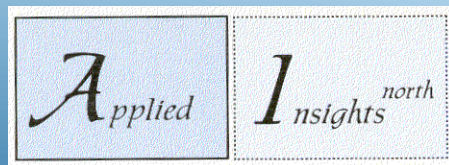




COOK COUNTY PUBLIC SCHOOLS (ISD 166) STUDENT ENROLLMENT PROJECTION TO 2033/34



The Overview

- Cook County gained population since 2010 and is projected to grow through at least 2030.
- Significant part of past and anticipated growth is in younger, family-generating households.
- For the first time the county has a number of significantly sized housing projects timed to start in 2024 that will add over 100 units including a large number targeted at working age households. Another suite of potential near-term projects are in the works.
- Number of K-12 students residing in the county regardless of which school they attend has been relatively stable being supported by a pattern of steady births and incoming students.
- Students have multiple options for schools: ISD 166, one of three charter schools, home-schooling, and online options. A handful of non-resident students open enroll into Birch Grove but just 1-2 attend ISD 166 in any given year.
- ISD 166 enrollment began the analysis period at 438, peaked at 454 before dropping to 373 at core of COVID-impacted years. Enrollment steadily grew since and is now 426.
- Number of students open enrolling out began at 128, grew to the 190s before declining this year to 171.
- Number of home-schooled students has been consistently in the 20s; it peaked at 30 in 2020/21.
- **K-12 enrollment is expected to increase 8.2% (from 426 to 461) by 2033/34.**

Factors Considered in Projection

- Pattern of student population levels and enrollment change within the district.
- Enrollment trends at three charter schools within the county.
- Development initiatives impacting district.
- Patterns of births relative to district kindergarten enrollment including projected births.



Cook County is Unique

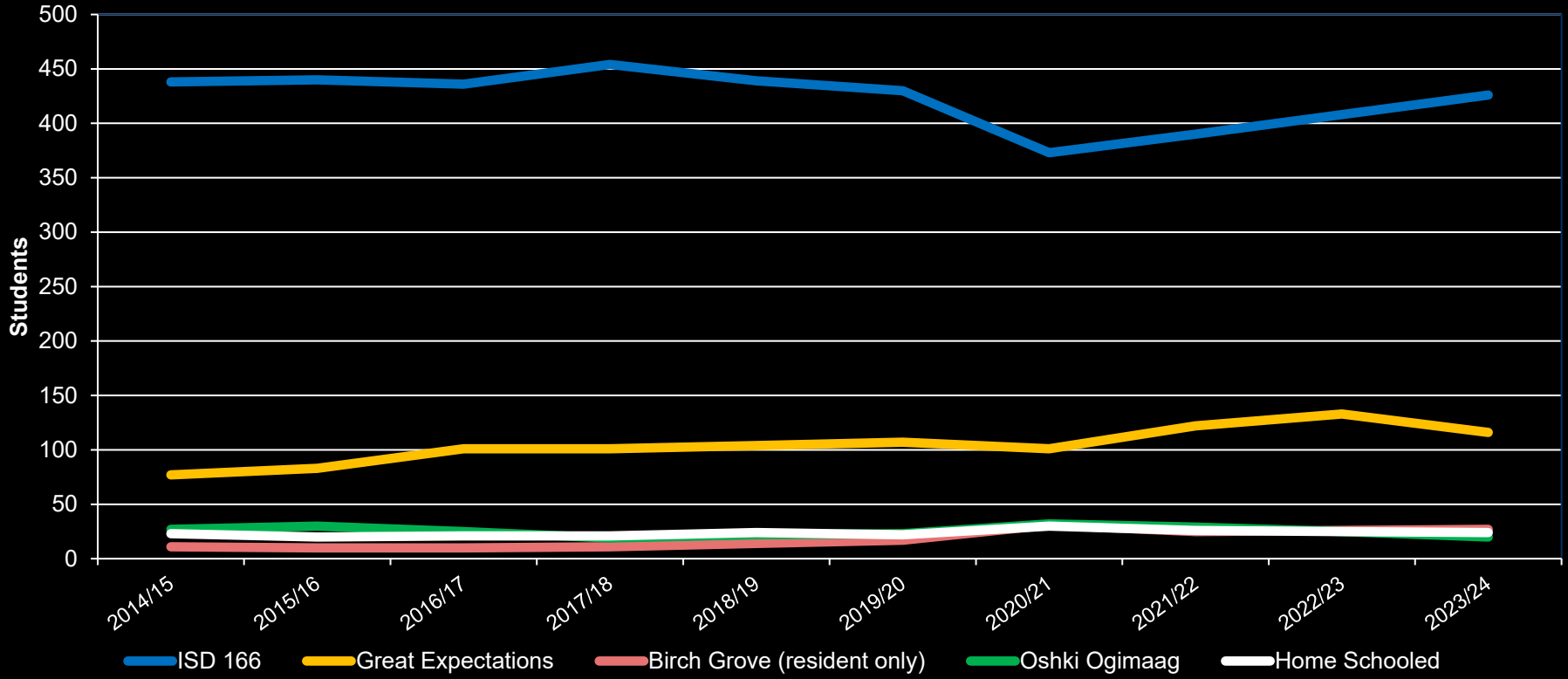
- ISD 166 is the only district in Minnesota with just one adjacent district.
- Cook County is relatively self-contained regarding student learning options. Few students open enroll into the county (mostly to Birch Grove) and few open enroll out of the county, mainly via online options.
- Students have five primary learning options: ISD 166, Great Expectations, Oshki Ogimaag, Birch Grove Community, and home-schooling.
- The projection process begins with an examination of trends in the number of students living within the county and goes into detail on ISD 166.
- For all years except 2023/24 enrollment figures are Average Daily Membership (ADM) which reflect the time students actually spent at school. 2023/24 enrollment figures are student body counts as of the start of the school year.

All K-12 Students Residing in Cook County, Regardless of Where they Attend, 2014/15 – 2023/24

Grade	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
K	37	43	53	46	45	49	54	51	56	43
1	45	37	43	58	46	43	47	51	55	52
2	45	43	39	47	54	47	41	47	51	53
3	49	46	48	39	46	56	41	46	49	51
4	43	50	46	50	43	44	56	47	49	51
5	43	44	53	48	47	44	42	54	43	44
6	47	44	49	54	56	47	42	44	57	44
7	46	46	42	50	55	55	45	43	45	55
8	54	43	47	40	52	54	53	45	44	42
9	52	51	43	47	37	51	51	53	42	46
10	44	54	50	46	51	34	46	49	53	42
11	45	44	55	50	43	48	36	45	45	51
12	39	49	46	54	44	42	47	34	41	45
Total K-12	589	594	614	629	619	614	601	609	630	619
K – 5	262	263	282	288	281	283	281	296	303	294
6 – 8	147	133	138	144	163	156	140	132	146	141
9 – 12	180	198	194	197	175	175	180	181	181	184

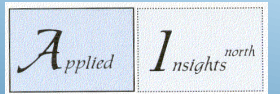
Source: MDE, district.

