 1+/Level 1 schools was on the rise, with the trend stabilizing in the GoCPS years. We find that the change in enrollment by accountability rating with the introduction of GoCPS is not statistically different from zero.

Figure 4. Enrollment by School Accountability Rating

Enrollment in highly rated high schools was on an upward trend from 2016 to 2018 and leveled out in the years after the implementation of GoCPS.



Notes. See Figure 1 notes.

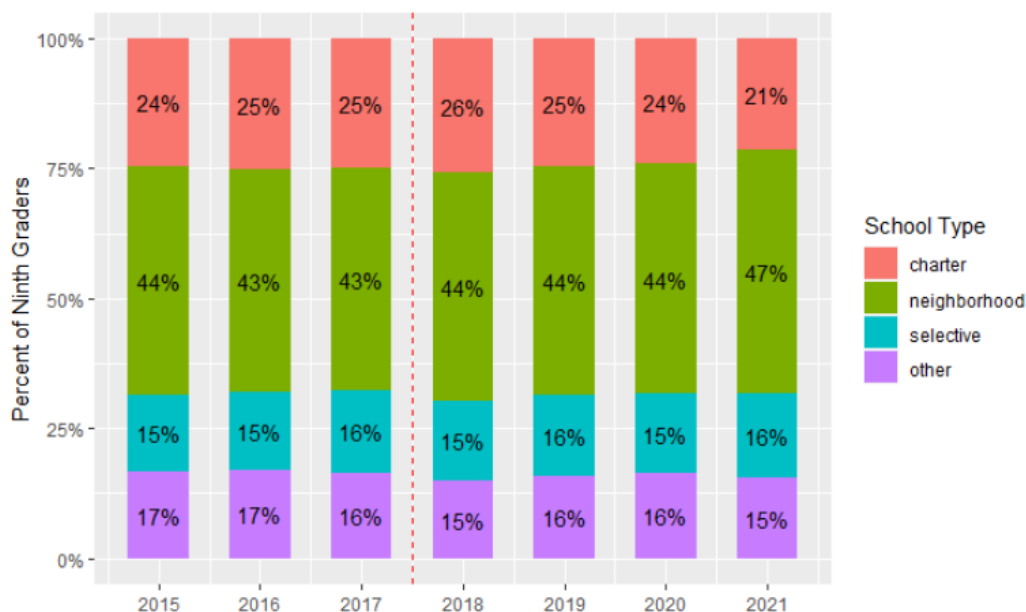
2. Did GoCPS lead to increased enrollment at charter schools and decreased enrollment at neighborhood schools? No

GoCPS centralized applications to charter schools for the first time in Chicago, making it easier for students to apply to charter schools and raising concerns that the increased competition would lead to declines in enrollment at neighborhood schools (Lutton 2013). As shown in Figure 5, ninth-grade enrollment is remarkably stable across all school types, before and after GoCPS implementation. While a centralized application process made it easier to apply to charter schools, it also made it easier to apply to specialized programs at neighborhood schools. Indeed, enrollment at neighborhood high schools increased slightly after the adoption of GoCPS with an

offsetting decline in charter school enrollment. This change is statistically significant between Fall 2017 and Fall 2021.

Figure 5. Enrollment by School Type

Ninth-grade enrollment shares were generally stable across school types with a slight increase in enrollment at neighborhood high schools.



Notes. See Figure 1 notes.

V. Implications for Policy and Practice

Evidence from the implementation of CPS's universal enrollment system has several important takeaways for district policymakers in urban districts with school choice. Our findings demonstrate that universal assignment policies can achieve goals related to efficient allocation of seats, but they do not guarantee that all students enroll in a highly rated school.

Increased efficiency of assignment to schools and transparency of rules. Centralized application and offer systems reduce uncertainty around enrollment for families and schools by increasing the chance that preferred matches are made between schools and students. This means schools can plan more intentionally for their incoming students. Additionally, schools have more stability at the beginning of the school year, allowing leaders and teachers to focus on meeting

their students' social and academic needs from day one. Families also know where their children will enter high school, which should alleviate anxiety during an important transition.

