



**Memorandum**

TO: Cathy Moore, Superintendent  
David Ellis, County Manager

FROM: Christina Lighthall, Senior Director for WCPSS Long-Range Planning  
Michelle Venditto, Wake County Director, Budget and Management Services

DATE: February 4, 2020

SUBJECT: Enrollment Forecast for WCPSS Operating and Capital Planning

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Staffs of WCPSS, Wake County Budget and Management Services and Wake County Planning completed an update of WCPSS student enrollment forecast. The student enrollment projections are used in the development of the WCPSS operating budget, subsequent school allotments for the 2020-2021 school year, and the update of the seven-year capital program.

Report on Prior Year Forecast

The 2019-20 membership of 161,907 represents a net gain of 1,436 students.

**Comparison with 2018-19 K-12 Forecast  
Membership by Grade Group**

	<b>2018-19 (actual)</b>	<b>2019-20 (forecast)</b>	<b>2019-20 (actual)</b>	<b>Net Gain (2019-20 – 2018-19 actual)</b>	<b>Variance (2019-20 actual - forecast)</b>
<b>K-5</b>	72,760	72,454	72,965	205	511
<b>6-8</b>	37,732	38,310	38,290	558	(20)
<b>9-12 +</b>	49,979	50,266	50,652	673	386
<b>Total</b>	<b>160,471</b>	<b>161,030</b>	<b>161,907</b>	<b>1,436</b>	<b>877</b>

Overview

The student enrollment forecast developed by the work team reflect a one-year estimate to assist with planning and developing the WCPSS operating budget for the 2020-21 school year. Student enrollment projections for capital purposes have a multi-year impact; thus, a long-term forecast takes into consideration varying rates of growth over time.

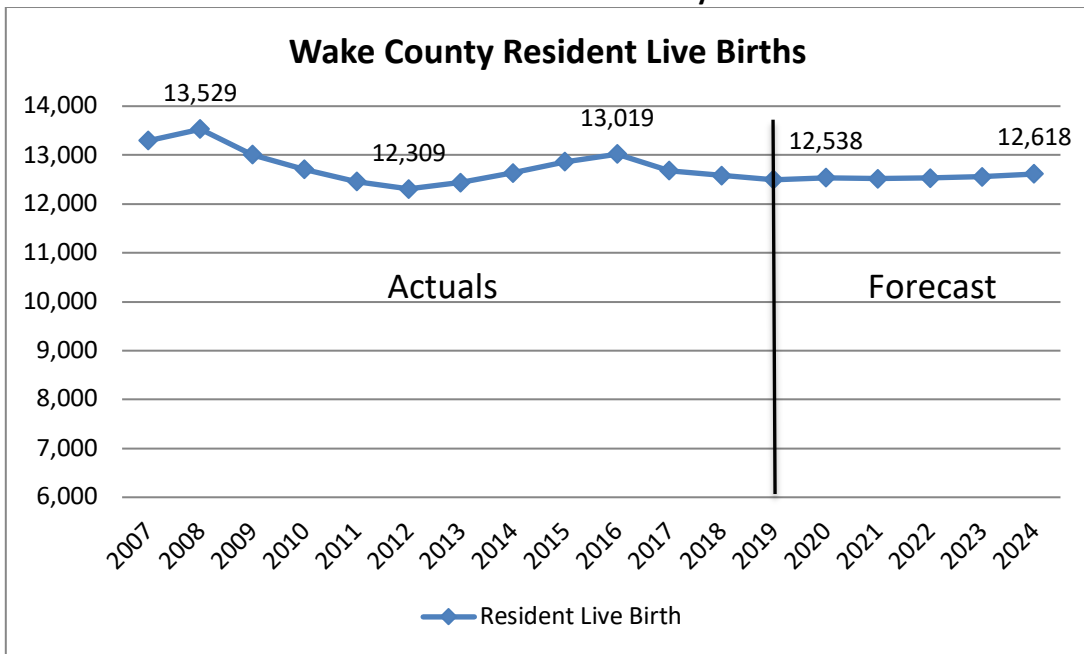
Methodology

Staff and the consultant from Numerix, LLC 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, and considered trends in market shares associated with school choice. As a result of these and other factors, staff adjusted student enrollment projections accordingly.