K-12 Enrollment at Schools in Cook County, 2014/15—2023/24

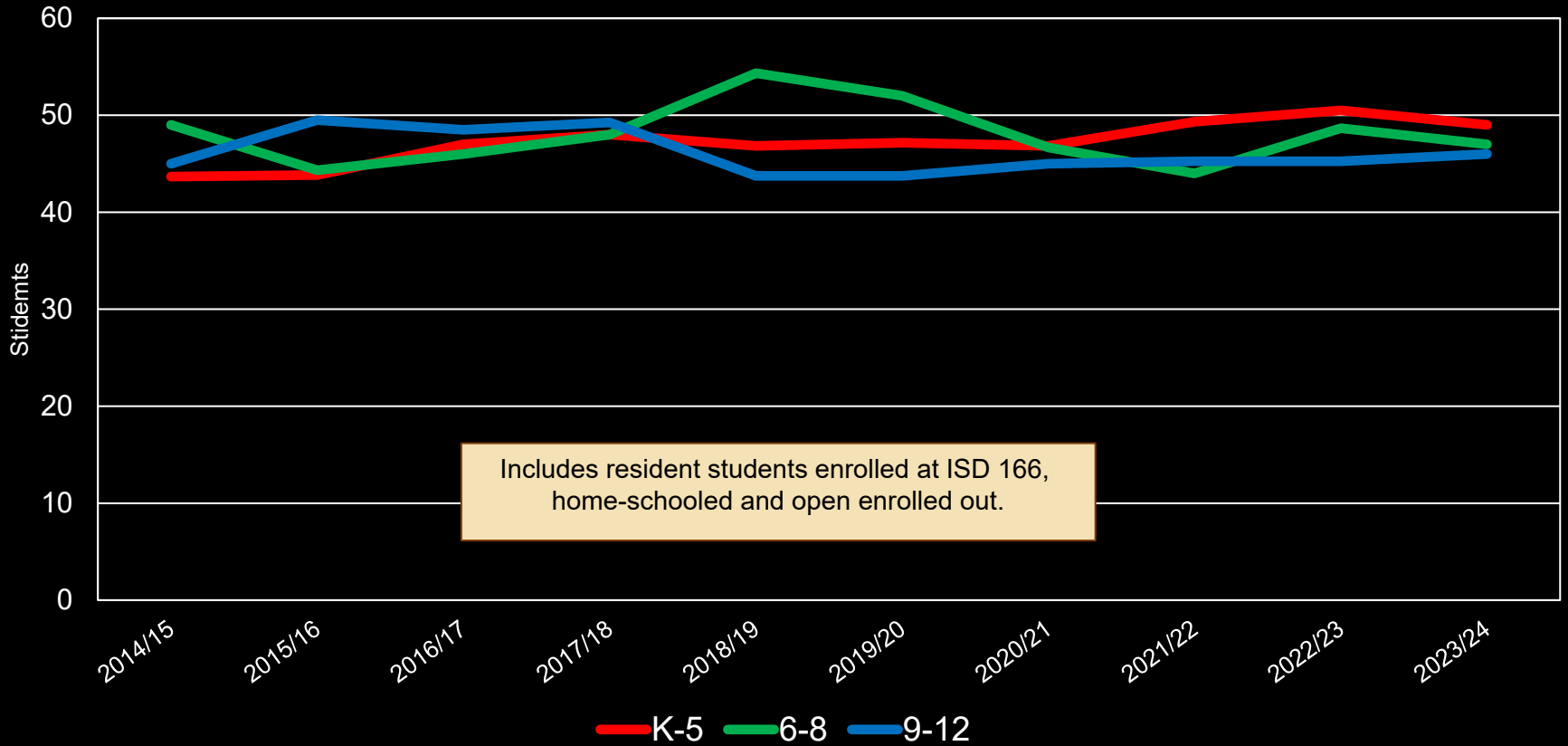


School	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
ISD 166	438	440	436	454	438	429	373	390	407	424
Great Expectations	77	83	101	101	104	107	101	122	133	116
Birch Grove	11	10	10	11	14	17	31	25	26	27
Oshki Ogimaag	27	30	25	19	22	23	32	29	25	20
Home Schooled	23	20	21	21	24	22	30	26	25	24

Source: MDE, Applied Insights North.



All Resident K-12 Students in Cook County: Average Grade Size by Grade Group



Avg. Size	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
K – 5	44	44	47	48	47	47	47	49	51	49
6 – 8	49	44	46	48	54	52	47	44	49	47
9 – 12	45	50	49	49	44	44	45	45	45	46

Source: MDE, Applied Insights North.

K-12 Resident Student Analysis

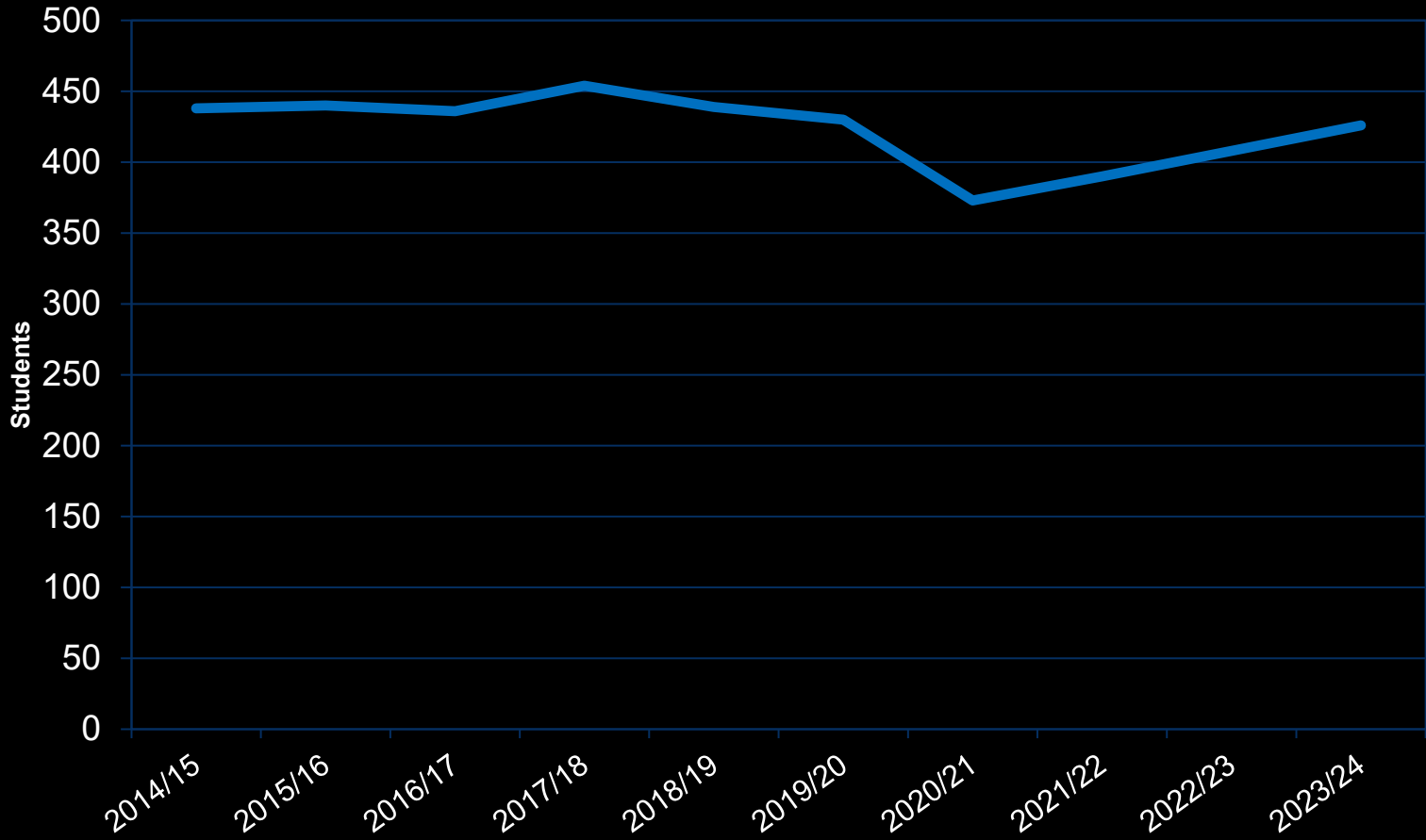
In District	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Total	589	594	614	630	618	614	600	609	630	619
Attend ISD 166	438	440	436	454	438	429	373	390	407	424
Open Enroll Out	128	134	157	155	156	163	197	193	198	171
Private										
Home- Schooled	23	20	21	21	24	22	30	26	25	24
Percent of Total										
Attend ISD 166	74.4%	74.1%	71.0%	72.1%	70.9%	69.9%	62.2%	64.0%	64.6%	68.5%
Open Enroll Out	21.7%	22.6%	25.6%	24.6%	25.2%	26.5%	32.8%	31.7%	31.4%	27.6%
Private	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Home- Schooled	3.9%	3.4%	3.4%	3.3%	3.9%	3.6%	5.0%	4.3%	4.0%	3.9%

