

Needs Assessment for K-8 Schooling in Cleveland

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Executive Summary

The goal of the Cleveland Plan is “to ensure that every child in Cleveland attends a high-quality school and that every neighborhood has a multitude of great schools from which families can choose.” To deliver on this goal, the Cleveland Metropolitan School District (CMSD) and its Cleveland Plan partners sought more detailed information about the K–8 schooling landscape in the City of Cleveland. This study examines and documents the status of K–8 schooling in regard to supply and demand in the City of Cleveland and within each of Cleveland’s 32 residential neighborhoods.

Research Questions

The K–8 supply/demand study is organized around three central questions.

1. What is the number of K–8 seats available in Cleveland (overall and by neighborhood) in licensed educational settings by provider type (i.e., CMSD, charter, private), capacity, and location?
2. How many K–8 aged children reside in Cleveland by age, neighborhood, and family income?
3. In what Cleveland neighborhoods is there a discrepancy between the current supply and demand for K–8 schooling, and projected K–8 supply and demand? What are the characteristics of these neighborhoods and their residents?

Key Findings

City-Level Analysis

- Cleveland’s K–8 landscape consists of 149 public, private, and charter schools that, together, serve the educational needs of nearly 44,000 children. Together, these 149 schools have the capacity to accommodate an additional 15,000 children (26 percent excess capacity). This excess capacity is equivalent to 38 schools with an average size of 392 students.
- Due to a declining school-age population, the demand for K–8 schooling in Cleveland is projected to decrease approximately 1.2 percent by 2022.
- Approximately 10 percent of the 5–14-year-old population in 2017–2018 used a CMSD voucher to attend a private school.

Neighborhood-Level Profiles

- The availability of local school options varies by neighborhood. CMSD operates at least half of the schools in 18 neighborhoods, including 5 in which it is the sole K–8 provider. In contrast, 11 neighborhoods have at least one CMSD school, one private school, and one charter school.
- Half of Cleveland’s residential neighborhoods (16 of 32) have excess K–8 school capacity exceeding 392 students, which is the average K–8 school size.
- The distribution of excess capacity across the different types of schools varies by neighborhood. In some neighborhoods, the majority of excess capacity lies in CMSD buildings. For example 545 of the 644 excess K–8 seats in Central (85%) are located in the Central’s CMSD schools, whereas only 91 of the 616 excess seats in Cudell (15 percent) are CMSD seats.

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- In contrast, K–8 enrollment is at or above capacity in three neighborhoods (Jefferson, Buckeye-Shaker Square, Stockyards).
- Over sixty percent of CMSD K–8 students attend a school outside their own residential neighborhood.
- Projected future demand for K–8 schooling is expected to decline slightly overall. However, wide variation across Cleveland’s neighborhoods is likely, with some neighborhoods predicted to experience significant growth in the 5–14-year-old population, and others expected to experience significant decline.
- The three neighborhoods with the largest share of K–8 students using a CMSD voucher to attend a private school are Kamm’s (28 percent), Old Brooklyn (18 percent), and Jefferson (16 percent)

Each of Cleveland’s 32 residential neighborhoods is unique in terms of the current mix of local school options, current supply and demand patterns, and projected needs. These differences demonstrate the value of planning for the future of K–8 education in Cleveland at the neighborhood level.

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Introduction

The Cleveland Plan is an ambitious effort to reshape the approach to providing equitable access to a high-quality education to every child in the City of Cleveland. CMSD has partnered with a diverse team of community leaders and stakeholders, including the City of Cleveland, the Cleveland Teachers Union–Local 279, Breakthrough Schools, Greater Cleveland Partnership, Cleveland Foundation, and the George Gund Foundation, to guide the development and ongoing implementation of the Cleveland Plan. The goal of the Cleveland Plan is “to ensure that every child in Cleveland attends a high-quality school and that every neighborhood has a multitude of great schools from which families can choose.”

Delivering on this goal will require detailed information about the landscape of K–8 education in Cleveland, including the types of school settings available to students (i.e., CMSD, charter, and private schools), the potential capacity of the city’s current school infrastructure relative to actual enrollment, and projected future needs and demands. This study examines these key features of the education landscape for Cleveland overall and for each of the city’s 32 residential statistical planning areas (SPAs, i.e., neighborhoods). The body of the report details the city-level analysis – the research questions, data sources, methodology, and findings. The report also includes neighborhood-level profiles documenting the K–8 schooling landscape within each of Cleveland’s 32 residential SPAs.

Research Questions

This study is organized around three central questions:

1. What is the number of K–8 seats available in Cleveland (overall and by neighborhood) in licensed educational settings by provider type (i.e., CMSD, charter, private), capacity, and location?
2. How many K–8 aged children reside in Cleveland by age, neighborhood, and family income?
3. In what Cleveland neighborhoods is there a discrepancy between current and projected supply and demand for K–8 schooling? What are the characteristics of these neighborhoods and their residents?

Measures and Data Sources

This study primarily relied on four data sources that the Center on Urban Poverty and Community Development accessed through public sources, data sharing agreements between the Center on Urban Poverty and Community Development and data partners, and primary data collection:

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1. *American Communities Survey (ACS) (2012–2016, 5-year estimates)*¹

The ACS provides data on population and school enrollment at the neighborhood level. Key indicators obtained from the ACS include child population by year for children ages 1–14, which can be combined to construct estimates of the local K–8-aged population, school enrollment by grade level, and school enrollment by grade level and poverty status.

2. *Ohio Department of Health (ODH) (1990–2017 data)*

Birth records from ODH were aggregated to the neighborhood level to obtain annual counts of births by year to project future K–8 demand in each Cleveland neighborhood. Blood lead testing records from ODH were also used to estimate lead poisoning rates among tested children in each neighborhood.²

3. *Ohio Department of Education (ODE) (2016–17 and fall 2017 data)*

Data from ODE include enrollment by grade level and are organized at the building level by provider type (i.e., public, private, and charter).

4. *Cleveland Metropolitan School District (CMSD) (2016–2018 school years)*

CMSD provided enrollment data at the building level. These data show actual numbers of children enrolled by building and grade. In addition, CMSD also provided data on two subgroups of Cleveland’s K–8-aged population not attending a CMSD school: children engaged in approved home schooling, and children using EdChoice educational vouchers to attend a private school.

5. *Community School Data*

The Cleveland Catholic Diocese and three charter school operators - Breakthrough, ACCEL, and Constellation, responded to inquiries by the Center on Urban Poverty and Community Development to provide building-level enrollment and capacity data for the 2017–18 school year.

Methodology

This study, organized around the identified research questions, seeks to estimate the current capacity of Cleveland’s existing K–8 system, the level of need for K–8 schooling, and the divergence between supply and demand.

1. *K–8 Demand within the City* – First, using Census and birth certificate data, we estimate the number of children age-eligible for K–8 schooling, defined as children ages 5–14, in each Cleveland neighborhood. These data are drawn from the 2012–16 ACS 5-year estimates, 2017 ACS 1-year estimates, and ODH birth certificate records.

¹ Five-year estimates from the ACS provide the most granular level of detail which was needed for this analysis at the neighborhood-level. At the time of the analysis in mid-2018, the 2012-2016 ACS five-year estimates were the most up-to-date available.

² Note: The birth and lead data used in this report come from the Ohio Department of Health. This should not be considered an endorsement of this study or these conclusions by the Ohio Department of Health.

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The total number of births in each neighborhood from 2002–2011 provided an approximation of what the population aged 5–14 would be in 2016 if all children in Cleveland remained in their neighborhood of birth, and no children moved in from outside the city. While this hypothetical scenario itself is unrealistic, it provided a useful benchmark for understanding the patterns of in- and out-migration in Cleveland’s neighborhoods. Specifically, a ratio of (a) the estimated population age 5–14 living in the neighborhood in 2016 according to the ACS to (b) the count of 2002–2011 neighborhood births was calculated. The interpretation of this ratio is: values greater than one indicate neighborhoods that, through some combination of retaining local families and in-migration of families from elsewhere, tend to attract more school-age children than they lose; values less than one indicate neighborhoods that tend to lose families with children, and this local loss is not offset by in-migration.