Another important feature of centralized systems is that admission rules (e.g., lottery-based admission, admission based on academic performance) and preferences (e.g., sibling preferences) are more transparent. Families and students now have all of this information, as well as information about student performance and school climate (via survey reports from teachers and students) in a single place. This should reduce some information barriers that families may face about the process and school options. Centralization of this information could also decrease the likelihood that schools implement arbitrary admission rules or eligibility requirements (e.g., GPA cutoffs) that favor more advantaged students.

What does it mean to be a neighborhood school in a universal enrollment system?

GoCPS made it much easier for students to apply to all schools, raising concerns that neighborhood schools would face dwindling enrollment. Any centralized application system that makes it easier for students and families to exercise choice has the potential to further diminish the number of students opting for neighborhood schools, leaving those schools with fewer resources and, potentially, the hardest to serve students. This was not the case in Chicago. If anything, neighborhood school enrollments rose slightly, perhaps because the system increased publicity and decreased costs for applying to specialty programs housed in neighborhood schools. Regardless, districts need to make intentional decisions about neighborhood schools and their role in a universal enrollment system. In Chicago, neighborhood high schools remain. Each student is guaranteed a seat in their neighborhood high school's general education program, but they have to apply for admission to any specialty programs within their neighborhood school. In fact, when a student logs in to the GoCPS platform, they automatically see an offer from their

neighborhood high school. Students are encouraged to complete a GoCPS application but aren't required to, and non-applicants receive an offer only from their neighborhood high school. These are all policy decisions that districts must consider.

When all the “good” seats are taken. In Chicago, the distribution of enrollment by various school performance measures did not change. Importantly, there may not have been room to grow in this area. Seats at high schools with top accountability ratings were already generally full, and the share of applications to high-rated schools was larger than the share of students who ultimately enrolled at those schools, suggesting demand for those schools is higher than the supply of seats. To increase enrollment at high-performing schools, the district will need to find ways to increase the number of seats that are “high quality.” This raises important policy questions about how to tackle the problem of inequitable access to high-quality schools. A school choice-driven solution suggests moving students around; however, there are arguments for districts to invest in neighborhood schools so all students have access to good schools near their home. Access to good schools near home has the benefit of reducing transit costs, such as monetary costs of public transportation, safety concerns, and time. The students most likely to live near high-rated schools in Chicago are White (Sartain & Barrow, forthcoming), suggesting this is an equity issue for CPS, and we suspect not unique to Chicago.

How do schools respond? We need to learn more about schools' responses to this large shift in how districts enroll students. Schools now more obviously compete with each other for students, as applicants rank schools based on their preferences. Future research should examine the supply of schools, including how schools change programmatic offerings to attract families and how they market themselves to potential applicants.

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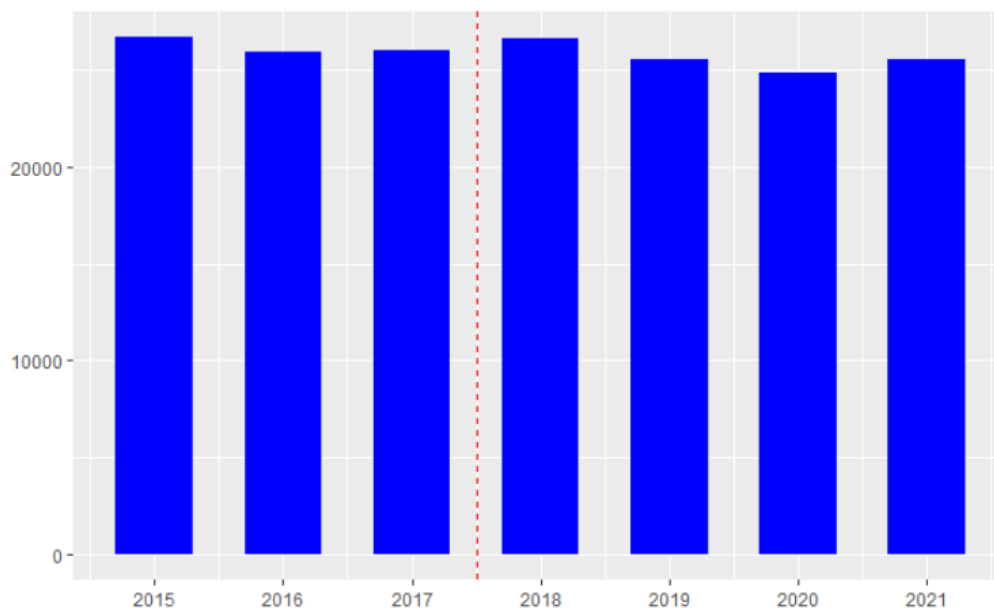
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Appendix Materials