ISD 166 Enrollment, 2014/15 – 2023/24

Grade	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
K	26	27	24	23	23	19	20	20	29	26
1	26	24	25	32	23	22	16	21	23	29
2	25	25	24	27	30	24	19	14	24	27
3	33	26	29	25	25	32	15	25	17	26
4	26	34	28	33	27	25	26	19	28	25
5	28	26	35	30	31	27	19	33	21	27
6	29	30	26	38	37	37	26	30	38	25
7	32	34	28	32	42	41	32	30	32	37
8	47	33	37	28	36	39	40	37	31	30
9	47	49	42	45	35	46	43	48	40	44
10	42	49	46	45	48	32	42	43	47	39
11	41	39	52	45	42	46	30	40	43	47
12	36	44	40	51	40	40	45	30	35	44
Total K-12	438	440	436	454	439	430	373	390	408	426
K – 5	164	162	165	170	159	149	115	132	142	160
6 – 8	108	97	91	98	115	117	98	97	101	92
9 – 12	166	181	180	186	165	164	160	161	165	174

Source: MDE, district.

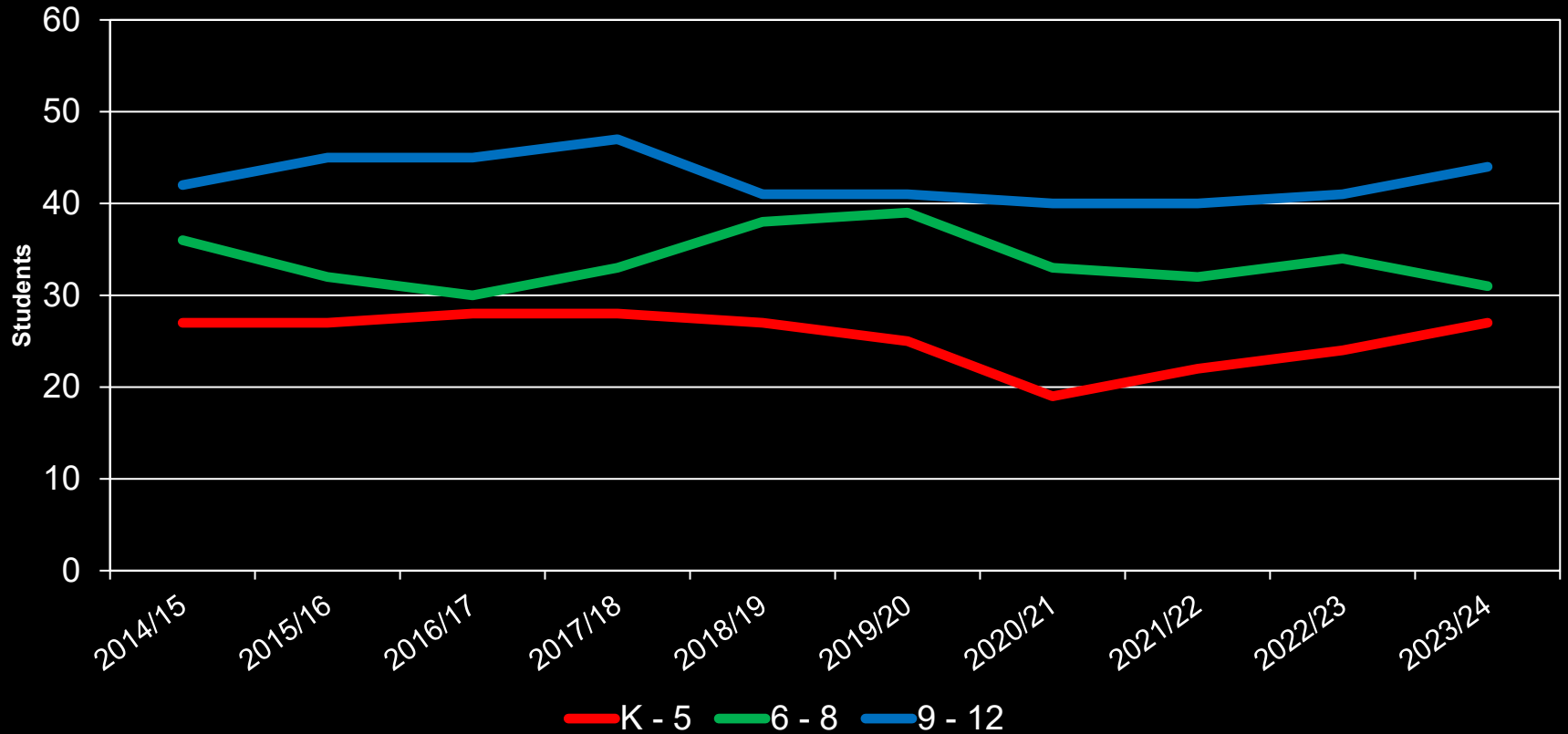
ISD 166 K-12 Enrollment, 2014/15—2023/24



Source: MDE, district.

