



Memorandum

TO: Cathy Moore, Superintendent
David Ellis, County Manager

FROM: Marcella S. Rorie, Senior Director for WCPSS Long-Range Planning
Michelle Venditto, Wake County Director, Budget and Management Services

DATE: February 3, 2021

SUBJECT: Enrollment Forecast for WCPSS Operating and Capital Planning

The staff of WCPSS, Wake County Budget and Management Services and Wake County Planning completed an update of the WCPSS student enrollment forecast. The student enrollment projections are used in the development of the WCPSS operating budget, subsequent school allotments for the 2021-22 school year, and the update of the seven-year capital program. COVID-19 has had a significant impact on student enrollment across the country, and Wake County has not been an exception to this trend.

Report on Prior Year Forecast

The 2020-21 DPI reported PMR-2 membership of 157,673 represents a net loss of 4,234 students compared to last year and varies from the forecast by -4,267. To account for unprecedented attendance violations reflected in this data, PMR-2 is adjusted to 158,883 based on historical attendance violation information. Prior year forecasts do not include adjustments for attendance violations.

**PMR-2 Comparison with 2019-20 K-12 Forecast
Membership by Grade Group**

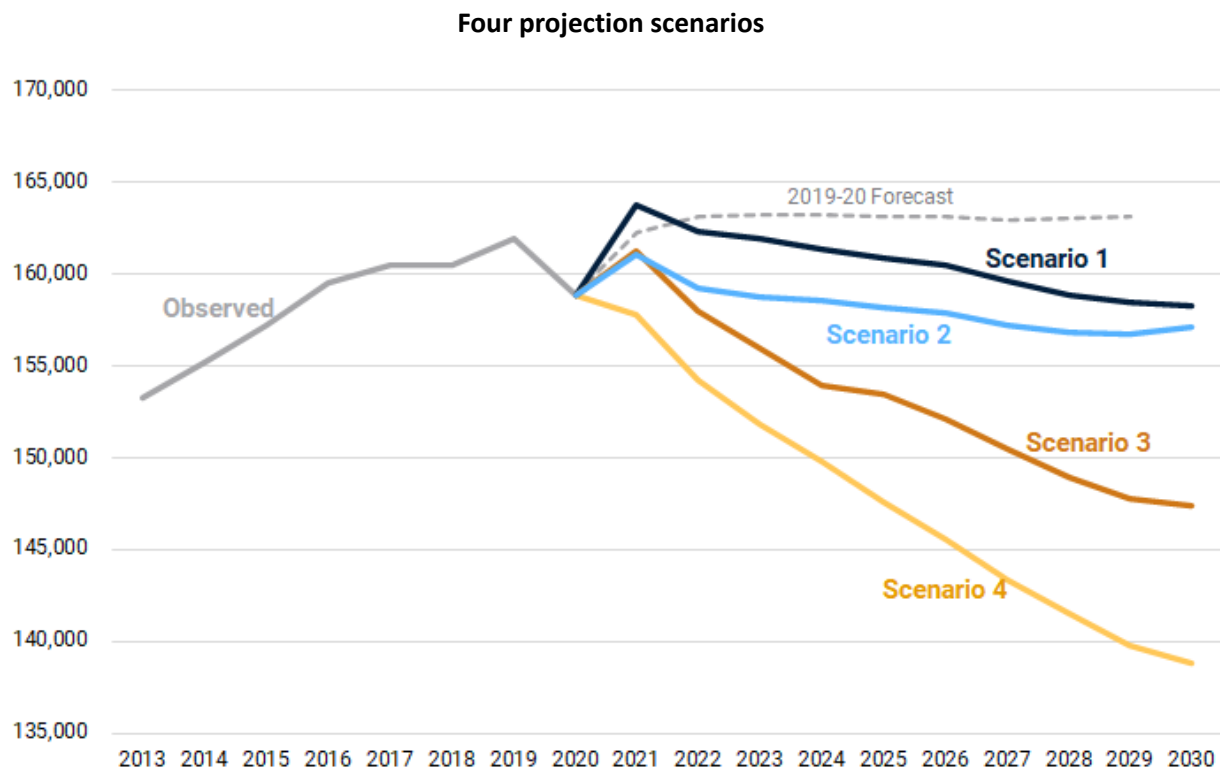
	2019-20 (actual PMR2)	2020-21 (forecast)	2020-21 (actual PMR2)	Net Loss (2020-21 – 2019-20 actual)	Variance (2020-21 actual - forecast)	2020-21 (attendance violation adjusted)
K-5	72,965	72,186	69,022	-3,943	-3,164	69,188
6-8	38,290	38,347	37,772	-518	-575	37,969
9-12 +	50,652	51,407	50,879	227	-528	51,726
Total	161,907	161,940	157,673	-4,234	-4,267	158,883

Overview

The student enrollment forecast developed by the work team reflects a one-year estimate to assist with planning and developing the WCPSS operating budget for the 2021-22 school year. Student enrollment projections for capital purposes have a multi-year impact. A long-term forecast takes into consideration varying rates of growth over time. Since the onset of COVID-19, North Carolina public school enrollment has seen a loss of 4.4%, or nearly 63,000 students. The goal was to evaluate current impacts, and make a determination of how it would impact the District moving forward. WCPSS also had an elevated number of students who were in attendance violation, which affected the PMR-2 data. After evaluating that situation the forecast includes a recommended means of addressing this impact.