The same ratio was applied to subsequent date ranges of births to get an estimate of the projected 5–14-year-old population by neighborhood for future years. This method rests on the assumption that the rate at which children remain in their neighborhood of birth is stable over time.³

Characteristics of the resident child population by neighborhood in regard to demographics, family structure, poverty status and a range of other characteristics are also explored. The analysis estimates the proportion of resident K–8 children enrolled in schools in their own neighborhood versus outside the neighborhood. In addition, the analysis estimates the share of Cleveland private/parochial school enrollment made up of children using CMSD vouchers and the number of homeschooled children according to CMSD records, as well as mobility among CMSD students.

2. *K–8 Capacity within the City* - Second, using data from ODE, CMSD, and additional community sources described above, we identified all K–8 schools in Cleveland and determined their capacity to serve students. Most of this information came from the ODE master file of licensed schools; however, ODE records were incomplete, they were supplemented through a review of other public sources. Current enrollment and estimated capacity of schools is measured. Capacity of schools is largely measured by direct reports from the sponsoring organizations.

In the case of CMSD, we collaborated with CMSD to determine capacity. Given the service of substantial numbers of students with special needs by the district, a methodology for calculating capacity was developed that could only be applied to CMSD schools. Since students with special needs require a higher ratio of teachers to students and more classroom space, the capacity of dedicated special needs classrooms was removed from the school building capacity calculation. This approach results in some CMSD schools (n=15) having an enrollment to capacity ratio exceeding 100 percent. See **Appendix B** for a detailed description of the methodology.

³ Changes to the landscape in Cleveland could significantly alter the size and distribution of the K–8-aged population. Of particular recent note is the introduction of the Say Yes To Education program promising college scholarships to CMSD graduates.

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For remaining non-CMSD schools we relied on direct reports supplemented by an algorithm based upon available data. The highest reported enrollment numbers reported from ODE per grade over the last five years were used as a proxy for capacity for these remaining schools.

Tabular data are provided summarizing K–8 capacity by school type and sponsor, and the characteristics of children enrolled in schools. Data on CMSD-enrolled children are the most detailed as they are available at the individual student level. Data on children enrolled in other K–8 schools were limited and only available at the building level.

3. *K–8 Demand/Supply Analysis* - Third, using the data generated in steps 1 and 2 above, an examination of neighborhood-level supply and demand is conducted. Neighborhood K–8 schools are mapped and analyzed using geographic information systems (GIS) techniques. The existing capacity and enrollment of schools is presented and also compared to the estimated resident age-eligible child population. Neighborhood-level analyses highlight characteristics (e.g., race, family structure, poverty status, lead exposure) of the resident child population. Data on children enrolled in CMSD schools are analyzed to show the proportion of enrolled students who reside within the CMSD service area versus not, as well as mobility among these students.

Findings

Population Characteristics

Table 1a demonstrates the diversity of the local populations living within Cleveland's neighborhoods. First, age distribution varies widely, from neighborhoods with just 1 in 100 (Downtown) to more than 1 in 5 (Central) residents enrolled in K–8.

Demographically, few neighborhoods resemble the City of Cleveland's overall racial/ethnic makeup. In fact, most neighborhoods are more segregated than the citywide averages, with each group clustering heavily into certain neighborhoods, while being underrepresented or virtually absent in others.

There is also considerable between-neighborhood variation in indicators of family resources and stability, such as educational attainment and household composition. Overall, most Cleveland households with children are headed by a single parent. In fact, Kamm's is the only Cleveland neighborhood in which less than half of households are single-headed. At the other extreme, 95.6 percent of Kinsman households are headed by a single parent.

Overall, fewer children were born in Cleveland in 2017 than 2012. This declining trend held true for the majority of Cleveland's neighborhoods, with the most severe drop in local births occurring in St. Clair-Superior (-38.3 percent). On the other hand, nine Cleveland neighborhoods saw more births in 2017 than 2012, with Bellaire-Puritas recording a 27.6 percent increase in births during the period.

Finally, population stability and mobility ranges widely across Cleveland neighborhoods, from Lee-Seville, where more than 90 percent of the population was living in their current home for at

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least one year, to Downtown, where less than half the population was living in their current home one year ago.

TABLE 1a: Population Demographic Characteristics

		Range in Neighborhood Values	
	City	Low	High
Total Population	389,165	4,015	33,781
K–8 Population	11.3%	1.1%	22.5%
Non-Hispanic White	34.3%	1.1%	77.6%
Non-Hispanic Black	50.1%	8.4%	97.4%
Non-Hispanic Asian/Pacific Islander/Other	4.8%	1.4%	32.6%
Hispanic	10.8%	0.3%	45.2%
Less than High School (age 25+)	21.6%	11.1%	38.2%
Bachelor Degree or higher (age 25+)	16.1%	4.6%	43.1%
Single-headed households with children <18	69.6%	45.7%	95.8%
Change in births 2012–2017	-7.6%	-38.3%	27.6%
Population living in different house 1 year ago	20.6%	9.3%	53.8%

Source: All population characteristics are calculated from the U.S. Census Bureau, 2012–2016 American Community Survey, 5-year estimates with the exception of the change in births which is calculated from the Ohio Department of Health, through the Ohio Public Health Information Warehouse.

TABLE 1b: Area Characteristics

		Range in Neighborhood Values	
	City	Low	High
Poverty Rate ¹	36.0%	16.5%	71.5%
SNAP recipients (Q4 2017) ²	39.4%	11.8%	69.8%
Children with substantiated/indicated reports of maltreatment (per 1,000; 2016) ³	26.6	10	122
Vacant parcels ⁴	6.2%	1.3%	16.0%
Residential foreclosure filings, 2017 ⁵	2.4%	0%	5.3%
Violent crime rate ^a , 2017 ⁶	1,850	415	7,001
Property crime rate ^a , 2017 ⁶	5,908	2,541	9,854
5 year olds in 2017 with an elevated blood lead level (≥ 5 mcg/dl) test in lifetime ⁷	8%	0.6%	14.9%
Neighborhood school enrollment comprised of CMSD schools, 2017–18 ⁸	54.1%	0%	100%
Children aged 5–14 using CMSD vouchers ⁸	10%	28%	1%
Projected Change in Demand for K–8 schooling (2016–2022) ⁹	-1.2%	-26%	36%

¹Source: U.S. Census Bureau, 2012–2016 American Community Survey 5-Year Estimates; ²Source: Cuyahoga County Department of Employment and Family Services. Ohio Department of Job and Family Services Monthly Case and Individual Extract files from the Client Registry Information System-Enhanced (CRIS-E); ³Source: Cuyahoga County Department of Child and Family Services; ⁴Source: Cuyahoga County Fiscal Office; ⁵Source: Cuyahoga County Common Pleas Court; ⁶Source: Cleveland Police Department; ⁷Source: Ohio Department of Health, through the Ohio Public Health Information Warehouse. The

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Department specifically disclaims responsibility for any analyses, interpretations, or conclusions from these data; ⁸Source: Cleveland Municipal School District; ⁹Sources: U.S. Census, 2012–16 ACS 5-Year Estimates, and Ohio Department of Health, through the Ohio Public Health Information Warehouse; Method: births from 2002–2011 were summed to get an approximation of the count of 5–14 years olds in 2016 if all of those born stayed in their neighborhood. These estimates were compared to the 2016 ACS estimate of 5–14 years olds per neighborhood and a ratio of births to actual 5–14 year olds each neighborhood was calculated. The ratio was applied to subsequent date ranges of births to get projected 5–14-year-old population by neighborhood for future years. This method relies upon the assumption that the rate at which children remain in the neighborhood of their birth remains constant over time.