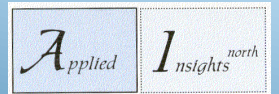
ISD 166 K-12

Average Grade Size by Grade Group

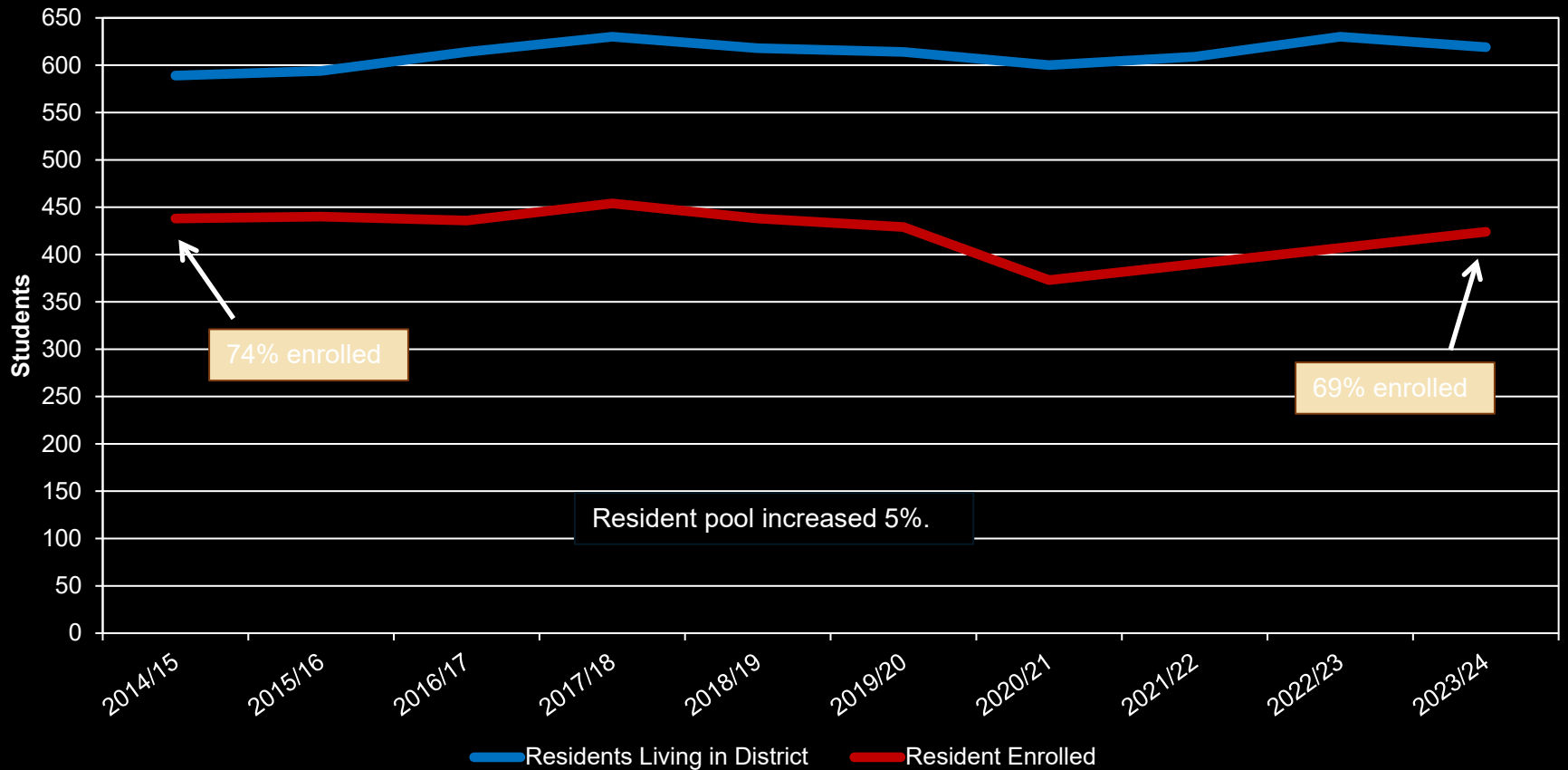


Avg. Size	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
K - 5	27	27	28	28	27	25	19	22	24	27
6 - 8	36	32	30	33	38	39	33	32	34	31
9 - 12	42	45	45	47	41	41	40	40	41	44

Source: MDE, Applied Insights North.



ISD 166 K-12 Resident Students Enrolled Compared to Resident Students Living in District



Residents	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
In District	589	594	614	630	618	614	600	609	630	619
Enrolled	438	440	436	454	438	429	373	390	407	424

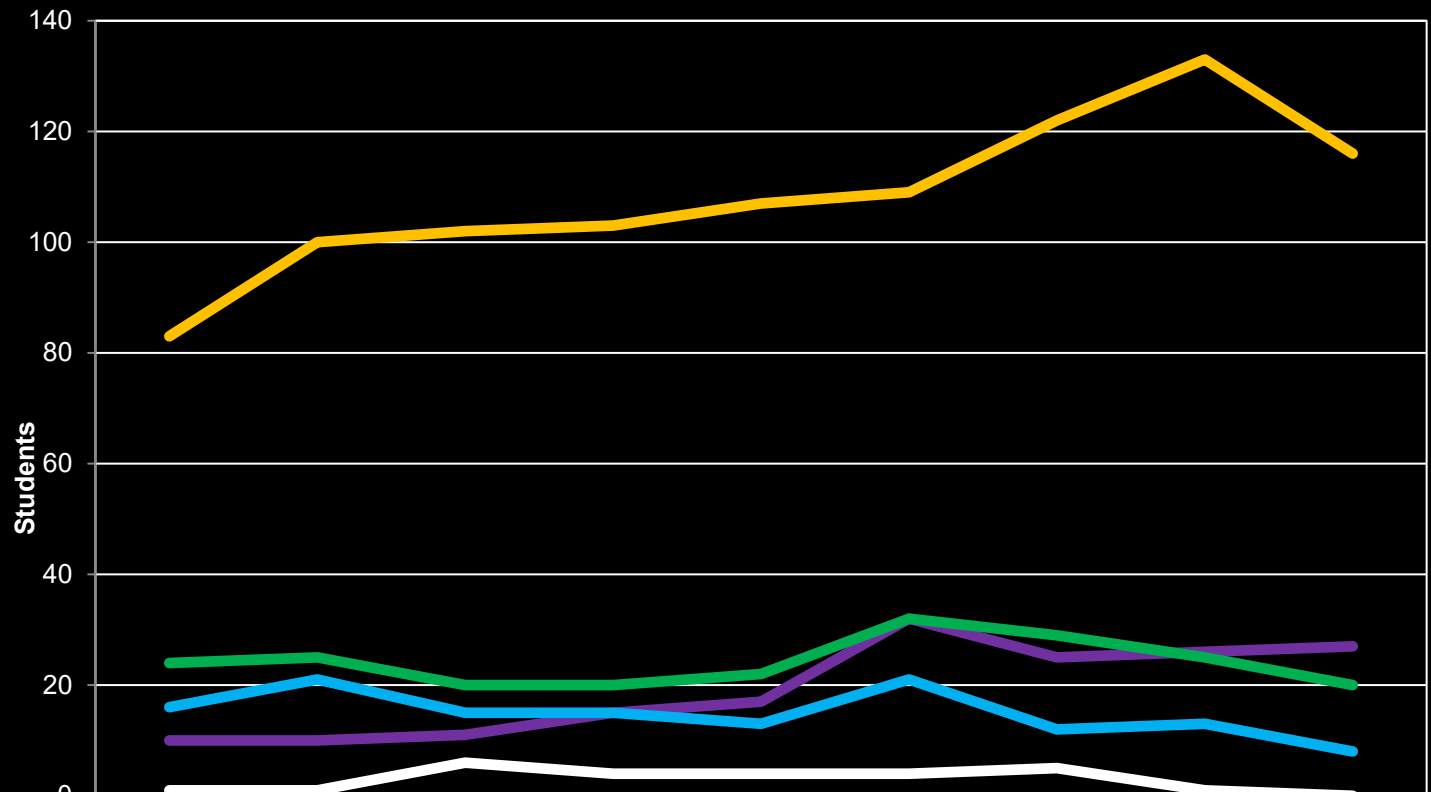
Source: MDE, district Applied Insights North.

Open Enrollment

ISD 166 Students Open Enrolling Out by Destination Three-Year Averages			
	2015/16 to 2017/18	2018/19 to 2020/21	2021/22 to 2023/24
Great Expectations	-95	-106	-124
Birch Grove Community	-10	-21	-26
Oshki Ogimaag	-23	-25	-25
Lake Superior	-3	-4	-1
All Others	-17	-15	-11
Total	-148	-172	-186

The only source of students open enrolling into the district is Lake Superior (ISD 381):
1 student each in 2018/19, 2019/20 and 2022/23 and 2 in 2023/24.

Open Enrollment Out by Destination School/District, 2015/16—2023/24



	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Great Expectations	83	100	102	103	107	109	122	133	116
Birch Grove Comm.	10	10	11	15	17	32	25	26	27
Oshki Ogimaag	24	25	20	20	22	32	29	25	20
All Others	16	21	15	15	13	21	12	13	8
Lake Superior	1	1	6	4	4	4	5	1	0

Source: MDE, district.