Considerations

The work team evaluated four projection scenarios projecting the 2020-21 impacts on enrollment numbers. Based on current trends and expected long-term impacts the forecast incorporates scenario 2, using Grade Progression Ratios (GPRs) with lower enrollment moving forward. This scenario assumes rebound enrollment among missing kindergartners only and uses GPRs based on historical trends from 2015 to 2019.



Methodology

Staff and the consultants from Carolina Demography reviewed demographic, membership and economic trends to refine enrollment forecasts. For the current enrollment forecast update, staff reviewed past and future resident live birth rates (RLB), discussed the impact of shifting population demographics, considered trends in market shares associated with school choice and the COVID-19 pandemic. As a result of these and other factors, staff adjusted student enrollment projections accordingly.

Population Changes

Factored into the student enrollment model is “Resident Live Births,” (Exhibit 1) which shows declines from 2009 - 2012, upward trends until 2017, and is now trending down again (Exhibit 2). The decreased number of births from 2009 to 2012, and the lower averages from 2017 to 2020, continue to impact kindergarten enrollments and corresponding Grade Progressions Ratios (GPRs) used to predict future grade level enrollment.

Exhibit 1: Resident Live Birth by Year

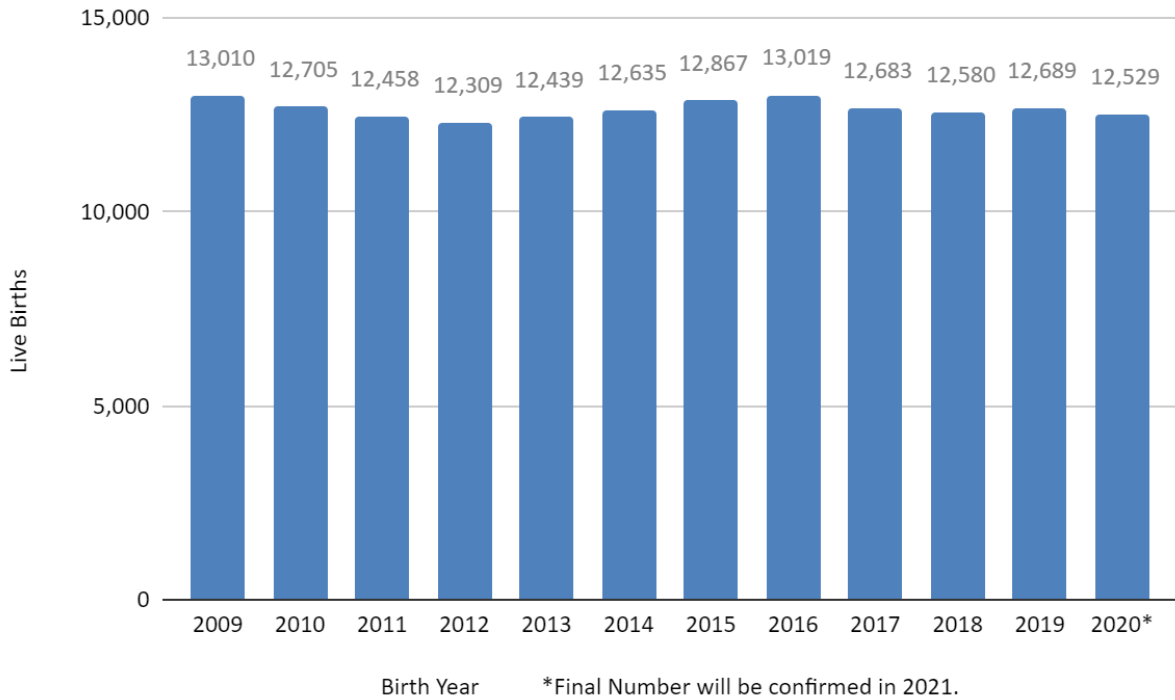
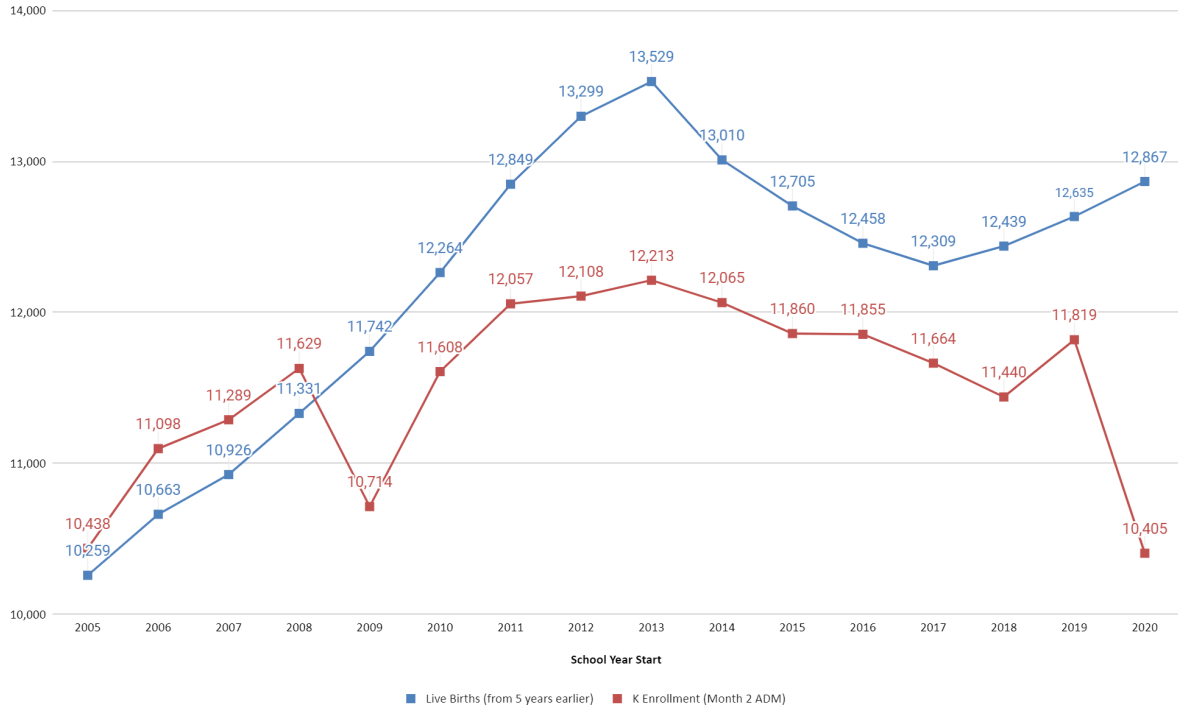
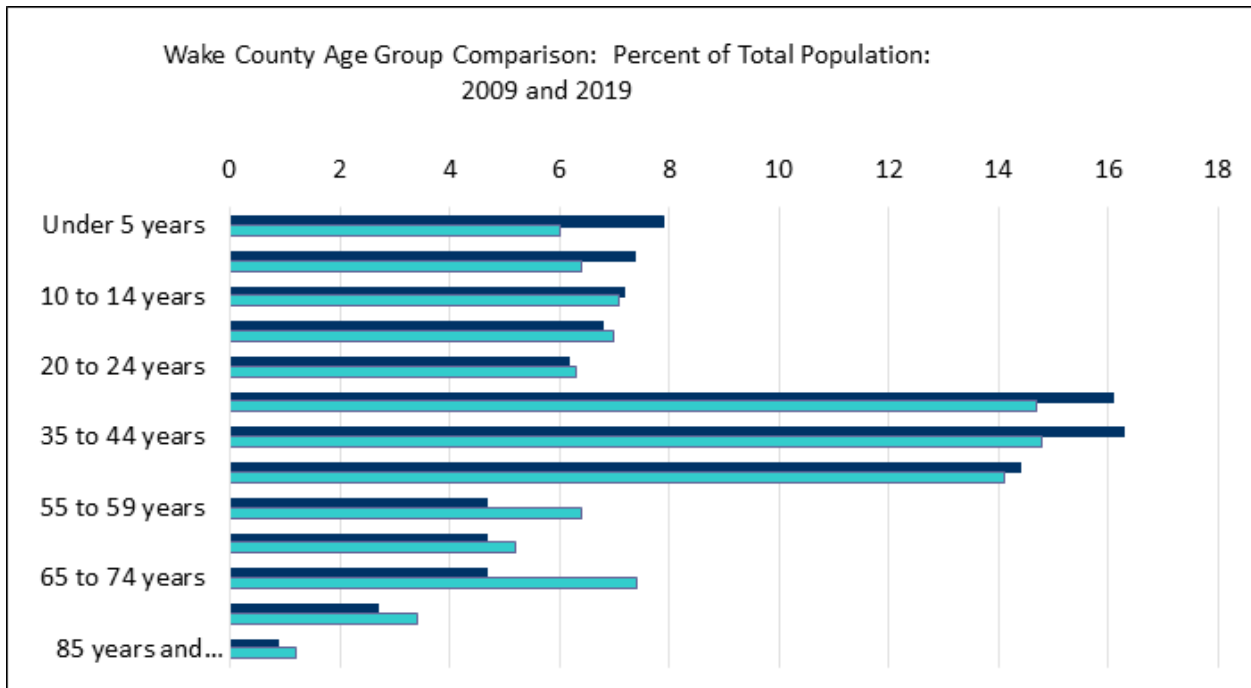


