IPR RAPID RESEARCH REPORT || JULY 27, 2023



## THE CHICAGO UNIVERSAL PRE-K STUDY Pre-K Capacity and Enrollment in North Lawndale

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#### THE CHICAGO UNIVERSAL PRE-K STUDY

## "Pre-K Capacity and Enrollment in North Lawndale"

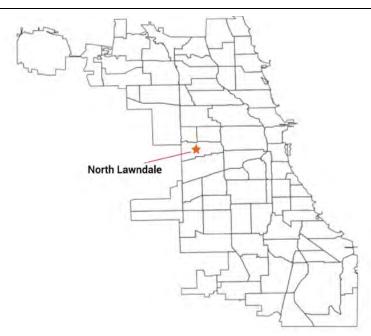
by Terri J. Sabol,<sup>1</sup> Diane Whitmore Schanzenbach,<sup>1</sup> Kathryn Gonzalez,<sup>2</sup> Tianshi Wang,<sup>1</sup> and Elana Rich<sup>1</sup> at the Institute for Policy Research, Northwestern University<sup>1</sup> and

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## **Overview of North Lawndale**

North Lawndale is located on Chicago's West Side and contains some of the highest-poverty neighborhoods in the city. In the 2021–22 school year, 24 Chicago Public Schools (CPS) were located in North Lawndale, with 17 providing prekindergarten (pre-K).<sup>1</sup> In this report, we describe trends in pre-K capacity and enrollment in North Lawndale CPS schools between 2015–16 and 2021–22.

#### Figure 1: Chicago Community Map Showing North Lawndale



<sup>&</sup>lt;sup>1</sup> The 24 CPS schools in North Lawndale include five located just outside of its boundaries that have North Lawndale residents in their catchment areas. Seventeen of the 24 schools provided free, full-day or free, half-day pre-K programming for 3- and/or 4-year-olds at any point between 2015–16 and 2021–22.

Most students attending CPS schools in North Lawndale are Black (93% in 2021–22), with 6% who are Hispanic/Latinx. Just over 2% of students are English language learners. Schools in North Lawndale are in neighborhoods where approximately one in three families lived below the federal poverty threshold, on average, in 2021–22.<sup>2</sup>

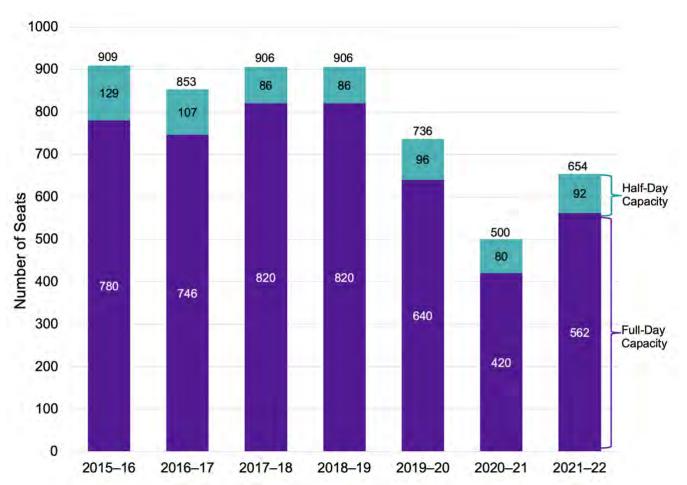
The city conducted a needs assessment and determined adequate free, full-day pre-K already existed in North Lawndale. As a result, the neighborhood schools were not targeted for further expansion through UPK.

Below, we demonstrate that the population of children under age 5 has declined in North Lawndale, as measured by the U.S. Census Bureau. Consistent with these declines in population, we find that both pre-K enrollment and capacity also declined in North Lawndale, as well as in neighboring communities.

## Pre-K Capacity in North Lawndale from 2015–16 to 2021–22

Pre-K capacity, measured by the total number of free, full-day or free, half-day seats in CPS schools, in North Lawndale held steady from 2015–16 to 2018–19, then declined in 2019–20 and 2020–21, with a slight rebound in 2021–22 (see Figure 2). In 2015–16, the community had 909 free pre-K seats in all, or 780 full-day and 129 half-day seats. While pre-K capacity remained stable between 2015–16 and 2018– 19, it fell by 19% to 736 seats in 2019–20 and falling by another 32% to just 500 seats in 2020–21 during the COVID-19 pandemic. In 2021–22, capacity rebounded somewhat to 654—lower than the pre-COVID years but higher than in 2020–21. These trends were largely driven by changes in *full-day* seats, which dropped from a high of 820 in 2017–18 and 2018–19 to 562 in 2021–22. The number of *half-day* seats was more stable, ranging from 80 to 129 seats.