Grade Progression Ratios

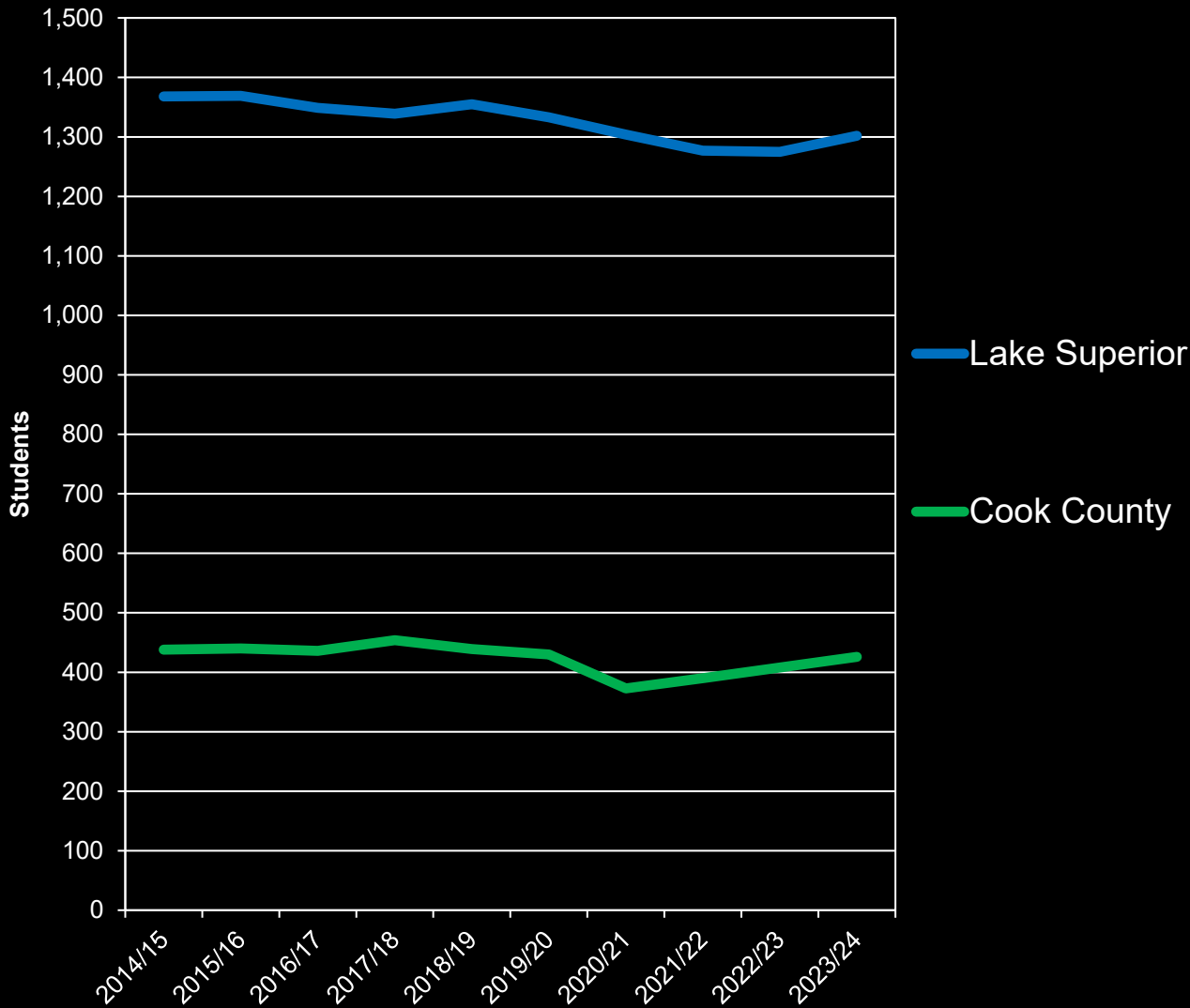
Average Grade Progression Ratios for 2015/16 to 2023/24 by Three-Year Groups

Grade Shift	All Years	First 3	Mid 3	Last 3	Projection
K > 1	1.02	1.13	0.93	1.07	1.02
1 > 2	1.01	1.04	0.95	1.06	1.01
2 > 3	1.05	1.10	0.87	1.20	1.05
3 > 4	1.11	1.11	0.96	1.29	1.05
4 > 5	1.02	1.05	0.90	1.11	1.02
5 > 6	1.16	1.04	1.13	1.31	1.30
6 > 7	1.07	1.08	1.03	1.06	1.07
7 > 8	1.03	1.04	1.01	1.04	1.03
8 > 9	1.21	1.24	1.21	1.23	1.30
9 > 10	0.99	1.01	0.96	0.98	0.99
10 > 11	0.97	1.02	0.94	0.98	0.97
11 > 12	0.98	1.00	0.94	0.97	0.98

These ratios indicate the number of students who move from one grade level to the next. A number less than 1.0 means fewer students moved from one grade level to the next and a number greater than 1.0 means additional students joined the class from one year to the next.

The district's rebound from its enrollment low in 2020/21 generated exceptionally positive ratios which if used in the projection would produce excessively large gains. For the projection most ratios were dampened down. Those for grades 5>6, 6>7 and 8>9 are kept high to account for incoming students from charter schools.

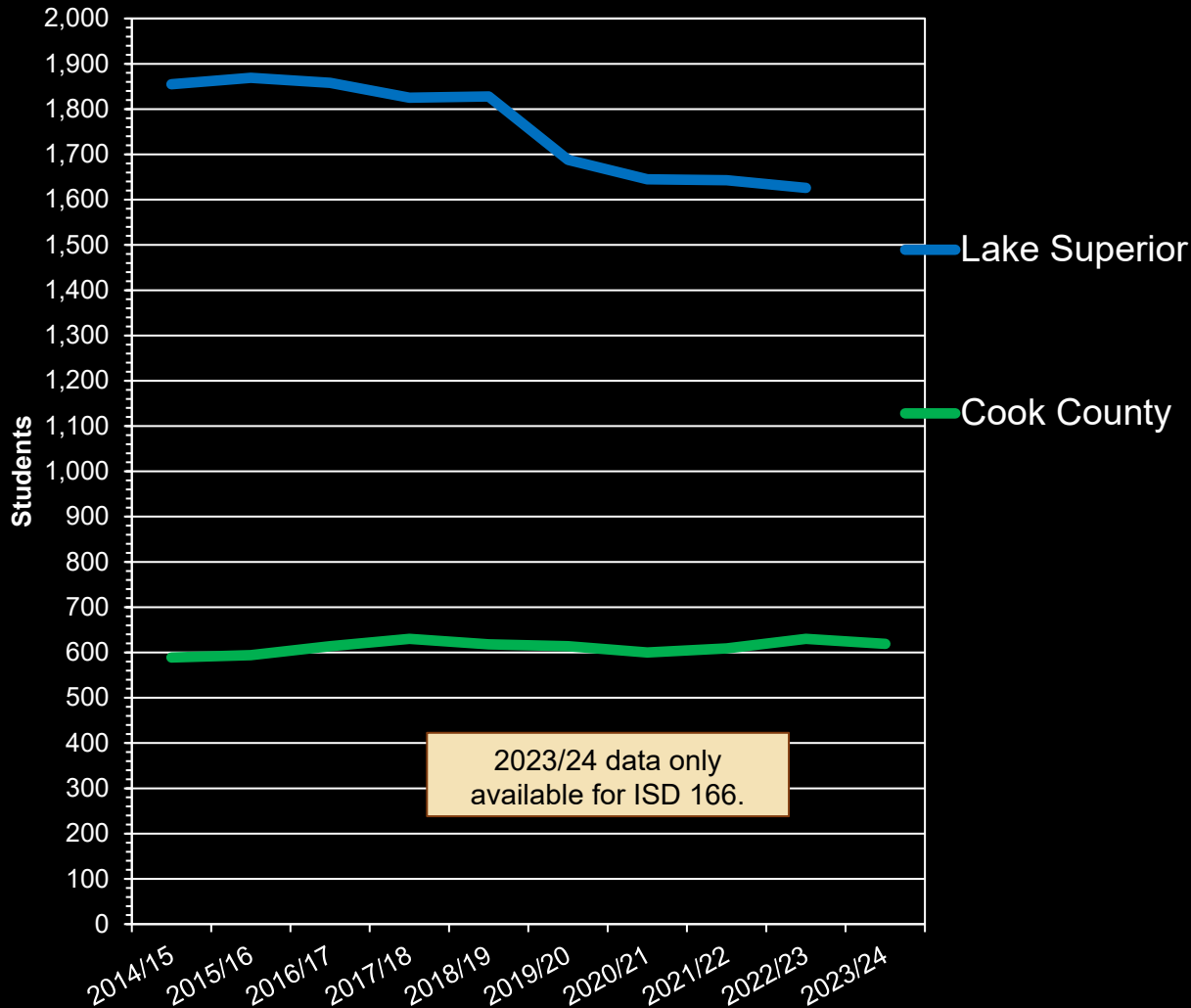
Cook County (ISD 166) & Lake Superior Districts K-12 Enrollment, 2014/15—2023/24



Context: Area Schools

- ISD 166 is unique in Minnesota in that it is the only district that abuts just one other district.
- Still, it is useful to compare ISD 166 with its neighbor Lake Superior as they share the common geography of the North Shore.
- Enrollment at ISD 166 declined 2.7% compared to a 4.8% drop at Lake Superior.
- Both districts have gained since recent low points.