^aper 100,000 population

Table 1b provides further insight into the characteristics of Cleveland and its residents, mainly describing aspects of vulnerability. As before, there is considerable variation between neighborhoods. The implication of this variation is that the risks a child living in Cleveland is likely to be exposed to, both in kind and degree, depends largely on their address.

First, more than one-third of Cleveland’s population (36 percent) lives below the federal poverty threshold (\$21,330 for a family of three), and slightly more than that received SNAP benefits (Food Stamps) in the last quarter of 2017.

Overall six percent of parcels in Cleveland were vacant in 2017. In neighborhoods like Kamm’s and Lee-Harvard, the vacancy rate is less than two percent, while the vacancy rate in Fairfax is 16 percent. Furthermore, two percent of Cleveland parcels were the subject of a residential foreclosure filing in 2017.

Crime rates, including both violent crime and property crime, are elevated in Cleveland relative to national figures. In 2017, the national property crime rate was 2,362 per 100,000 compared to 5,908 per 100,000 in Cleveland. Similarly, the national violent crime rate was 383 per 100,000 compared to 1,850 in per 100,000 in Cleveland.⁴

Recent efforts to finally address the decades-long crisis of childhood lead exposure are a critical step towards supporting the well-being of Cleveland’s children and the success of the city, as a substantial proportion of children in the city had a history of elevated blood lead levels (8 percent). The risk of lead exposure at the neighborhood level is largely a function of the age and quality of the local housing stock, and unfortunately children living in some Cleveland neighborhoods, such as Clark-Fulton (14.9 percent), are placed at a disproportionate risk for lead exposure. On the other hand, lead poisoning was a relatively rare event in Bellaire-Puritas, where less than one percent of 5 year olds in 2017 had any lifetime positive (≥ 5 mcg/dl) blood lead tests.

Child maltreatment is also a problem in Cleveland, and although neighborhood conditions do not play a direct role as a cause of child maltreatment in the same way that they do for lead exposure, the fact remains that child maltreatment rates are more than four times the citywide average of 26.6 per 1,000 in some neighborhoods.

Approximately 54 percent of K–8 aged children were enrolled in CMSD schools in 2017–18. Nearly a quarter of students enrolled in a CMSD school in 2016–17 enrolled in a non-CMSD

⁴ <https://www.fbi.gov/news/pressrel/press-releases/fbi-releases-2017-crime-statistics>

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school the following year, indicating a good deal of mobility across schools. Among CMSD-enrolled students, 39 percent attend a CMSD school in their neighborhood of residence.

K–8 Landscape

In the 2017–18 School year, there were 149 schools serving the K–8 population within the City of Cleveland (**Table 2**). In total, these schools had a student capacity of 58,428, and enrollment of 43,320, meaning that 74.1 percent of available slots were occupied. Among the K–8 schools, 68 were public schools operated by CMSD, 54 were categorized as charter schools, and 27 were categorized as private schools by the Ohio Department of Education.

TABLE 2: K–8 School Types

ODE Category	Operator	Number of Schools	Current Enrollment	Total Capacity	Seats Filled
Public (n=68)	CMSD	68	24,304	32,389	75.0%
Charter (n=54)	ACCEL Schools	13	3,082	5,300	58.2%
	Constellation	12	2,761	3,252	84.9%
	Breakthrough Schools	11	3,304	4,316	76.6%
	Other charter	18	3,897	5,503	70.8%
Private (n=27)	Catholic Diocese	18	4,927	6,215	79.3%
	Other private	9	1,045	1,453	71.9%
Total		149	43,320	58,428	74.1%

Enrollment Sources: ODE 2017–18 headcount enrollment data; Catholic Diocese of Cleveland.

Capacity Sources: For non-CMSD schools - ODE estimated average daily membership for the 2017–18 school year. Estimated capacity based on the highest ODE reported enrollment per grade in the last five school years; For CMSD schools - Estimated capacity using OFCC guidelines to account for factors including school size, age, and instructional space. Full methodology explained in report Appendix B; Catholic Diocese of Cleveland.

Most of Cleveland’s charter schools are operated by either ACCEL (13), Constellation (12), or Breakthrough Schools (11). Among private schools, the majority are operated by the Catholic Diocese of Cleveland (18). The average capacity of K–8 schools is 392 students. Most of Cleveland’s K–8 capacity is found in CMSD (55 percent), followed by charter schools (32 percent), and private schools (13 percent). Among the 32 Cleveland neighborhoods, seven have a single K–8 school (5 are CMSD schools), six neighborhoods have 2–3 schools, nine neighborhoods have 4–5 schools, six have 6–9 schools, and four have 10–12 schools.

Utilization rates are relatively similar for the three types of education providers. Average capacity utilization in the K–8 buildings operated by CMSD is 75 percent, 71 percent in charter schools, and 78 percent in private schools. In ten neighborhoods, K–8 enrollment meets or exceeds 80 percent of K–8 capacity, while in eleven neighborhoods, K–8 enrollment is 70–80% of capacity. Lastly, in eleven neighborhoods, enrollment is 40–69 percent of K–8 capacity, indicating substantial under-enrollment (**Table 3**). The five neighborhoods with the most excess capacity, in terms of raw numbers, are Clark-Fulton (910 excess slots), Brooklyn Centre (596 excess slots), University (76 excess slots), Glenville (1,792 excess slots), and Cudell (616 excess slots). In Glenville, approximately 76 percent of the excess capacity is located in CMSD schools, while in Brooklyn Center, Cudell and Clark-Fulton less than one-half of the excess capacity is in CMSD buildings. The University neighborhood only includes one school and it is private.

Figure 1 shows a map of neighborhoods based on the ratio of enrollment to capacity. **Figure 2** shows a map of neighborhoods based on the proportion CMSD-enrolled children who attend a CMSD school in their own neighborhood. For details about enrollment and capacity at the individual school level, see neighborhood profiles, or **Appendix C** for a full listing.

Voucher Usage/Homeschooling

CMSD provided data on voucher usage and homeschooling during the 2017–2018 school year. EdChoice Vouchers are available to low income children from kindergarten through 6th grade, as well as to children whose local public school is classified as underperforming by the Ohio Department of Education.⁵ Overall, 5,003 children used a CMSD voucher to attend a private K–8 school in 2017–2018. The distribution of voucher usage across Cleveland neighborhoods (based on student home address) and private school was examined. Overall, approximately 10 percent of Cleveland’s population aged 5–14 used a voucher to attend a private school. The two neighborhoods with the largest share of K–8 students using a voucher were Kamm’s (28%), Old Brooklyn (18%), and Jefferson (16%) (See **Appendix A** for further detail).

The proportion of private school K–8 enrollment made up of students with CMSD vouchers was calculated by comparing the 2017–2018 enrollment numbers by school (as reported by the Ohio Department of Education) to the reported schools in which the 2017–2018 CMSD vouchers were redeemed (as reported by CMSD). The average rate of voucher usage among private schools with at least one K–8 student using a CMSD voucher in 2017–2018 was 81.8 percent. These figures ranged from more than 97 percent of students redeeming vouchers at Our Lady of Angels and Holy Cross Lutheran Schools, to 10.8 voucher usage at Cleveland Montessori (See **Appendix A** for further detail).

In total, only 292 children were homeschooled in 2017–2018 according to CMSD records. Complete address data were unavailable for nearly half of those homeschooled, so a reliable estimate of the homeschooling distribution by neighborhood could not be calculated.

