

New Schools in the United States

A Quantitative Review of New Public Schools Opened Over the Last Three Decades

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Background & Overview

- In recent decades, the creation of new public schools has been an important initiative to improve the nation's K-12 education system
- The development of a new school can take many forms, from the construction of an elementary school to address population growth, to a collection of new, small high schools that replace a large failing school, to a charter school experimenting with new methods of education
- State and local governments have invested significant time and money in new school creation, often supported by philanthropy
- However, we are unaware of a comprehensive study of the number, type, and characteristics of new public schools opened in recent years

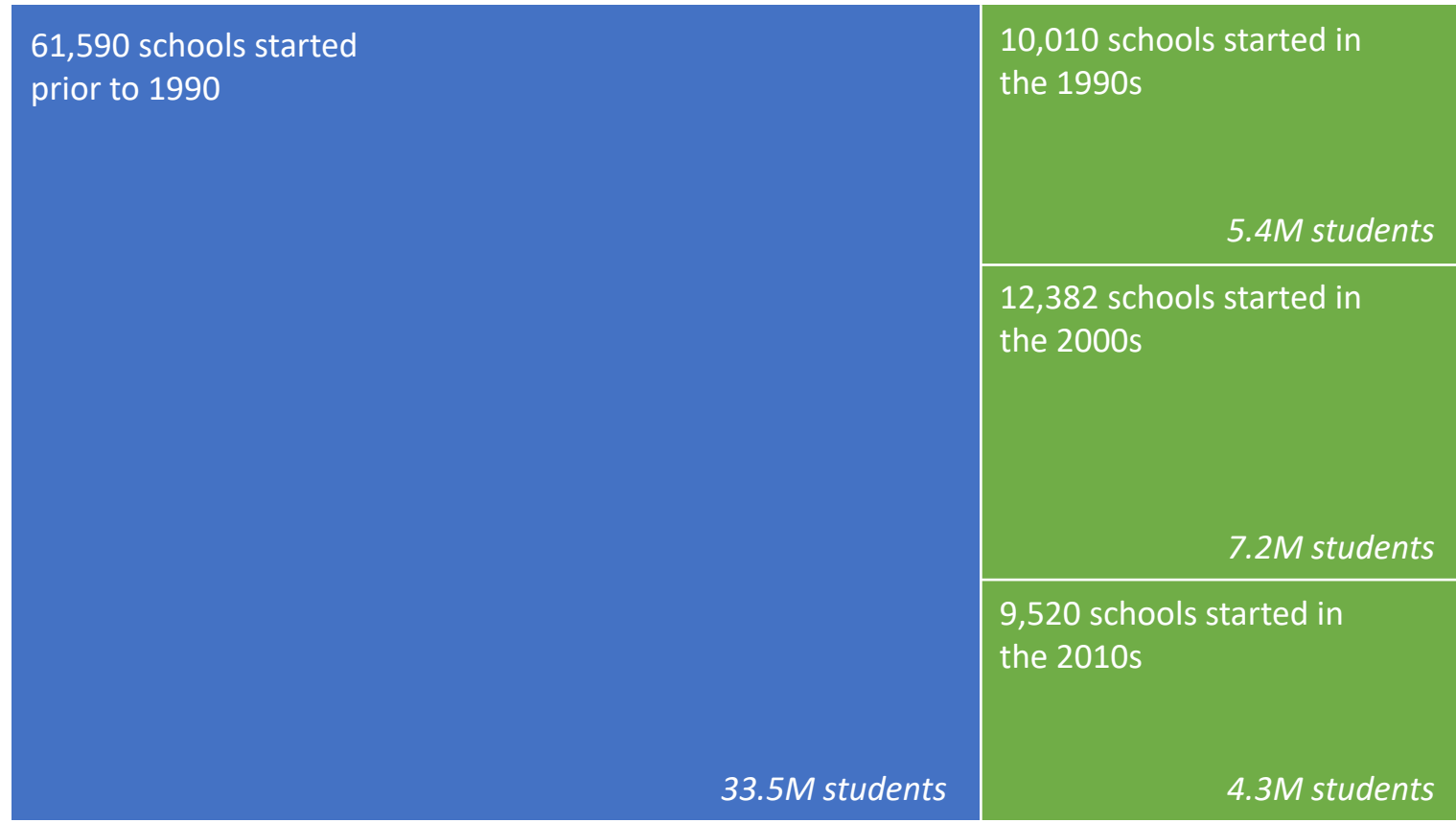


The goal of this research project is to provide a comprehensive, quantitative review of new public schools opened in the United States over the past three decades

- National Overview
- New York City Case Study
- Appendix

As of 2019-20, nearly 17 million children, one-third of all public school students, attended schools that were started in the last 30 years.

93,502 public elementary and secondary schools in 2019-20
(50.4 million students)

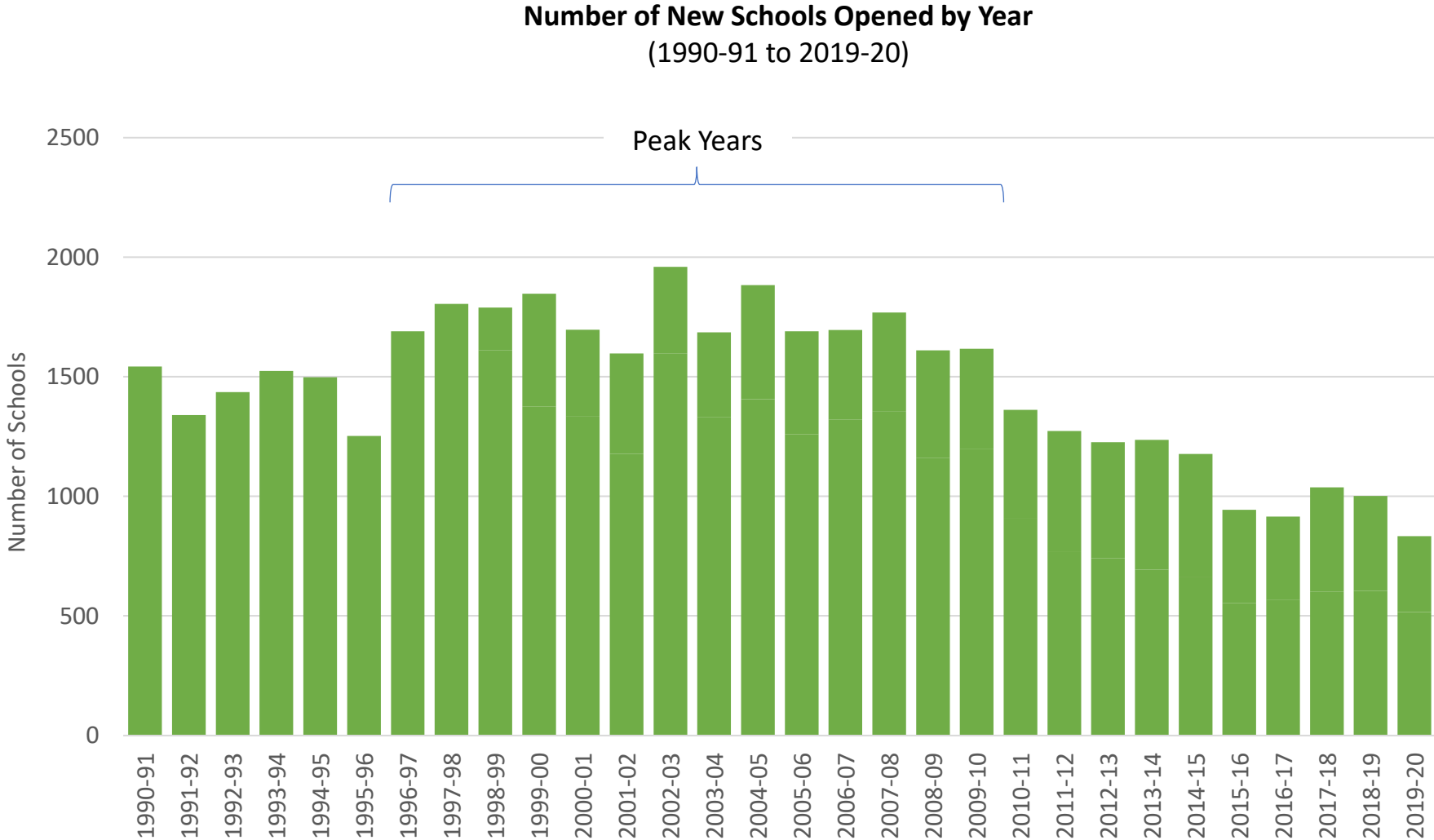


61,590 existing schools started prior to 1990
(33.5 million students)

31,912 new schools
(16.9 million students)

Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

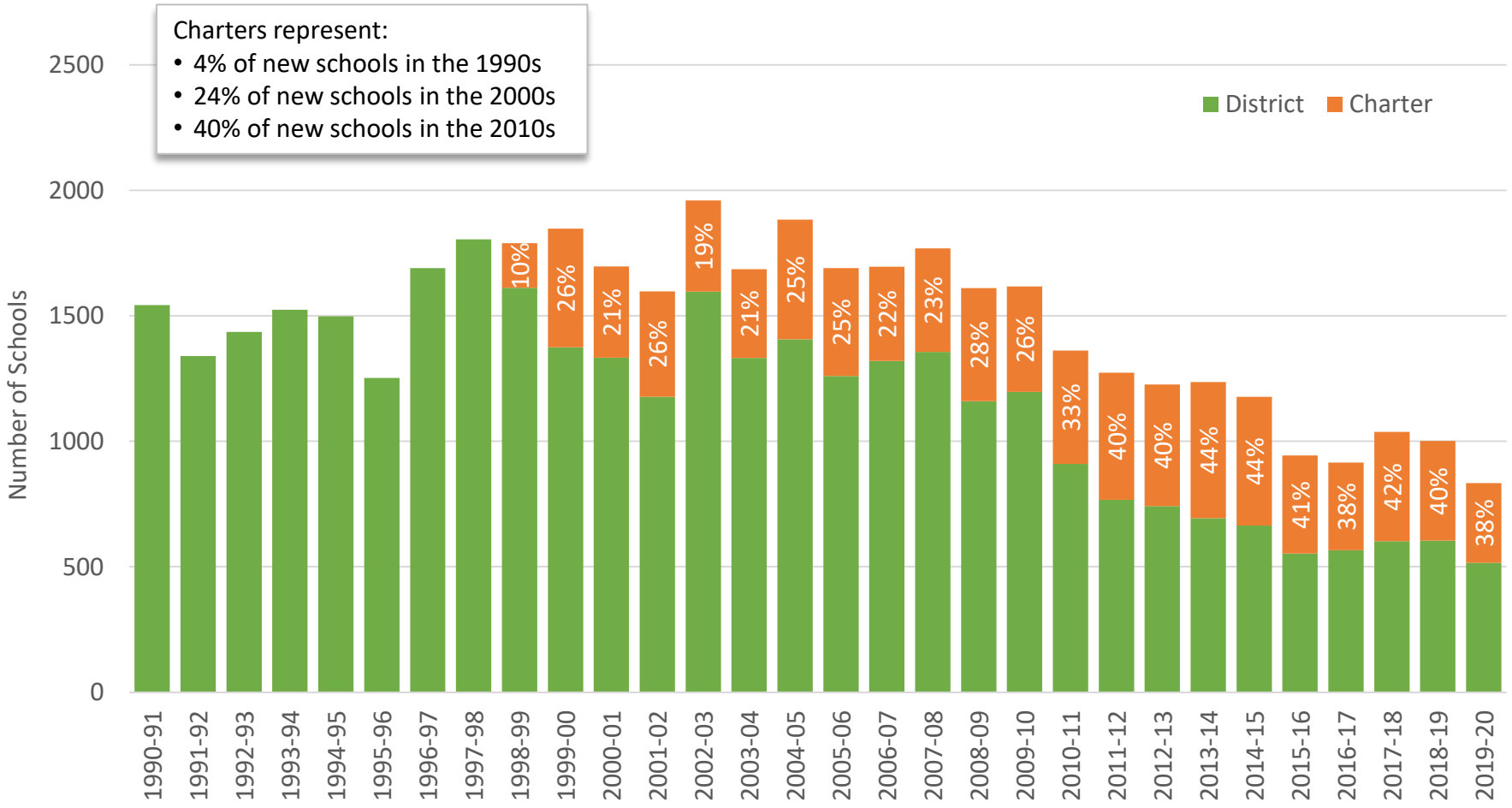
Over the last three decades, the peak years of new school creation were between 1996 and 2010.



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in the year shown that had no students enrolled the year prior and no students enrolled in 1989-90. If a school opens multiple times by this definition, it is considered to be a new school in the year it first opened.

NCES began tracking charter schools in 1998-99; in recent years, charters have accounted for approximately 40% of all new public schools.

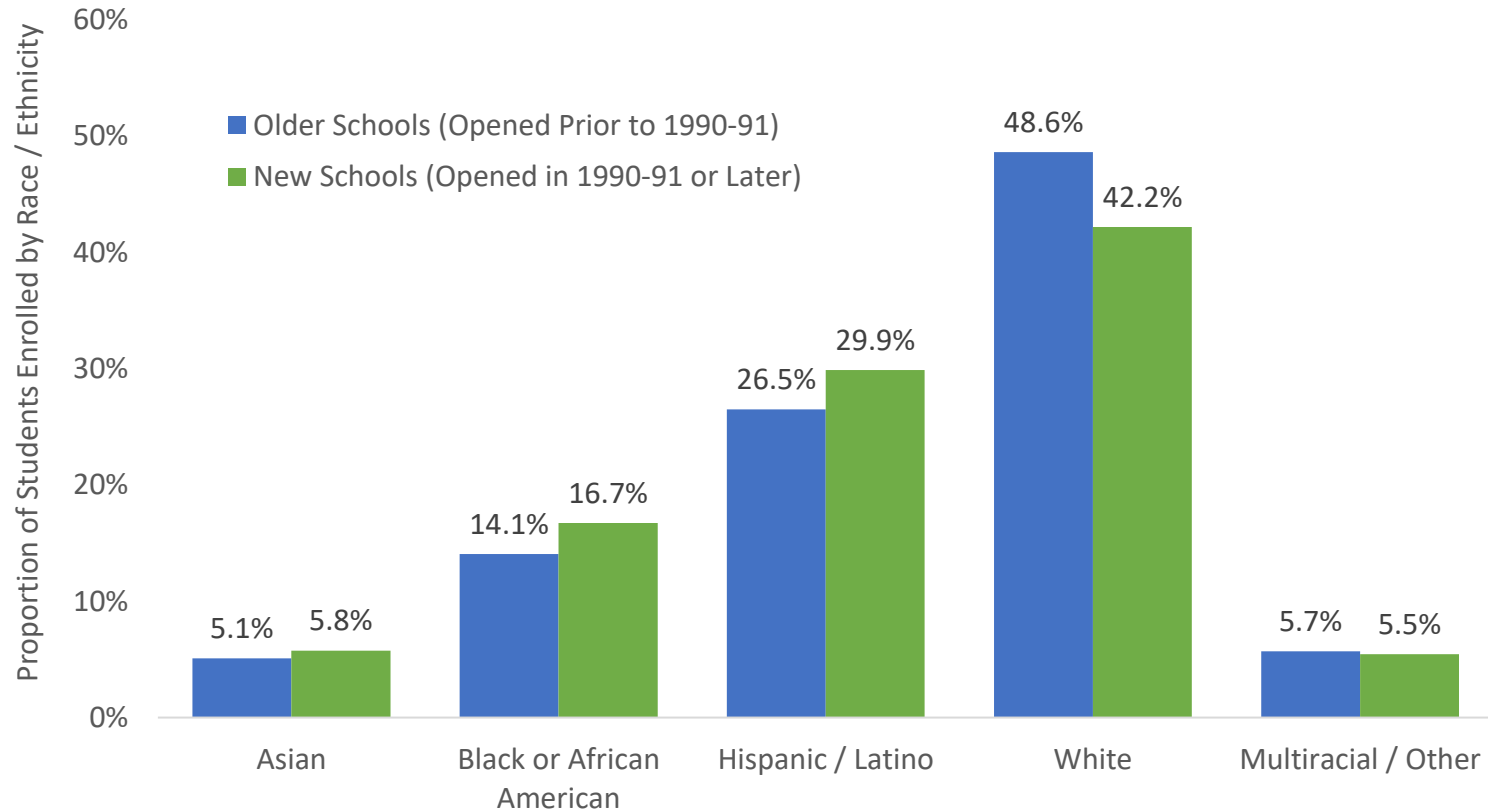
Number of New Schools Opened by Year
(1990-91 to 2019-20)



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in the year shown that had no students enrolled the year prior and no students enrolled in 1989-90. If a school opens multiple times by this definition, it is considered to be a new school in the year it first opened.

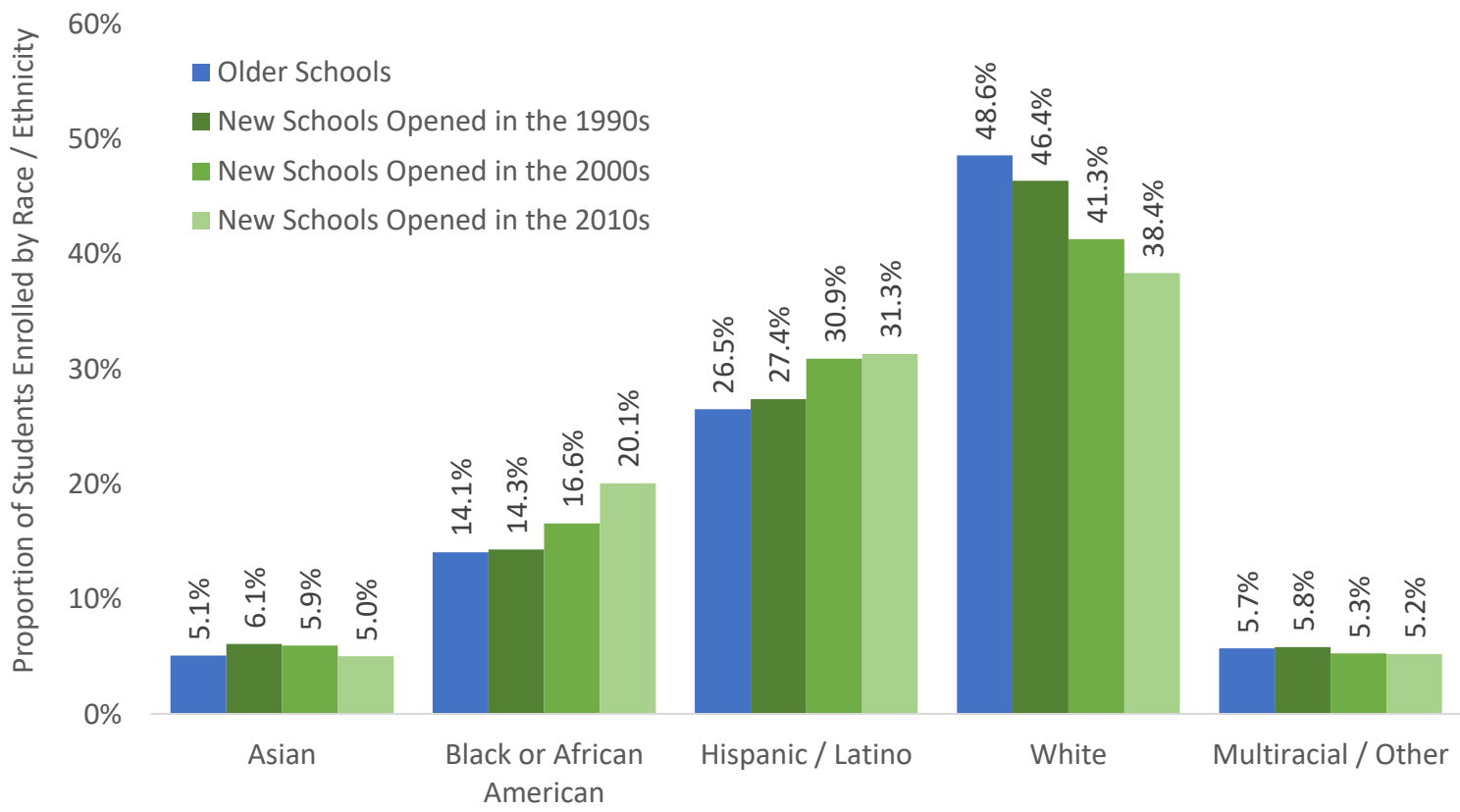
As of 2019-20, students enrolled in new schools are more likely to be Black or Hispanic and less likely to be White.

Proportion of Students Enrolled by Race / Ethnicity (2019-20)



This trend is especially true for schools started more recently. New schools opened in the last decade have the lowest proportion of White students.

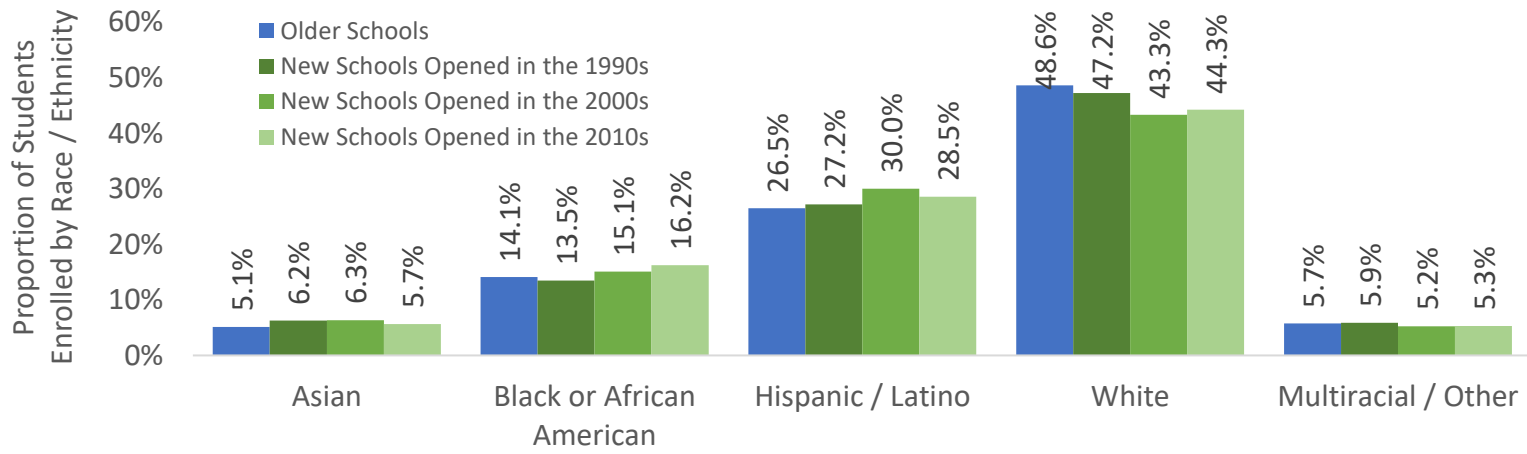
Proportion of Students Enrolled by Race / Ethnicity (2019-20)



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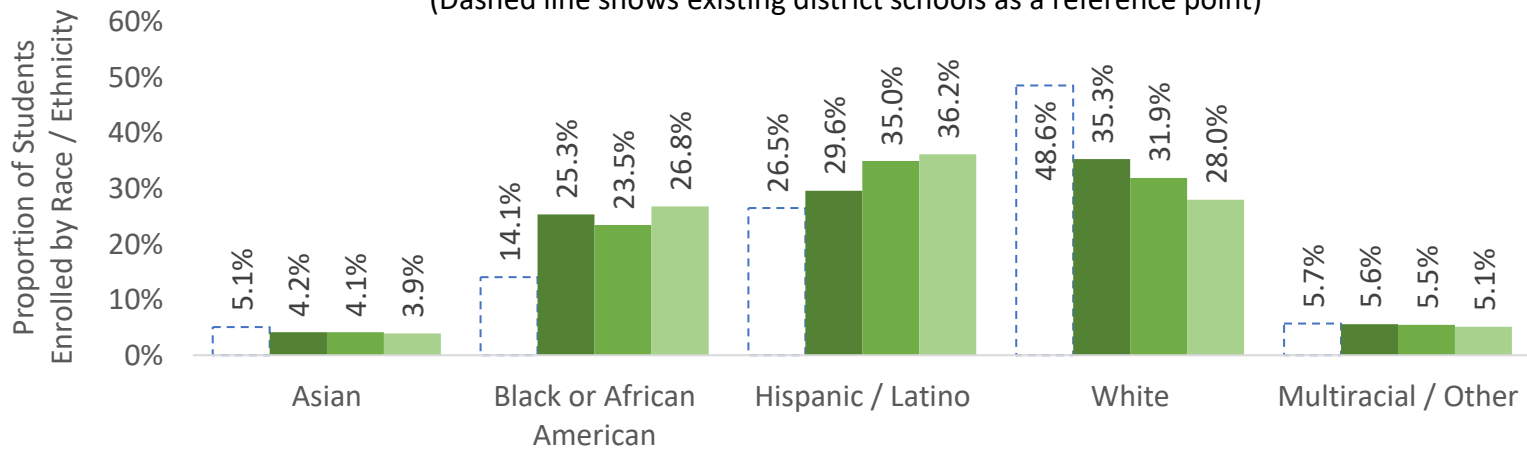
These trends are largely driven by the growth of charter schools, which tend to enroll a higher share of Black and Hispanic students than district schools.