Cook County (ISD 166) & Lake Superior Districts Resident K-12 Students Regardless of Where Enrolled, 2014/15—2023/24



Resident Student Base

This chart shows the number of resident students living within each district regardless of where they actually were enrolled. This removes the distortion caused by open enrollment and shows each district's "pool" of students

While ISD 166 experienced a 5% growth in its resident student base, Lake Superior's resident base declined 12%. That decline was continuous throughout the 10 year period.

Assessment of Historic Enrollment

- Number of students living in the district grew 5.1%.
- For all students residing in Cook County, average K-5 grade size started around 45, rose to 47 and averaged 50 over past three years. This reflects a generally stable number of births to residents and influx of households with young children.
- Students have five options for learning: attend ISD 166, open enroll into one of three local charter schools or outside the district, and home-schooling.
- Total K-12 enrollment at ISD 166 was stable before dipping in 2020/21 in response to COVID-impacts and then steadily growing since then.
- Number of resident students open enrolling out rose from 21.7% of resident pool to 32.8% in 2020/21 before dropping back to 27.6%.
- Number of home-schooled students has consistently been in the 20s with exception of 2020/21 when it peaked at 30.
- From 2010 to 2018 annual births to residents of Cook County averaged 47 before dropping to an average of 31 for 2019 to 2021. They rebounded to 53 in 2022.

Analyze 2000-2020 trends:
Changes in age groups
Births per year

Future: Estimating Births and Kindergarteners

Add in estimates & projections

Key factor is women age 15-44

Evaluate optional
fertility rates

Sources: US Census
State projections
State Department of Health.

Population Review

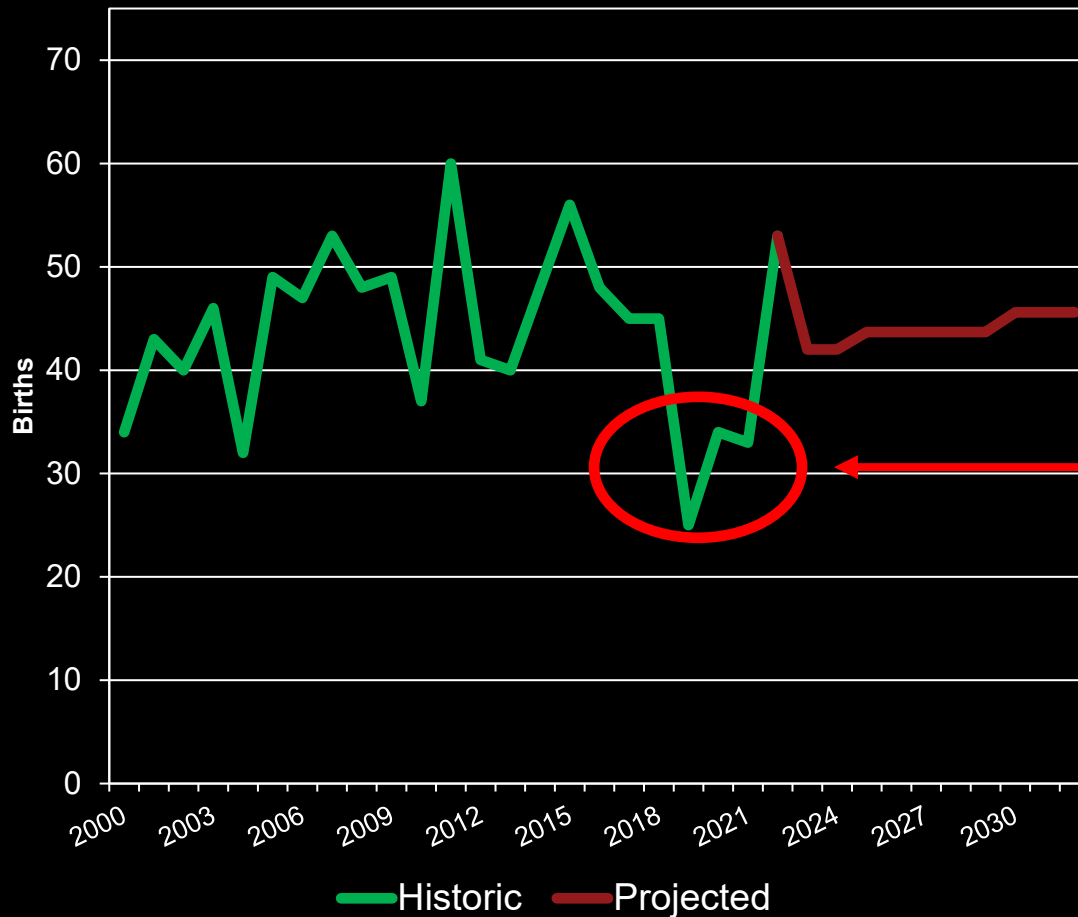
- ISD 166 and Cook County are coterminous.
- Cook County experienced a 8.2% gain in population from 2010 to 2020.
- County is projected to grow another 4% by 2030.
- Anticipated future growth will vary by age groups. Of interest to the district is a growing population under age 19 and modest growth in the family-generating group aged 20-44.

Area Development Review

- Cook County gained population since 2010 and is projected to grow through at least 2030.
- The heart of the county's economy is tourism including second homes.
- Excellent high speed broadband internet service supports existing businesses, encourages people to move here, and fosters remote work.
- Economic development of any type at scale will not happen until housing situation is remedied.
 - Lack of workers hampers businesses; absence of housing depresses worker numbers.
 - Fewer foreign national are entering county due to many factors including cost to businesses to bring them here along with requirement to ensure housing is available.
 - West End businesses collaborated to provide a large number of sleeping spaces for seasonal workers; this included buying homes in Silver Bay for such housing.
 - More individual businesses recognizing need to provide housing for their seasonal workers but its an added burden to operating their core business.
- Some growth in younger households in recent years likely was due to conversions of seasonal homes into year-round homes while sales of existing homes and new construction are dominated by retirees and seasonal units.
- For the first time the county has a number of significantly sized housing projects timed to start in 2024 adding over 100 units including a large number targeted at working age households. Another suite of potential near-term projects are also in the works.

Estimating Future Births & Kindergartners

Births to Cook County Residents 2000—2034



A key step in estimating future kindergarten classes is understanding trends in births to residents.

Alternative birth projections were generated based on average birth rates over different time periods. The enrollment projection uses the one covering 2015-22.

The steep decline in births between 2019 and 2021 will impact kindergarten class sizes beginning in 2024/25.