⁵ <http://education.ohio.gov/Topics/Other-Resources/Scholarships/EdChoice-Scholarship-Program>

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TABLE 3: Neighborhood K–8 Enrollment vs Capacity

Neighborhood	# of K-8 Schools	CMSD	Private	Charter	Enrollment	Capacity	Utilization Rate
Jefferson	2	1	0	1	685	472	145.1%
Buckeye-Shaker Square	1	1	0	0	354	325	108.9%
Stockyards	5	2	0	3	1740	1912	91.0%
Ohio City	3	2	0	1	1043	1181	88.3%
Bellaire-Puritas	7	2	1	4	1889	2162	87.4%
Euclid-Green	1	1	0	0	336	385	87.3%
Newburgh Heights	1	0	0	1	218	252	86.5%
West Boulevard	6	3	2	1	2163	2521	85.8%
Detroit Shoreway	5	3	2	0	2273	2652	85.7%
Kamm's	12	5	4	3	3322	4122	80.6%
Downtown	1	1	0	0	718	897	80.0%
Union-Miles	9	5	0	4	3400	4320	78.7%
Old Brooklyn	11	4	4	3	3001	3815	78.7%
Goodrich-Kirtland Pk	5	1	0	4	1601	2044	78.3%
St.Clair-Superior	4	1	2	1	1112	1439	77.3%
Tremont	6	4	0	2	2136	2821	75.7%
Edgewater	3	1	1	1	514	683	75.3%
North Shore Collinwood	6	2	2	2	1559	2119	73.6%
Fairfax	2	1	1	0	634	882	71.9%
Central	5	4	0	1	1559	2203	70.8%
Lee-Seville	1	0	1	0	121	171	70.8%
Buckeye-Woodhill	5	1	0	4	1176	1677	70.1%
Hough	4	3	0	1	1136	1644	69.1%
Broadway-Slavic Village	10	4	2	4	2473	3702	66.8%
Mount Pleasant	1	1	0	0	374	563	66.4%
Lee-Harvard	5	3	1	1	1347	2068	65.1%
Collinwood-Nottingham	6	3	0	3	1264	2010	62.9%
Kinsman	1	1	0	0	348	572	60.8%
Cudell	3	1	0	2	855	1471	58.1%
Glenville	10	5	1	4	2479	4271	58.0%
University	1	0	1	0	98	174	56.3%
Brooklyn Centre	2	1	0	1	576	1172	49.1%
Clark-Fulton	5	1	2	2	816	1726	47.3%
Total	149	68	27	54	43320	58428	74.1%

Enrollment Sources: ODE 2017–18 headcount enrollment data; Catholic Diocese of Cleveland.

Capacity Sources: For non-CMSD schools - ODE estimated average daily membership for the 2017–18 school year. Estimated capacity based on the highest ODE reported enrollment per grade in the last five school years; For CMSD schools - Estimated capacity using OFCC guidelines to account for factors including school size, age, and instructional space. Full methodology explained in report Appendix B; Catholic Diocese of Cleveland; Totals also include the Washington Park Community School, a CMSD charter school located in Newburgh Heights.