District Schools (2019-20)



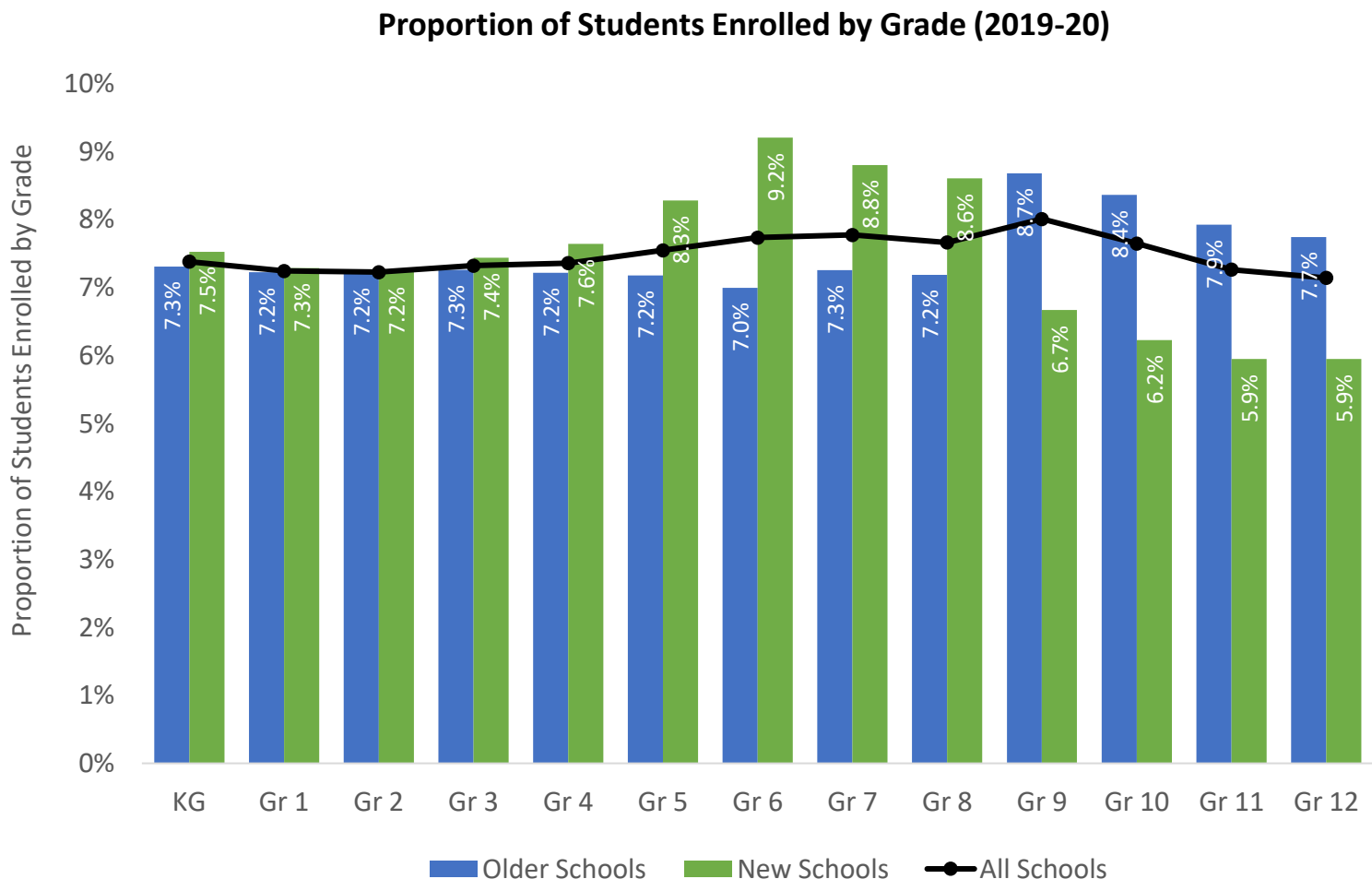
Charter Schools (2019-20)

(Dashed line shows existing district schools as a reference point)



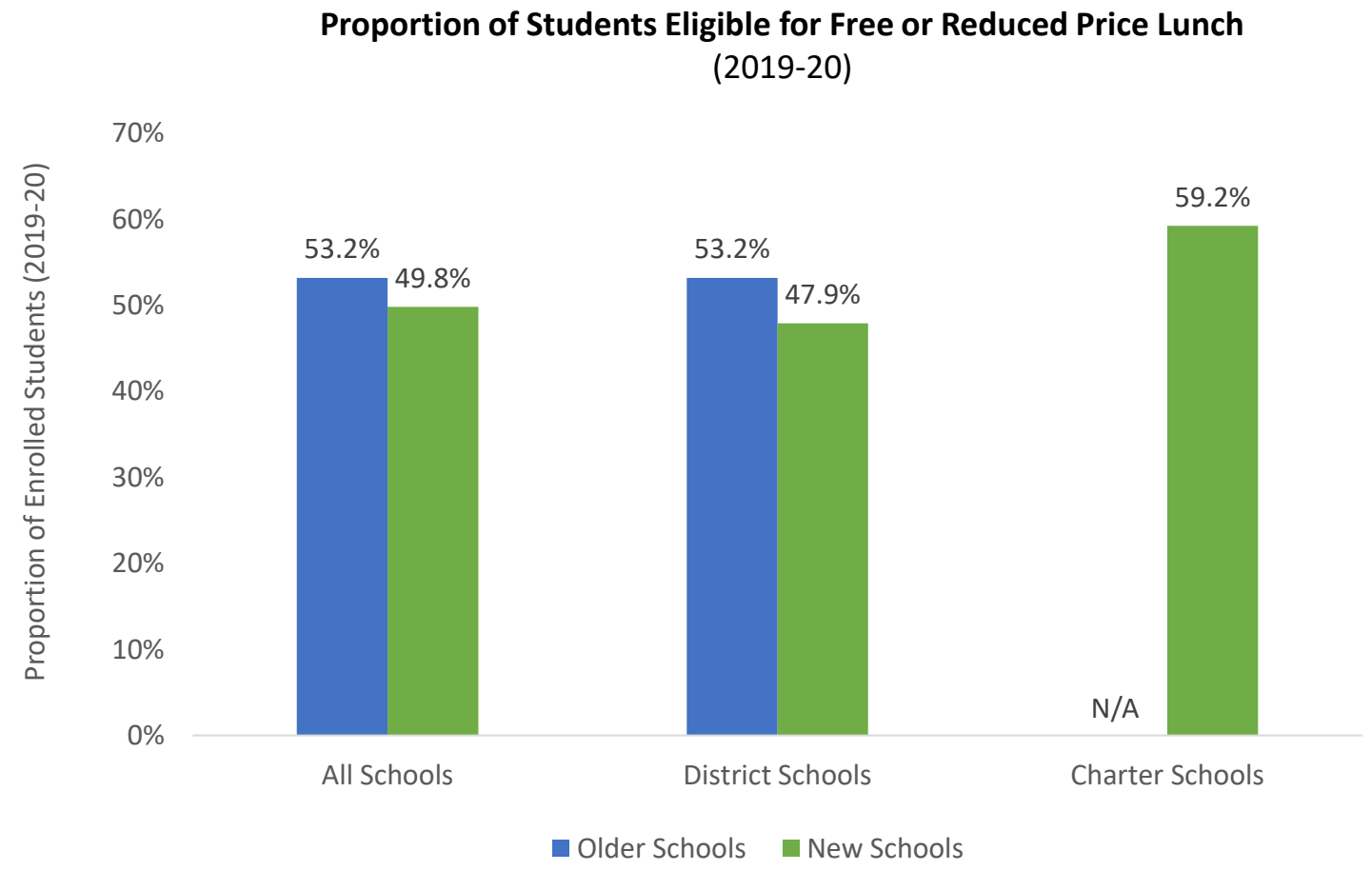
Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

Compared to older schools, new schools are more likely to enroll middle school students and less likely to enroll high school students.



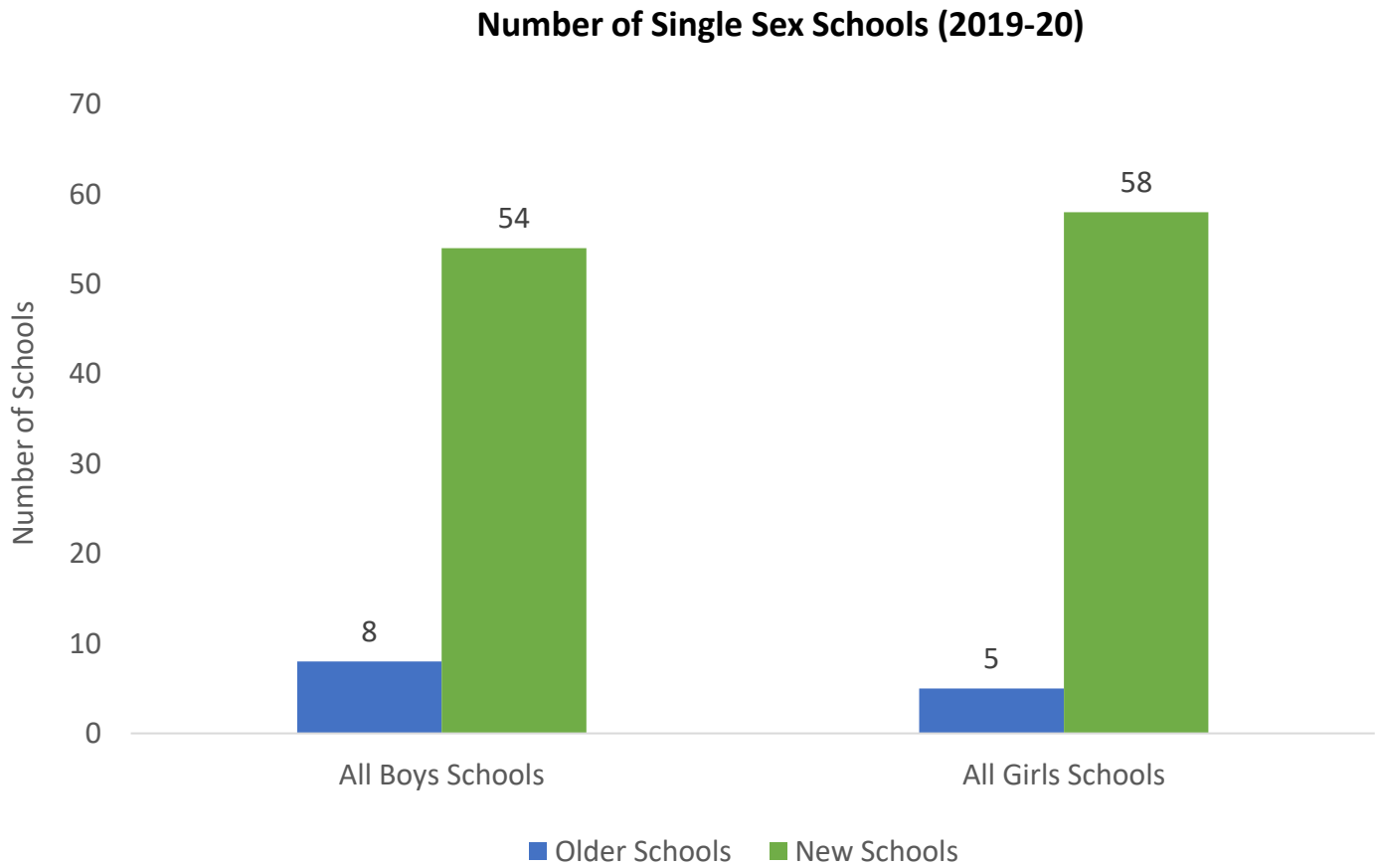
Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Graph excludes students in PK, who represent 3.2% of new school enrollment, 2.4% of existing school enrollment, and 2.7% of all school enrollment.

Compared to older schools, new schools are less likely to enroll students who qualify for free or reduced-price lunch, a trend driven by district schools.



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Limited to schools where lunch status is reported.

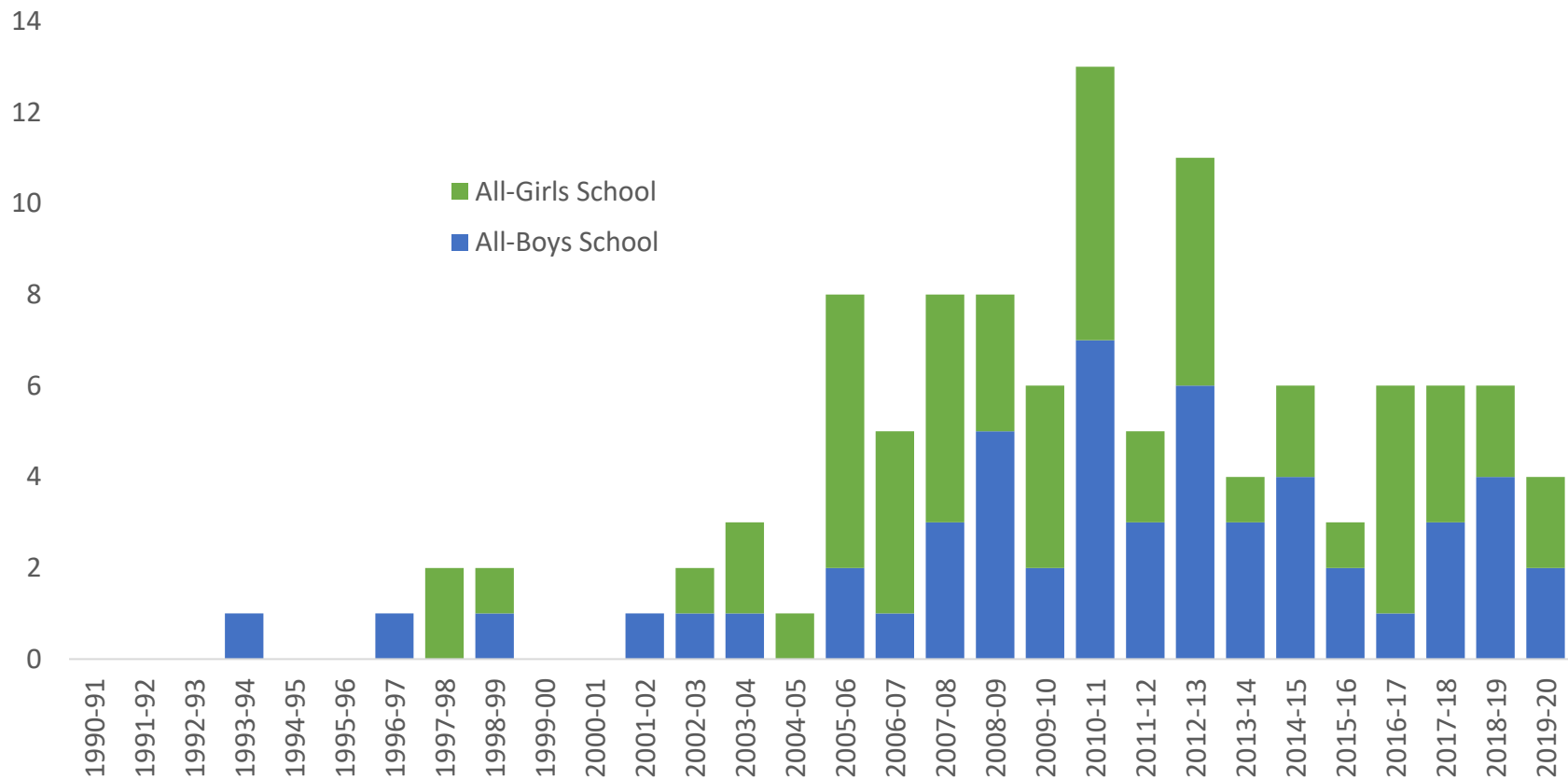
There are 125 single-sex public schools in the United States, nearly all of which are new since 1989-90.



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. An all-boys school is defined as one with at least 100 students, of whom 99% or more are male. An all-girls schools is defined as one with at least 100 students, of whom 99% or more are female.

Of the 125 single-sex public schools currently open in the United States, most opened in the past 15 years.

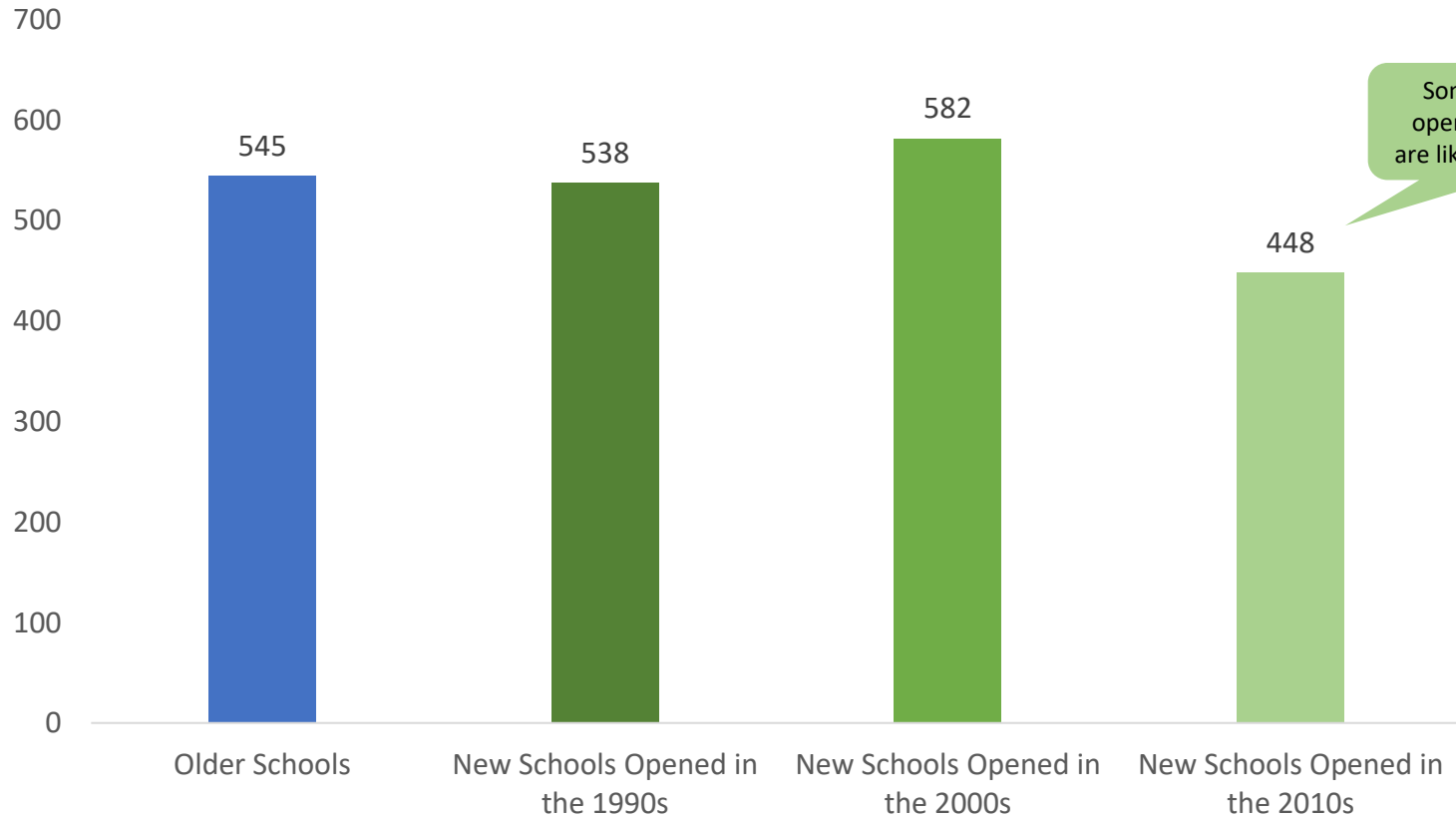
Number of New Single-Sex Schools by Year Opened
(1990-91 to 2019-20)



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. An all-boys school is defined as one with at least 100 students, of whom 99% or more are male. An all-girls schools is defined as one with at least 100 students, of whom 99% or more are female. The year the school opened in defined as the first year after 1989-90 when students were enrolled. This chart excludes schools that closed prior to 2019-20. The graph excludes 8 all boys schools and 5 all girls schools that were open prior to 1990-91 (though these schools may or may not have been single-sex schools at that time).

Nationally, new schools started over the past 30 years enroll a similar number of students, on average, as older schools.

Average Number of Students per School (2019-20)



Some new schools opened in the 2010s are likely still phasing in

# of Schools:	61,590	10,010	12,382	9,520
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Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

There are more new schools – opened over the past 30 years – in New York City than in the next three districts combined.

25 School Districts with the Most New Schools Opened

Sorted



District Name	State	Students in 1990	Students in 2020	% Change in Students	Schools in 1990	Schools Closed	Schools Opened	Schools in 2020	% Change in Schools	% New Schools
NEW YORK CITY PUBLIC SCHOOLS	NY	927,125	1,063,504	15%	987	196	1,050	1,841	87%	57%
Los Angeles Unified	CA	609,383	603,459	-1%	628	25	427	1,030	64%	41%
CLARK COUNTY SCHOOL DISTRICT	NV	111,339	369,515	232%	134	9	286	411	207%	70%
MIAMI-DADE	FL	279,216	347,141	24%	270	23	249	496	84%	50%
City of Chicago SD 299	IL	407,400	349,644	-14%	598	184	242	656	10%	37%
BROWARD	FL	148,739	269,774	81%	169	10	168	327	93%	51%
HOUSTON ISD	TX	202,892	244,072	20%	256	64	166	358	40%	46%
HILLSBOROUGH	FL	119,810	223,004	86%	146	16	160	290	99%	55%
ORANGE	FL	95,989	209,641	118%	112	11	150	251	124%	60%
DALLAS ISD	TX	135,776	188,439	39%	200	46	145	299	50%	48%
District of Columbia Public Schools	DC	81,301	89,019	9%	183	89	135	229	25%	59%
Wake County Schools	NC	62,654	178,312	185%	83	2	132	213	157%	62%
Philadelphia City SD	PA	189,451	194,966	3%	254	79	131	306	20%	43%
PALM BEACH	FL	98,705	196,202	99%	104	7	130	227	118%	57%
School District No. 1 in the county of Denver and State of C	CO	58,299	91,966	58%	113	35	129	207	83%	62%
Shelby County	TN	120,789	122,581	1%	167	63	124	228	37%	54%
Detroit Public Schools Community District	MI	175,329	85,432	-51%	259	190	120	189	-27%	63%
Charlotte-Mecklenburg Schools	NC	75,903	168,544	122%	109	20	117	206	89%	57%
NORTHSIDE ISD	TX	49,386	117,245	137%	54	5	94	143	165%	66%
Cleveland Municipal	OH	69,220	57,066	-18%	126	59	94	161	28%	58%
San Diego Unified	CA	119,314	124,692	5%	154	18	93	229	49%	41%
Minneapolis Public School District	MN	36,067	44,865	24%	53	20	91	124	134%	73%
ST. PAUL PUBLIC SCHOOL DISTRICT	MN	31,519	55,197	75%	50	12	90	128	156%	70%
Gwinnett County	GA	62,241	185,902	199%	58	3	87	142	145%	61%
Columbus City School District	OH	63,680	68,995	8%	134	39	86	181	35%	48%

Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

Note: New schools include only those that are still open in 2019-20. Charter schools have been assigned to their geographic district based on their address.

Agenda

- National Overview
- New York City Case Study
- Appendix

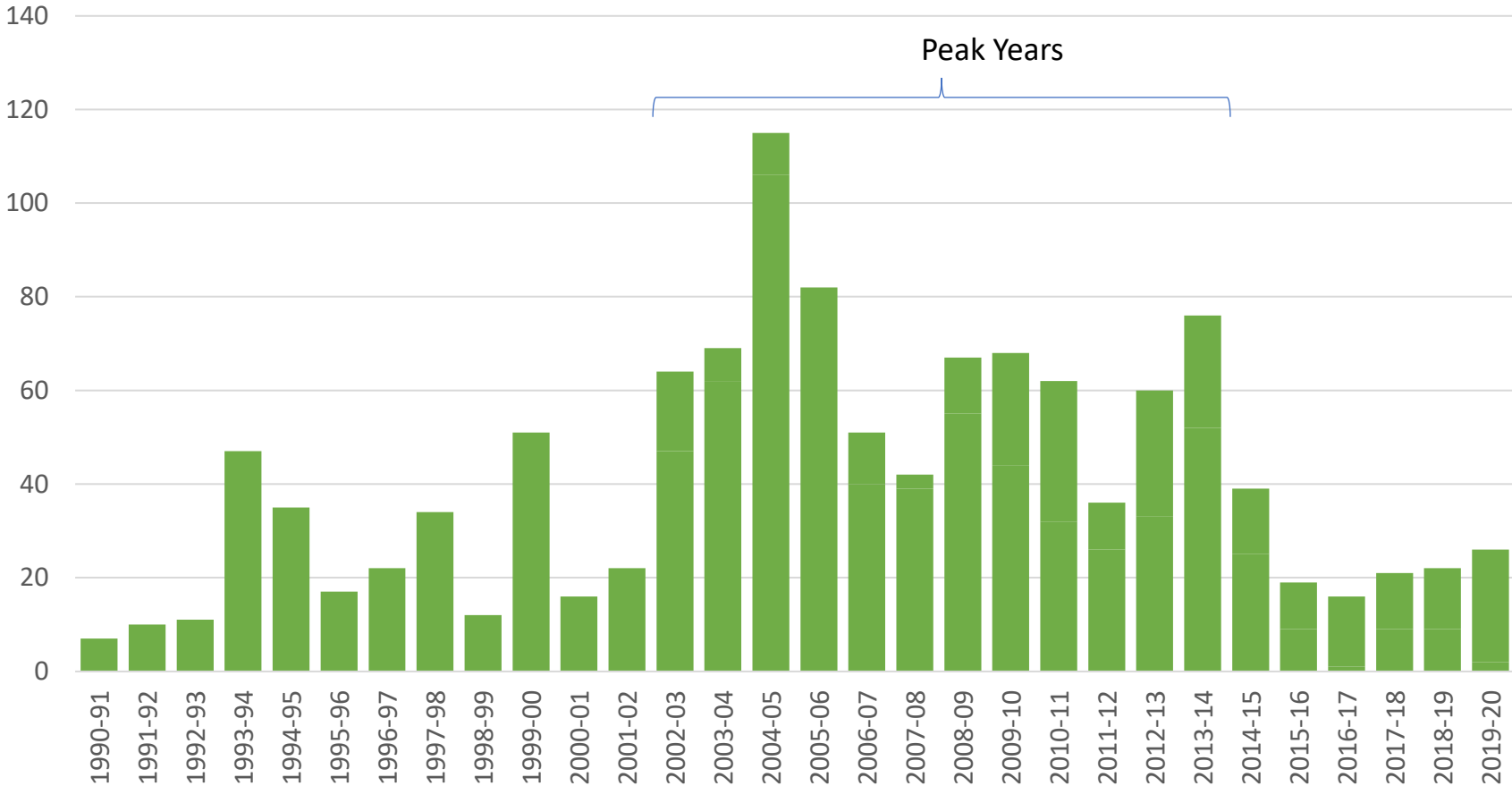
In New York City, 57% of schools – enrolling 45% of students – were opened in the last three decades.

Schools and Students
(New York City, 2019-20)

	Schools	% of Schools	Students	% of Students
New School Total	1,050	57%	474,960	45%
New Schools (1990s)	170	9%	89,962	8%
New Schools (2000s)	513	28%	239,971	23%
New Schools (2010s)	367	20%	145,027	14%
Older Schools	791	43%	588,544	55%
Total	1,841	100%	1,063,504	100%

In New York City, the peak years for new school creation were between 2002-03 and 2013-14.

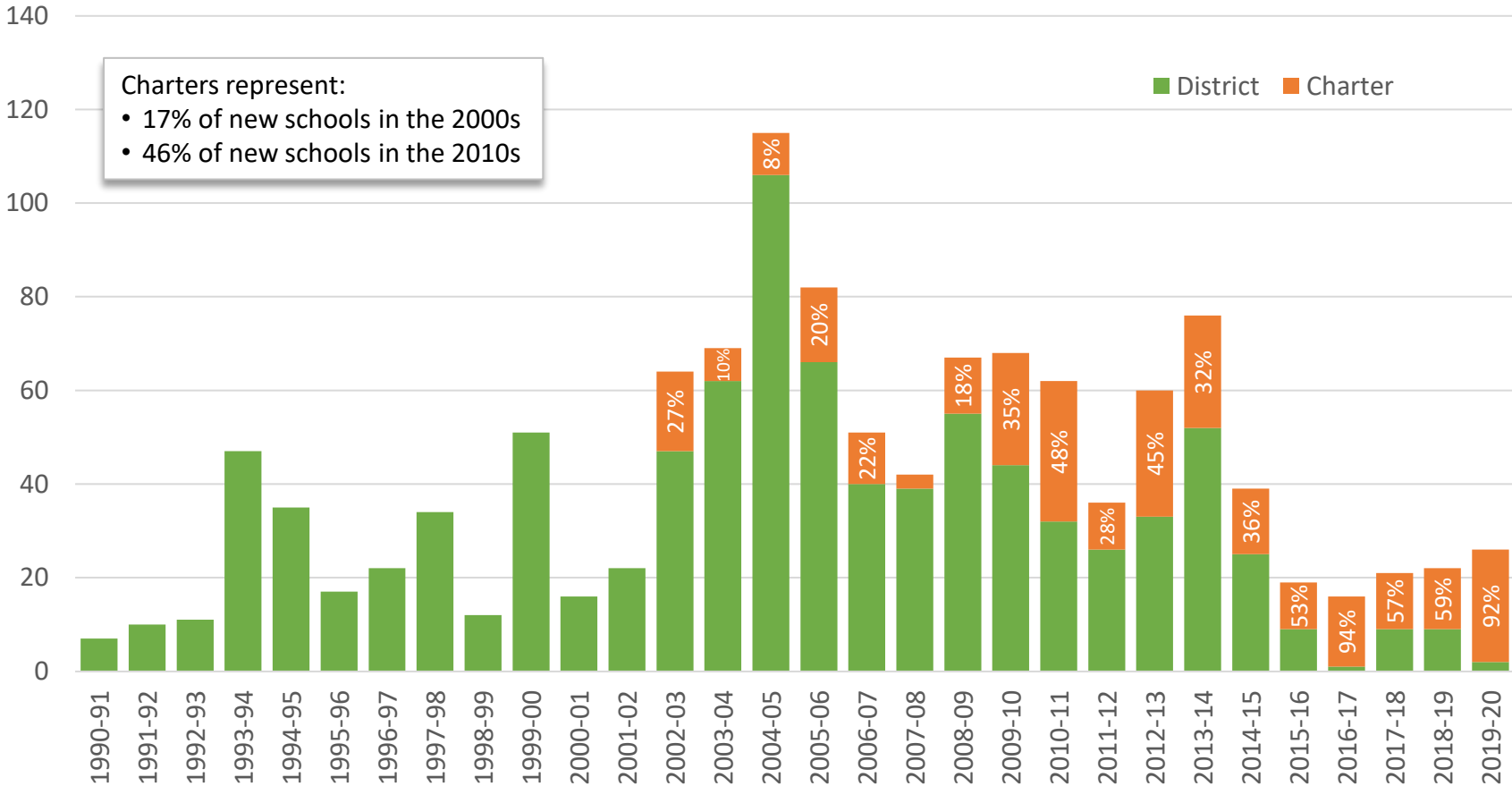
Number of New Schools in New York City Opened by Year
(1990-91 to 2019-20)



Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in the year shown that had no students enrolled the year prior and no students enrolled in 1989-90. If a school opens multiple times by this definition, it is considered to be a new school in the year it first opened.