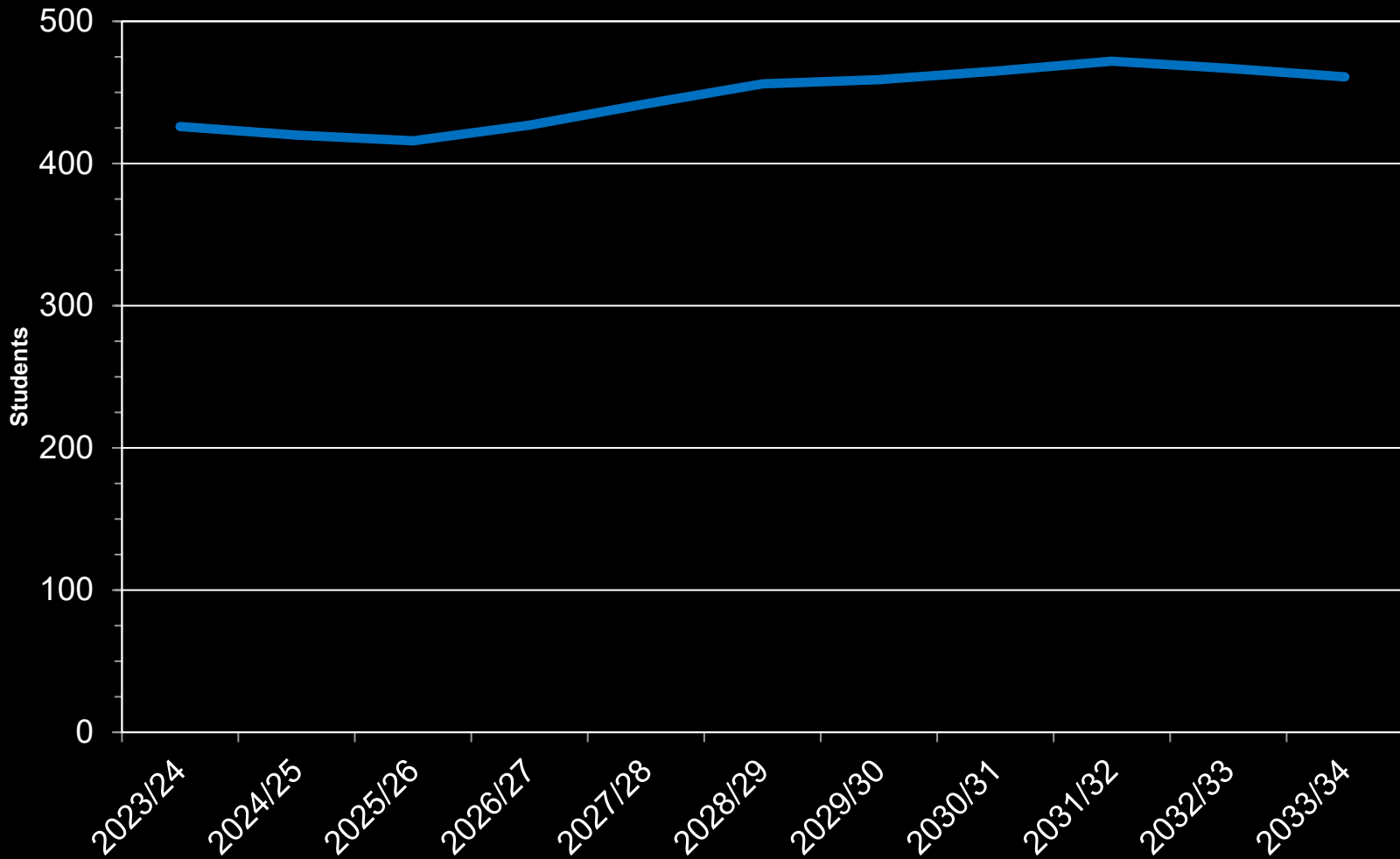
Projection Assumptions

- Significant level of new housing development will impact county's population including households with children.
- Cook County population will continue to grow including younger households and children of school age.
- Number of annual births to residents of County County will average in mid-40s with annual fluctuations of 10-15 expected but not able to project in any given year.
- A slight decrease in number of students open enrolling out is anticipated as district continues to improve its competitive edge.
- Number of students being home-schooled remains relatively constant.

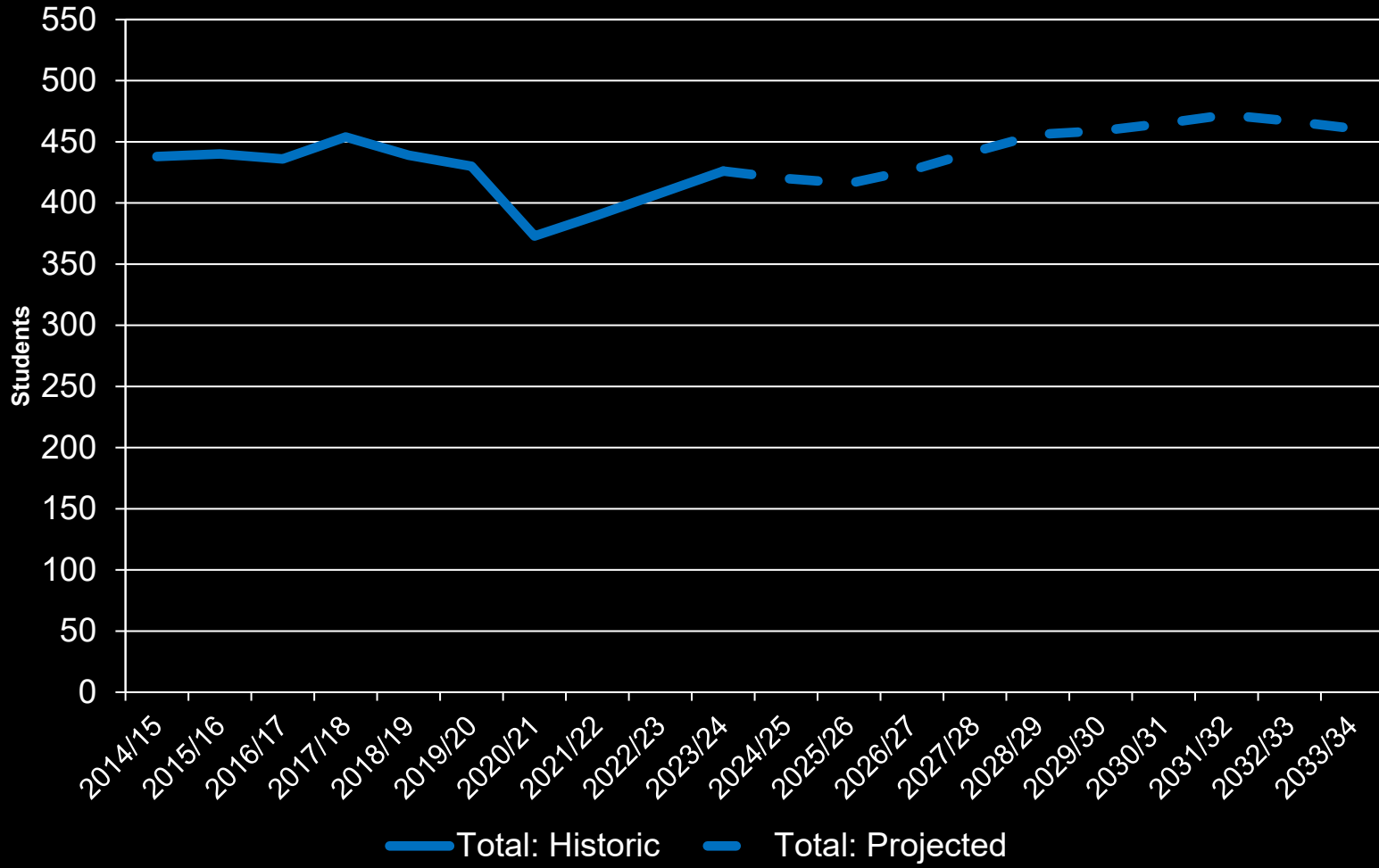
ISD 166 K-12 Enrollment Projection to 2033/34

Grade	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
K	26	18	17	19	27	27	24	25	25	25	25
1	29	27	18	17	19	28	28	24	26	26	26
2	27	29	27	18	17	19	28	28	24	26	26
3	26	28	30	28	19	18	20	29	29	25	27
4	25	27	29	31	29	20	19	21	30	30	26
5	27	28	29	34	37	33	25	24	26	35	35
6	25	30	33	34	41	40	39	29	28	30	39
7	37	27	32	35	36	44	43	42	31	30	32
8	30	38	28	33	36	37	45	44	43	32	31
9	44	40	53	45	47	50	51	57	58	49	38
10	39	44	40	52	45	46	49	50	56	57	48
11	47	38	43	39	51	44	45	48	49	54	55
12	44	46	37	42	38	50	43	44	47	48	53
Total	426	420	416	427	442	456	459	465	472	467	461
K – 5	160	157	150	147	148	145	144	151	160	167	165
6 – 8	92	95	93	102	113	121	127	115	102	92	102
9 – 12	174	168	173	178	181	190	188	199	210	208	194