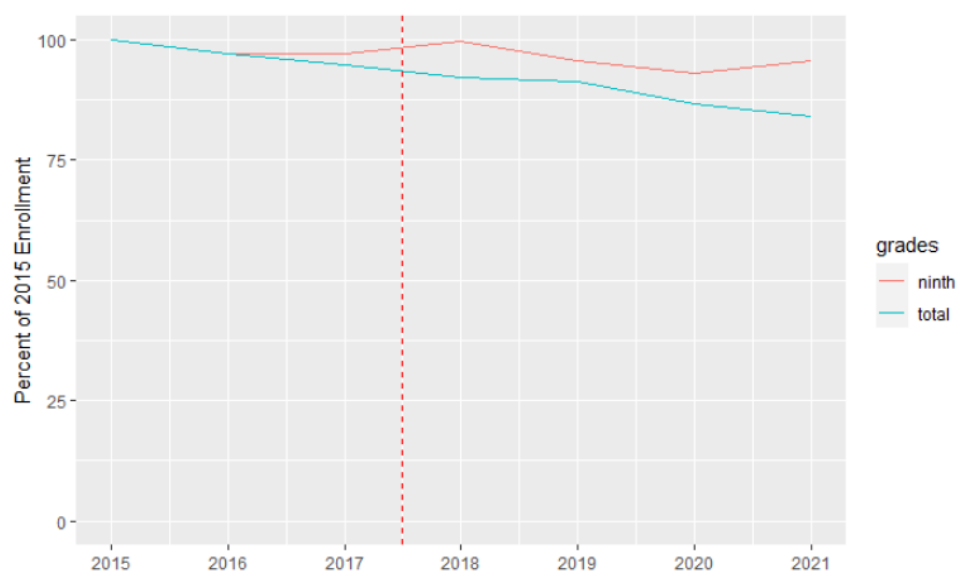
Appendix Figure 1. Enrollment

Panel A. The number of ninth graders over time

Ninth-grade enrollment has stayed relatively stable with only small declines



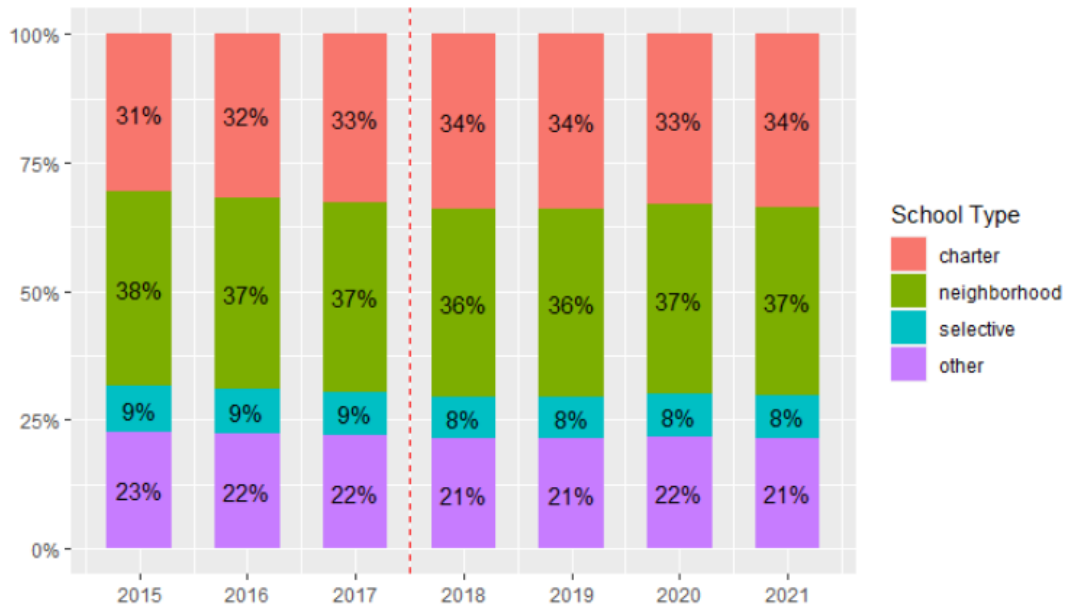
Panel B. Percent declines in ninth-grade enrollment and total CPS enrollment over time