<sup>&</sup>lt;sup>2</sup> See Appendix Table A1 for detailed breakdown of school characteristics from 2015–16 to 2021–22.

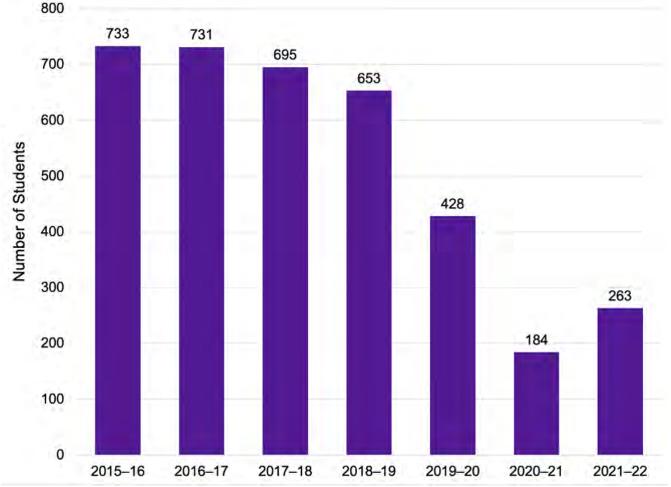


#### Figure 2: Total Capacity of Free Pre-K for 3- and 4-Year-Olds in North Lawndale by Year

Note: The figure includes the total number of free, full-day and half-day seats for 3- and 4-year-olds in North Lawndale CPS schools. Of note is the impact of the COVID-19 pandemic on the 2020–21 school year. Total capacity in 2017–18 and 2018–19 remained unchanged.

### Pre-K Enrollment in North Lawndale from 2015–16 to 2021–22

The total number of children enrolled in free, full-day pre-K in North Lawndale schools also declined through 2022 (see Figure 3). While capacity was largely stable between 2015–16 and 2018–19, the number of children enrolled in those seats declined by 11% over this period (from 733 children in 2015–16 to 653 children in 2019). Enrollment fell to 428 children in 2019–20 and dropped to 184 children during 2020–21, a COVID pandemic year, before rebounding to 263 children in 2021–22. The 2021–22 enrollment represents 61% of enrollment in the last pre-pandemic year (2019–20) and 36% of 2015–16 enrollment.



#### Figure 3: Total Free, Full-Day Enrollment for 3- and 4-Year-Olds in North Lawndale by Year

Note: The figure includes the number of 3- and 4-year-olds enrolled in free, full-day seats in North Lawndale CPS schools and all CPS schools in North Lawndale that offered free, full-day pre-K. Of note is the impact of COVID-19 on the 2020–21 school year.

In the first year of expansion the number of free, full-day seats at CPS schools offering pre-K more than tripled from 1,633 to 5,603 (Figure 1). The second year, seats in UPK expansion schools increased to 8,616. From the beginning of the expansion to 2021–22, the number of free, full-day pre-K seats increased by more than a factor of five, from 1,633 to 10,521 seats. Thus, nearly all the growth in pre-K seats across the district took place in the CPS UPK expansion schools. See Appendix Figure A1 for a graph that illustrates growth in UPK expansion schools alone.

# Kindergarten-to-Fifth Grade Enrollment in North Lawndale Showed Similar Trends to Pre-K

The decline in pre-K enrollment mirrored a similar decline in kindergarten-to-fifth-grade enrollment in North Lawndale. Figure 4 shows changes in pre-K through fifth grade enrollment in North Lawndale between 2015–16 and 2021–22. Over this time, pre-K enrollment declined the most, by 63%. But enrollment in other elementary grades also steadily decreased: Enrollment in each grade from kindergarten through fourth grade declined by at least one-third. Enrollment in fifth grade declined by a smaller percentage, 20%.