Exhibit 2: Kindergarten Compared to Live Births Five Years Prior



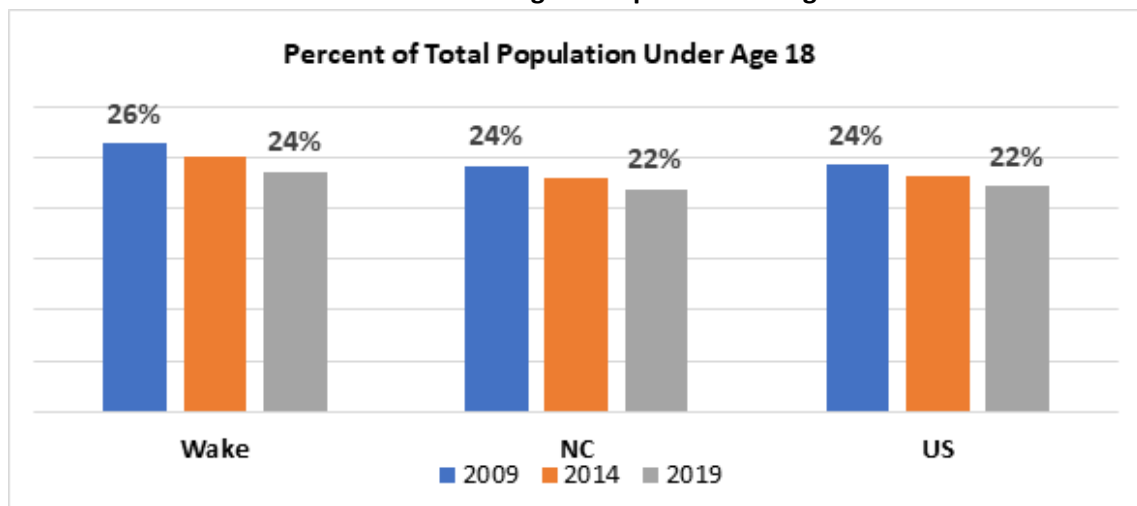
U.S. Census data indicates the aging population of Wake County. Examining the change in distribution of select age cohorts reflects an increase in share of total population for ages 55 and over measured between 2009 and 2019. For instance, the population between the ages of 65 to 74 accounted for about 4.7% of the population in 2009; by 2019, this age group accounted for about 7.4% of the total population. For comparison, the share of the population under 5 years decreased from 7.9% in 2009 to 6.0% in 2019 (Exhibit 3).