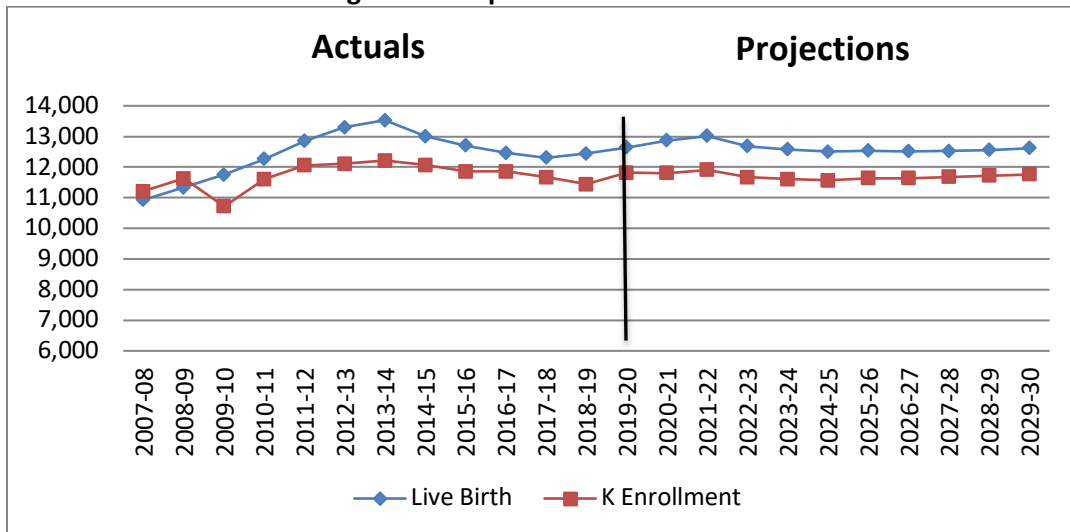
Population Changes

One indicator factored into the student enrollment model is “Resident Live Births,” which declined between 2009 and 2012, saw an upward trend until 2017, and is trending down again, with a slight increase in later years (Exhibit 1). Staff used a conservative approach to project future births through 2024 based on this recent data (Exhibit 2). The decreased number of births from 2009 to 2012, and also in 2017 to 2019, is impacting Kindergarten enrollments and corresponding survival ratios used to predict future grade level enrollment.