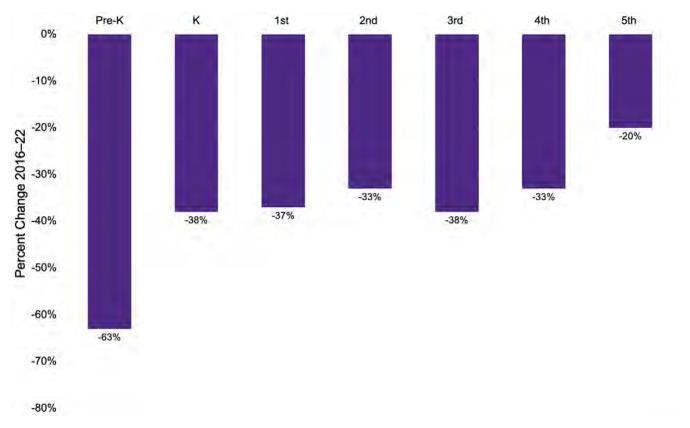


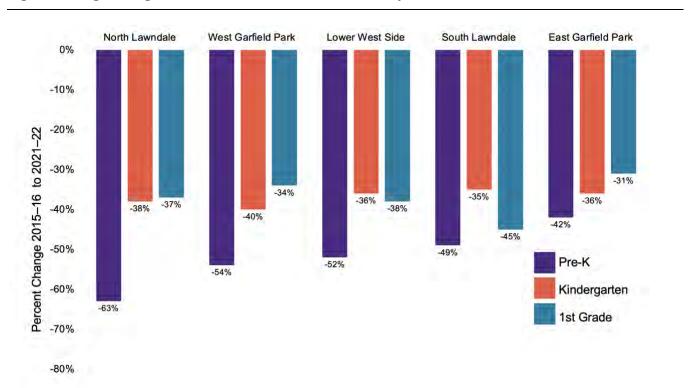
Figure 4: Percentage Decline in North Lawndale Enrollment by Grade from 2015–16 to 2021–22

Note: Includes the percentage change in the number of 3- and 4-year-olds enrolled in free pre-K seats and the number of children enrolled in kindergarten through fifth grade in all North Lawndale CPS schools between 2015–16 and 2021–22.

## **Neighboring Communities Saw Similar Enrollment Declines**

The CPS enrollment decline is not unique to North Lawndale. In Figure 5, below, we show similar declines in enrollment in pre-K, kindergarten, and first grade in four neighboring communities with similar demographic characteristics: the Lower West Side, South Lawndale, East Garfield Park, and

West Garfield Park. Enrollment declines in kindergarten and first grade ranged from 31% to 40% in neighboring communities. In each community, pre-K enrollment decreased by more than enrollment in kindergarten and first grade. While pre-K enrollment declined by a slightly larger share in North Lawndale—63% compared with between 42% and 54% in neighboring communities—all communities have experienced large declines in enrollment.

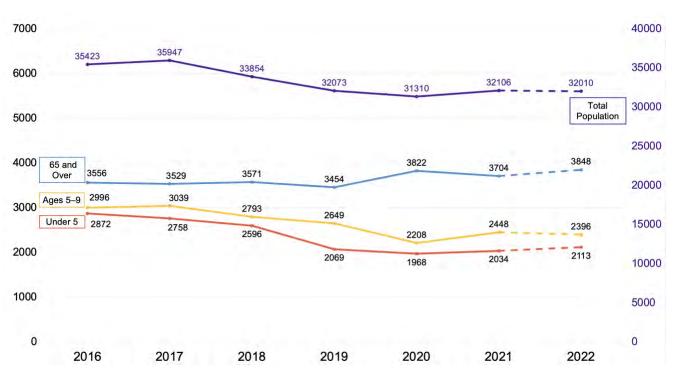




Note: Includes the percentage changes in the number of 3- and 4-year-olds enrolled in free pre-K seats and the number of children enrolled in kindergarten and first grade in CPS schools in each community.

## Population Decline in North Lawndale Using Census Data

According to census data, the decline in CPS enrollment tracks with broader population declines in North Lawndale during this time, as shown in Figure 6 below. The overall population declined by 11%, from an estimate of nearly 36,000 residents in 2017 to just over 32,000 in 2022. Declines in the population of children were larger, with the population aged 5–9 declining by 21% and the population under age 5 declining by 23%. North Lawndale's population of older residents remained steady and even increased slightly, with those aged 65 or older increasing from 10% to 12% over this period.



#### Figure 6: Total Population and Population by Age Group in North Lawndale by Year

Note: The figure includes the total population of North Lawndale based on ACS five-year estimates. ACS-5 estimates are only available through 2021, so we calculated 2022 population numbers by extrapolating the linear trend from 2010 to 2021. These calculated values in 2022 are represented in a dotted line in the figure above.

Census numbers show similar declines in population in the four communities that neighbor North Lawndale and have similar characteristics—the Lower West Side, East Garfield Park, West Garfield Park, and South Lawndale.