Exhibit 3: General Population Changes



This trend is found across the state and country. The percentage of the population under 18 years of age (Exhibit 4) declined by two percentage points in Wake County, North Carolina and the US from 2009 to 2019. A similar decline occurred in the population under 5 years old during the same timeframe. Wake County's population trends younger than the state and the country, however the population continues to shift to an overall older demographic.

Exhibit 4: Under Age 18 Population Changes



Market Share

Prior year enrollment data for charter, private and home schools, as reported by the State, is analyzed as part of the enrollment forecast. A review of the market share indicates that these enrollment options grew as WCPSS' market share decreased (Exhibits 5 & 6). These changes in market share percentages reflect a 14,213-student increase in charter, private and homeschooling as compared to WCPSS's increase of 8,607 between 2013-14 and 2019-20. Prior to 2012, the WCPSS market share had held at approximately 83 percent since 2003.

Exhibit 5: WCPSS Market Share

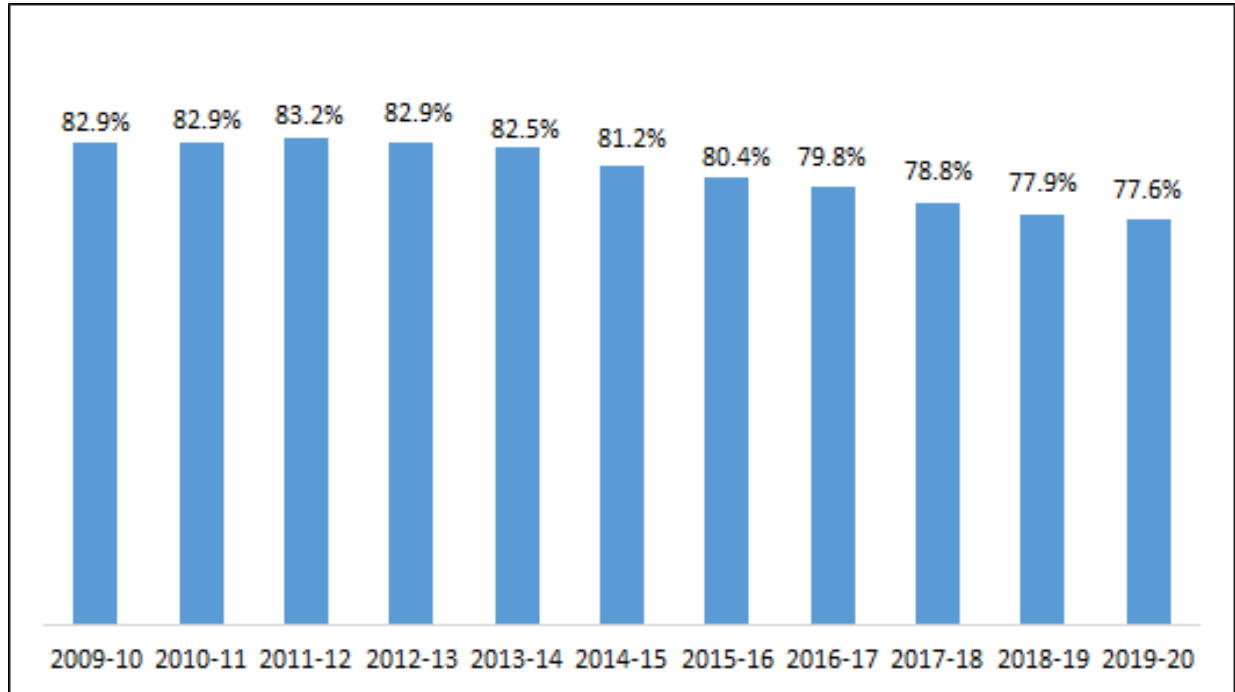
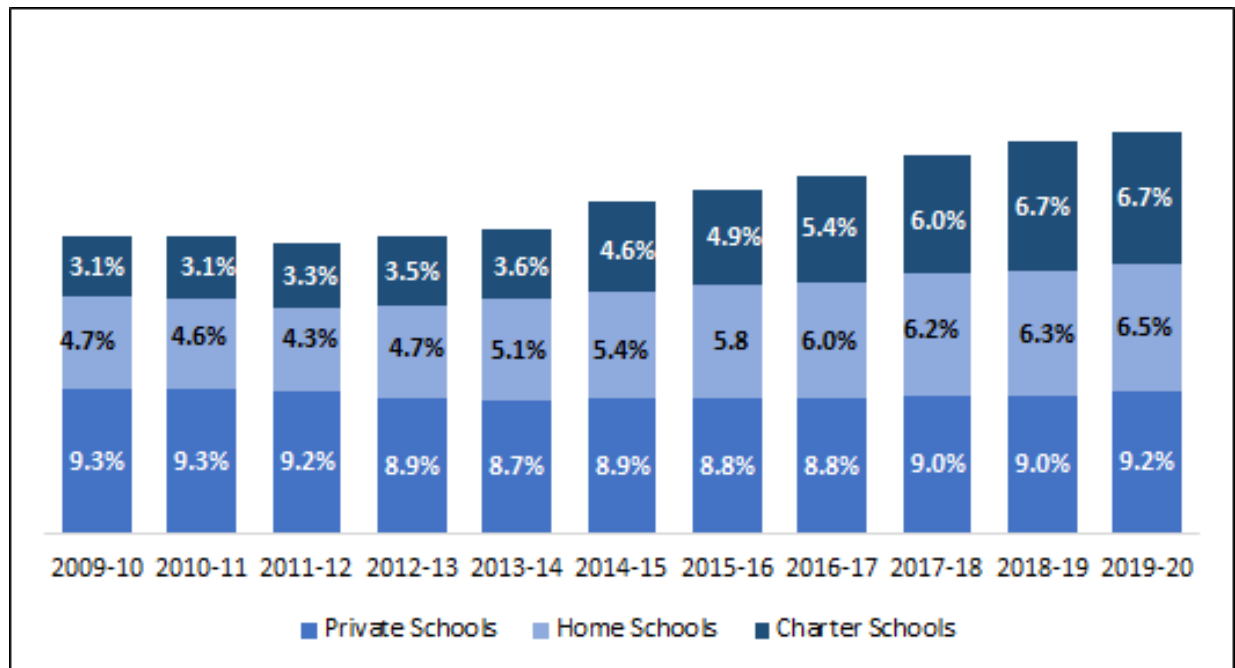