Through 2014-15, the majority of new schools opened in New York City were district schools; since 2015-16, most new schools have been charters.

Number of New Schools in New York City Opened by Year
(1990-91 to 2019-20)

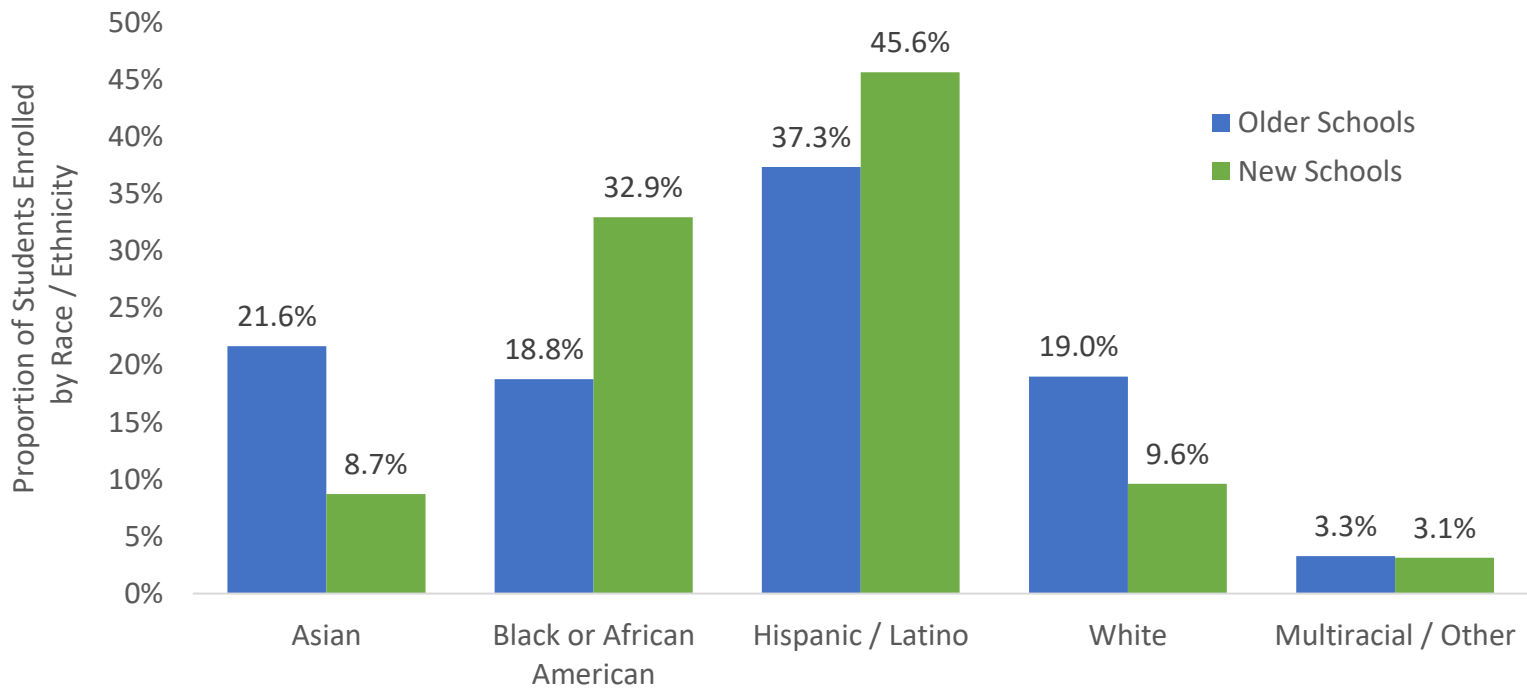


Charters represent:
 • 17% of new schools in the 2000s
 • 46% of new schools in the 2010s

Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in the year shown that had no students enrolled the year prior and no students enrolled in 1989-90. If a school opens multiple times by this definition, it is considered to be a new school in the year it first opened. Some charter schools in New York City opened prior to 2002-03, but it appears New York State did not begin submitting charter school data to NCES until 2002-03.

As of 2019-20, students enrolled in new schools in New York City were more likely to be Black or Hispanic and less likely to be Asian or White.

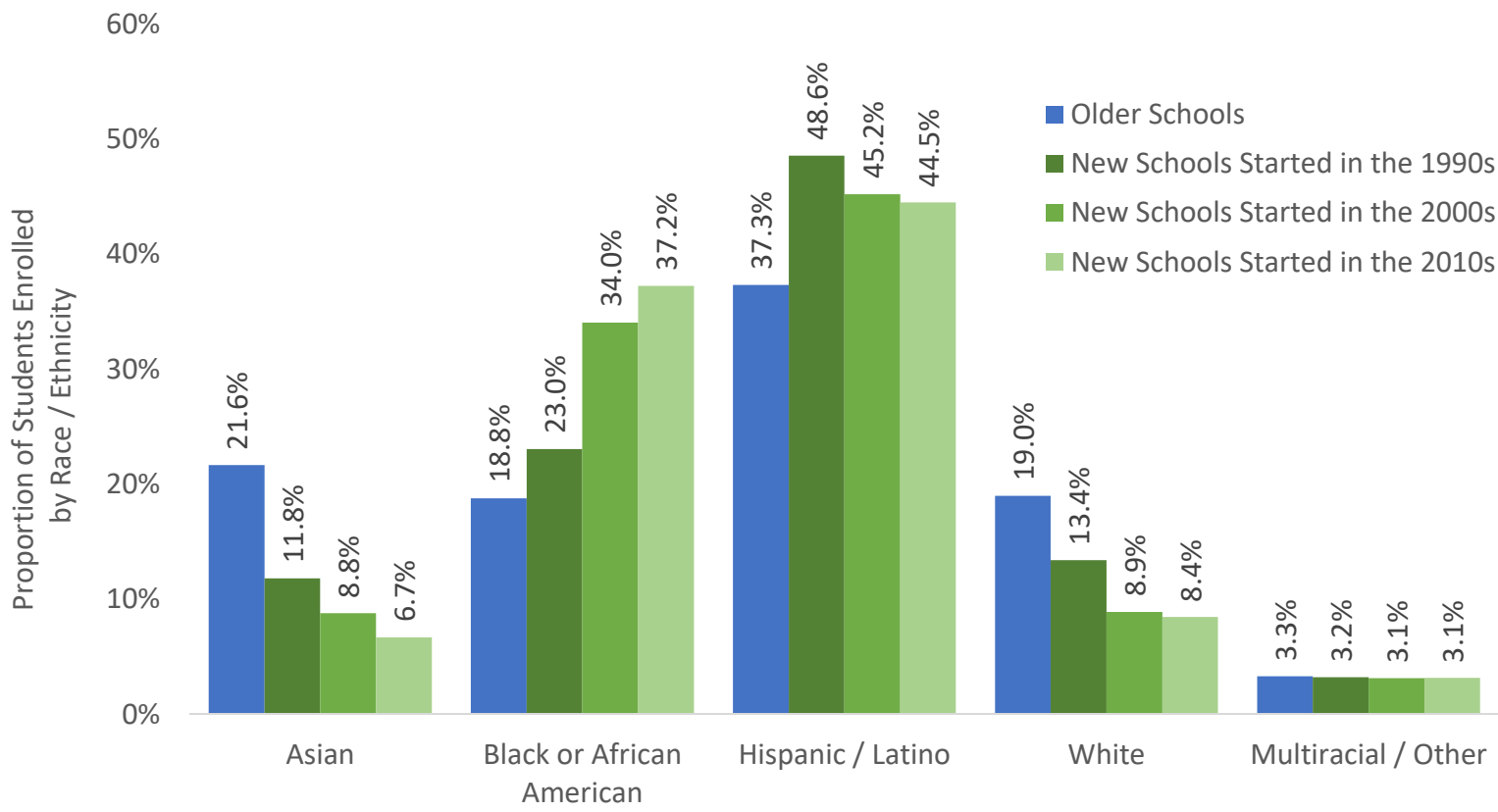
Proportion of Students Enrolled by Race / Ethnicity
(New York City, 2019-20)



Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

More recently opened schools have a higher share of Black students and a lower share of White and Asian students than schools started in prior decades.

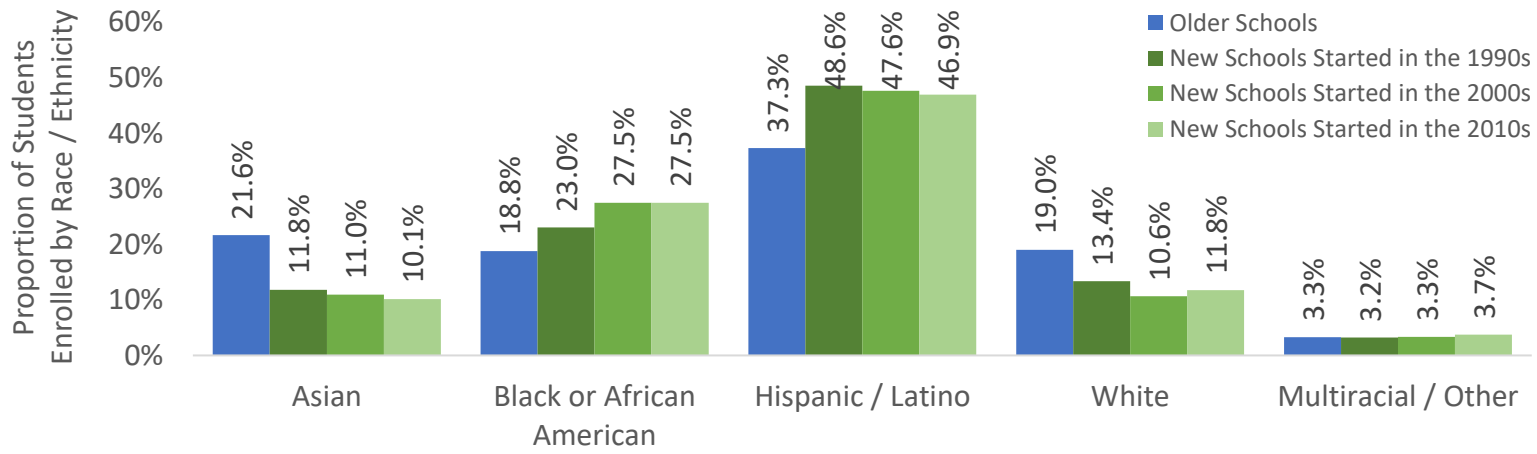
Proportion of Students Enrolled by Race / Ethnicity
(New York City, 2019-20)



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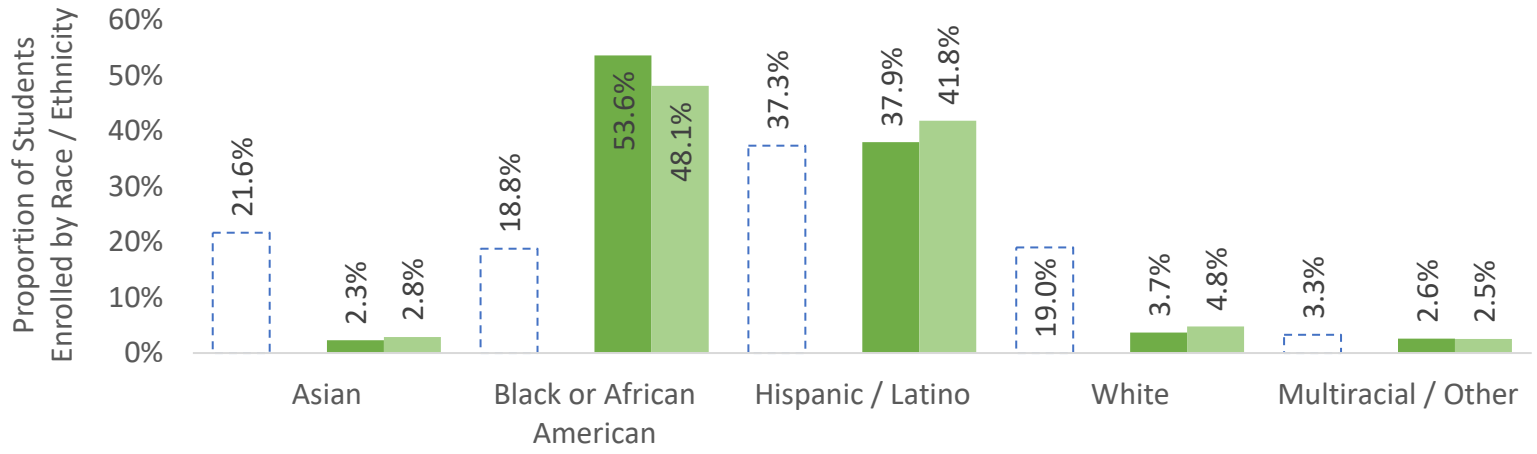
New district schools enroll a higher share of Black and Latino students than older schools; charters have a substantially higher share of Black students.

District Schools (NYC, 2019-20)



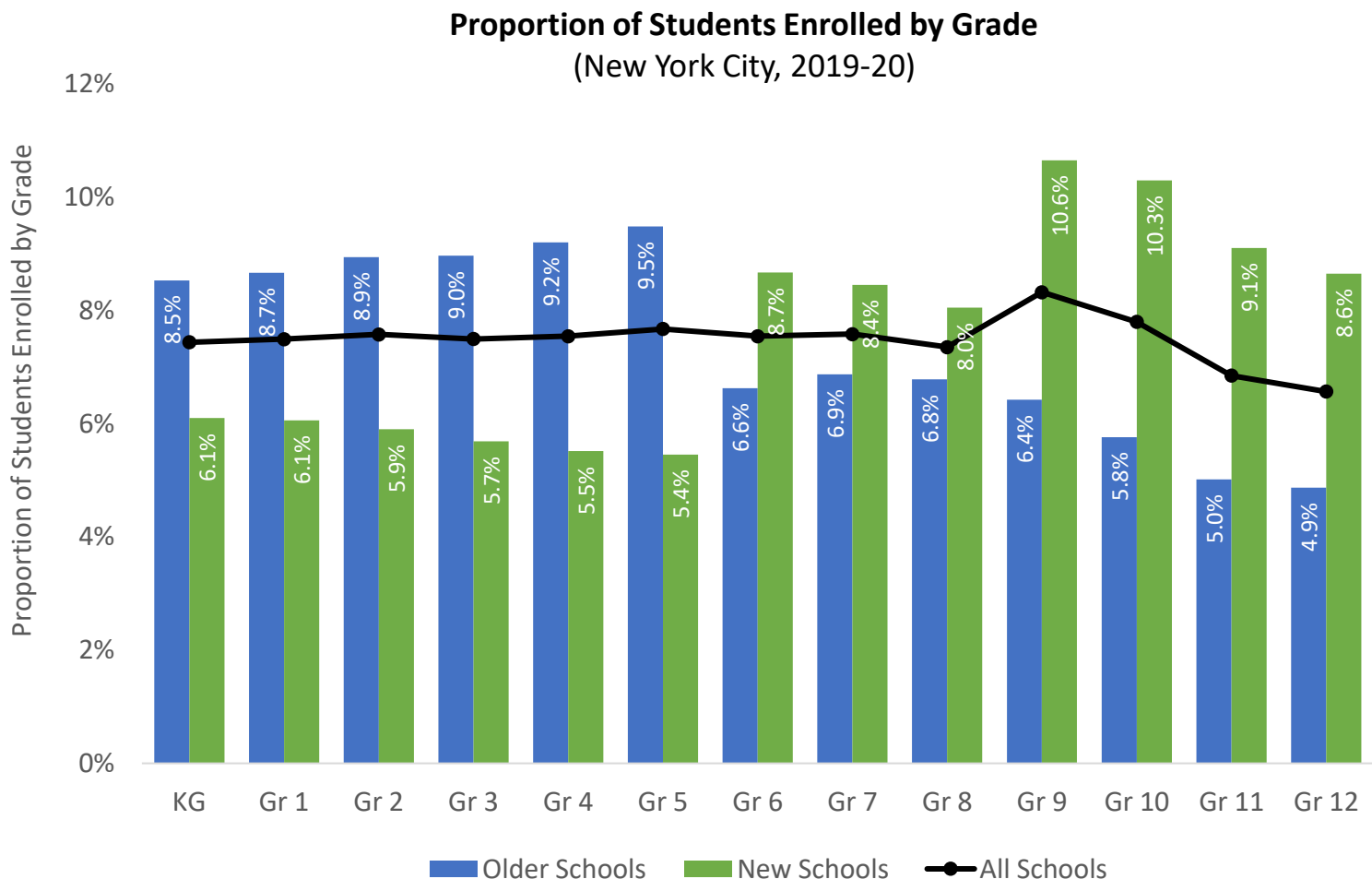
Charter Schools (NYC, 2019-20)

(Dashed line shows existing district schools as a reference point)



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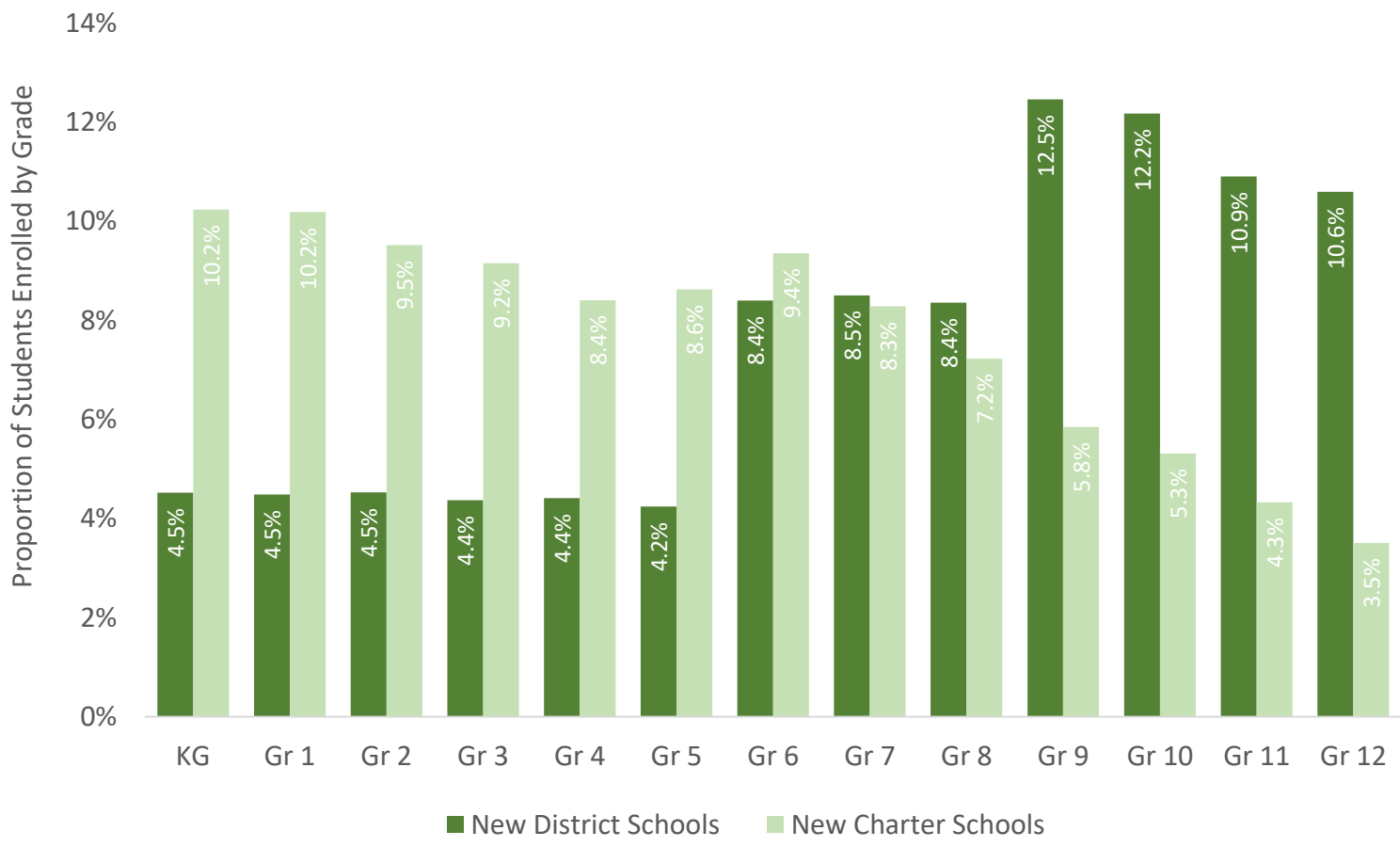
Compared to older schools, new schools in NYC are more likely to enroll high school students and less likely to enroll elementary school students.



Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Graph excludes students in PK, who represent 1.5% of new school enrollment, 3.9% of existing school enrollment, and 2.8% of all school enrollment.

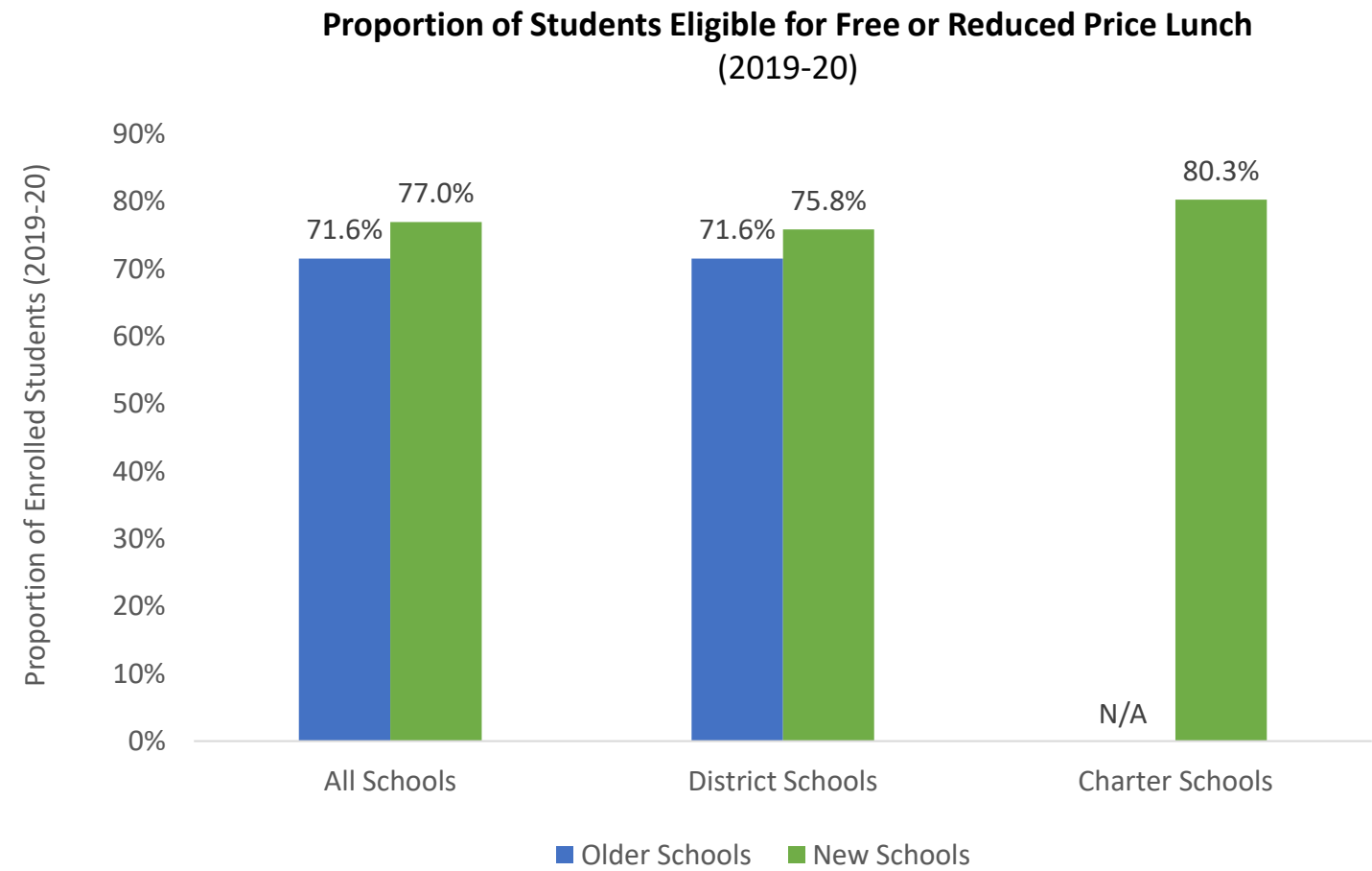
In New York City, this trend is driven by new district schools, which have focused primarily on grades 9-12 and secondarily on grades 6-8.

Proportion of Students Enrolled by Grade
(New York City - New District vs. New Charter Schools, 2019-20)



Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Graph excludes students in PK, who represent 2.0% of new district school enrollment and 0.0% of new charter school enrollment.

Compared to older schools, new schools in New York City are more likely to enroll students who qualify for free or reduced-price lunch.