Note that the Census Bureau reports five-year moving averages of data (i.e., the 2017 population is the average population over 2013–17, while the 2021 population is the average over 2017–21.) When a population is declining, the moving average will understate the actual decline by including the earlier, higher estimates. We illustrate this in Appendix Figure A1, which shows how enrollment declines in CPS data compare when presented as annual data vs. five-year moving average data. This unavoidable feature of census data has an impact when we calculate enrollment rates, which are the ratio of CPS annual enrollment in the numerator to the census' five-year moving average of community population estimates in the denominator. If the actual annual population has declined by more than the five-year moving average, then the denominator will be artificially inflated, and the calculated enrollment rate will be lower than the true rate.

Figure 7 shows estimated 4-year-old, pre-K enrollment rates in North Lawndale and its four neighboring communities between 2016 and 2021. Enrollment rates are calculated as the number of 4-year-olds attending full-day pre-K in CPS schools divided by the estimated number of 4-year-olds in the community.<sup>3</sup> Using this approach, more than 60% of North Lawndale 4-year-olds were enrolled in free, full-day pre-K in 2016. Enrollment in North Lawndale, along with the other neighboring communities, fell significantly in 2020–21 due to the COVID-19 pandemic before rebounding in 2022.

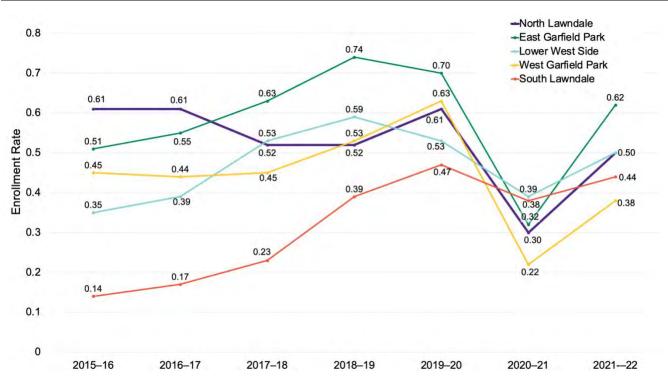


Figure 7: Enrollment Rates of 4-Year-Olds in Free, Full-Day Pre-K from 2015–16 to 2021–22

Note: The 4-year-old pre-K enrollment rates were calculated as the ratio of 4-year-old pre-K enrollment in all schools in each community area from CPS administrative data to estimates of the total number of 4-year-olds in the community area based on the ACS data. Of note is the impact of the COVID-19 pandemic on the 2020–21 school year. ACS population data are not available for 2022. We calculated the total number of 4-year-olds in 2022 based on 2016–21 estimates of the total number of 4-year-olds.

## Conclusion

North Lawndale pre-K has experienced a decline in both pre-K capacity and enrollment from 2015–16 to 2021–22. The COVID-19 pandemic appears to have exacerbated both trends in pre-K capacity and enrollment, although a partial rebound took place in 2021–22. The decline in pre-K enrollment was similar to the more gradual declines observed during this time for kindergarten and elementary

<sup>&</sup>lt;sup>3</sup> The census population data are only available in age bins. We estimate the number of 4-year-olds by taking the estimated population aged 0–4 and dividing it by 5. Estimating it in other ways did not meaningfully change the enrollment rates.

enrollment in North Lawndale schools. The four communities neighboring North Lawndale with similar demographic characteristics also experienced similar declines in enrollment over this period. These patterns reflect broader demographic shifts in North Lawndale and neighboring communities that have experienced population decline since 2015–16, especially among children under the age of 10.

## **APPENDIX**

## **Description of Methods**

The tables and figures in this report are based on analysis of city-wide administrative data from Chicago Public Schools (CPS). Our analysis includes 25 schools in the North Lawndale community in 2015–16 to 2021–22, including five schools with catchment areas that include North Lawndale residents, and one school that closed in this time period.