Notes. Author calculations of student enrollment in CPS from publicly available 20th-day student membership files. In 2015-16, 26,708 students were enrolled in ninth grade compared to 25,589 students in 2021-22. Bars are labeled with the spring year.

Appendix Figure 2. Percent of Schools by School Type

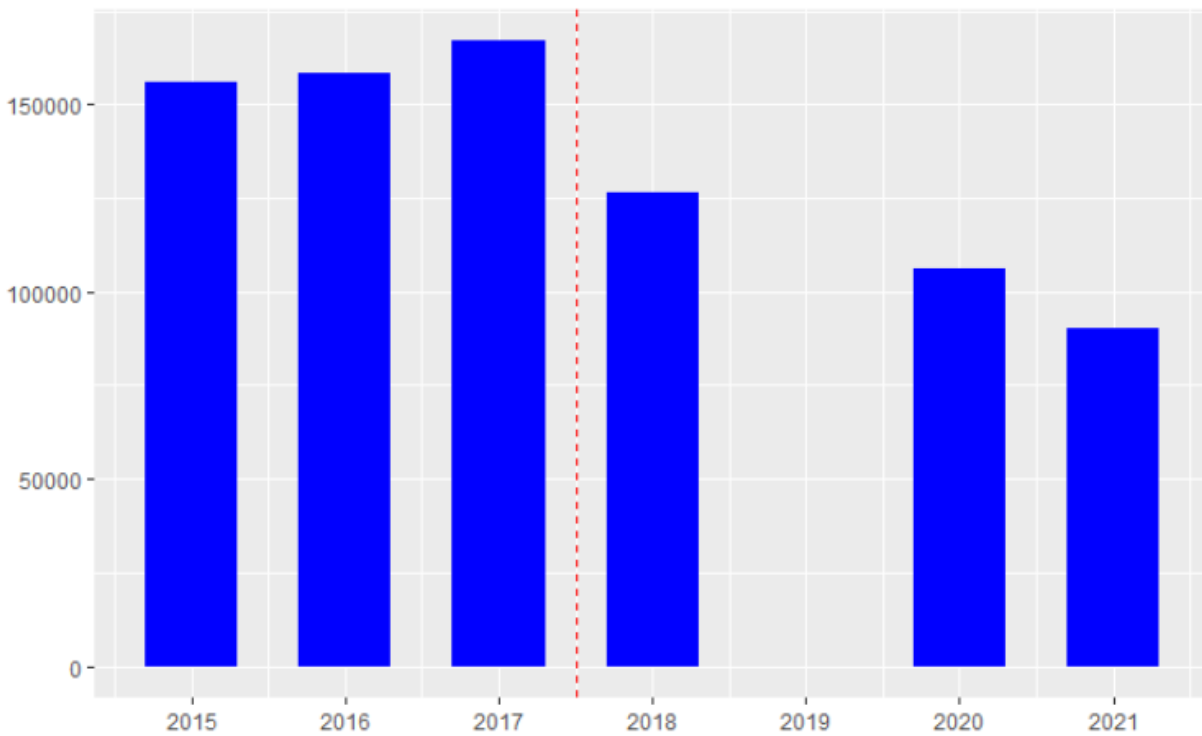
The composition of CPS high schools has remained stable with approximately similar numbers of charters, neighborhood, and other choice schools



Notes. Neighborhood high schools have attendance-area boundaries. SEHS are selective enrollment high schools that admit students based on academic performance. Other citywide high schools are high schools without an attendance area that are neither charter nor selective high schools.