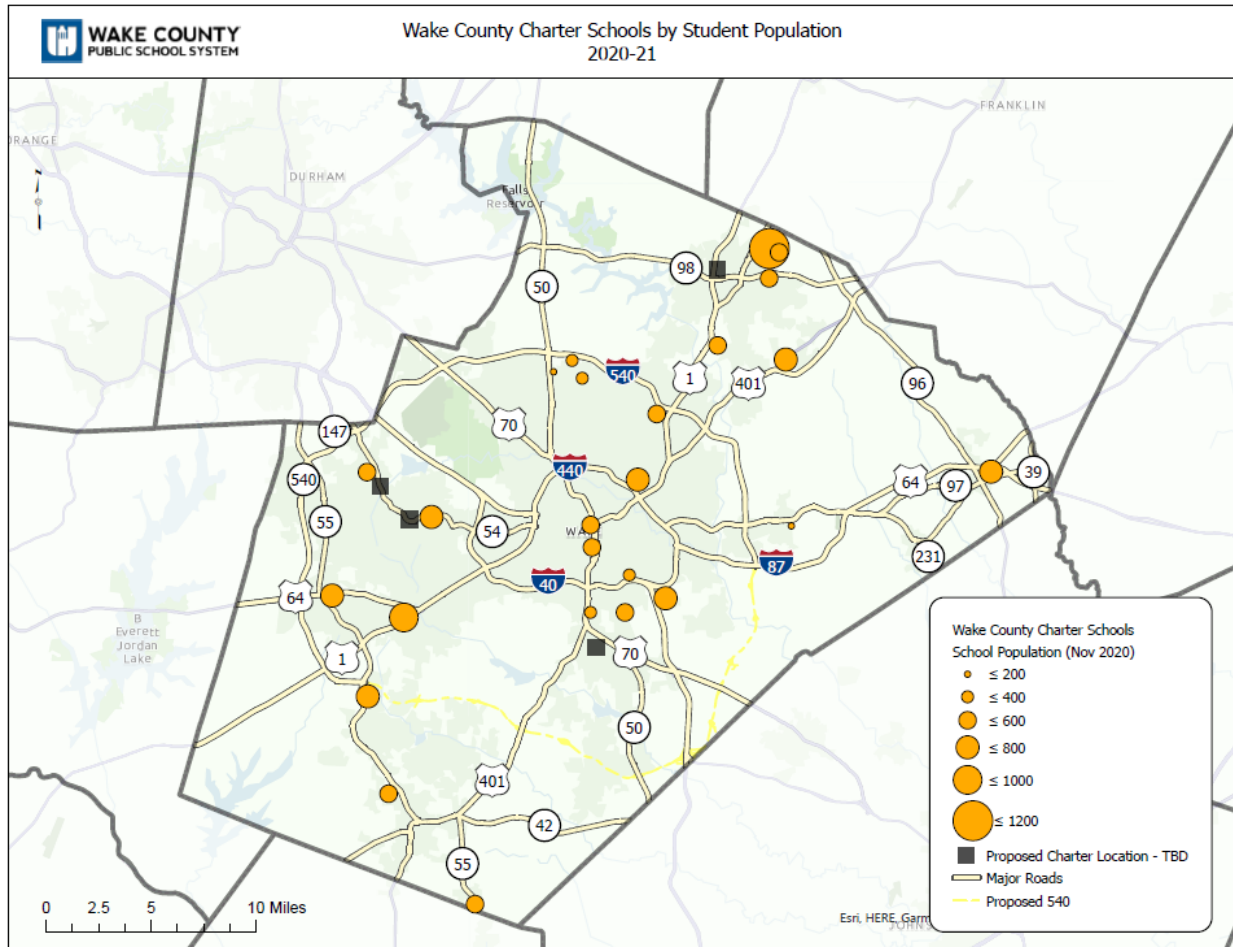
Exhibit 6: Other Market Shares



Note: Private and Home schools data compiled from the North Carolina Division of Non-Public Education website. Data released Spring for the current school year. Home and Private Schools data collection may not reflect 20th day enrollment. Charter schools data from WCPSS October billing of charter school students.