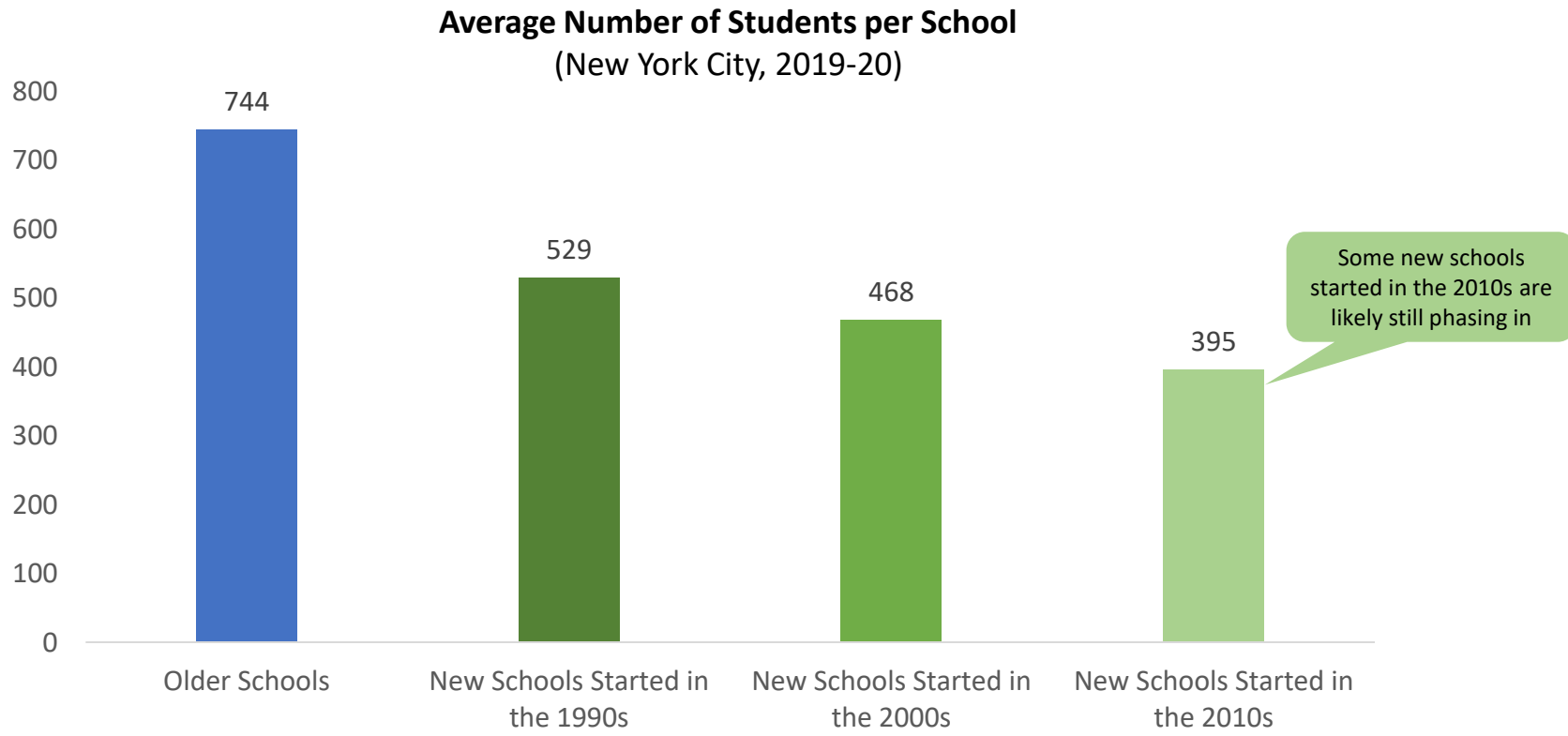
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New York City has 13 all-girls schools and 8 all-boys public schools, 17% of all single-sex public schools nationally.

All-Girls Schools	Year Founded
Young Women's Leadership School	1997-98
Girls Preparatory Charter School of New York	2005-06
Urban Assembly School of Business for Young Women	2005-06
Women's Academy Of Excellence	2005-06
Young Women's Leadership School-Queens	2005-06
Urban Assembly Institute of Math and Science for Young Women	2006-07
Young Women's Leadership School - Astoria	2006-07
Urban Assembly School for Criminal Justice	2007-08
Young Women's Leadership School of Brooklyn	2008-09
Bronx Global Learning Institute for Girls Charter School	2009-10
Girls Preparatory Charter School of The Bronx	2009-10
Young Women's Leadership School of The Bronx	2012-13
Brooklyn Emerging Leaders Academy Charter School	2017-18
All-Boys Schools	Year Founded
Eagle Academy for Young Men	2005-06
Excellence Boys Charter School of Bedford Stuyvesant	2005-06
Eagle Academy For Young Men II	2008-09
Eagle Academy for Young Men III	2010-11
Imagine Me Leadership Charter School	2010-11
Eagle Academy for Young Men of Harlem	2013-14
Boys Preparatory Charter School of New York	2014-15
Eagle Academy for Young Men of Staten Island	2014-15

Source: NCES CCD. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. An all-boys school is defined as one with at least 100 students, of whom 99% or more are male. An all-girls schools is defined as one with at least 100 students, of whom 99% or more are female. The Urban Assembly School for Criminal Justice is now called the Urban Assembly School for Leadership and Empowerment.

In New York City, schools that started in the 2000s are 37% smaller than schools that started prior to 1990-91.



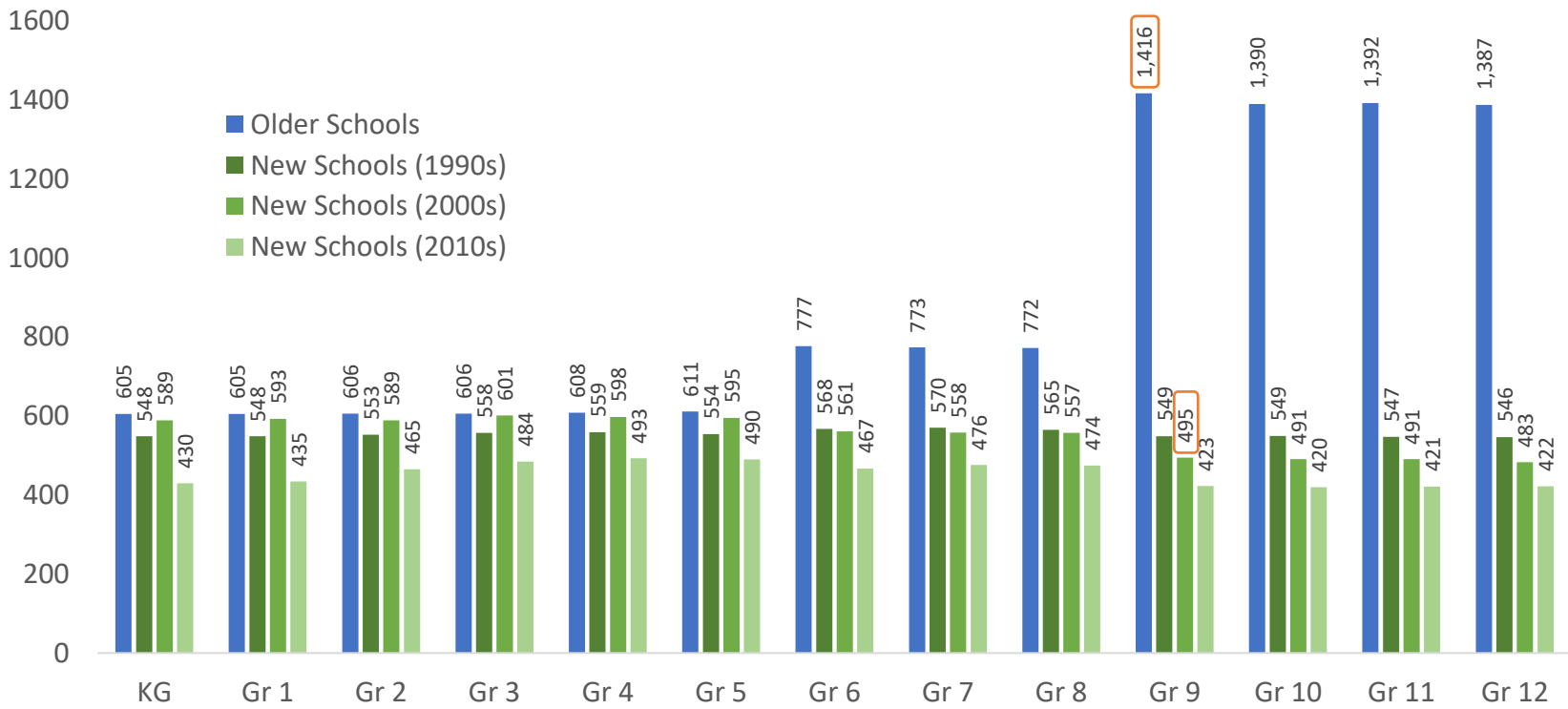
# of Schools:	791	170	513	367
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▶ This trend is particularly notable given that many new schools in NYC are high schools, and high schools tend to be larger than elementary schools.

Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

In New York City, new high schools are much smaller than older high schools, opened prior to 1990-91.

Average Enrollment of Schools Attended by Students in Each Grade
(New York City, 2019-20)



In New York City, the average enrollment of an older school (opened prior to 1990-91) attended by 9th graders was 1,416 students, compared to 495 students for a new school started in the 2000s.

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In NYC, 62% of new schools share a location with another school, vs. 21% of older schools; nationally, the numbers are 18% and 10%, respectively

**Number of Schools Sharing a Location
(2019-20)**

New York City

Schools	Older	New	Total
One	623	399	1,022
Two	138	309	447
Three	23	169	192
Four	6	70	76
Five or more	1	103	104
Total	791	1,050	1,841

Percentage	Older	New	Total
One	78.8%	38.0%	55.5%
Two	17.4%	29.4%	24.3%
Three	2.9%	16.1%	10.4%
Four	0.8%	6.7%	4.1%
Five or more	0.1%	9.8%	5.6%
Total	100.0%	100.0%	100.0%

United States

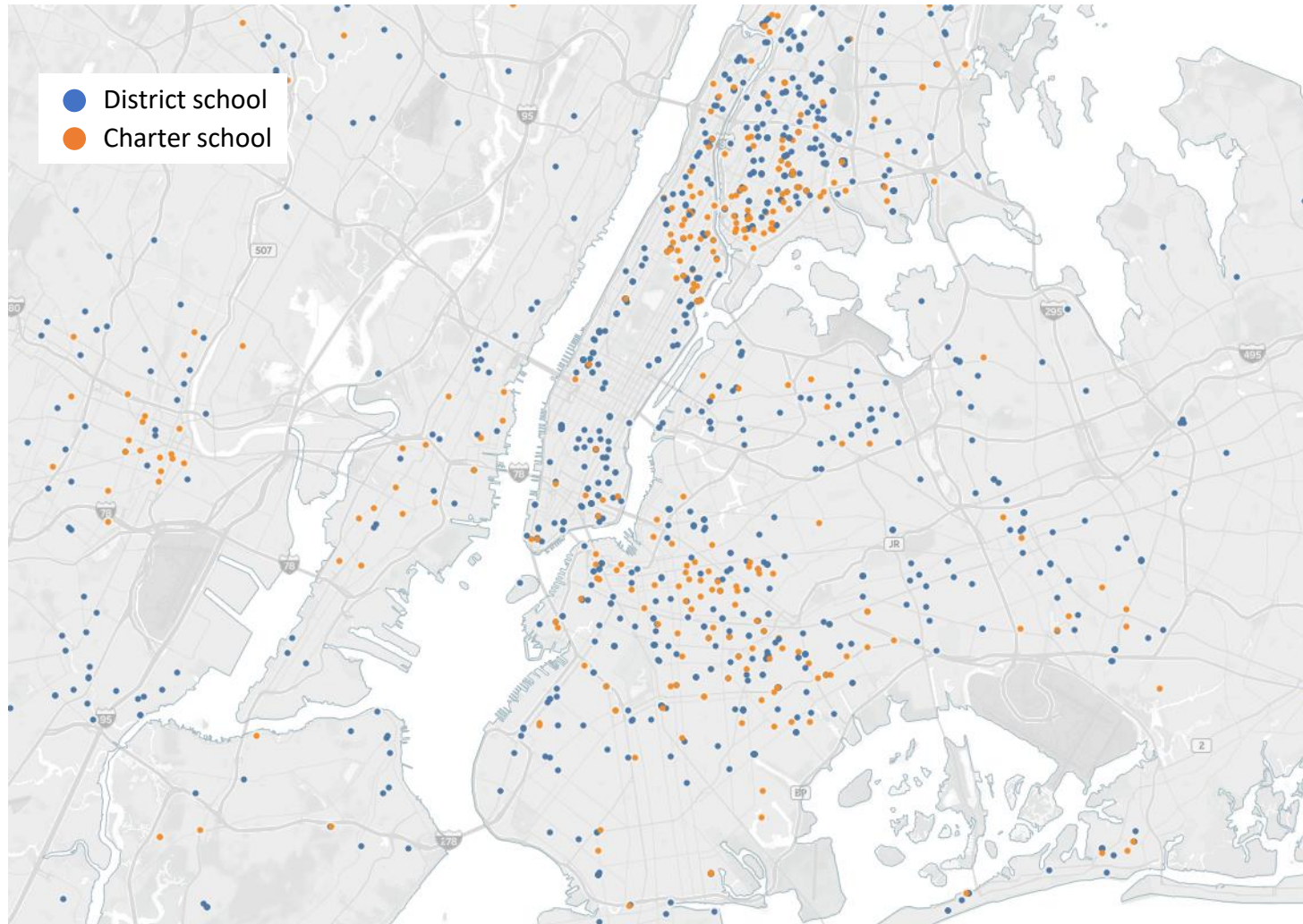
Schools	Older	New	Total
One	55,550	26,157	81,707
Two	4,626	4,042	8,668
Three	1,267	1,233	2,500
Four	112	250	362
Five or more	35	230	265
Total	61,590	31,912	93,502

Percentage	Older	New	Total
One	90.2%	82.0%	87.4%
Two	7.5%	12.7%	9.3%
Three	2.1%	3.9%	2.7%
Four	0.2%	0.8%	0.4%
Five or more	0.1%	0.7%	0.3%
Total	100.0%	100.0%	100.0%

Source: NCES CCD. NCES Common Core of Data. Note: Includes only schools in the 50 states and DC that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. A school is defined to share a location with another school if the latitude and longitude coordinates in decimal (x-y) form are both within 0.001 of one another (between 0.07 to 0.10 miles, or between 350 to 500 feet). Latitude and Longitude conversion from <https://www.meridianoutpost.com/resources/etools/calculators/calculator-latitude-longitude-distance.php>

In New York City, most new schools are located in the Bronx, Harlem, the Lower East Side, and Central Brooklyn.

New Schools: 1990-91 to 2019-20



Interactive Map available at <http://margrady.com/newschools>

Acknowledgements

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Appendix 1

Definitions

Definition of a School

- In our analysis, we define a school as any unique NCES ID in the National Center for Education Statistics (NCES) Common Core of Data (CCD) enrollment file that has at least one student enrolled
- We limit our analysis to schools in the 50 states and the District of Columbia
- We also exclude from our analysis the following “schools” that appear in the CCD enrollment files:
 - Correctional facilities: schools managed by a Department of Corrections or Prisons, schools with the word “jail” or “juvenile” in their name, or other schools whose name clearly indicates that they are correctional facilities
 - District offices: schools that appeared to administratively assign students to a district or state office. These include County Superintendent’s Offices in Florida and BOCES in New York.
 - Hospital / homebound students: schools with the word “hospital” or “homebound” in their name. Schools run by a State Department of Mental Health are also excluded.
 - Schools with fewer than 25 students in all years: any school that never had 25 or more students enrolled in any year from 1989-90 to 2019-20.

Definition of a *New School*

- The unique school identifier for this analysis is the NCES ID from the CCD*
- However, analyzing new school creation using NCES IDs is challenging because the IDs can sometimes change from year-to-year for reasons other than what one would generally consider the closing of a school and the opening of another (e.g. a district merger, etc.)**
- Therefore, our definition of a new school is a school that has a new NCES ID (not used previously in our data) and either a new name or new location
 - New name: a name that is not essentially the same as the name of a school in the same zip code that had non-zero enrollment the year before (e.g. “Anytown Elementary School” and “Anytown El” are considered to be essentially the same name)
 - New location: an address in a different zip code
- This definition has several important implications
 - A school that maintains its NCES ID over time is not considered a new school, even if its name changes or it moves to a new location
 - A new NCES ID is not considered a new school if both the name and location of the school essentially match the name and location of a school that had non-zero enrollment the year before

* Federal guidelines regarding the creation of new NCES IDs are described in Section 2.4.3.1.4 (Operational Status – When to Report as New) of “FS029 (Multiple DGs) — Directory v17.0”, available here: <https://www2.ed.gov/about/inits/ed/edfacts/sy-20-21-nonxml.html>

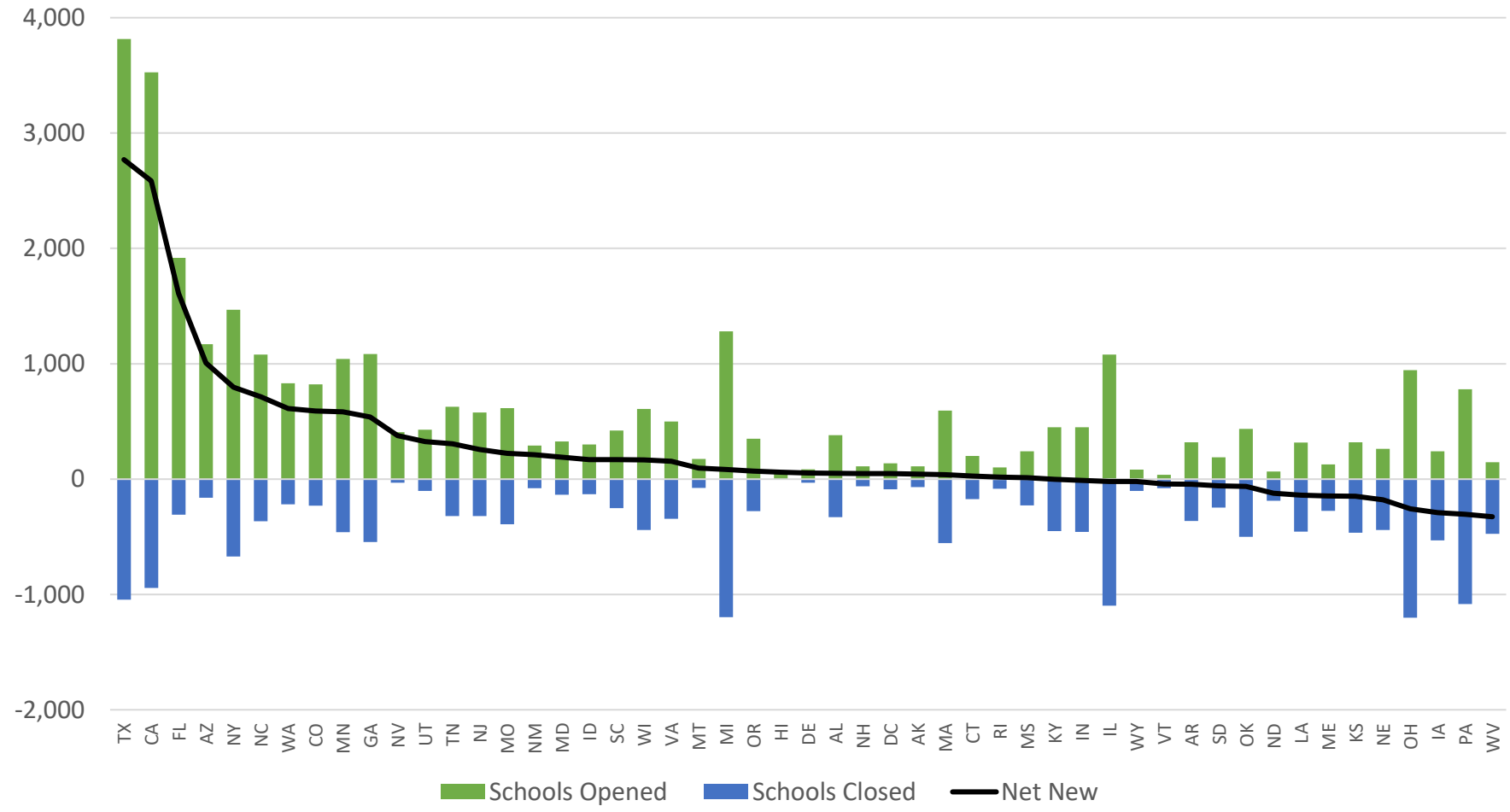
** See the 2019 NCES ID Report by the National Alliance for Public Charter Schools for a discussion of this issue as it relates to charters (<https://www.publiccharters.org/sites/default/files/documents/2019-10/NCES-white-paper-final%20PUBLISH.pdf>). This issue is also relevant for district schools.

Appendix 2

Additional Detail and Breakdowns

Texas, California, and Florida had the largest net increase in schools, while West Virginia, and Pennsylvania and Iowa had the largest net decrease.

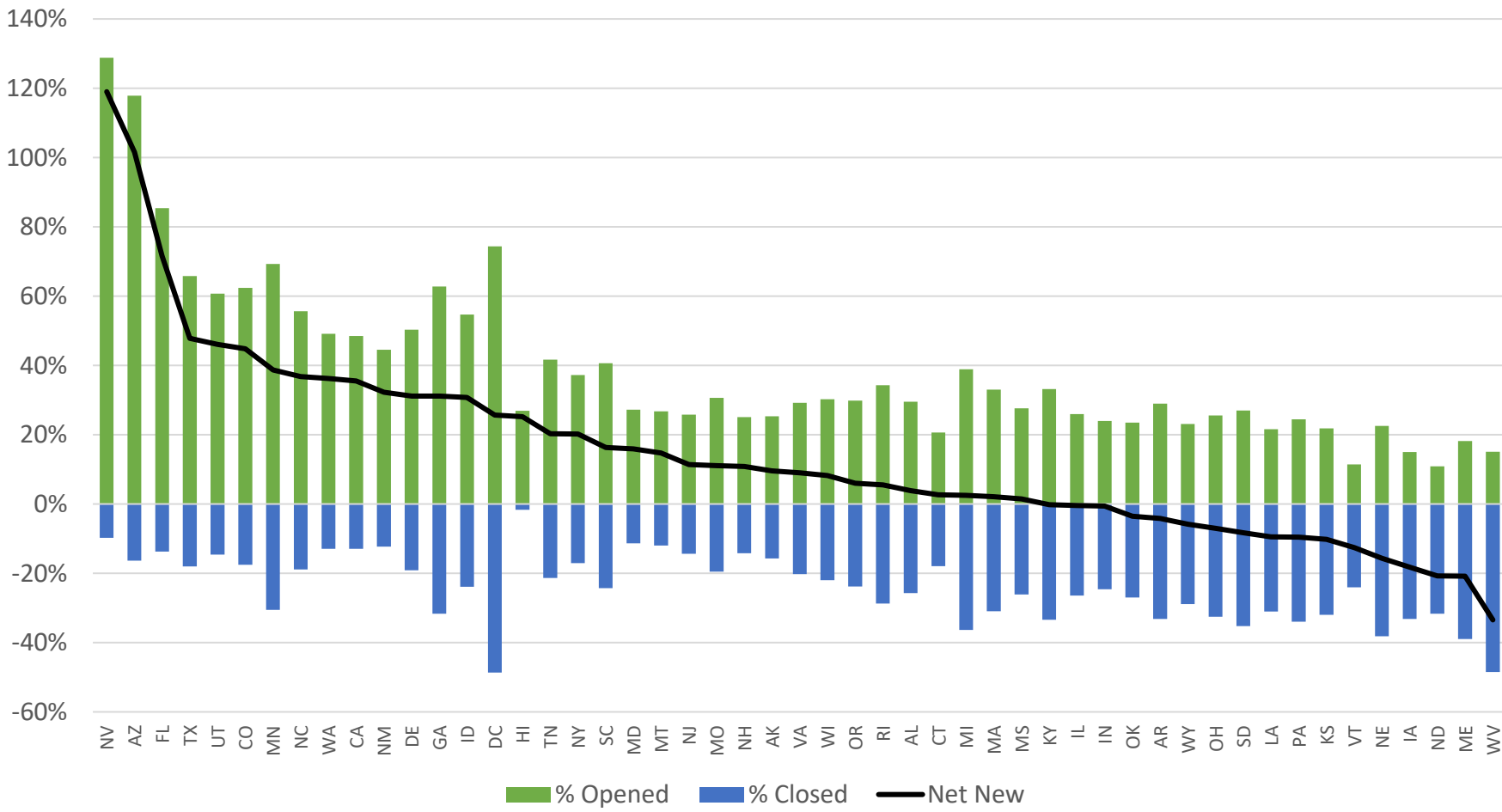
Number of Schools Opened and Closed from 1989-90 to 2019-20
(50 states & DC)



Source NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. Schools Opened represent the number of schools open in 2019-20 that were not open in 1989-90. Schools Closed represent the number of schools that were open in 1989-90 but closed by 2019-20. Net new is equal to Schools Opened minus Schools Closed.

Nevada, Arizona, and Florida had the largest proportional increases in schools, while West Virginia, Maine, and North Dakota had the biggest decreases.

Percentage of Schools Opened and Closed Since 1989-90
 (Proportional to Number of Schools in 1989-90)

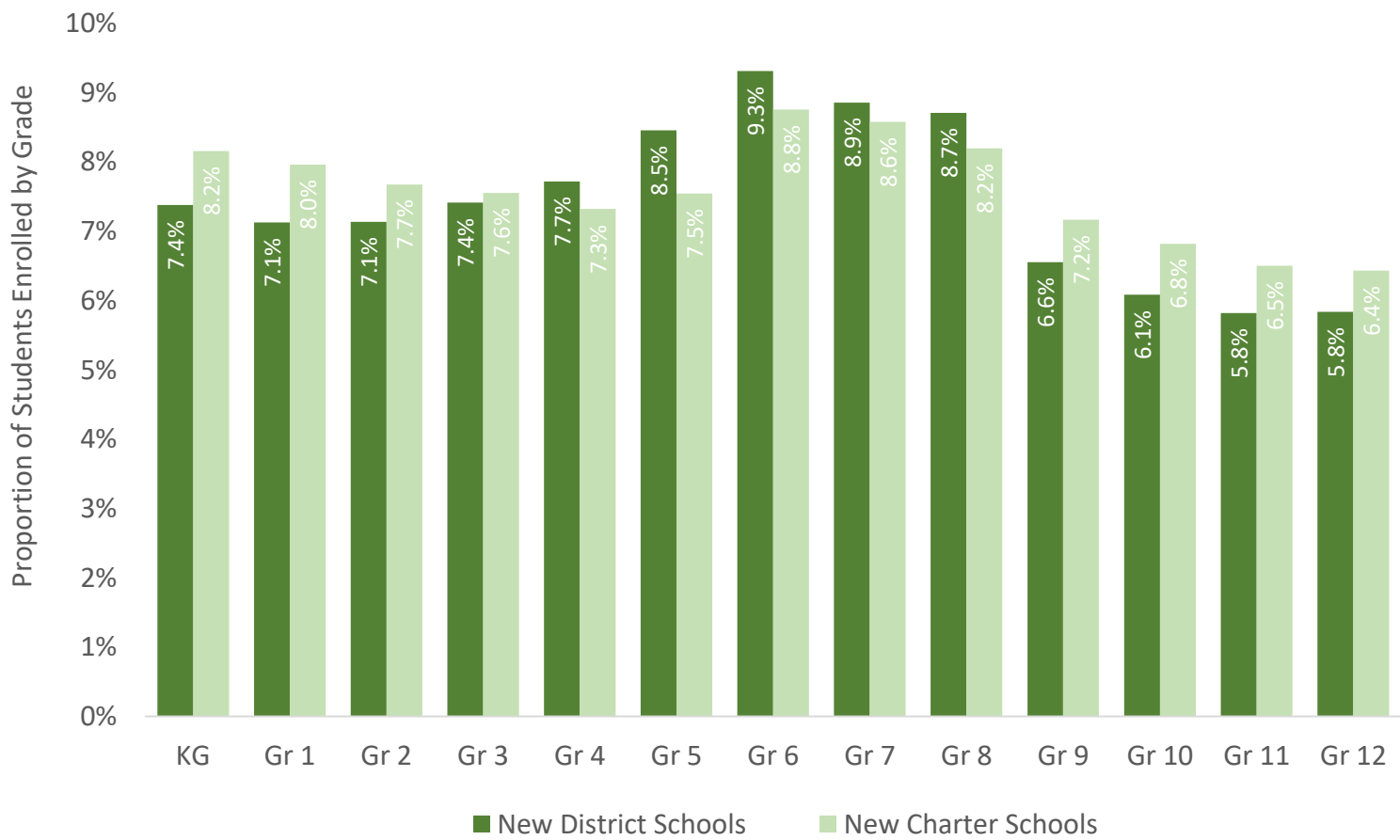


Source: NCES Common Core of Data. “% Opened” represents the number of new schools opened between 1989-90 and 2019-20 divided by the number of schools in 1989-90. “% Closed” represents the number of schools closed between 1989-20 and 2019-20 divided by the number of schools in 1989-90. Net new is equal to % Opened minus % Closed.