FIGURE 1: Enrollment to Capacity Ratio by Neighborhood

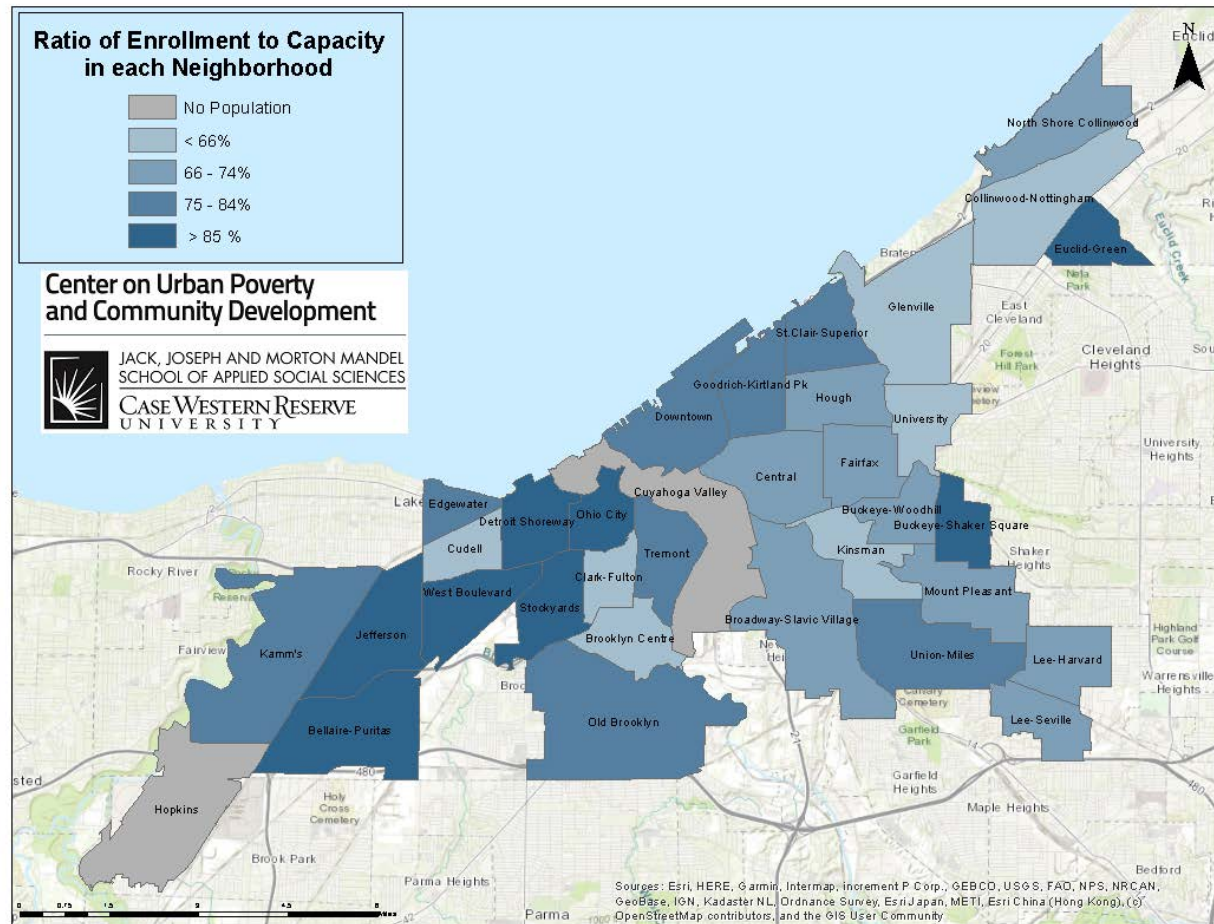


FIGURE 2: Percent of CMSD-Enrolled Students Attending School in Own Neighborhood

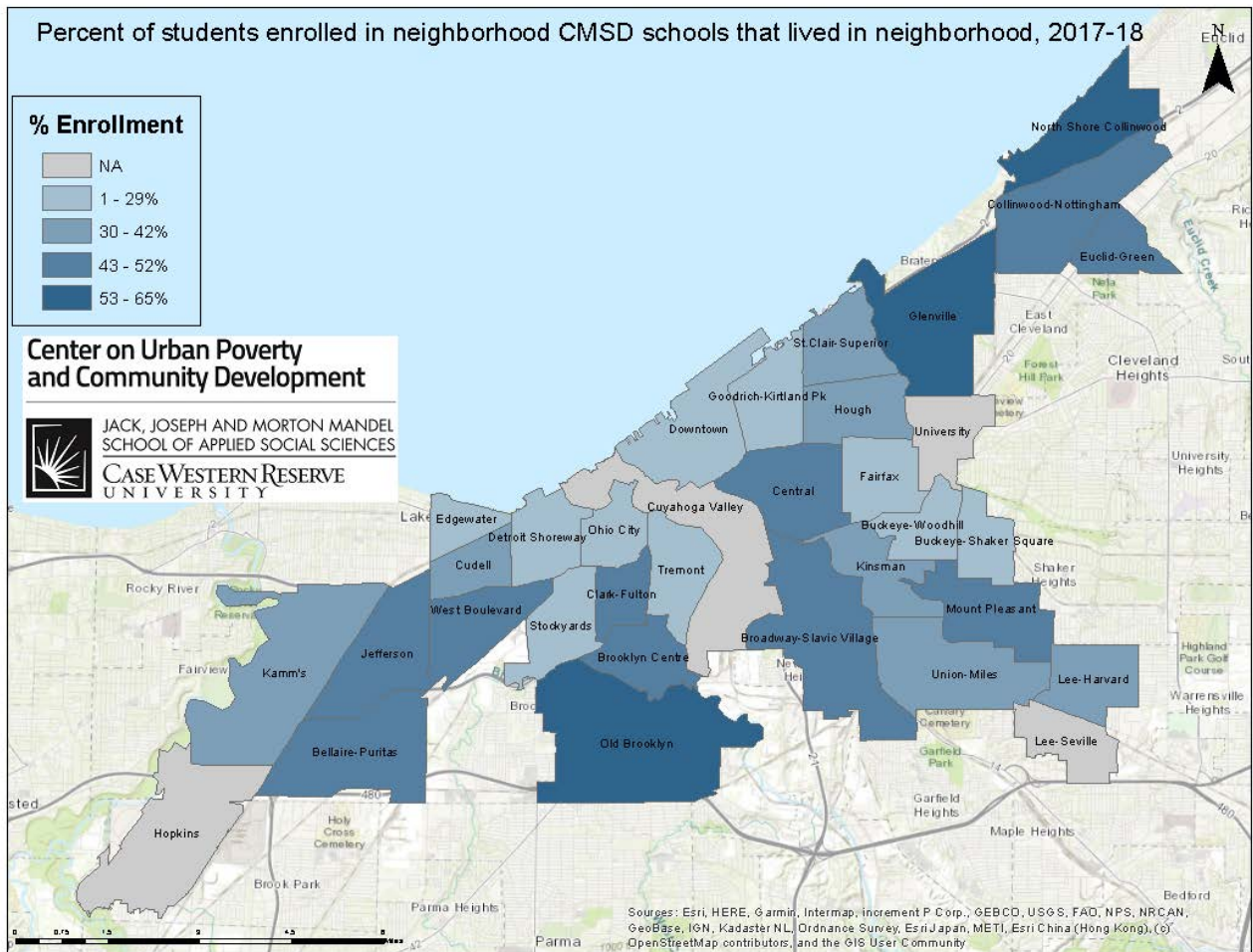


FIGURE 3: K–8 Capacity vs. Enrollment by Neighborhood

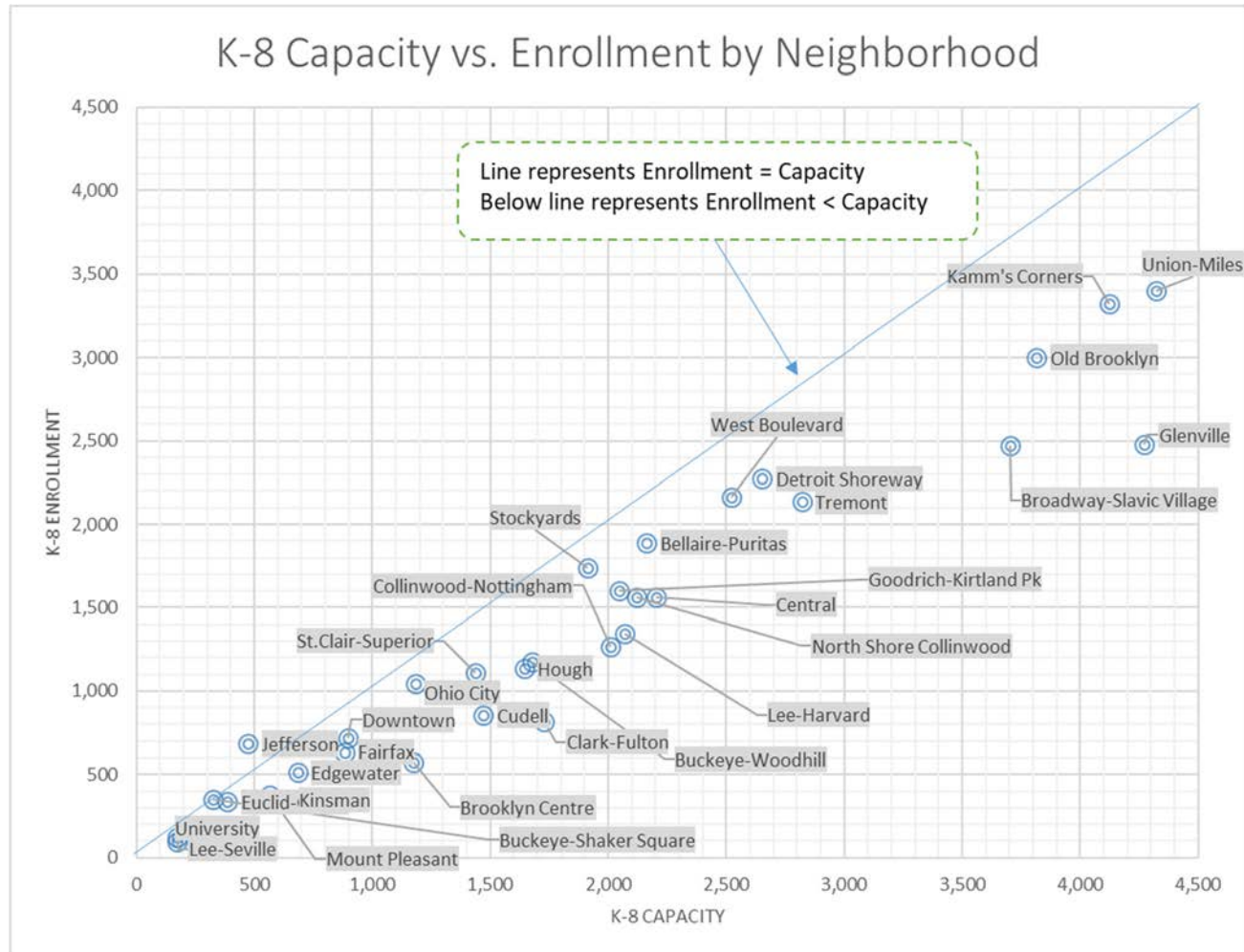
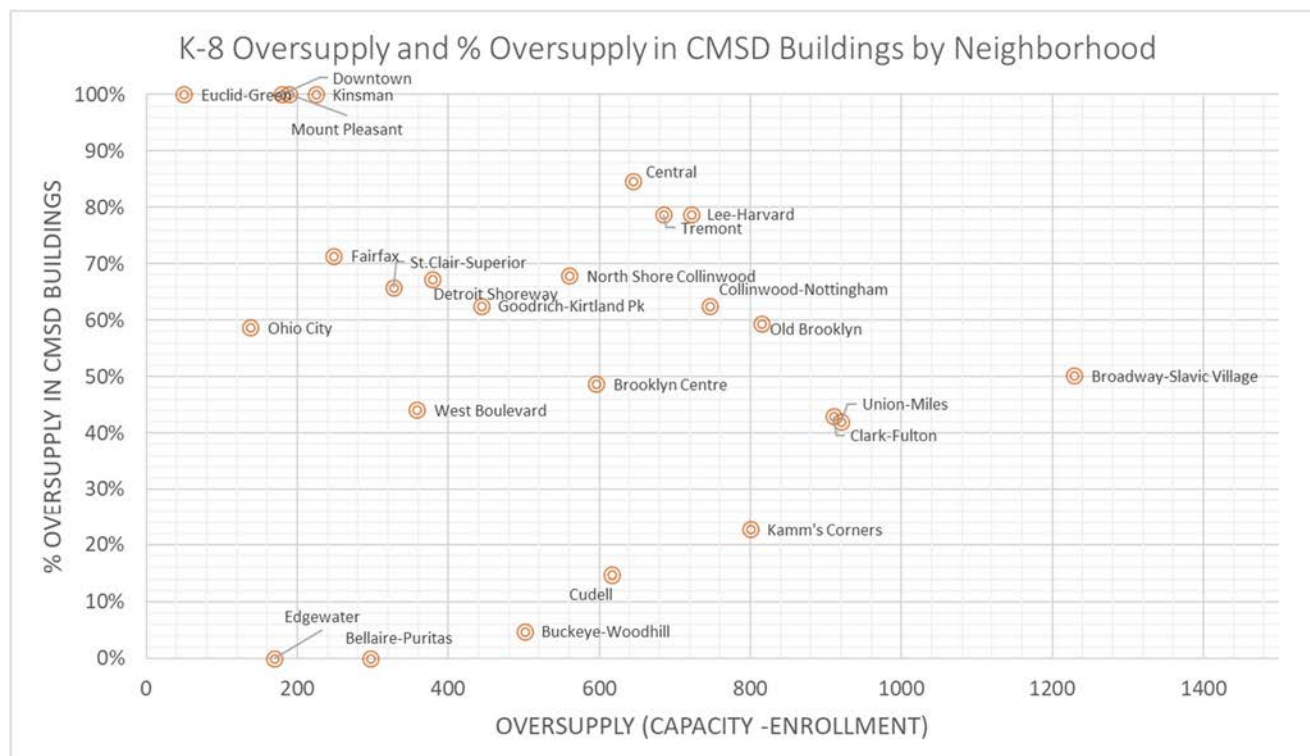