For the school year 2011-12, the NC General Assembly lifted the cap for charter schools, allowing for additional charter school openings. Charter school membership was 14,084 in the 2019-20 year and 14,490 in the 2020-21 school year, based on WCPSS October 2020 billing reports. One charter school opened in 2020-21 for a total of 25 charter schools in Wake County (Exhibit 7).

Exhibit 7: Charter School Locations & Enrollment Size



Six charter schools applied to open in the fall of 2020 in Wake County but only one opened as planned: Cardinal Charter Academy at Wendell Falls. All six charters were included in the 2019-20 forecast. Two new charters are scheduled to open fall of 2021: Doral Academy (K - 7, expanding to K-8), and CE Academy (K-8). Two additional charters have a pending second one-year delay request before the NC SBE (State Board of Education), if granted they will open Fall 2022: North Raleigh Charter Academy (K-6 expanding to K-8), Wake Preparatory Academy (K-6, 9-10, expanding to K-12). The applications provide projected enrollment numbers, but final numbers are not confirmed until closer to the start of the school year. Charter schools may not open unless they have enrolled 75% of their projected Year One ADM. For this forecast, the charter school impact on WCPSS membership for 2021-22 is anticipated to be an additional 655 students over the October 2020 charter billing number. It is difficult to predict how many of these charters will actually open based on recent history. Between the application process and the school's opening, schools are permitted to amend their projected enrollment numbers or request delayed openings.

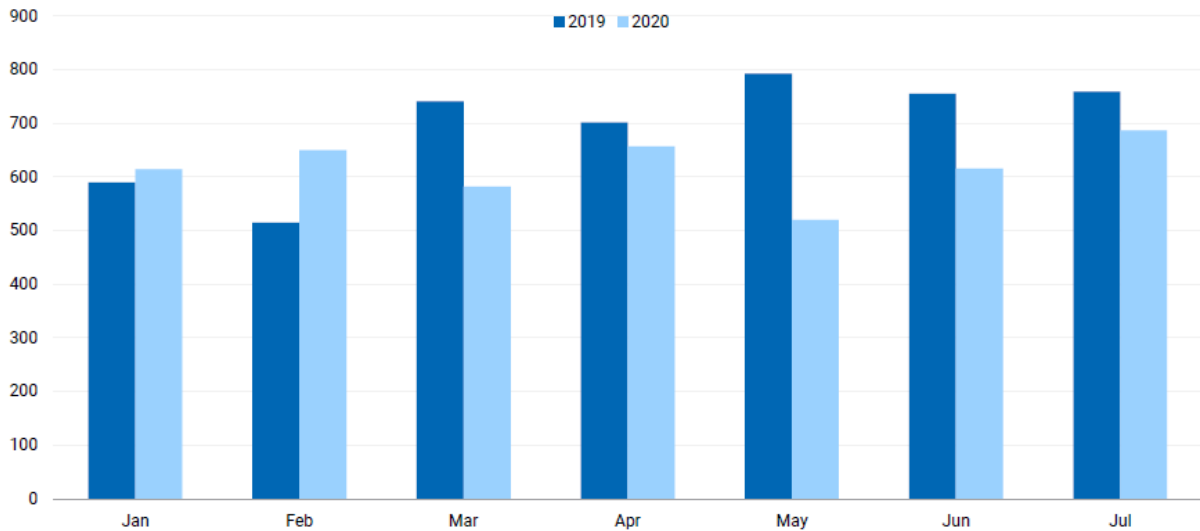
Economic Climate

The economy in Wake is healthy as indicated by low unemployment rates and the number of residential building permits issued. As of November 2020, the Wake County unemployment rate is 5.2%. This is higher than last year at the same time, but is lower than the North Carolina and US rate of 6.1% and 6.4%, respectively. New residential building permit data (Exhibit 7) in Wake County for Fiscal Year 2020 reflects a 0.4% decrease compared to FY 2019. The value of the new residential permits in FY 2020 was 0.5% higher than FY 2019.