Nationally, both new district and charter schools have an overrepresentation of middle school students and underrepresentation of high school students.

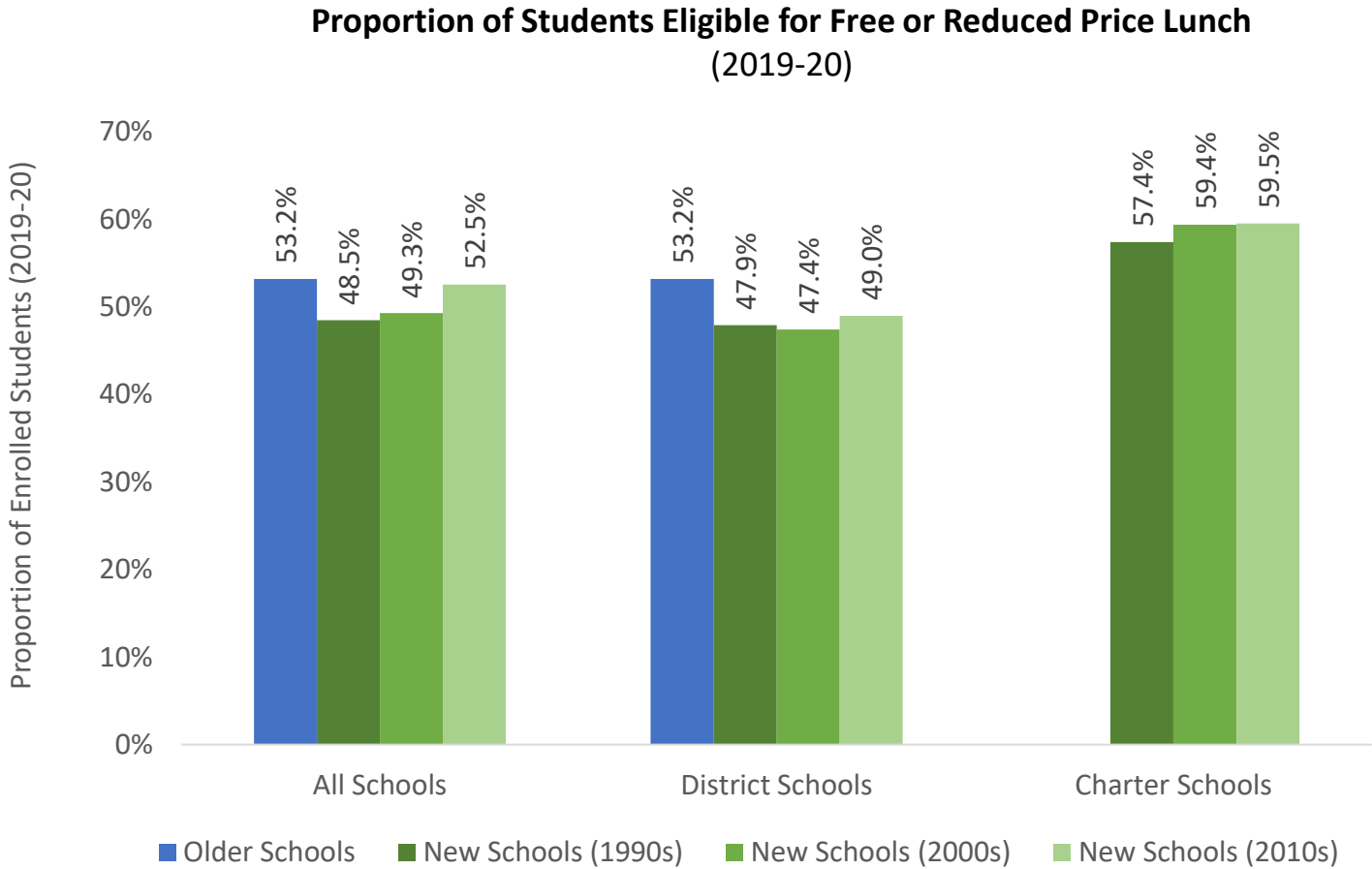
United States

Proportion of Students Enrolled by Grade
(New District vs. New Charter Schools, 2019-20)



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Graph excludes students in PK, who represent 3.6% of new district school enrollment and 1.4% of new charter school.

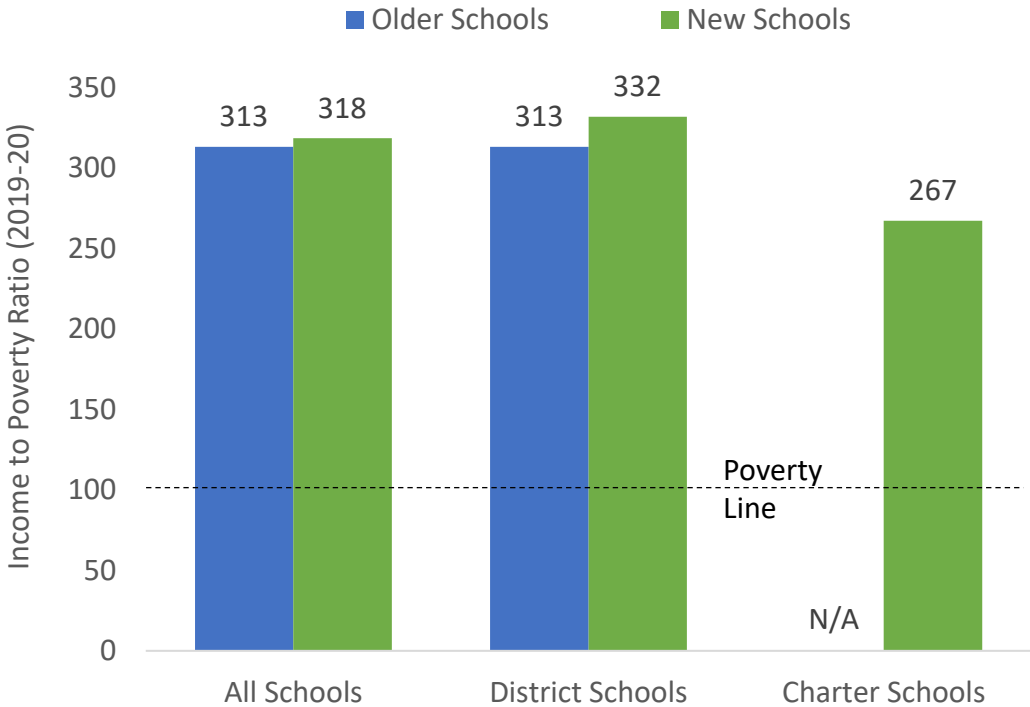
The trends by decade are similar, with new district schools having a smaller share of FRPL students, on average, and charters having a higher share.



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Limited to schools where lunch status is reported.

We see a similar picture when looking at the Income-to-Poverty Ratio, a measure of income in the neighborhood immediately surrounding a school.

Income-to-Poverty Ratio (2019-20)
(Higher IPR → Higher Income Neighborhood)



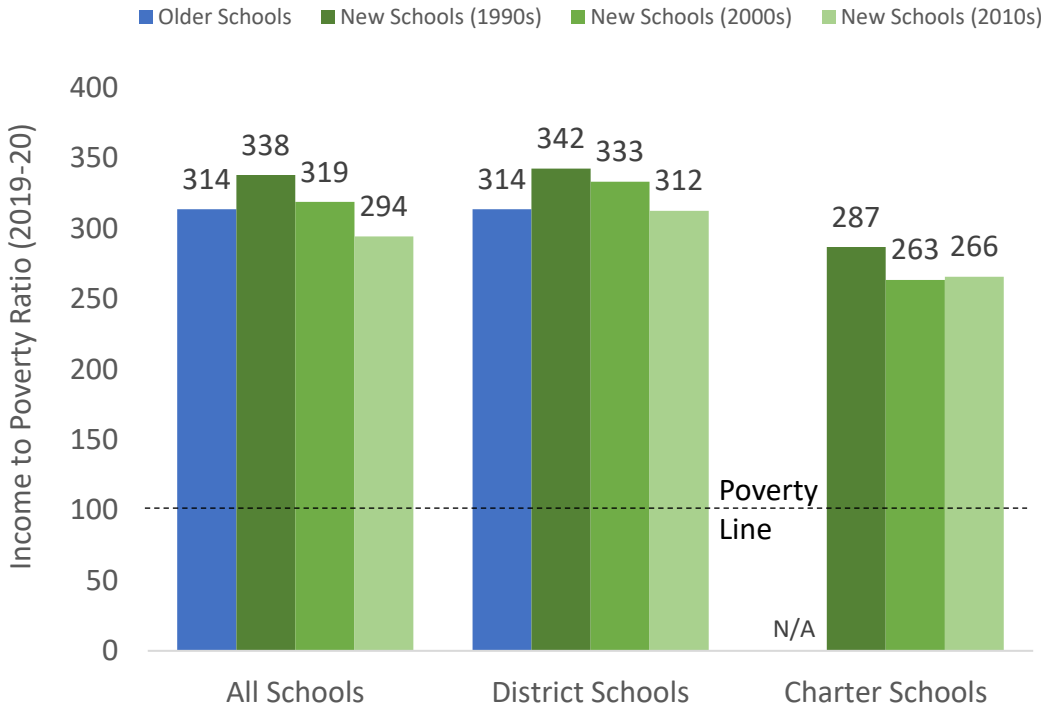
New district schools are in neighborhoods with slightly higher income than older schools, while new charter schools are in lower-income neighborhoods.

Income-to-Poverty Ratio (IPR)

- NCES began calculating IPR in 2016 to provide a measure of school neighborhood poverty
- NCES uses data from the Census Bureau’s American Community Survey (ACS) to estimate the income for families who live near every public school (NCES looks at the 25 surveyed families with children age 5-18 who live closest to the school)
- The IPR calculation divides the average income of the families who live near the school by the neighborhood poverty rate and multiplies the result by 100
- The IPR has important limitations, most notably that it measures the income of the school’s neighborhood, not of the school’s student body
- However, recent research finds the IPR to be a more valid measure of school socio-economic status than measures based on free lunch eligibility (Fazlul, Koedel, and Parsons, 2021)

Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 19-20 that had no students enrolled in 89-90. Fazlul, Koedel & Parsons, 2021, “Free and reduced-price meal eligibility does not measure student poverty: Evidence and policy significance.” Working Paper available here: <https://www.edworkingpapers.com/ai21-415>.

Income-to-Poverty Ratio (2019-20)
 (Higher IPR → Higher Income Neighborhood)



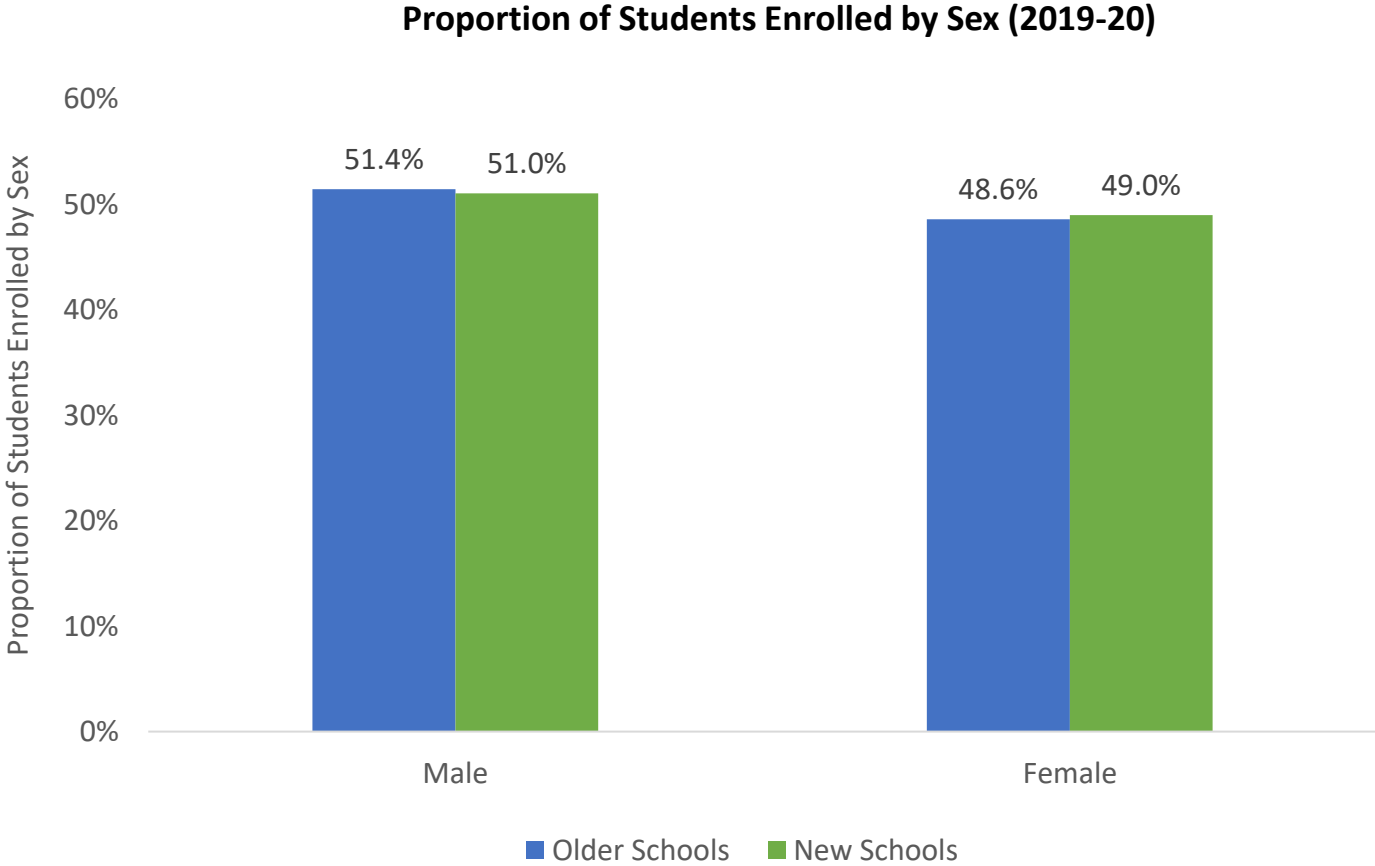
Charter schools started in all decades have, on average, been in lower income neighborhoods than new or older district schools

Income-to-Poverty Ratio (IPR)

- NCES began calculating IPR in 2016 to provide a measure of school neighborhood poverty
- NCES uses data from the Census Bureau’s American Community Survey (ACS) to estimate the income for families who live near every public school (NCES looks at the 25 surveyed families with children age 5-18 who live closest to the school)
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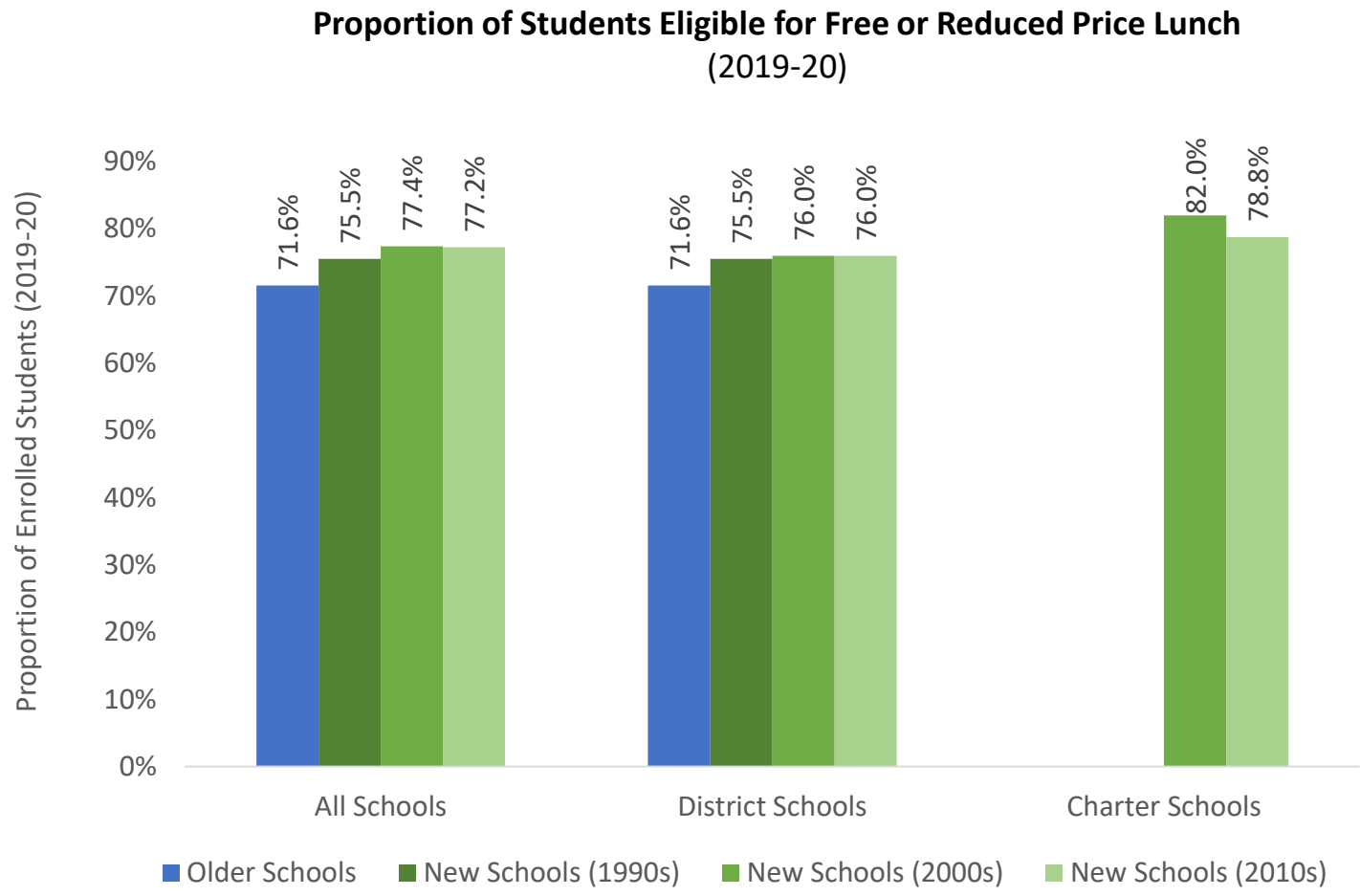
Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 19-20 that had no students enrolled in 89-90. Fazlul, Koedel & Parsons, 2021, “Free and reduced-price meal eligibility does not measure student poverty: Evidence and policy significance.” Working Paper available here: <https://www.edworkingpapers.com/ai21-415>.

New and older schools have a similar breakdown of students by sex.



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

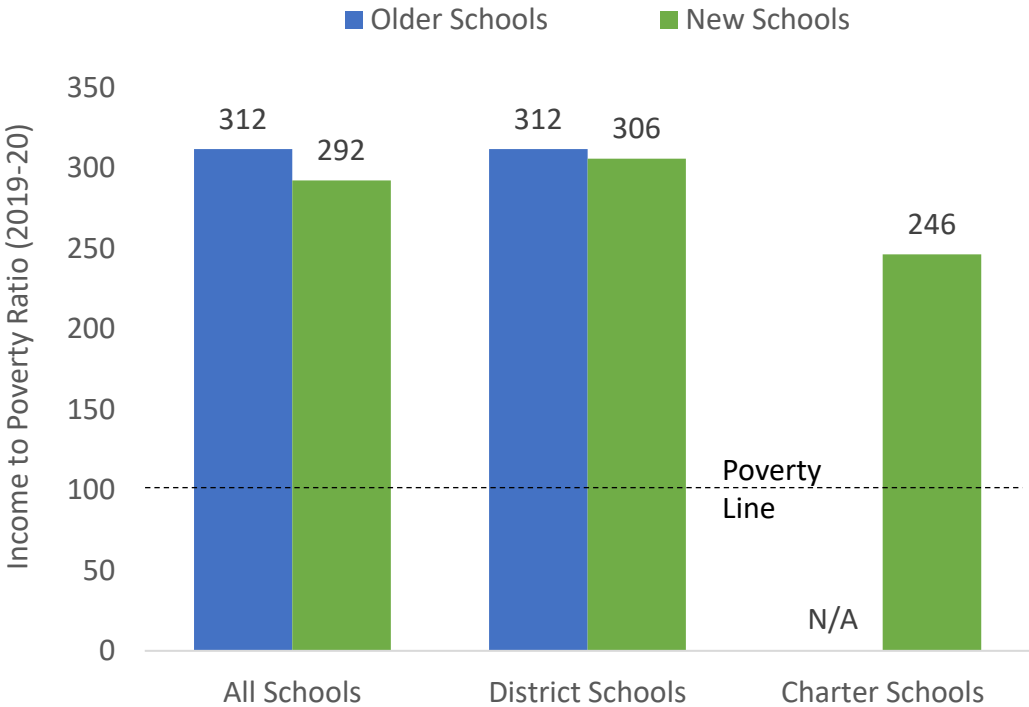
The trends by decade are similar, with new district and charter schools having a higher percentage of students eligible for free or reduced price lunch.



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90. Limited to schools where lunch status is reported.

When looking at the Income-to-Poverty Ratio, the lower average income level in new school neighborhoods appears to be driven primarily by charters.

Income-to-Poverty Ratio (2019-20)
(Higher IPR → Higher Income Neighborhood)



New district schools are in neighborhoods with slightly lower income than older schools, while new charter schools are in substantially lower-income neighborhoods.

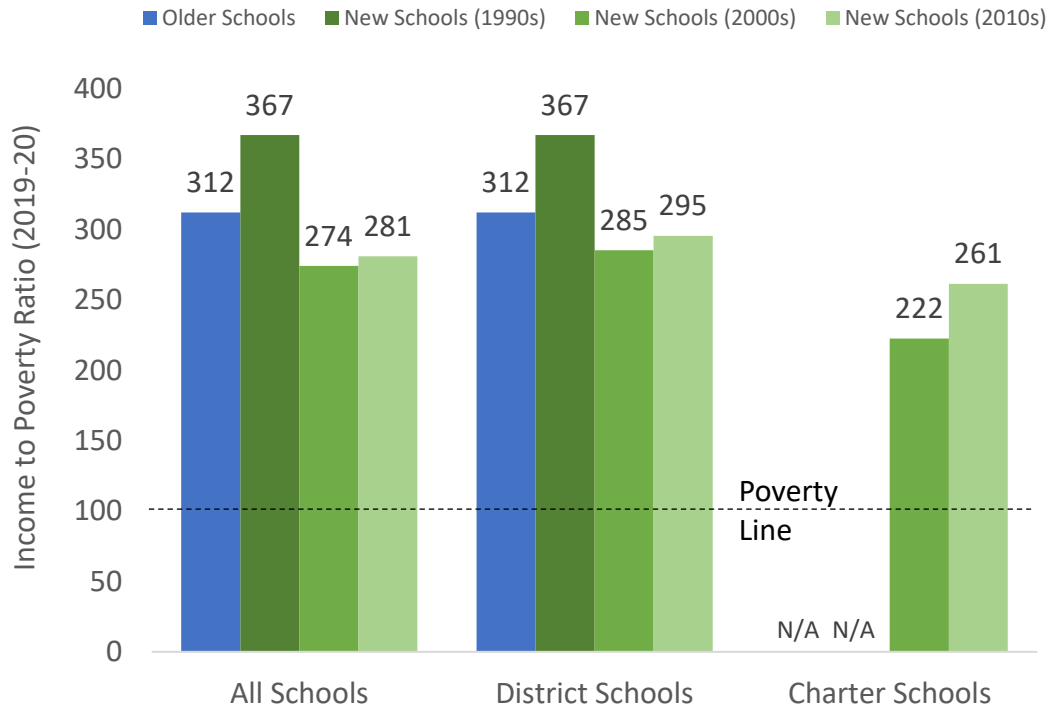
Income-to-Poverty Ratio (IPR)

- NCES began calculating IPR in 2016 to provide a measure of school neighborhood poverty
- NCES uses data from the Census Bureau’s American Community Survey (ACS) to estimate the income for families who live near every public school (NCES looks at the 25 surveyed families with children age 5-18 who live closest to the school)
- The IPR calculation divides the average income of the families who live near the school by the neighborhood poverty rate and multiplies the result by 100
- The IPR has important limitations, most notably that it measures the income of the school’s neighborhood, not of the school’s student body
- However, recent research finds the IPR to be a more valid measure of school socio-economic status than measures based on free lunch eligibility (Fazlul, Koedel, and Parsons, 2021)

Source: NCES CCD. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 19-20 that had no students enrolled in 89-90. Fazlul, Koedel & Parsons, 2021, “Free and reduced-price meal eligibility does not measure student poverty: Evidence and policy significance.” Working Paper available here: <https://www.edworkingpapers.com/ai21-415>.

The trends by decade in NYC show a more nuanced result; new district schools started in the 1990s are located in higher income neighborhoods.