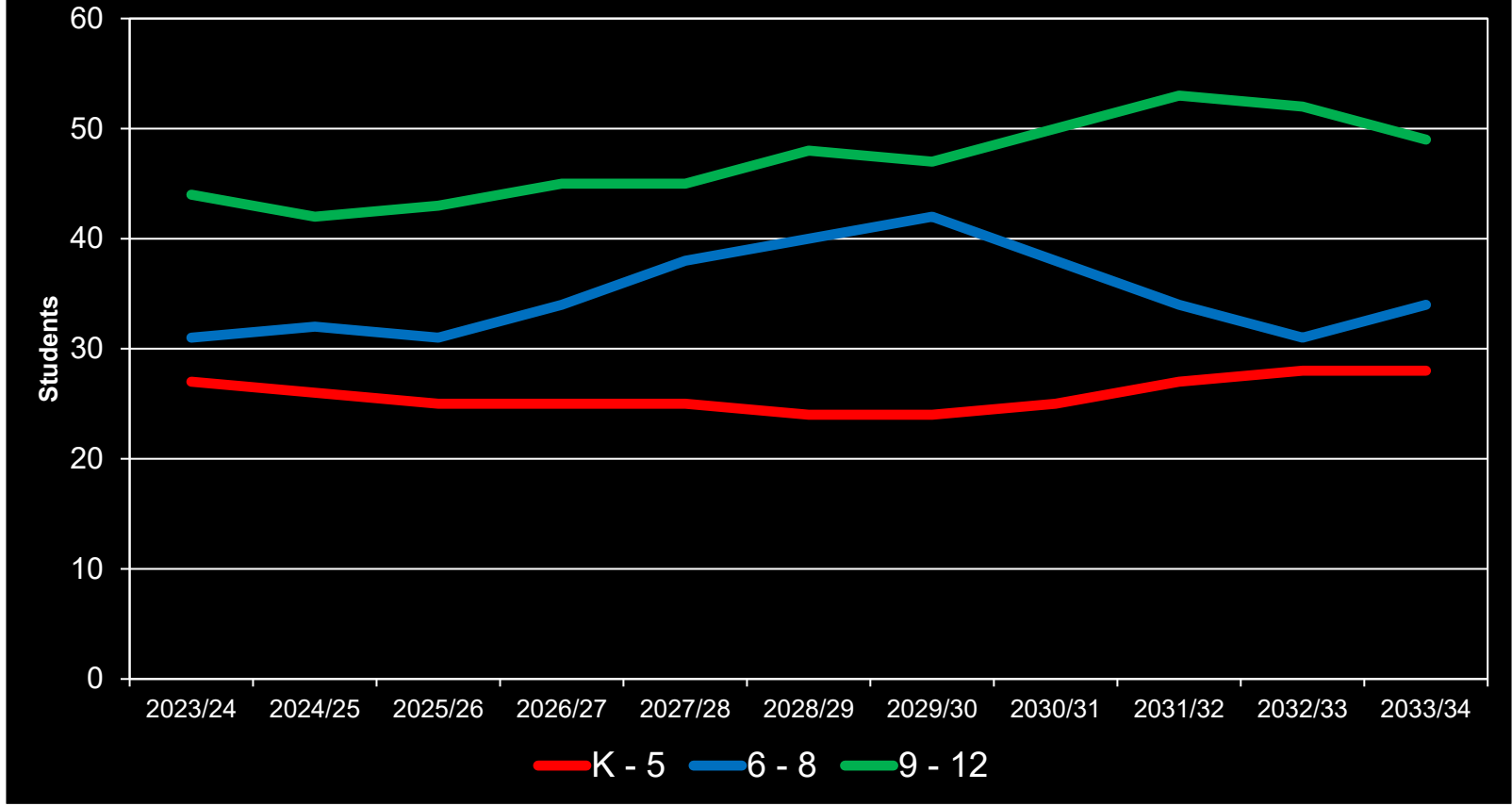
Cook County (ISD 166) K-12 Enrollment Projection to 2033/34



Perspective, ISD 166 K-12 Enrollment, Historic and Projection to 2033/34



ISD 166 K-12 Enrollment Projection: Average Grade Size by Grade Group



	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
K - 5	27	26	25	25	25	24	24	25	27	28	28
6 - 8	31	32	31	34	38	40	42	38	34	31	34
9 - 12	44	42	43	45	45	48	47	50	53	52	49

Using the Projection

- This is a projection not a prediction. It is built on assumptions regarding the best understanding of district dynamics such as open enrollment and future births. It produces relatively smooth trend lines because it uses averages and constants. The reality is there will be annual fluctuations in such things as incoming kindergarten classes.
- District can use this projection in several ways including:
 - Compare actual enrollment figures to projected ones, identify the likely reason such as a specific assumption that is not running true to reality and then determine if the deviation is a one-off event or something that is more permanently impacting future enrollment.
 - Use the projection as a baseline against which to pro-actively take actions to intentionally change one or more assumptions used in the projection (i.e., open enrollment out) in order to achieve a desired future enrollment level.

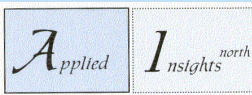
Cook County Schools (ISD 166) Student Enrollment Projection to 2033/34



Highlights

- K-12 enrollment will gain 8.2% from 426 to 461.
- No new non-resident students are projected although in any given year there may be one or two attending ISD 166.
- Average grade size by grade group:
 - K-5: starts at 160, then drops low of 144 in direct response to the three-year dip in births in 2019-2021, before climbing to 165.
 - Grades 6-8: starts at 31 and rises to 42 before dropping to 34 as the lower grade dip works its way up the grades.
 - Grades 9-12: begins at 44 rising to 53 before backing down to 49.

Questions & Answers



This projection was prepared for ICS, Inc. by
Applied Insights^{north} : John Powers, Principal / 181 Farley Lane, Duluth MN 55803 / 218.724.2332
johnwpowers181@gmail.com

October 16, 2023

Previous enrollment projections and education projects by Applied Insights^{north}:

Enrollment projections:

Minnesota: Greenway, Nashwauk-Keewatin, Mora, Grand Rapids/Bigfork, Thief River Falls, Becker, St. Louis County, Mountain Lake, Hermantown, Fosston, Northland (Remer), Nevis, Wheaton, Melrose, Red Lake Falls, Sebeka, Aitkin, Mahnommen, Eveleth-Gilbert, Menahga, Hill City, Hinckley-Finlayson, Staples-Motley, Carlton, Fertile-Beltrami, Wadena-Deer Creek, Red Rock Central, Osakis, Dawson-Boyd, Montevideo, Roseau, Virginia, Waubun-Ogema-White Earth, Brandon-Evansville, Breckenridge, Ely, New York Mills, Belgrade-Brooten-Elrosa, Browerville, Sauk Rapids-Rice, Park Rapids, Kimball, Becker, Lake Superior Schools (Two Harbors/Silver Bay), Red Lake County Central, Floodwood, Kerkhoven-Murdoch-Sunburg, Barnum, Rockford, Worthington, Henning, Perham-Dent, Badger, Rush City, Goodridge, Kingsland
North Dakota: Grafton, Minto, Park River, North Border, Carrington, Thompson, Midkota, Oakes, Valley-Edinburg
South Dakota: Groton, Lead-Deadwood, Madison Central, Spearfish
Wisconsin: Northwestern (Maple, WI), Washburn, Ashland, South Shore

Other projects:

- Rock Ridge (Virginia-Eveleth/Gilbert) elementary school attendance boundary analysis
- Itasca Area Schools Collaborative
- Red Lake College Enrollment Assessment
- Iron Range Higher Education Committee
- Northeast Higher Education District (Minnesota State College and University system)
- St. Louis County Schools long-range facilities plan.