Exhibit 7: New Residential Building Permits

Monthly residential permits down year over year

Monthly residential permits in Wake County, 2019 vs. 2020

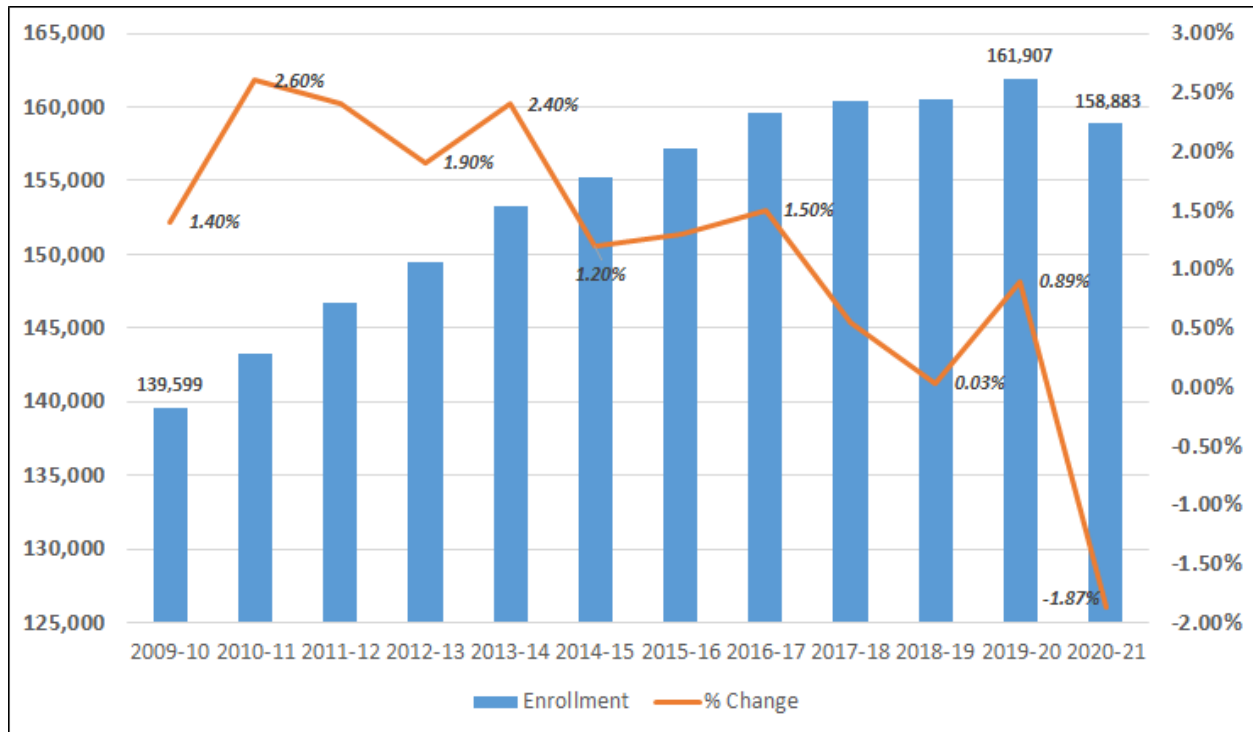


Source: Wake County

Projections

Recent years reflect a smaller percentage growth in annual student enrollment (Exhibit 8). Month 2 ADM for the 2020-21 year dropped from the previous year to 158,883, largely due to the pandemic.

Exhibit 8: Historical Student Enrollment and Percentage Growth



Note: In 2013, reported student enrollment changed from 20th day to month 2 ADM (40th day), aligning with the base number that the State uses for LEA allotments.

The impact of decline in resident live births and actual K-2 enrollment continues to have a major impact on projected student enrollment. Current academic year kindergarten enrollment decreased by 1,387 students from the previous year. Staff concluded this was a temporary decrease due to the pandemic and the forecast demonstrates that most of these students will enroll in K/1 during the 2021-22 school year.

The forecast team annually reviews new data, conducts error analysis, analyzes trends and adjusts the forecast accordingly. These adjustments are data-based and made in response to existing and new trends.

Projections reflect a decrease in resident live births with a subsequent decrease in kindergarten and elementary enrollment to follow. Though the decrease in resident live births corresponds to a decrease in kindergarten enrollment five years later, this connection is now being impacted by increasing enrollment in non-WCPSS school systems. Staff has revised the projections to account for a more realistic annual change percentage-based shift in county demographics, how population groups have reacted to the economic changes, and lower than anticipated enrollment growth.

Enrollment growth continues to be moderate for 2021-22, followed by a moderate decline in 2022-23 through 2030-31 based on the factors outlined. The enrollment forecast for next school year is **160,591** students, which is a growth of **1,708 students (1.1%)** over the violation adjusted 2020-21 (Exhibit 9), but still less than actual enrollment for the 2019-20 school year.

Exhibit 9: Student Enrollment Forecast

School Year		Mid-Point		# of Additional Students	% Growth
Starting	-1%		1%		
2012	148,013	149,508	151,003	2,851	1.96%
2013	151,767	153,300	154,833	3,570	2.38%
2014	153,632	155,184	156,736	1,884	1.23%
2015	155,608	157,180	158,752	1,996	1.29%
2016	157,954	159,549	161,144	2,369	1.51%
2017	158,825	160,429	162,033	880	0.55%
2018	158,866	160,471	162,076	42	0.03%
2019	160,288	161,907	163,526	1,436	0.89%
2020	157,294	158,883	160,472	-3,024	-1.87%
2021	158,985	160,591	162,197	1,708	1.08%
2022	157,766	159,360	160,954	-1,231	-0.77%
2023	157,541	159,132	160,723	-228	-0.14%
2024	157,473	159,064	160,655	-68	-0.04%
2025	157,062	158,648	160,234	-416	-0.26%
2026	156,771	158,355	159,939	-293	-0.18%
2027	156,169	157,746	159,323	-609	-0.38%
2028	155,783	157,357	158,931	-389	-0.25%
2029	155,619	157,191	158,763	-166	-0.11%
2030	156,048	157,624	159,200	433	0.28%

Membership since 2013 is based on Month 2 enrollment

Neighboring LEAs experienced varying degrees of growth and loss over the past two school years, based on NC DPI Month-2 membership (Exhibit 10).