Income-to-Poverty Ratio (2019-20)
(Higher IPR → Higher Income Neighborhood)



New district schools started in NYC in the 2000s and 2010s are located in lower income neighborhoods than older schools

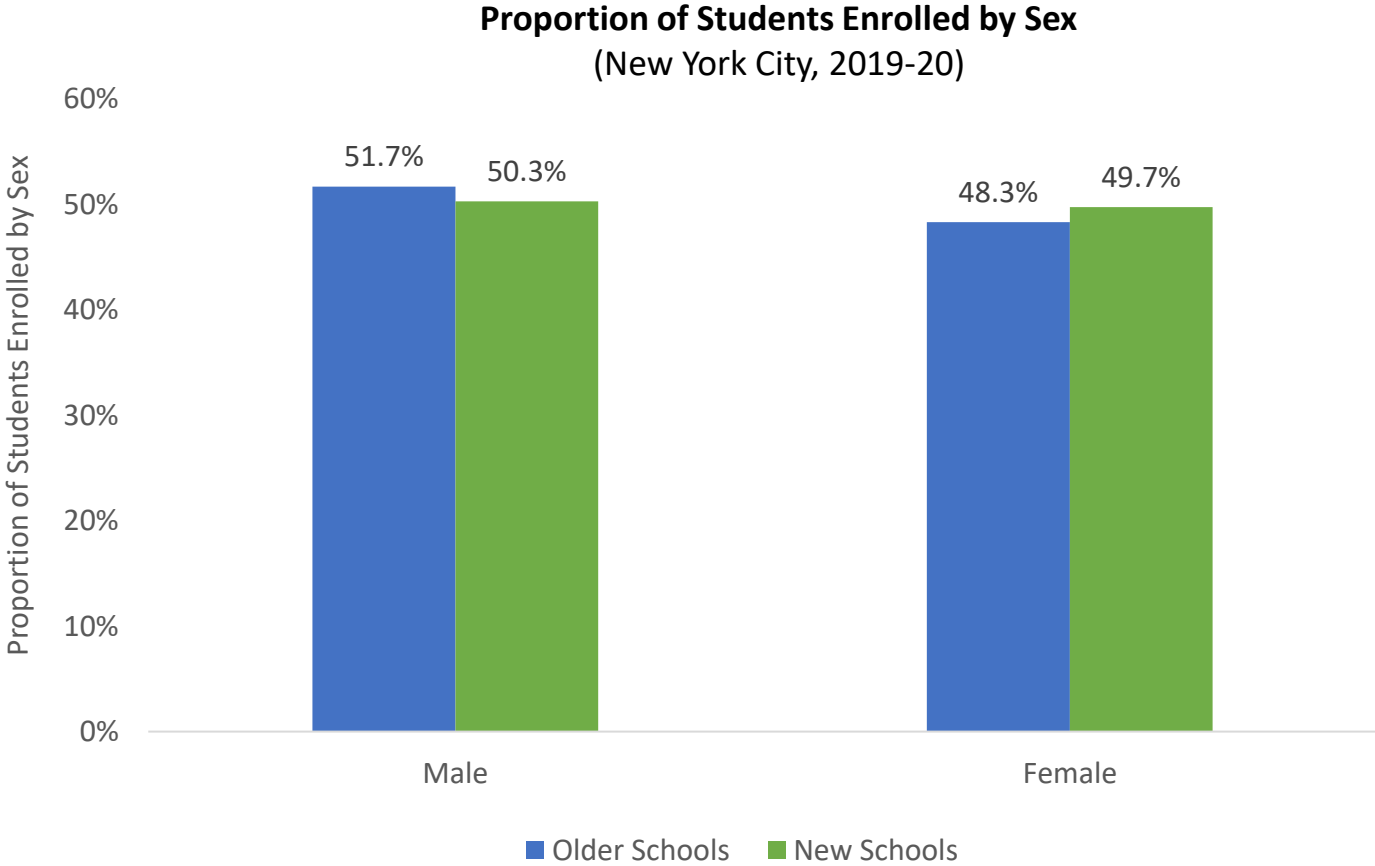
Income-to-Poverty Ratio (IPR)

- NCES began calculating IPR in 2016 to provide a measure of school neighborhood poverty
- NCES uses data from the Census Bureau’s American Community Survey (ACS) to estimate the income for families who live near every public school (NCES looks at the 25 surveyed families with children age 5-18 who live closest to the school)
- The IPR calculation divides the average income of the families who live near the school by the neighborhood poverty rate and multiplies the result by 100
- The IPR has important limitations, most notably that it measures the income of the school’s neighborhood, not of the school’s student body
- However, recent research finds the IPR to be a more valid measure of school socio-economic status than measures based on free lunch eligibility (Fazlul, Koedel, and Parsons, 2021)

Source: NCES CCD. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 19-20 that had no students enrolled in 89-90. Fazlul, Koedel & Parsons, 2021, “Free and reduced-price meal eligibility does not measure student poverty: Evidence and policy significance.” Working Paper available here: <https://www.edworkingpapers.com/ai21-415>.

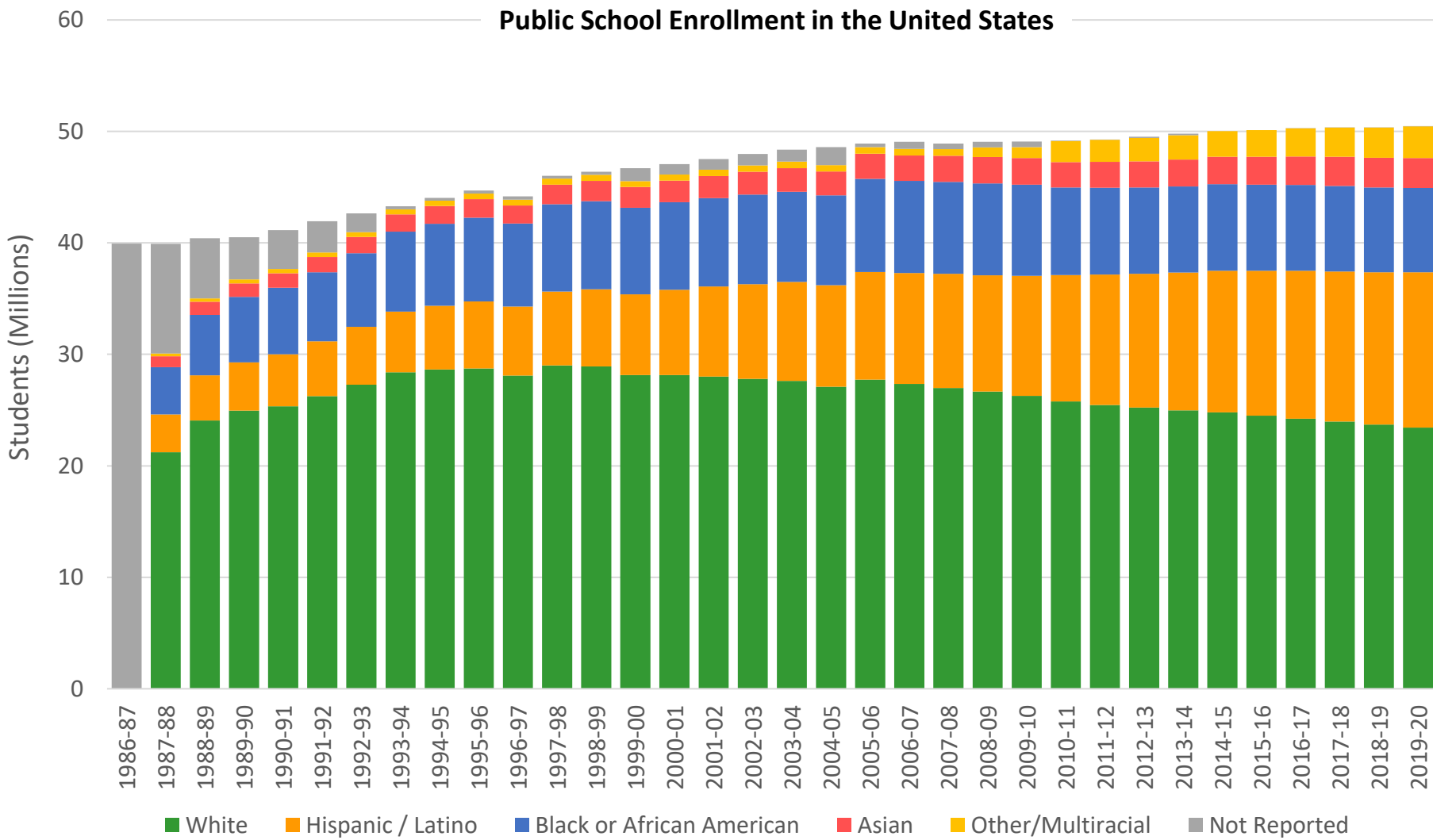
Compared to older schools, new schools in New York City are slightly less likely to enroll boys and slightly more likely to enroll girls.

New York City



Source: NCES Common Core of Data. Note: Includes only schools in New York City that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

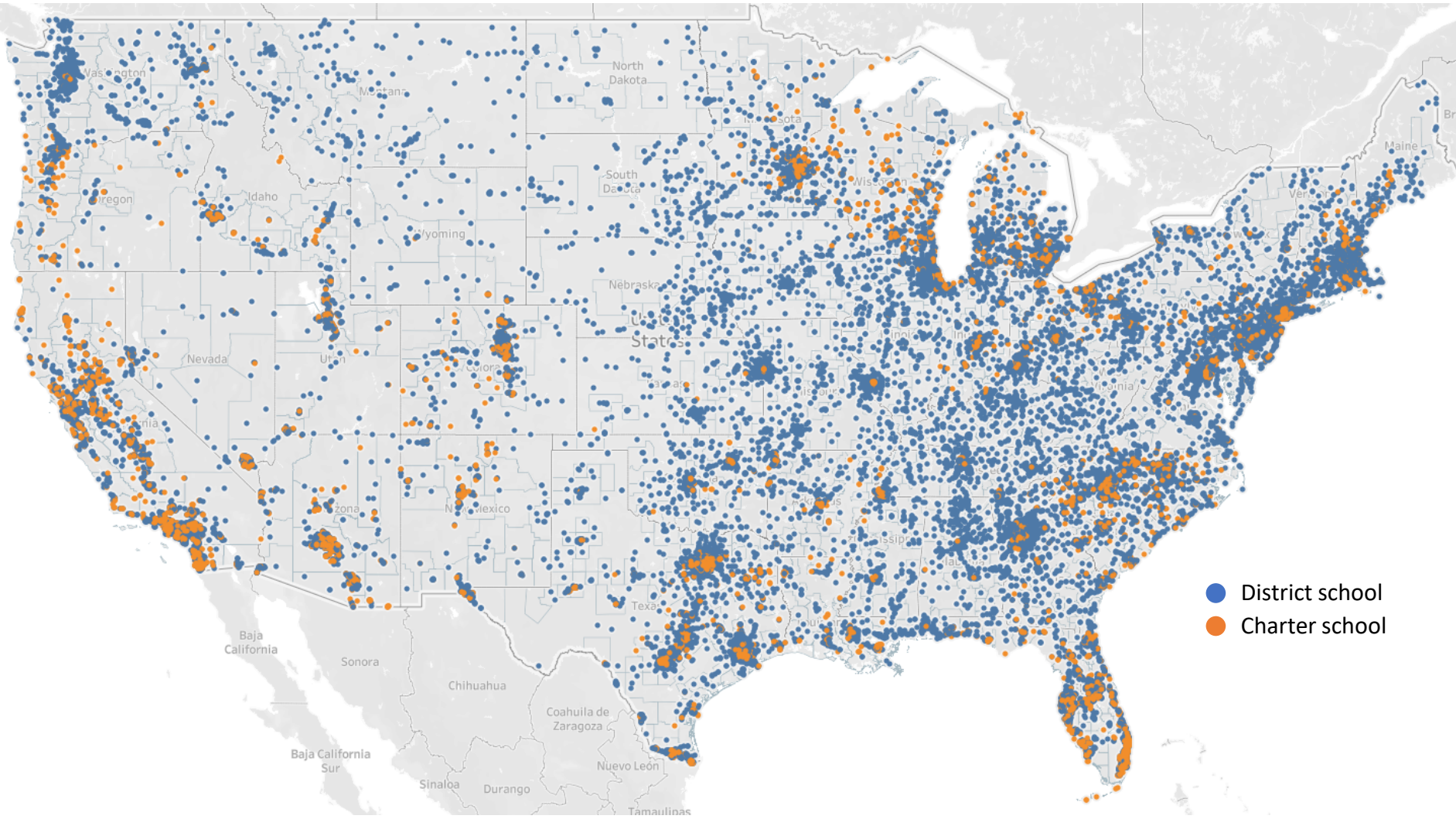
The Common Core of Data began tracking student race/ethnicity in 1987-88, although the data had significant underreporting before 1993-94.



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia. Includes only students in grades PK through 13.

New schools have started in states across the country, though charters are more concentrated in certain states.

New Schools: 1990-91 to 2019-20



- District school
- Charter school

Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. A new school is defined here as a school with students enrolled in 2019-20 that had no students enrolled in 1989-90.

Appendix 3

Trends over Time / Waves of School Reform

Over the past 30 years, the total number of public elementary and secondary schools in the United States has increased by over 12,000.

Public Schools and Students in the United States
(1989-90 to 2019-20)

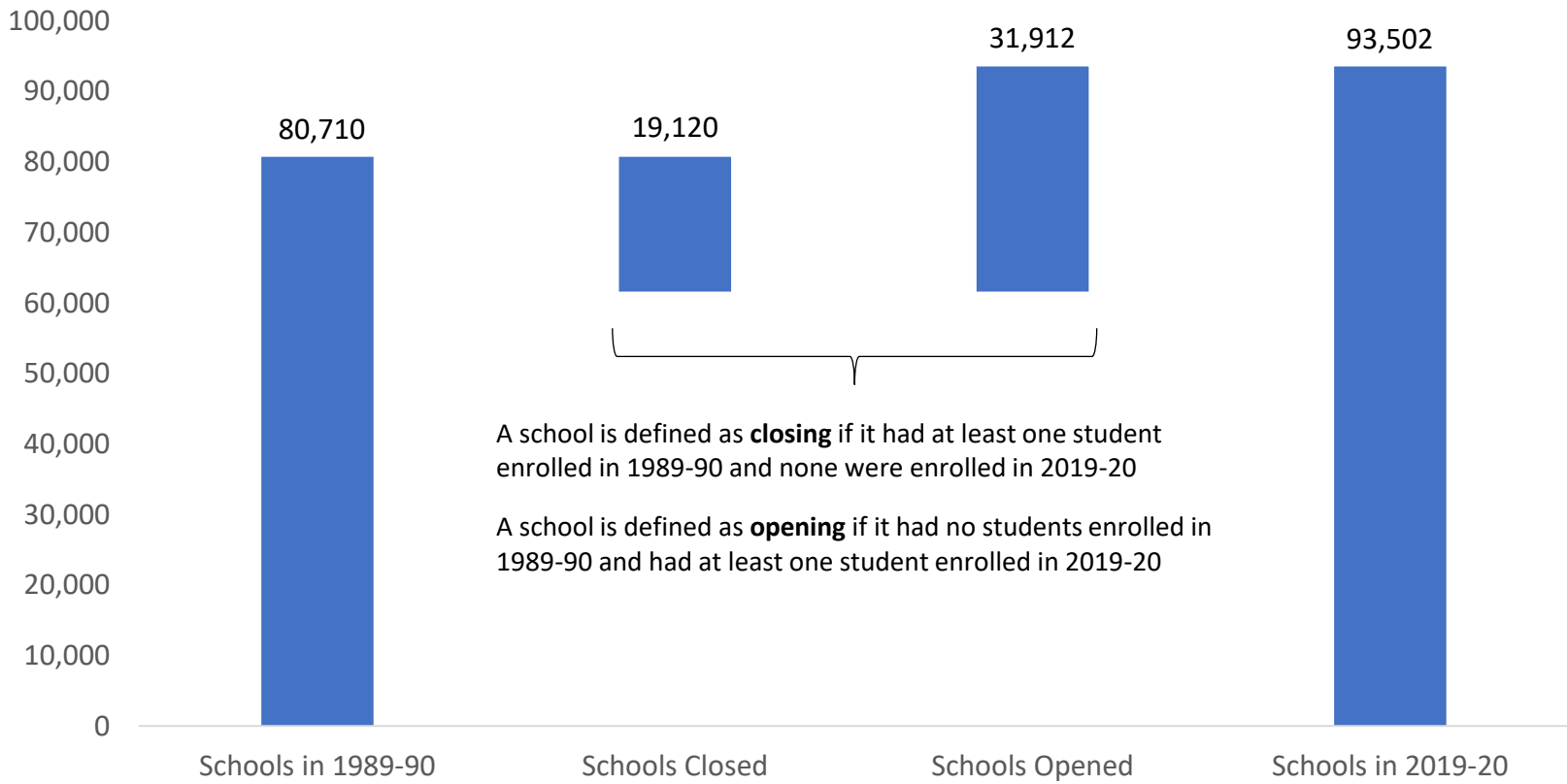
	Students		Schools	
1989-90	40,427,837		80,710	
1999-00	46,583,761	+15%	87,588	+9%
2009-10	49,042,839	+5%	93,256	+6%
2019-20	50,394,842	+3%	93,502	+0%
	+9,967,005	+25%	+12,792	+16%

- Notes**
- Data are from the Common Core of Data (CCD) provided by the National Center for Education Statistics (NCES)
 - Includes only public elementary and secondary schools in the 50 states plus the District of Columbia.
 - Includes students in grades PK through 13, and excludes adult education students
 - Excludes correctional facilities, district offices, hospital/homebound students, and schools that never had 25 or more students in any year from 1989-90 to 2019-20

Note: CCD data are submitted to the federal government by state education departments, and sometimes contain errors or omissions. We have reviewed the data and made corrections and adjustments where possible (e.g. merging NCES codes when one school has two codes). See appendix for details.

The net increase of 12,792 schools masks significant churn, as over 19,000 schools closed and nearly 32,000 opened over the past 30 years.

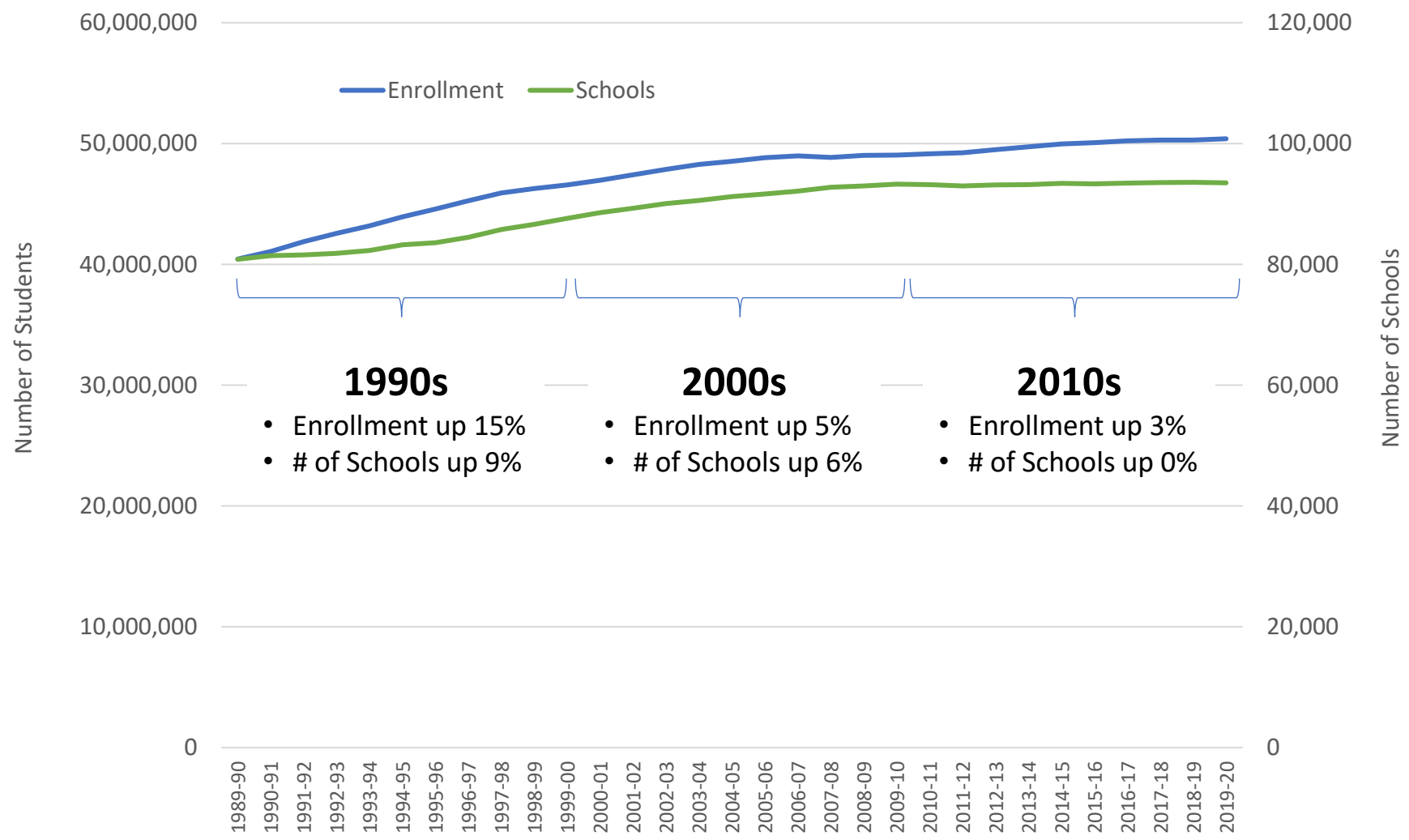
Number of Public Schools in the United States
(50 states & DC)



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years.

Public school enrollment grew substantially in the 1990s and early 2000s, followed by more stability since the mid-2000s.

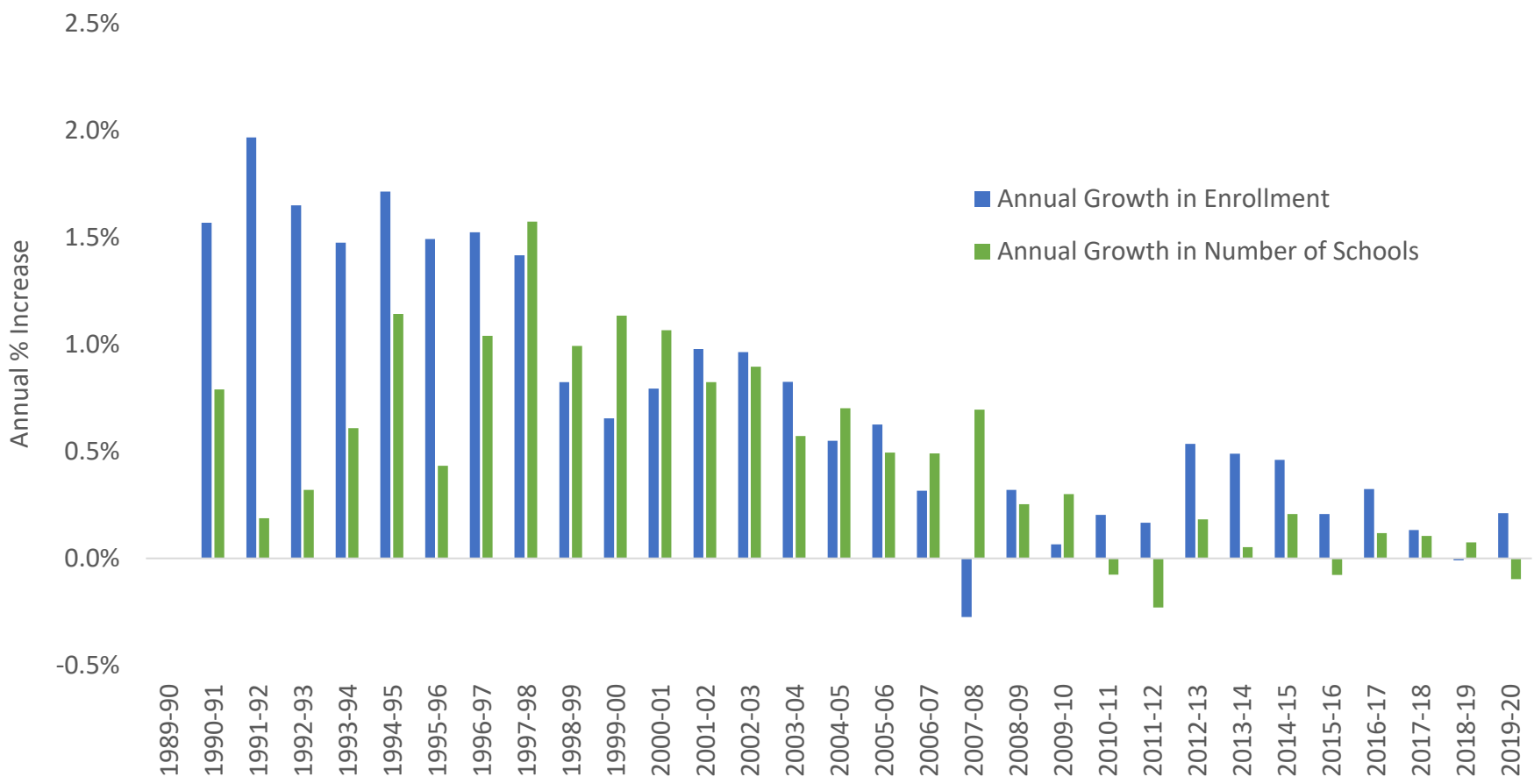
Enrollment and Schools
(1989-90 to 2019-20)



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. For New Jersey, this analysis assumes 1996-97 enrollment was the same as 1995-96 enrollment, because the state did not submit data to NCES in 1996-97.

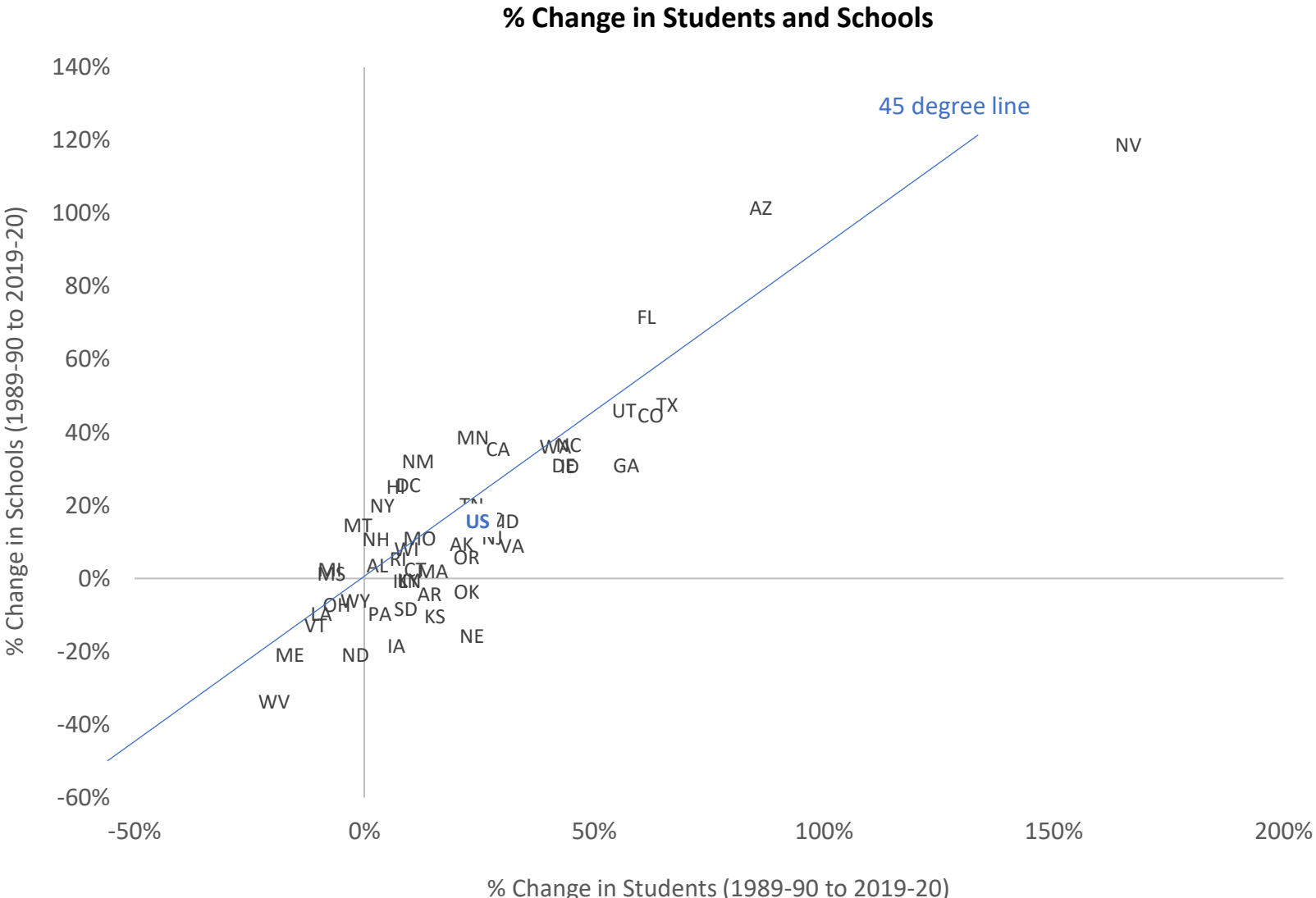
Net new school growth peaked in the late 1990s, following years of high enrollment growth in the early to mid-1990s.