## **Data Sources**

We established a data use agreement with CPS. Our study draws from existing administrative and census data from 2015–23, including:

- UPK/school-based pre-K expansion year data from CPS
- Enrollment and capacity on school-based pre-K programs for 3- and 4-year-olds from CPS
- Enrollment in first to fifth grades from CPS
- Five-year estimates for community characteristics from the U.S. Census Bureau's American Community Survey (ACS)

Academic Year	Number of Schools <sup>4</sup>	School Characteristics <sup>5</sup>				Neighborhood Characteristics <sup>6</sup>
		Black Enrollment (%)	Hispanic/ Latinx Enrollment (%)	English Learners <sup>7</sup> (%)	White Enrollment (%)	Poverty Rate (%)
2015–16	25	94.4	4.7	3.1	0.2	42.0
2016–17	25	94.2	4.7	2.7	0.2	37.5
2017–18	25	94.4	4.9	2.4	0.3	34.9
2018–19	25	93.7	5.3	2.4	0.3	30.6
2019–20	25	93.7	5.5	2.4	0.2	28.6
2020–21	24	93.2	6.0	2.2	0.3	31.2
2021–22	24	93.0	6.0	2.3	0.3	31.2
All Years	197	93.6	5.4	2.4	0.3	33.5

#### Table A1: School Characteristics of Chicago Public Schools in North Lawndale

<sup>&</sup>lt;sup>4</sup> These include five schools located in the North Lawndale catchment area. One school closed after the 2019–20 school year.

<sup>&</sup>lt;sup>5</sup> School characteristics are based on annual demographic CPS data.

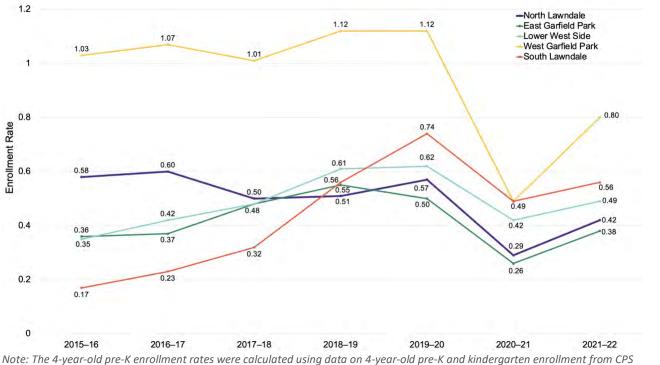
<sup>&</sup>lt;sup>6</sup> School neighborhood characteristics are based on ACS data. The school neighborhood poverty rate was determined based on the poverty rate in the school's census tract, which is available through 2021. For 2021–22 and 2022–23, we report the poverty rate information from 2021, the most recent year of data available. For one school, we use the most recent data we have from 2018–19.

<sup>&</sup>lt;sup>7</sup> The number of schools with information on the percentage of students who are English learners in each year ranged from 13 to 24 schools. Table A1 reports information for schools with non-missing information.





Note: This figure illustrates the difference in observed declines using annual data and five-year moving averages from CPS pre-K enrollment data. The solid blue line is actual pre-K enrollment in North Lawndale. The dashed orange line calculates a five-year moving average from the same data so that the 2016 estimate is calculated as the average enrollment for 2012–16, and the 2023 estimate is the average for 2019–23. The decline is understated using the 5-year moving average when compared with the annual enrollment data.



#### Figure A2: Yearly Enrollment Rates Using Next-Year Kindergarten Estimates

Note: The 4-year-old pre-K enrollment rates were calculated using data on 4-year-old pre-K and kindergarten enrollment from CPS administrative data. Kindergarten enrollment in each year is used as an estimate of the total number of 4-year-olds in the previous year.

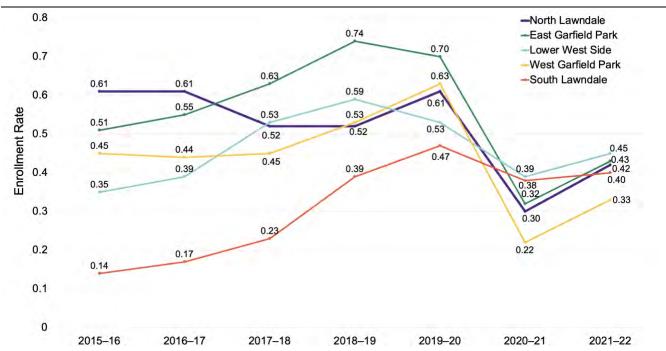


Figure A3: Yearly Enrollment Rates Using an Adjusted ACF Population Prediction

Note: The 4-year-old pre-K enrollment rates were calculated using data on 4-year-old pre-K enrollment from CPS administrative data and estimates of the total number of 4-year-olds based on ACS data. ACS population data is not available for 2022. We calculated the total under-5 population in 2022 based on 2010–21 estimates of the total 5-and-under population and then adjusted it to estimate the total population of 4-year-olds.

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