FIGURE 4: K–8 Oversupply and % Oversupply in CMSD Buildings by Neighborhood



Only neighborhoods experiencing an oversupply are included. University and Lee Seville are also not included because they do not contain any CMSD schools.

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Conclusions

The aim of this study was to assess and characterize the landscape of K–8 schooling in the City of Cleveland. The focus is on quantitative measures of supply and demand for K–8 schooling. An equally important consideration is the student experience and quality of the schooling provided, which is outside the scope of the present analysis. Though an oversupply of K–8 schooling is evident at the city level, the value for planning purposes lies at the neighborhood level.

City-Level Analysis

Substantial oversupply of K–8 schooling.

In Cleveland, 149 K–8 schools operate serving the educational needs of nearly 44,000 children. As an educational system, K–8 schools could accommodate 15,000 more children than they currently enroll (26 percent excess capacity). This is equivalent to 38 schools with an average size of 392 students. This situation results in substantial under-enrollment in many schools, limiting administrative efficiency and educational effectiveness. If no action is taken, the oversupply will continue to grow since the demand for K–8 schooling is projected to decrease approximately 1.2 percent by 2022.

Parental choice allows use of numerous options.

Multiple factors make it possible for Cleveland families to select the K–8 educational option which best meets their child’s need. Fully, 56 percent of K–8 children are enrolled in a CMSD school, while 30 percent are enrolled in a charter school, and 14 percent are enrolled in another private school option. Sixty percent of CMSD K–8 students attend a CMSD school outside their own residential neighborhood. Approximately 10 percent of the 5–14-year-old population used a CMSD voucher to attend a private school.

Neighborhood-Level Analysis

Though a city-wide view of K–8 schooling is helpful, neighborhood and region-level planning is essential because parents can avail themselves of educational options in adjacent neighborhoods as well as the municipalities adjacent to the City of Cleveland

Oversupply evident in certain neighborhoods.

Half of Cleveland neighborhoods (16 of 32) have excess K–8 school capacity exceeding 392 students, which is the average enrollment of a K–8 school. Of these neighborhoods, six have excess capacity meeting or exceeding 800 students, and two exceed 1200 students. These areas show a mismatch between current capacity and demand from the resident families.

Undersupply in specific neighborhoods.

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Three neighborhoods (Jefferson, Buckeye-Shaker Square, Stockyards) have an undersupply of K–8 school capacity or are at capacity, shown in that their enrollment to capacity ratio exceeds 90 percent. In the shorter-term, families can meet their child’s educational needs by using K–8 options in adjacent neighborhoods. However, these areas would be best served through the examination of K–8 schooling options for the children that live there. In addition, the use of vouchers may indicate a unmet demand for local schooling options. The three neighborhoods with the largest share of K–8 students using a voucher were Kamm’s (28%), Old Brooklyn (18 percent), and Jefferson (16 percent)

Population changes at neighborhood level vary substantially

Though the city-wide demand for K–8 schooling is projected to decrease approximately 1.2 percent by 2022, the projected demand for K–8 schooling at the neighborhood-level is quite varied. These projections should be considered when fashioning solutions designed to best meet the changing demand for K–8 schooling over time. At the extremes, by neighborhood, we estimate a decrease of 26 percent (St. Clair-Superior) and an increase of 36 percent (Downtown).

Neighborhood capacity has implications for multiple providers

Excess capacity at the neighborhood level varies across schools within the neighborhood which differentially impacts the multiple providers of K–8 schooling. In half the neighborhoods, CMSD operates 50 percent or more of the schools in the neighborhood (in 5 neighborhoods the sole school). A discussion of capacity should prioritize the needs of families but take into account the multiple providers of K–8 education. Excess capacity can be seen in two categories, based on whether the majority of excess capacity lies in CMSD buildings or in the buildings of other operators. For example, among the 16 neighborhoods with greater than 392 seats of excess capacity, in 10 neighborhoods the majority of excess capacity lies in CMSD buildings and in 6 neighborhoods the excess capacity lies in the buildings of other school operators (private or charter). For example, in Central there are 644 excess seats of capacity, but 545 of these (85 percent) are in the 4 CMSD K–8 buildings. Alternatively, in Cudell which has 616 excess sets of capacity, only 91 (15 percent) are in the CMSD building located there.

The current assessment of K–8 schooling in the City of Cleveland demonstrates a substantial oversupply of educational capacity. In general, fewer schools with higher enrollment in those schools can be operated with more efficiency and more investments in services that enhance educational quality. Decisions about the deployment of both public and private schooling options should maintain a focus on improving access to high quality educational options and valuing parental choice in the process. These decisions must consider the nature of the neighborhood-level schooling landscape, as well as the circumstances in the adjacent neighborhoods, to best meet families’ needs now and into the near future.

Appendix A: CMSD Voucher Usage by Neighborhood and Private School, 2017–2018

Private school providers with at least one student in K–8 using a CMSD voucher	# of CMSD K–8 vouchers used in 2017–2018	% of enrollment made up of voucher users
Al Ihsan Islamic School	108	84.38
Archbishop Lyke-St Henry Campus	166	88.30
Birchwood	60	30.00
Cleveland Montessori	10	10.75
Holy Cross Lutheran School	49	98.00
Holy Name	160	85.11
Luther Memorial	211	85.08
Mary Queen of Peace School	252	88.42
Metro Catholic Parish	452	91.31
Our Lady Of Angels	435	97.32
Our Lady Of Mt Carmel West	196	94.23
Ramah Junior Academy	72	74.23
St Adalbert	274	75.90
St Agatha-St Aloysius	124	87.94
St Francis	201	89.73
St Ignatius	284	92.21
St Jerome	192	81.36
St John Lutheran	122	90.37
St Leo The Great	210	88.24
St Mark	367	89.95
St Mary Byzantine	145	85.80
St Rocco	121	93.80
St Stanislaus	182	84.26
St Thomas Aquinas	159	85.03
The Bridge Avenue School	10	66.67
Urban Community	441	88.38
Total	5003	84.90

Source: The number of enrolled students by school is based on the Ohio Department of Education fall 2017 enrollment data; The number of K–8 voucher users in 2017–2018 by school was supplied to CWRU by Christopher Broughton at CMSD.