Annual Growth Enrollment and Schools



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years. For New Jersey, this analysis assumes 1996-97 enrollment was the same as 1995-96 enrollment, because the state did not submit data to NCES in 1996-97.

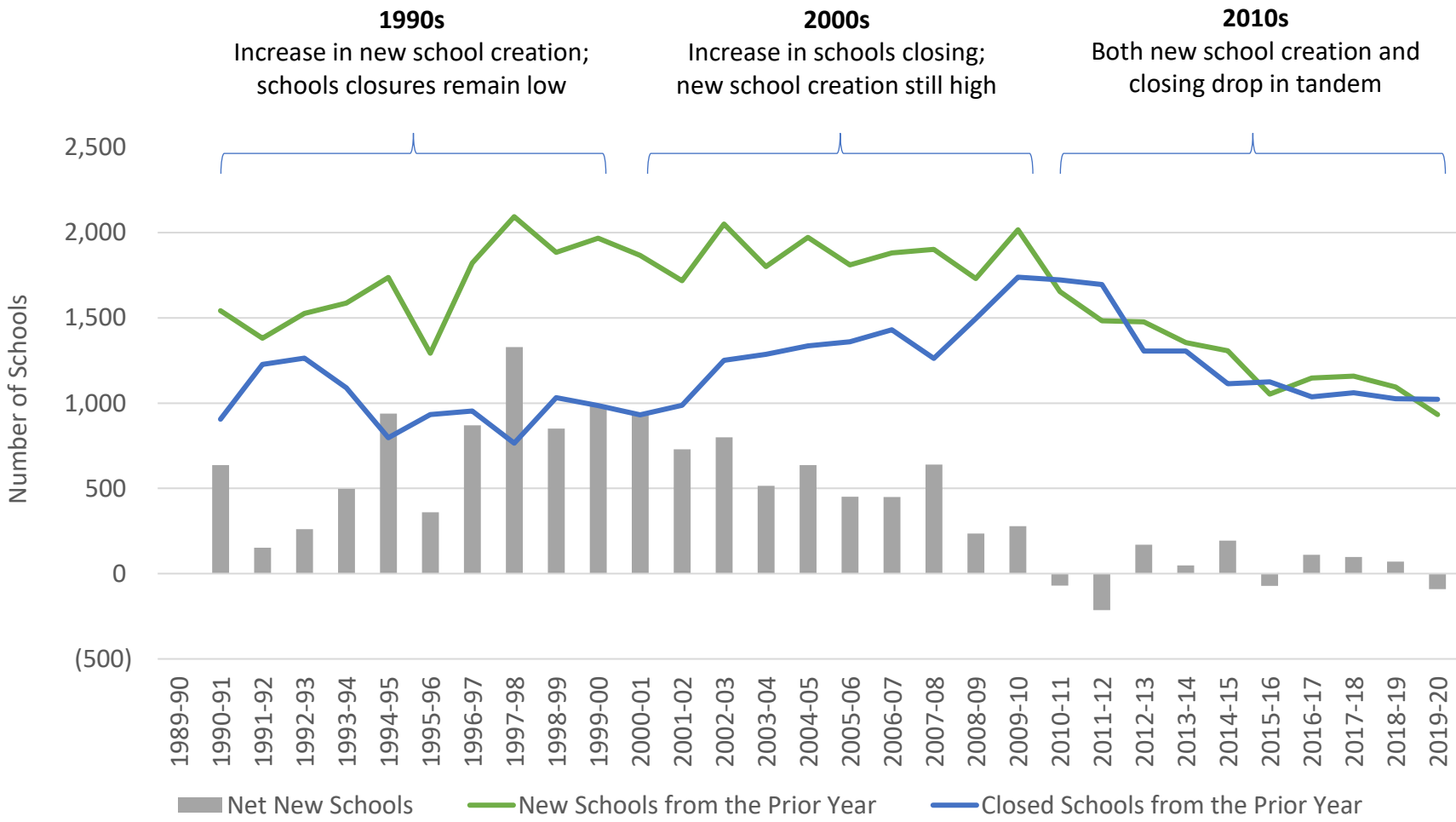
State-level data shows that, over the long run, enrollment growth is strongly related to net new school creation, though other factors are also important.



Source: NCES Common Core of Data. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital/homebound students, and schools that have fewer than 25 students in all years.

School closures grew during the first decade of the 2000s, after which both new school creation and school closures have declined.

Number of New and Closed Schools from Year to Year



Source: NCES CCD. Note: Includes only schools in the 50 states plus the District of Columbia that had students enrolled in grades PK through 13. Excludes correctional facilities, district offices, hospital / homebound students, and schools that have fewer than 25 students in all years. For New Jersey, this analysis assumes 1996-97 enrollment was the same as 1995-96 enrollment, because the state did not submit data to NCES in 1996-97. New Schools from the Prior Year includes any school that had at least one student enrolled in year t and no students enrolled in year t-1. Closed Schools from the Prior Year includes any school that had no students enrolled in year t and at least one student enrolled in year t-1. A school may appear multiple times in the analysis if it "opens" and "closes" multiple times.

During the years of our study, we identify three waves of new school creation.

Wave 1 (1990s): Enrollment Growth

- New schools were built to accommodate growing enrollment
- Student enrollment increased by 15% and the number of schools increased by 9%
- Substantial new school growth in states like Arizona, Nevada, and Florida with high student population growth

Wave 2 (2000s): School Reform

- The annual number of new schools created remained high, in part bolstered by charters, which accounted for ~20% of new schools
- The number of school *closures* increased, such that by the end of the period, roughly as many schools were closing per year as were opening
- The increase in closures may have been driven by various factors, including school reform efforts and the Great Recession of 2007-09

Wave 3 (2010s): Stability & Charters

- The number of new and closing schools declined in tandem, such that the total number of schools remained roughly flat
- The number of new charters opened each year remained fairly stable, such that charters accounted for approximately 40% of new schools started in this period

Appendix 4

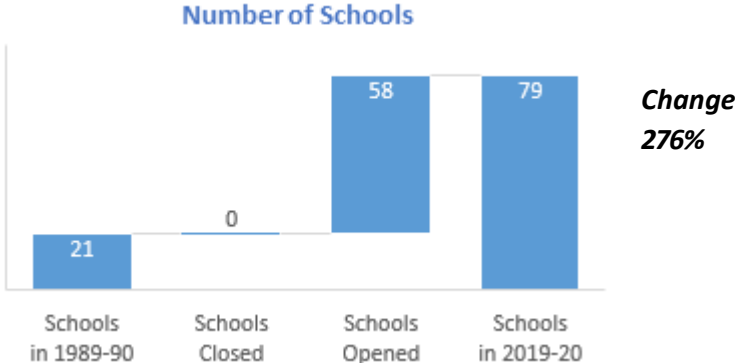
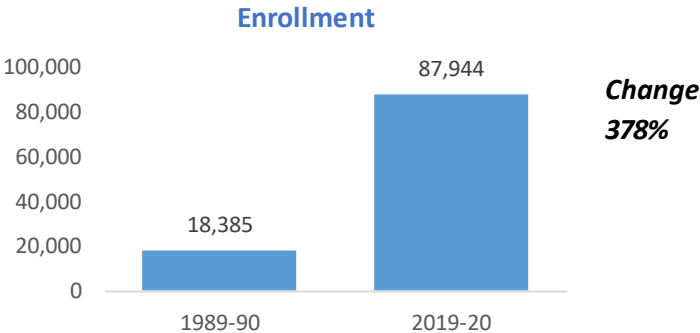
Enrollment Growth and New School Creation

Background

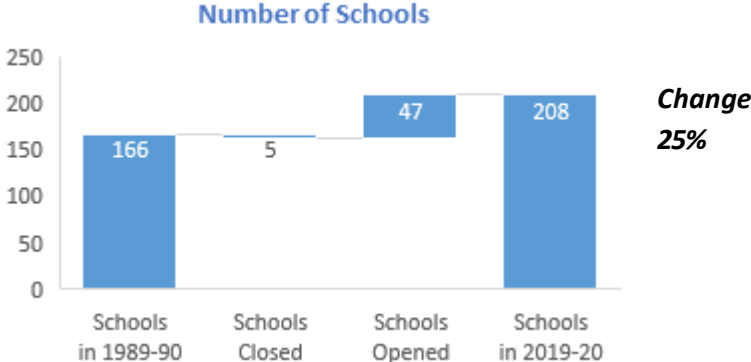
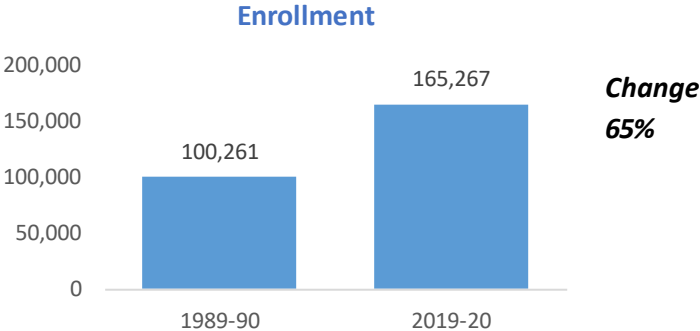
- In main analysis, we identified 31,912 new public schools that were open in 2019-20 and had started over the last three decades
- 7,079 of these schools were charter schools, representing 22% of all new schools opened since 1990
- We would like to better understand the other 24,833 schools
 - How many new schools appear to have been created largely due to population growth?
 - How many new schools were created as part of a school reform / intentional design strategy?
- While it's hard to definitively answer these questions, we can inform them through two analyses
 - A district-level analysis of enrollment growth and school opening/closing
 - A school-level location analysis, identifying whether a new school is opening where another school previously existed

In some districts, new school creation appears driven by population growth...

Katy ISD, Texas



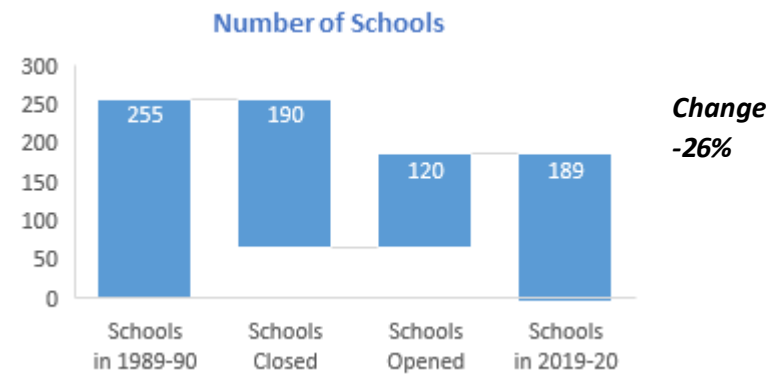
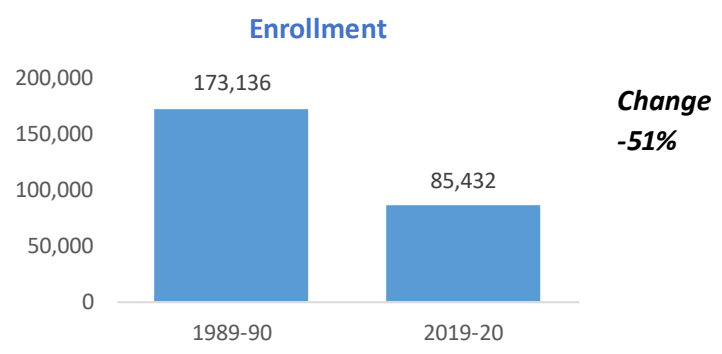
Montgomery County Public Schools, Maryland



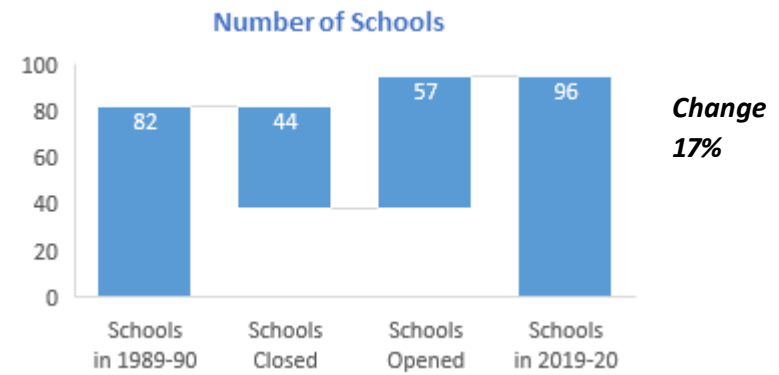
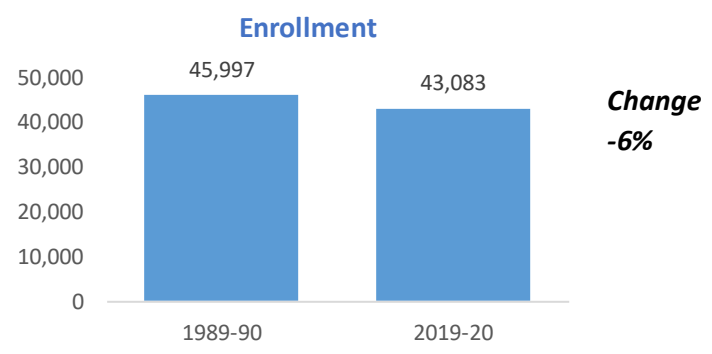
Note: includes charter schools that are located within the geographic boundaries of the school district.

...while in other districts, population growth is clearly not a driver of new school creation.

Detroit Public School Community District, Michigan

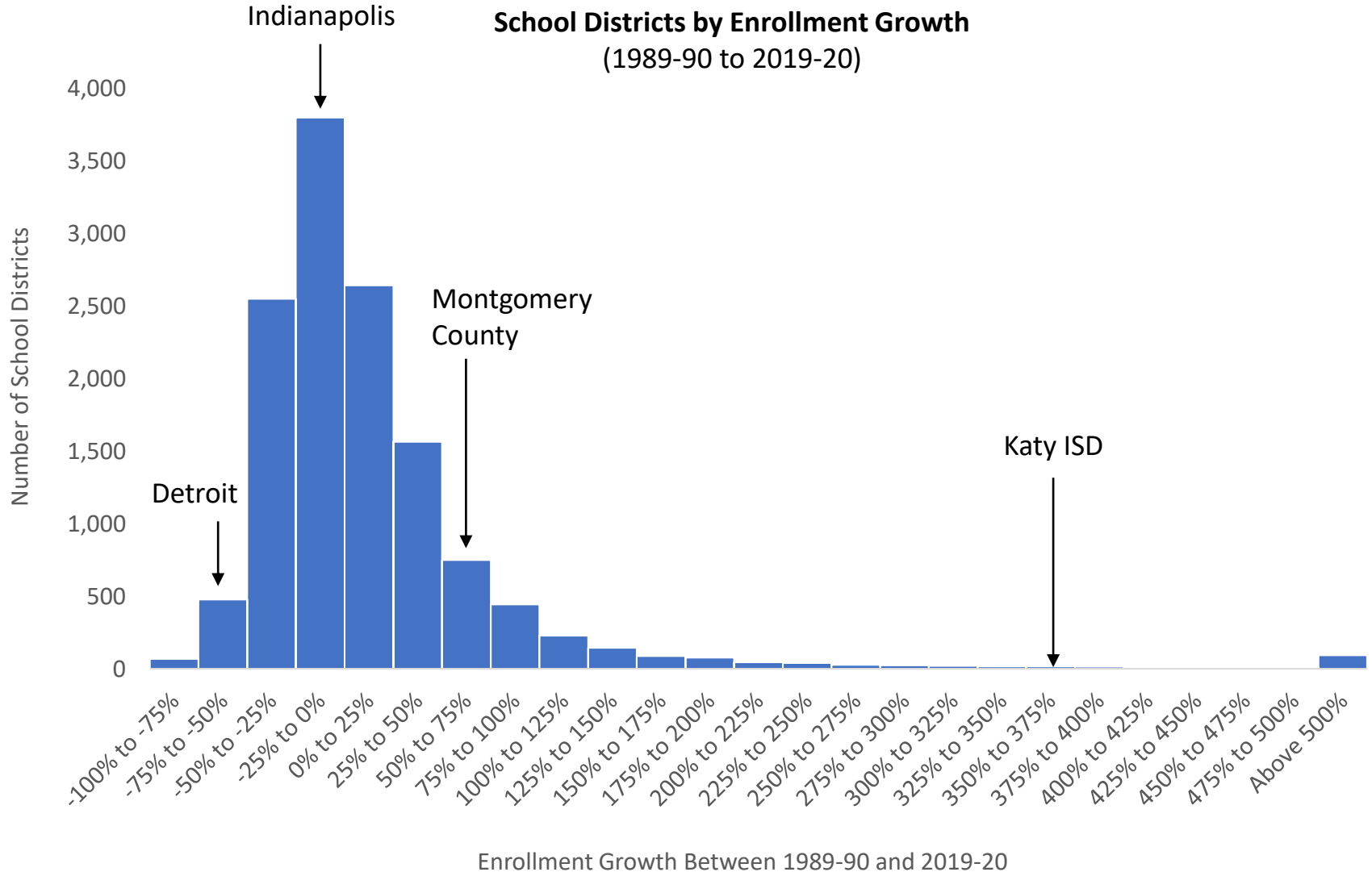


Indianapolis Public Schools, Indiana



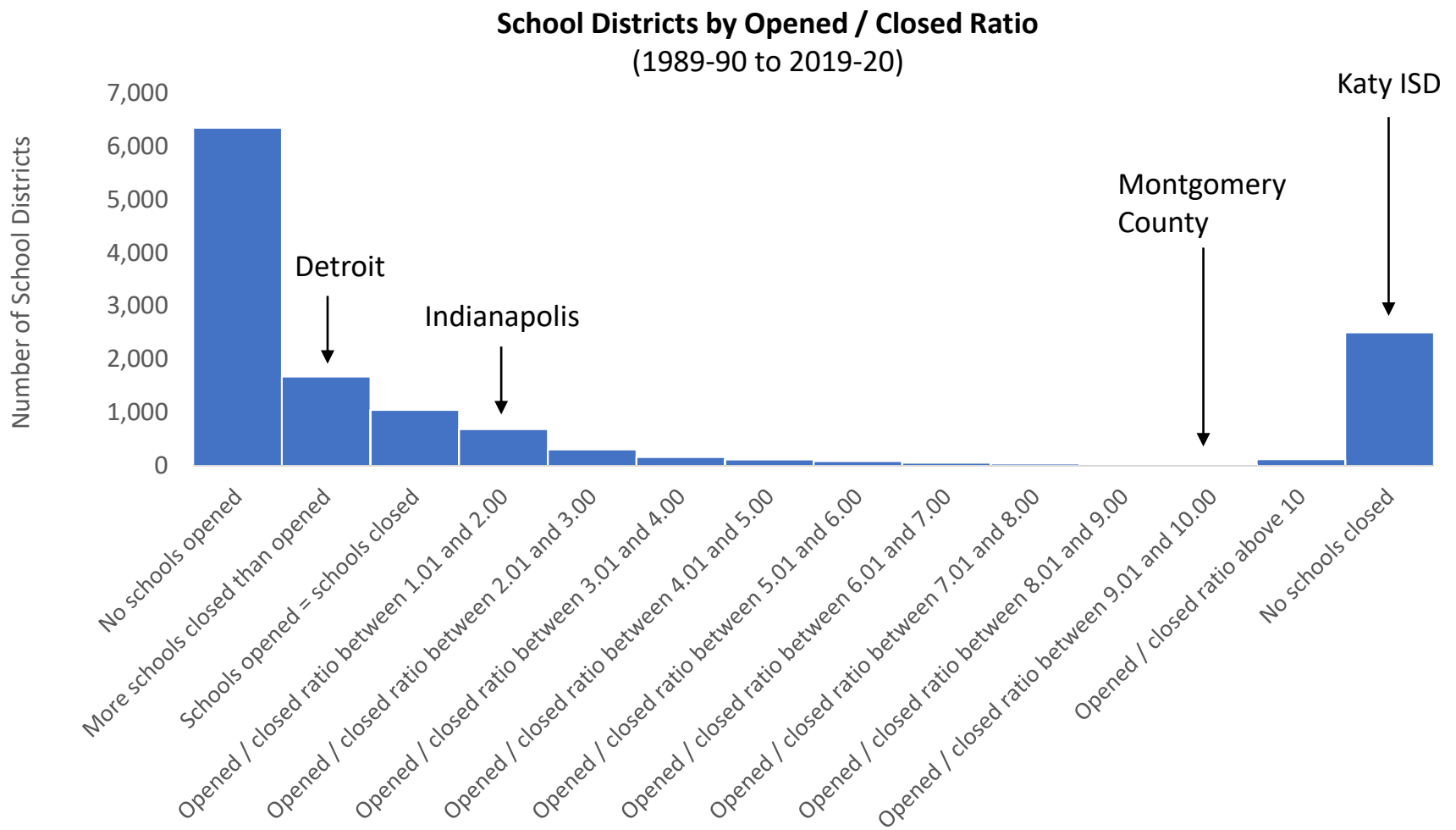
Note: includes charter schools that are located within the geographic boundaries of the school district.

Student enrollment growth is one factor helpful in distinguishing growth-based new school creation from school reform efforts.



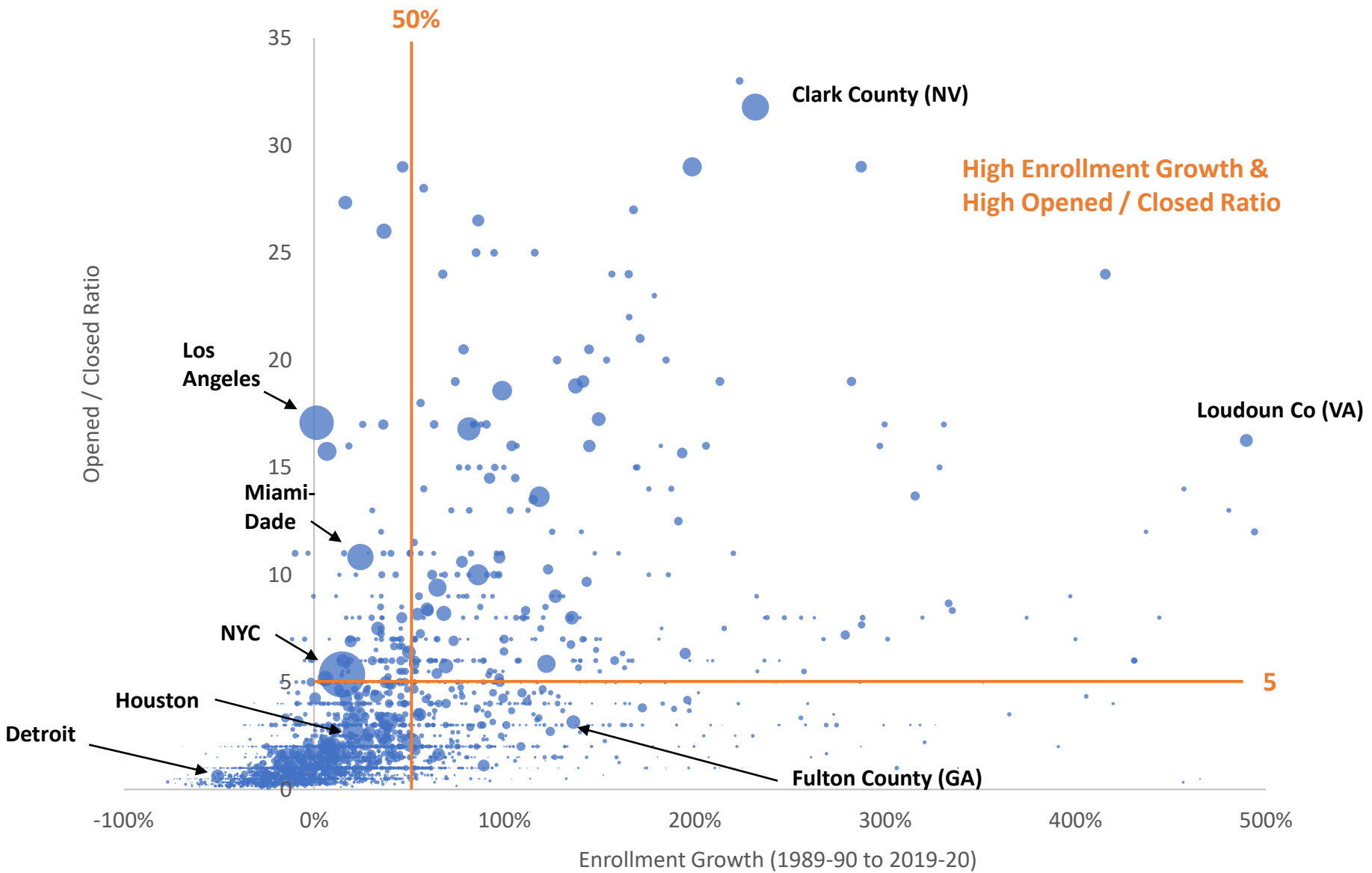
Note: the upper end of each bin is included in the bin. For example, exactly 0% is included in the -25% to 0% bin.

The ratio of new schools created to schools closed is another relevant factor.



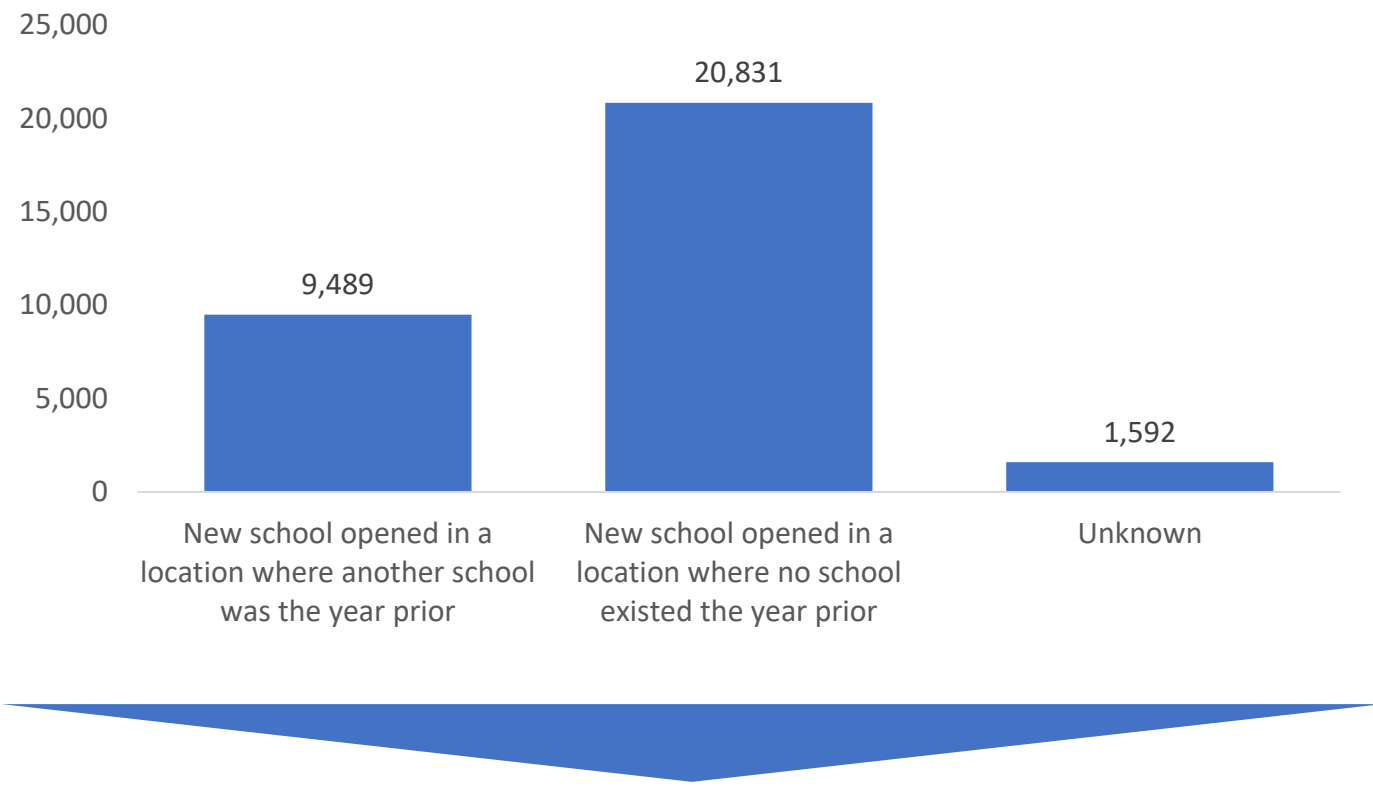
Schools Opened Between 1989-90 and 2019-20 / Schools Closed Between 1989-90 and 2019-20

In districts with high enrollment growth and a high ratio of opened to closed schools, new school creation is likely driven by enrollment growth.