Appendix Figure 3. Number of Applications Over Time

The number of applications students submitted declined after the introduction of GoCPS



Notes. The data on applications include only programs that were centralized in the pre-GoCPS period (selective enrollment high schools, IB programs, CTE programs, and military programs).

Appendix. Data Description and Regression Results

All data for this brief come from Chicago Public Schools. The school-level student enrollment, school accountability and performance, and school type (e.g., neighborhood, charter) data are publicly available for download on the [district's website](#).

To the publicly available data, we incorporate data on applications to and offers from all district programs in the years GoCPS was in place, as well as from programs that were previously centralized. For the GoCPS years, we collected data directly from CPS's website. For the years before GoCPS, we have access to centralized application data through a data sharing agreement between CPS and the University of Chicago Consortium on School Research. The resulting analytic dataset is at the school-year level from 2015-16 to 2021-22.

In the brief, we present figures showing distributions of applications to and enrollment in different kinds of schools. For applications, we only have access to two years of data for entry in Fall 2018 (the first cohort of ninth graders to use GoCPS to apply to high school) and Fall 2021. Applications prior to GoCPS were decentralized for many programs, including charter schools. To test if there were statistical differences in the distributions of applications to different types of schools, we used chi-square tests to compare (for example) the share of applications submitted to a school with a high accountability rating in Fall 2018 to the share of applications in Fall 2021. The distributions of applications to schools by accountability rating ($p=0.826$) were not statistically different between 2018 and 2021. However, the distributions of applications to high schools by graduation rate were statistically different in 2018 and 2021 ($p=0.000$) with a shift in applications toward schools with higher graduation rates in 2021. The changes in the distribution of eighth graders applying to different types of schools were also statistically

significant ($p=0.000$). We found a small increase in applications to neighborhood schools over time, offset by a similar decline in applications to charter schools.

In order to test for changes in enrollment after the implementation of GoCPS, we ran the following regressions to gauge if any changes in enrollment (Appendix Table 1) following the introduction of GoCPS were statistically significant.

$$Enrollment_{st} = \beta_0 + \beta_1 SchoolType_{st} + \sum_{t=t}^{t=T} \delta_t SchoolType_{st} * Year_t + \phi_t + \varepsilon_{st},$$

where $Enrollment_{st}$ is the number of ninth-grade students who enrolled in high school s in year t . The outcome is a function of school type (e.g., the school's graduation rate is above 80 percent, charter school). The school type is also interacted with a series of year fixed effects. We omit 2017, the year just prior to the implementation of GoCPS, to compare how enrollment changed in the years after implementation. The model includes year fixed effects to account for district-wide trends in enrollment at specific types of high schools. Standard errors are clustered at the school level.

Appendix Table 1. Statistical tests of changes in school-level enrollment over time by school type

Outcome: School-level ninth-grade enrollment	Graduation Rate > 80%	High Accountability Rating	Neighborhood School	Charter School
2015*Type	-66.22** (28.13)	-21.60** (9.00)	3.95 (9.78)	9.68 (9.261)
2016*Type	-65.07** (27.85)	-11.48 (7.45)	-2.82 (7.24)	10.37 (7.56)
2018*Type	6.02 (17.84)	-4.05 (8.44)	18.16* (9.45)	-3.97 (9.138)
2019*Type	16.03 (20.07)	3.06 (9.78)	15.40 (11.37)	-10.64 (10.32)
2020*Type	1.25 (20.31)	1.30 (10.31)	13.82 (12.16)	-8.35 (10.98)
2021*Type	5.47 (21.13)	-0.53 (10.91)	31.15** (12.02)	-23.37** (11.52)
School Type Indicator	94.53*** (30.66)	96.81*** (29.26)	52.00 (33.75)	-72.69*** (25.16)
Constant	159.40*** (17.05)	146.30*** (20.46)	183.9*** (17.52)	226.9*** (21.75)

Notes. The omitted year is 2017, which is the year prior to the initial implementation of GoCPS.