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Neighborhood	# of CMSD K–8 vouchers used in 2017–2018	Percent of 5–14 years of age pop using vouchers
Bellaire-Puritas	179	11.09%
Broadway-Slavic Village	224	6.67%
Brooklyn Centre	155	10.35%
Buckeye-Shaker Square	42	3.46%
Buckeye-Woodhill	51	7.38%
Central	92	3.31%
Clark-Fulton	139	11.46%
Collinwood-Nottingham	81	4.74%
Cudell	101	5.43%
Cuyahoga Valley	1	0.92%
Detroit Shoreway	162	11.43%
Downtown	4	3.78%
Edgewater	37	8.75%
Euclid-Green	43	8.25%
Fairfax	89	13.14%
Glenville	241	7.80%
Goodrich-Kirtland Pk	41	15.24%
Hopkins	2	4.54%
Hough	119	7.59%
Jefferson	324	15.81%
Kamm's	743	27.81%
Kinsman	53	5.19%
Lee-Harvard	106	9.36%
Lee-Seville	44	15.06%
Mount Pleasant	98	4.69%
North Shore Collinwood	186	13.36%
Ohio City	91	9.25%
Old Brooklyn	697	17.87%
St.Clair-Superior	90	10.65%
Stockyards	123	8.69%
Tremont	64	9.02%
Union-Miles	145	5.64%
University	13	6.52%
West Boulevard	321	9.89%
	4901	10.07%

Source: Cleveland Municipal School District; 2017–2018 voucher data supplied by Christopher Broughton; Neighborhood population of children aged 5–14 calculated using the U.S. Census Bureau, 2012–2016 American Community Survey 5-Year Estimates

Appendix B: Methodology for Calculating Capacity

Calculating K–8 capacity at the school level required multiple methodologies based on the data available. For parochial schools, capacity numbers were supplied to the research team by the Catholic Diocese of Cleveland. Some of the charter schools contacted were able to supply capacity counts to the research team as well. For those schools in which capacity estimates were unavailable, the research team relied upon an algorithm based upon available data. The highest reported enrollment numbers reported from ODE per grade over the last five years were used as a proxy for capacity.

In the case of CMSD, we collaborated with CMSD to determine capacity. Their methodology was as follows:

- CMSD Operations staff reviewed the blueprints for each building to first identify the number of learning stations of at least 700 square feet (older buildings) or 810 square feet (newer buildings). These rooms were assigned a capacity of 25 students each.
- The team then recorded all learning spaces between 300 sf and 700 sf as small learning environments. These were then divided by 30 sf per student (OFCC (Ohio Facilities Construction Commission) formula) to calculate a capacity, then rounded down to eliminate fractions of a student at the room level.
- These two together equaled the maximum capacity for a building.
- Two adjustments were then made: the first based on actual Special Education self-contained rooms and PreK rooms based on 2018–19 school year counts (same as the adjustment we made in the fall and shared with you). The second was a "21st century learning environment" adjustment for arts, music, technology labs. For smaller schools (those designed for 450 students or fewer) there was a deduction of 3 rooms (75 students) for newer schools or 100 students for older schools. For larger schools, we doubled that, 6 rooms for newer schools, 8 rooms for older schools, due to the larger volume of students to rotate through those programs.⁶
- These two adjustment factors were summed up, then deducted from the maximum capacity to calculate the adjusted capacity.

⁶ This methodology and subsequent capacity calculations for CMSD schools was supplied to the CWRU team by Brian Eschbacher of Bell Creek Consulting on April 29, 2019.

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Appendix C: School-Level Enrollment and Capacity, 2017–2018

Neighborhood	School Name	School Type	Enrollment	Capacity	Utilization Rate
Bellaire-Puritas	Constellation Schools: Puritas Community Middle	Charter	150	192	78.1%
Bellaire-Puritas	West Park Academy	Charter	214	510	42.0%
Bellaire-Puritas	West Preparatory Academy	Charter	233	282	82.6%
Bellaire-Puritas	Constellation Schools: Puritas Community Elementary	Charter	188	240	78.3%
Bellaire-Puritas	Artemus Ward	CMSD	479	275	174.2%
Bellaire-Puritas	Robinson G Jones Elementary School	CMSD	444	430	103.3%
Bellaire-Puritas	Birchwood	Private	181	233	77.7%
Broadway-Slavic Village	Cleveland College Preparatory School*	Charter	288	312	92.3%
Broadway-Slavic Village	Constellation Schools: Eastside Arts Academy	Charter	124	178	69.7%
Broadway-Slavic Village	Broadway Academy	Charter	120	493	24.3%
Broadway-Slavic Village	Hope Academy Northcoast	Charter	265	319	83.1%
Broadway-Slavic Village	Fullerton School	CMSD	214	492	43.5%
Broadway-Slavic Village	Mound Elementary School	CMSD	381	483	78.9%
Broadway-Slavic Village	Warner Girls Leadership Academy	CMSD	472	563	83.8%
Broadway-Slavic Village	Willow School	CMSD	205	350	58.6%
Broadway-Slavic Village	Holy Name	Private	188	225	83.6%
Broadway-Slavic Village	St Stanislaus	Private	216	287	75.3%
Brooklyn Centre	Horizon Science Academy-Denison Middle School	Charter	272	578	47.1%
Brooklyn Centre	Denison	CMSD	304	594	51.2%
Buckeye-Shaker Square	Sunbeam	CMSD	354	325	108.9%
Buckeye-Woodhill	Wings Academy 1	Charter	140	255	54.9%
Buckeye-Woodhill	Wings Academy 2	Charter	72	136	52.9%
Buckeye-Woodhill	Cleveland Arts and Social Sciences Academy	Charter	258	504	51.2%
Buckeye-Woodhill	The Intergenerational School*	Charter	247	299	82.6%
Buckeye-Woodhill	Harvey Rice Elementary School	CMSD	459	483	95.0%
Central	Stepstone Academy*	Charter	257	356	72.2%
Central	Alfred Benesch	CMSD	304	382	79.6%
Central	Dike School of Arts Lower Campus	CMSD	400	525	76.2%
Central	George Washington Carver	CMSD	309	490	63.1%
Central	Marion-Sterling Elementary School	CMSD	289	450	64.2%
Clark-Fulton	Lincoln Park Academy	Charter	196	594	33.0%
Clark-Fulton	Lincoln Preparatory Academy	Charter	207	232	89.2%
Clark-Fulton	Walton School	CMSD	267	658	40.6%
Clark-Fulton	The Bridge Avenue School	Private	17	17	100.0%
Clark-Fulton	St Rocco	Private	129	225	57.3%
Collinwood-Nottingham	Constellation: Collinwood	Charter	122	135	90.4%
Collinwood-Nottingham	Lake Erie College Preparatory School	Charter	239	308	77.6%
Collinwood-Nottingham	East Academy	Charter	282	480	58.8%
Collinwood-Nottingham	East Clark	CMSD	216	506	42.7%
Collinwood-Nottingham	Hannah Gibbons-Nottingham Elementary School	CMSD	242	306	79.1%
Collinwood-Nottingham	Kenneth W Clement	CMSD	163	275	59.3%
Cudell	Constellation Schools: Madison Community Elementary	Charter	291	396	73.5%
Cudell	E Prep & Village Prep Willard*	Charter	180	600	30.0%
Cudell	Marion C Seltzer Elementary School	CMSD	384	475	80.8%
Detroit Shoreway	H Barbara Booker Elementary School	CMSD	305	325	93.8%
Detroit Shoreway	Waverly Elementary School	CMSD	264	525	50.3%
Detroit Shoreway	Joseph M Gallagher School	CMSD	710	684	103.8%
Detroit Shoreway	Metro Catholic Parish	Private	495	620	79.8%
Detroit Shoreway	Urban Community	Private	499	498	100.2%
Downtown	Campus International School	CMSD	718	897	80.0%
Edgewater	Hope Academy Northwest Campus	Charter	240	448	53.6%
Edgewater	Louisa May Alcott Elementary School	CMSD	239	200	119.5%
Edgewater	Eleanor Gerson Sn	Private	35	35	100.0%
Euclid-Green	Euclid Park Elementary School	CMSD	336	385	87.3%
Fairfax	Bolton	CMSD	273	450	60.7%
Fairfax	St Adalbert	Private	361	432	83.6%
Glenville	Citizens Academy East*	Charter	371	450	82.4%
Glenville	Stonebrook Montessori*	Charter	123	142	86.6%
Glenville	Citizens Leadership Academy East	Charter	44	240	18.3%
Glenville	Citizens Academy*	Charter	407	463	87.9%
Glenville	Iowa-Maple Elementary School	CMSD	229	496	46.2%
Glenville	Franklin D. Roosevelt	CMSD	403	748	53.9%
Glenville	Mary M Bethune	CMSD	284	394	72.1%
Glenville	Michael R. White	CMSD	204	575	35.5%
Glenville	Patrick Henry School	CMSD	273	538	50.7%
Glenville	St Agatha-St Aloysius	Private	141	225	62.7%
Goodrich-Kirtland Pk	Cleveland Entrepreneurship Preparatory School*	Charter	325	360	90.3%
Goodrich-Kirtland Pk	Village Preparatory School*	Charter	416	450	92.4%
Goodrich-Kirtland Pk	University of Cleveland Preparatory School	Charter	379	448	84.6%
Goodrich-Kirtland Pk	East Preparatory Academy	Charter	208	236	88.1%
Goodrich-Kirtland Pk	Case	CMSD	273	550	49.6%

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Table Continued...