Exhibit 10: Comparisons of Surrounding LEAs

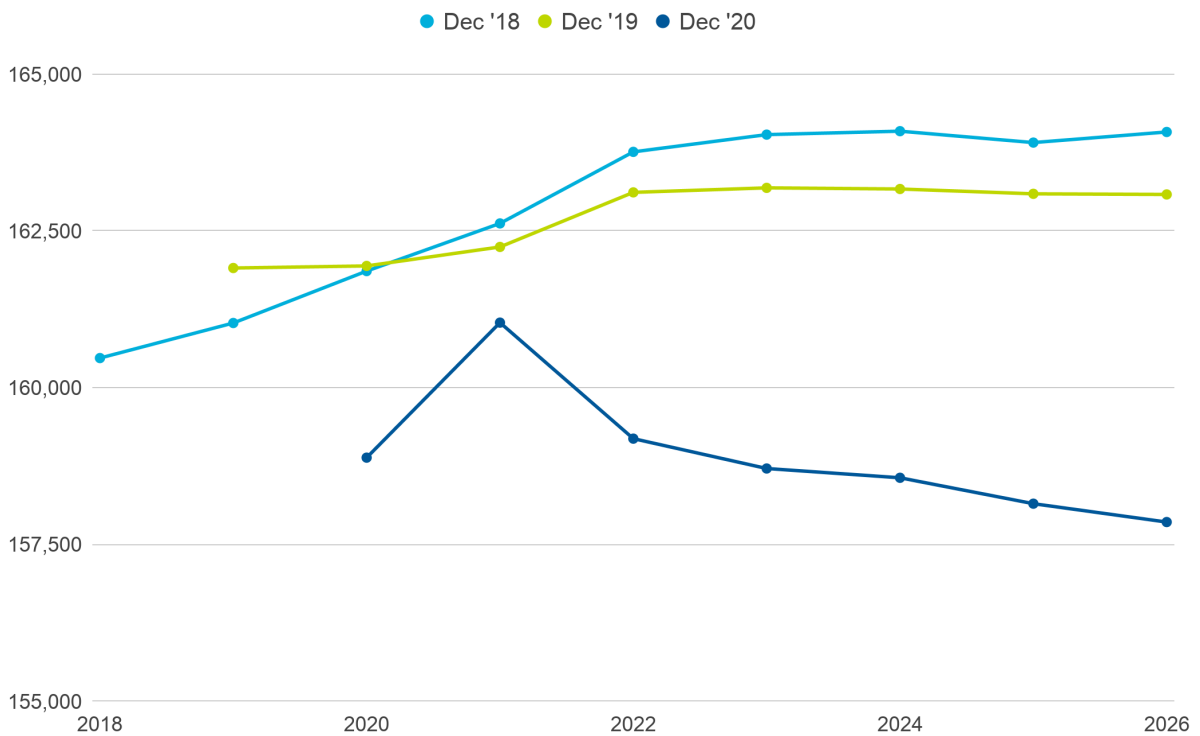
LEA	Month- 2 2019-20	Month-2 2020-21	Change	% Net Gains/Loss
Nash-Rocky Mount Schools	14,988	13,896	-1,092	-7.3
Winston-Salem/Forsyth Schools	53,653	50,407	-3,246	-6.0
Charlotte-Mecklenburg Schools	146,939	138,884	-8,055	-5.5
Granville County Schools	7,212	6,816	-396	-5.5
Durham Public Schools	32,851	31,171	-1,680	-5.1
Orange County Schools	7,365	7,031	-334	-4.5
Chapel Hill-Carrboro City Schools	12,304	11,764	-540	-4.4
Guilford County Schools	71,151	68,264	-2,887	-4.1
Wake County Public School System*	161,907	157,673	-4,234	-2.6

**Unadjusted ADM shown for accurate comparisons. Enrollment forecast is based on ADM adjusted for attendance violations.*

Comparison of Projections

The updated enrollment forecast is significantly lower than those developed before. These projections have been updated to account for changes in demographic trends to include population shifts, the impact of increasing school choices and the pandemic. Exhibit 12 reflects the revisions made to the forecast trajectory in recent years.

Exhibit 12: Comparison of Forecasts



Conclusion

Student enrollment projections for the 2021-22 school year reflect a slight increase, followed by a moderate decline in overall enrollment growth due to the lack of growth in younger populations in Wake County over the last five years of the forecast. Despite the decline in kindergarten this year, K-5 projected enrollment is anticipated to exceed 2019 numbers in 2021 and remain near 2019 numbers for the following five years. This will impact the by-grade numbers as students age forward and will be impacted by the unknowns associated with charter school openings, school choice and residual effects of the pandemic.

Lower membership trends, in turn, affect the WCPSS K-12 membership forecast. The current forecast predicts a 2021-22 Month-2 K-12 Average Daily Membership of 160,591, an increase of 1,708 (1.1%) over violation adjusted 2020-21. The forecasted ten-year annual growth average will result in a total K-12 membership of 157,624 in 2030-31.

Highlights of assumptions used in generating the membership forecast:

- 12,529 Resident Live Births (RLB) in Wake County for 2020.
- Based on recent data trends, RLBs are expected to show little or no growth over the next few years. The RLB forecast is a blend of projected 3-year and 5-year linear regressions; the average annual RLB projected growth rate for the 2020 to 2025 period is -0.7%.
- Two new charter schools in 2021-22.
- The number of missing kindergartners from 2020-21 that will enroll in WCPSS in 2021-22.

Concerns and unknowns that we will focus on in future forecast:

- Will 2021 be a true return to “normal?”
- Will families continue to make other school choices during and after the pandemic?
- How well will charter applications capture true build out?

If you have any questions or would like additional information on the projections, we welcome an opportunity to review the attached materials in greater detail.

Attachments:

K-12 Forecast Report

Consultant Student Enrollment Forecast Report