Note: includes only districts that had at least one school open and one school close between 1989-90 and 2019-20. Size of bubble is proportional to 2019-20 enrollment.

In addition, for the majority of new schools, we can identify whether another school existed in the same location the prior year.



New schools in a new location – at least in areas with population growth and few schools closing – would seem likely to be created in response to population growth

Note: unknown schools represent those that could not be geocoded by address.

At least one-third of new schools were likely created due to enrollment pressure and at least one-third are unlikely to part of an enrollment growth story.

New Schools Opened Between 1989-90 and 2019-20

District Enrollment Growth	Open / Close Ratio	School Location Category			Total
		New Location	Existing Location	Unkown	
High Growth (50% or Greater)	5 or more	7,589	1,914	464	9,967
	Between 1 and 5	1,564	590	107	2,261
	1 or less	116	75	7	198
Above Avg. Growth (25% to 49.9%)	5 or more	1,278	532	78	1,888
	Between 1 and 5	1,529	508	92	2,129
	1 or less	197	118	16	331
Below Avg Growth (0.1% to 24.9%)	5 or more	1,666	1,307	253	3,226
	Between 1 and 5	2,080	973	124	3,177
	1 or less	675	422	52	1,149
No Growth (0% or Less)	5 or more	340	459	48	847
	Between 1 and 5	1,162	654	80	1,896
	1 or less	2,164	1,743	225	4,132
Not applicable	Not applicable	471	194	46	711
Total		20,831	9,489	1,592	31,912

- Likely created in response to enrollment growth (n = 9,967; 18% charters)
- Unlikely created in response to enrollment growth (n = 10,304; 23% charters)
- Unknown and/or a combination of factors (n = 11,641; 25% charters)

Note: Not applicable represent new schools in districts that did not exist in 1989-90.

Appendix 5

New York City New School Maps by Decade

New Schools in New York City (Opened from 1991 - 2000)

This map displays new schools that opened between 1991 to 2000 and were still open in 2020. Poverty rates by census tract in 1999 are shown.

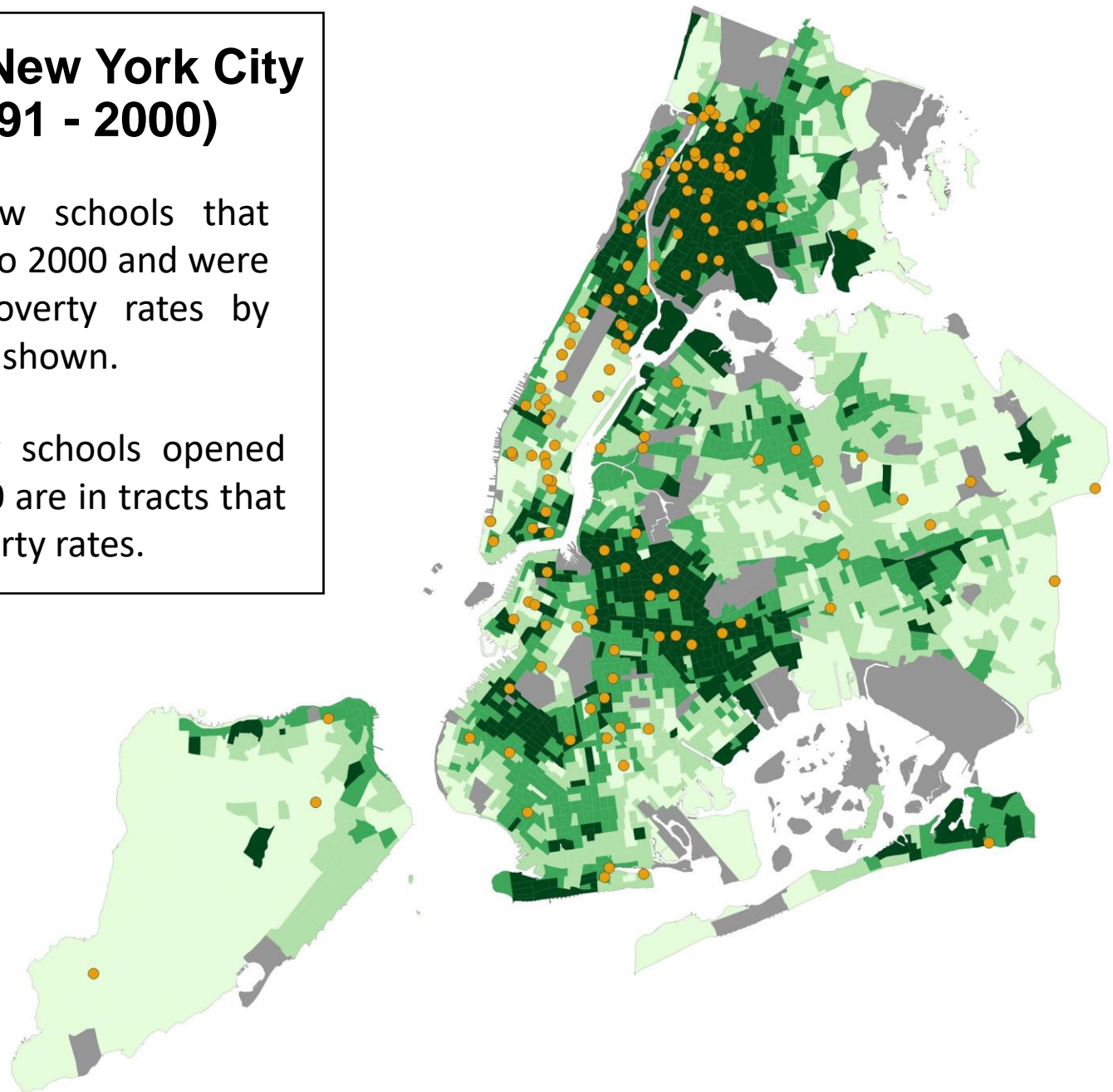
66% (113/170) of new schools opened between 1991 and 2000 are in tracts that had above average poverty rates.

New Schools

- District Schools

% Poverty

- No Data
- Lowest Quartile
- Highest Quartile



New Schools in New York City (Opened from 2001 - 2010)

This map displays new schools that opened between 2001 and 2010 and were still open in 2020. Poverty rates by census tract from 2006 to 2010 are shown.

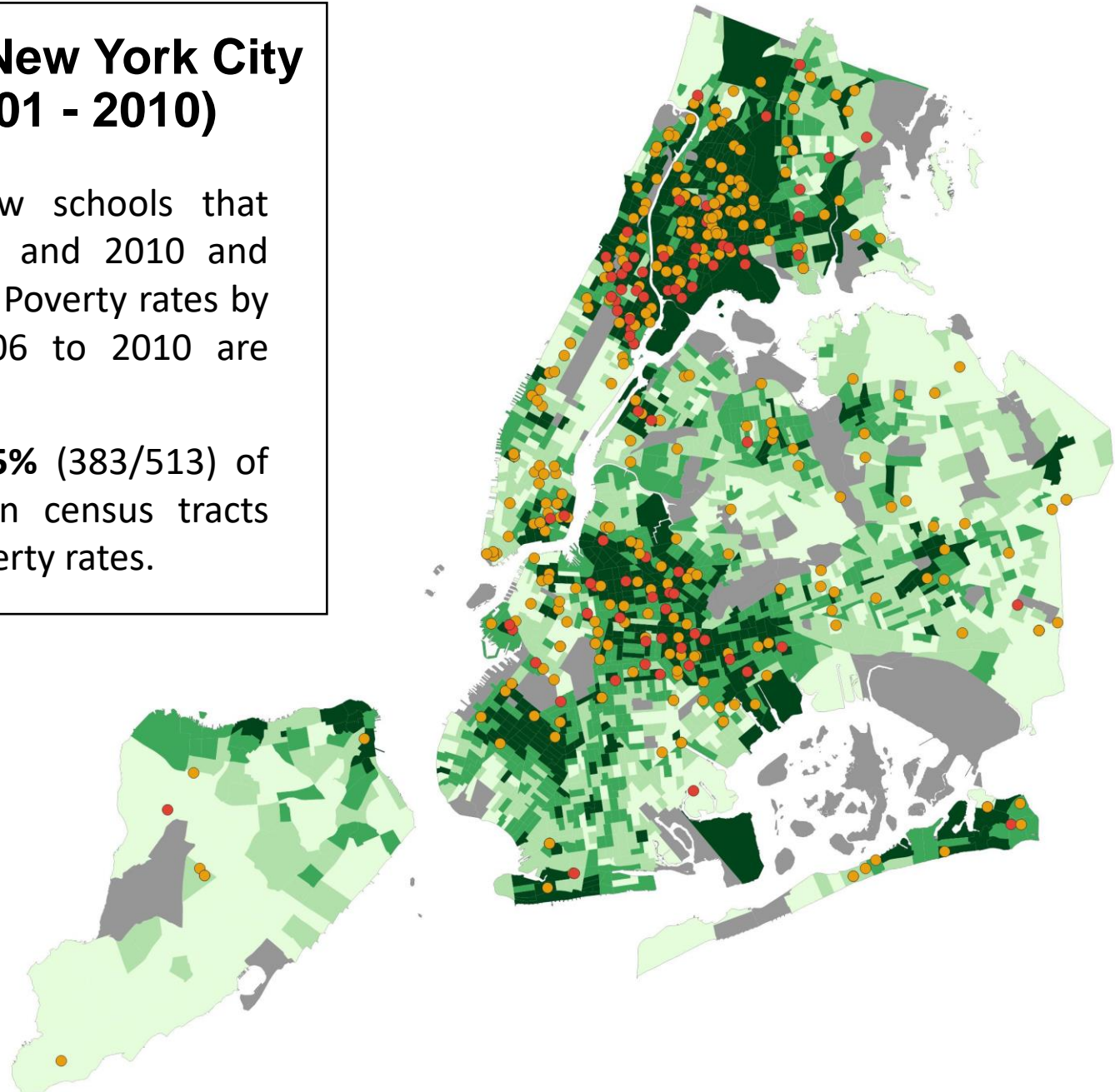
From 2000 to 2010, **75%** (383/513) of new schools opened in census tracts with above average poverty rates.

Schools Opened

- District School
- Charter School

% Poverty

- No Data
- Lowest Quartile
-   Highest Quartile



New Schools in New York City (Opened from 2011 – 2020)

This map displays new schools that opened between 2011 and 2020 and were still open in 2020. Poverty rates by census tract from 2015 to 2019 are shown.

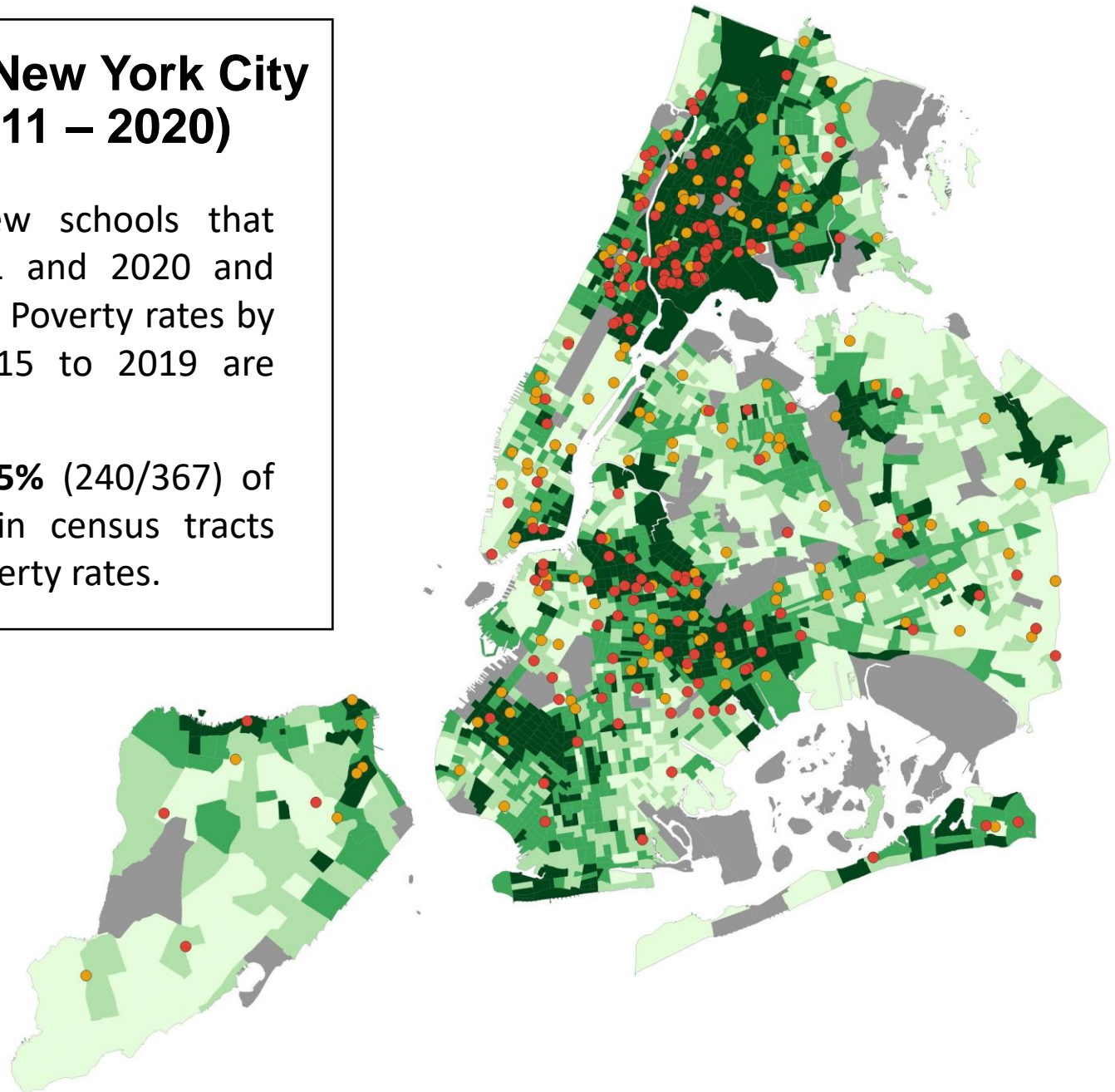
From 2010 to 2020, **65%** (240/367) of new schools opened in census tracts with above average poverty rates.

Schools Opened

- District School
- Charter School

% Poverty

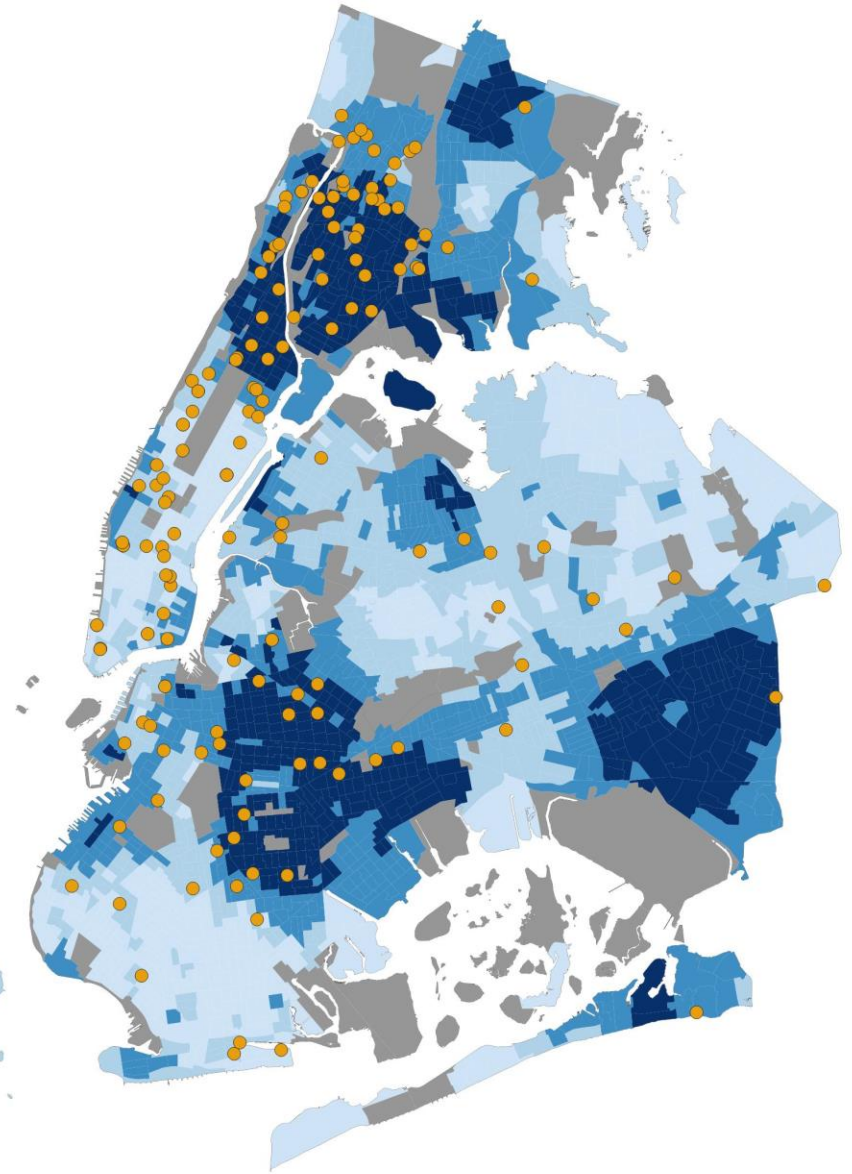
- No Data
- Lowest Quartile
-  Highest Quartile



New Schools in New York City (Opened from 1991 - 2000)

This map displays new schools that opened between 1991 to 2000 and were still open in 2020. Shading is based on % Black and Hispanic at the census tract level from 2000.

From 1990 to 2000, **60%** (102/170) of new schools opened in census tracts with above average Black and Hispanic populations.



New Schools

● District School

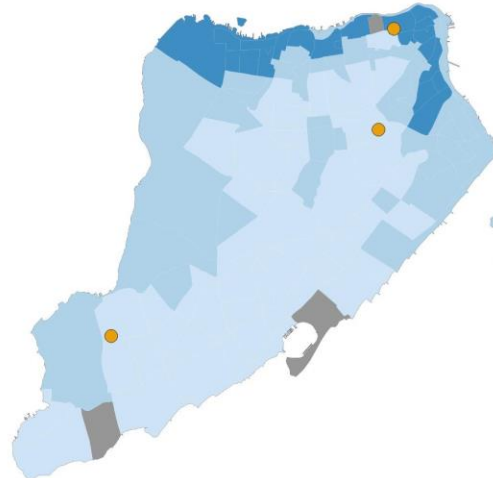
% Black and Hispanic

■ No Data

■ Lowest Quartile

↓

■ Highest Quartile



New Schools in New York City (Opened from 2001 - 2010)

This map displays new schools that opened between 2001 to 2010 and were still open in 2020. Shading is based on % Black and Hispanic at the census tract level from 2010.

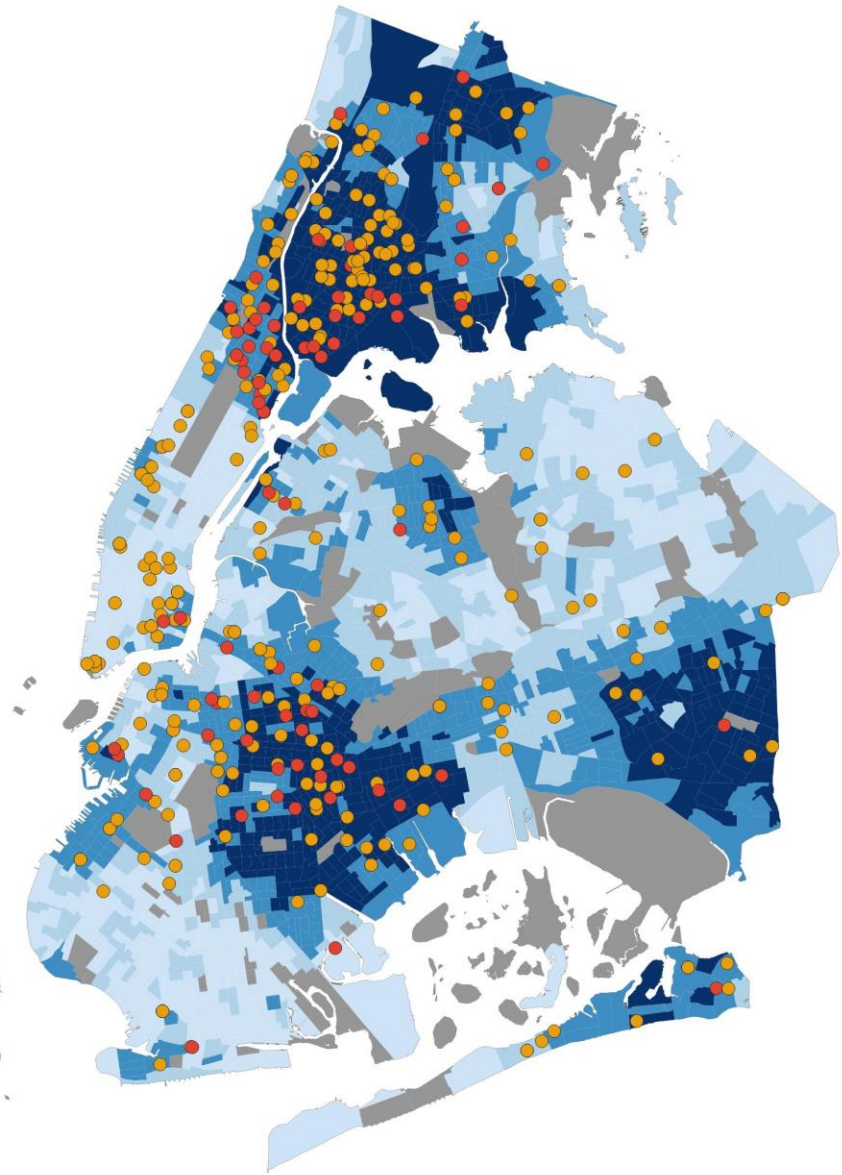
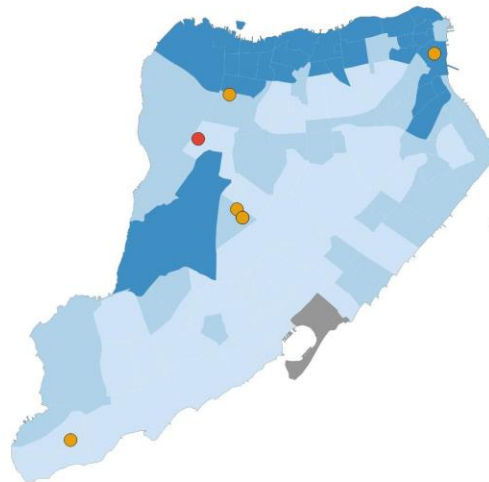
From 2000 to 2010, **77%** (395/513) of new schools opened in census tracts with above average Black and Hispanic populations.

New Schools

- District School
- Charter School

% Black and Hispanic

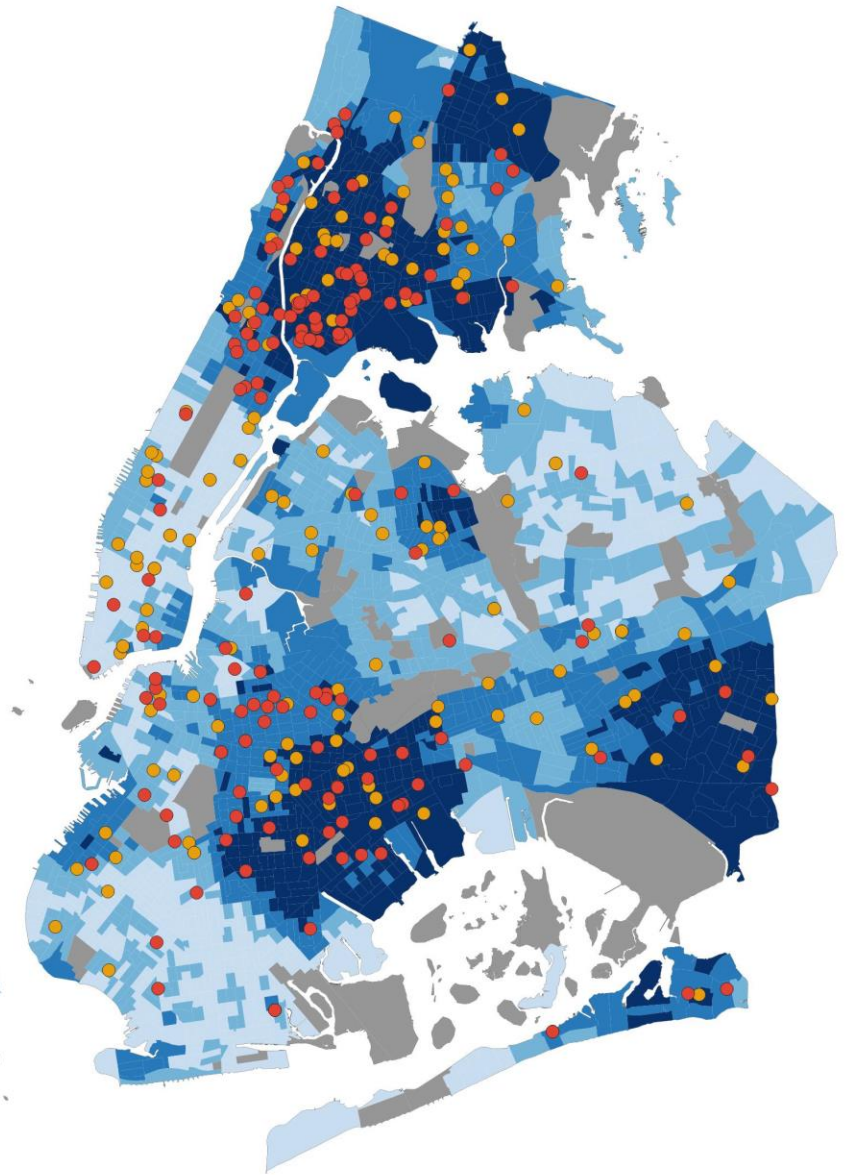
- No Data
- Lowest Quartile
-
- Highest Quartile



New Schools in New York City (Opened from 2011 – 2020)

This map displays new schools that opened between 2011 to 2020 and were still open in 2020. Shading is based on % Black and Hispanic at the census tract level from 2019.

From 2010 to 2020, **74%** (270/367) of new schools opened in census tracts with above average Black and Hispanic populations.



New Schools

- District School
- Charter School

% Black and Hispanic

- No Data
- Lowest Quartile
- Highest Quartile