Hough	Citizens Leadership Academy*	Charter	261	240	108.8%
Hough	Daniel E Morgan School	CMSD	234	439	53.3%
Hough	Mary B Martin School	CMSD	262	432	60.6%
Hough	Wade Park	CMSD	379	533	71.1%
Jefferson	Global Ambassadors Language Academy	Charter	125	183	68.3%
Jefferson	Garfield Elementary School	CMSD	560	289	193.8%
Kamm's	Constellation Schools: Westpark Community Middle	Charter	218	264	82.6%
Kamm's	Orchard Park Academy	Charter	10	164	6.1%
Kamm's	Constellation Schools: Westpark Community Elementary	Charter	307	360	85.3%
Kamm's	Clara E Westropp School	CMSD	306	400	76.5%
Kamm's	Douglas MacArthur	CMSD	325	475	68.4%
Kamm's	Newton D Baker School	CMSD	434	405	107.2%
Kamm's	Riverside School	CMSD	478	394	121.3%
Kamm's	Valley View Elementary School	CMSD	174	225	77.3%
Kamm's	Al Ihsan Islamic School	Private	152	189	80.4%
Kamm's	Our Lady Of Angels	Private	447	560	79.8%
Kamm's	St Mark	Private	408	524	77.9%
Kamm's	Holy Cross Lutheran School (West Park Lutheran)	Private	63	162	38.9%
Kinsman	Anton Grdina	CMSD	348	572	60.8%
Lee-Harvard	Citizens Academy Southeast*	Charter	347	463	74.9%
Lee-Harvard	Adlai Stevenson School	CMSD	411	424	96.9%
Lee-Harvard	Charles W Eliot School	CMSD	316	556	56.8%
Lee-Harvard	Whitney Young School	CMSD	85	400	21.3%
Lee-Harvard	Archbishop Lyke-St Henry Campus	Private	188	225	83.6%
Lee-Seville	Ramah Junior Academy	Private	121	171	70.8%
Mount Pleasant	Andrew J Rickoff	CMSD	374	563	66.4%
Newburgh Heights	Wash Park Comm School	Charter	218	252	86.5%
North Shore Collinwood	Bella Academy of Excellence	Charter	317	375	84.5%
North Shore Collinwood	Lakeshore Intergenerational School*	Charter	205	240	85.4%
North Shore Collinwood	Memorial School	CMSD	384	525	73.1%
North Shore Collinwood	Oliver H Perry Elementary School	CMSD	261	500	52.2%
North Shore Collinwood	St Jerome	Private	236	270	87.4%
North Shore Collinwood	St John Lutheran	Private	156	209	74.6%
Ohio City	Near West Intergenerational School*	Charter	226	283	79.9%
Ohio City	Orchard School	CMSD	466	485	96.1%
Ohio City	Paul L Dunbar Elementary School	CMSD	351	413	85.0%
Old Brooklyn	Constellation Schools: Old Brooklyn Community Middle	Charter	269	288	93.4%
Old Brooklyn	Cleveland Preparatory Academy	Charter	93	88	105.7%
Old Brooklyn	Constellation Schools: Old Brooklyn Community Element	Charter	338	360	93.9%
Old Brooklyn	Benjamin Franklin	CMSD	566	519	109.1%
Old Brooklyn	Charles A Mooney School	CMSD	429	320	134.1%
Old Brooklyn	William Rainey Harper	CMSD	0	523	0.0%
Old Brooklyn	William C Bryant Elementary School	CMSD	392	509	77.0%
Old Brooklyn	Mary Queen of Peace School	Private	285	450	63.3%
Old Brooklyn	St Leo The Great	Private	238	280	85.0%
Old Brooklyn	St Mary Byzantine	Private	169	215	78.6%
Old Brooklyn	Luther Memorial	Private	222	263	84.4%

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Table Continued...

St.Clair-Superior	Horizon Science Academy-Cleveland Middle School	Charter	370	434	85.3%
St.Clair-Superior	Willson School	CMSD	331	546	60.6%
St.Clair-Superior	St Francis	Private	224	225	99.6%
St.Clair-Superior	St Thomas Aquinas	Private	187	234	79.9%
Stockyards	Menlo Park Academy*	Charter	417	512	81.4%
Stockyards	Constellation Schools: Stockyard Community Middle	Charter	68	96	70.8%
Stockyards	Constellation Schools: Stockyard Community Elementary	Charter	275	336	81.8%
Stockyards	Clark School	CMSD	561	450	124.7%
Stockyards	Thomas Jefferson International Newcomers Academy	CMSD	419	518	80.9%
Tremont	Horizon Science Academy Denison Elementary School	Charter	129	214	60.3%
Tremont	Northeast Ohio College Preparatory School*	Charter	249	310	80.3%
Tremont	Buhrer	CMSD	384	300	128.0%
Tremont	Scranton School	CMSD	423	400	105.8%
Tremont	Tremont Montessori School	CMSD	491	725	67.7%
Tremont	Luis Munoz Marin School	CMSD	460	872	52.8%
Union-Miles	Harvard Avenue Performance Academy	Charter	326	570	57.2%
Union-Miles	Entrepreneurship Preparatory School - Woodland Hills Campus*	Charter	308	360	85.6%
Union-Miles	Village Preparatory School:: Woodland Hills Campus*	Charter	440	450	97.8%
Union-Miles	Chapelside Cleveland Academy	Charter	259	486	53.3%
Union-Miles	Charles Dickens School	CMSD	392	499	78.6%
Union-Miles	Miles School	CMSD	377	462	81.6%
Union-Miles	Miles Park School	CMSD	462	509	90.8%
Union-Miles	Nathan Hale School	CMSD	488	480	101.7%
Union-Miles	Robert H Jamison School	CMSD	348	504	69.0%
University	Cleveland Montessori	Private	98	174	56.3%
West Boulevard	Constellation Schools: Westside Charter of the Arts	Charter	411	407	101.0%
West Boulevard	Almira	CMSD	515	440	117.0%
West Boulevard	Louis Agassiz School	CMSD	286	350	81.7%
West Boulevard	Wilbur Wright School	CMSD	435	604	72.0%
West Boulevard	Our Lady Of Mt Carmel West	Private	208	270	77.0%
West Boulevard	St Ignatius	Private	308	450	68.4%
Total			43320	58428	74.1%

Enrollment Sources: ODE 2017–18 headcount enrollment data; Catholic Diocese of Cleveland.

Capacity Sources: For non-CMSD schools - ODE estimated average daily membership for the 2017–18 school year. Estimated capacity based on the highest ODE reported enrollment per grade in the last five school years; For CMSD schools - Estimated capacity using OFCC guidelines to account for factors including school size, age, and instructional space. Full methodology explained in report Appendix B; Catholic Diocese of Cleveland.

* represents charter schools that are sponsored by CMSD.