**Exhibit 1: Resident Live Birth by Year**

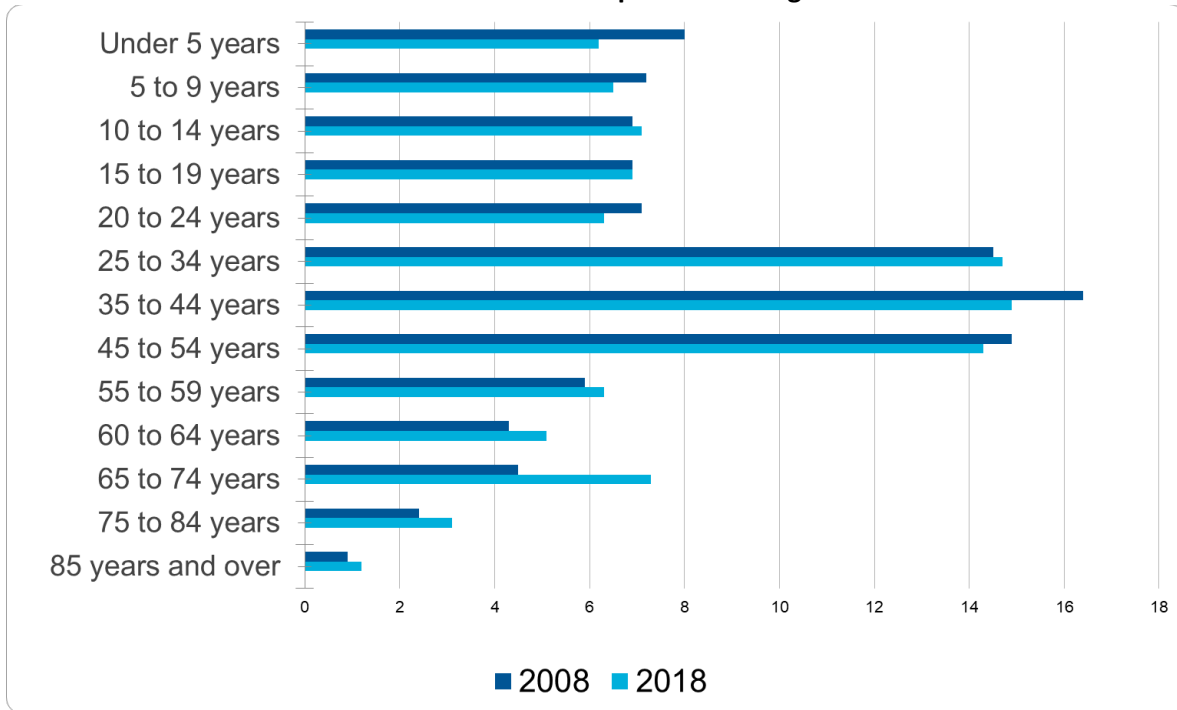


**Exhibit 2: Kindergarten Compared to Live Births Five Years Prior**



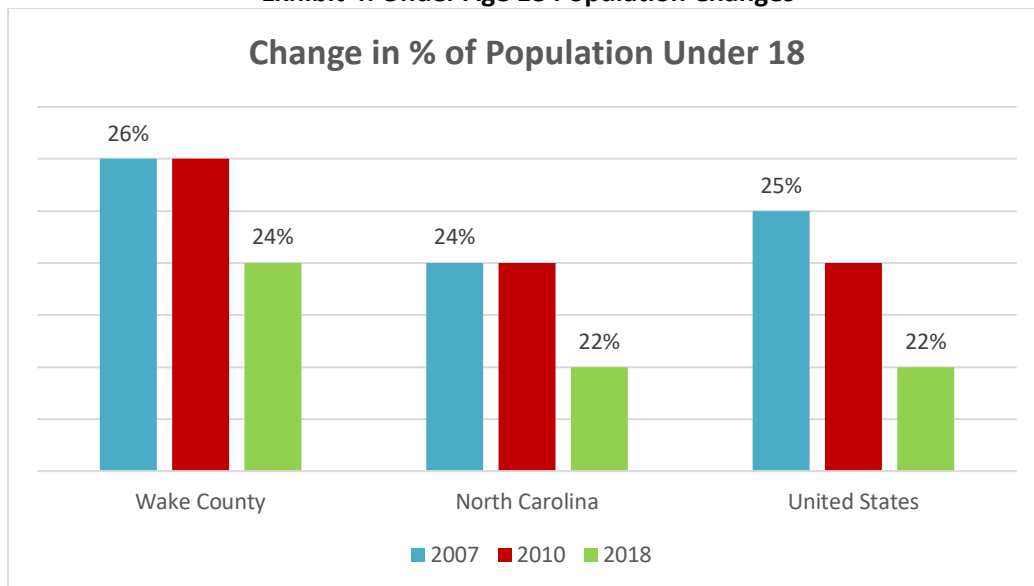
U.S. Census data indicates the aging population of Wake County. Examining the change in distribution of select age cohorts reflects an increase in share of total population for ages 55 and over measured between 2008 and 2018. For instance, the population between the ages of 65 to 74 accounted for about 4.5% of the population in 2008; by 2018, this age group accounted for about 7.3% of the total population. For comparison, the share of population for under 5 years decreased from 8.0% in 2008 to 6.2% in 2018 (Exhibit 3).

**Exhibit 3: General Population Changes**



The trend is occurring in the state and the country, as well. The percentage of the population under 18 years of age declined by two percentage points in Wake, North Carolina and the US from 2008 to 2018 and one percentage points in the population under 6 years old over the same timeframe. Wake County is 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

The group collects and analyzes prior year enrollment data for charter, private and home schools, as reported by the State. A review of the market share indicates that WCPSS' market share continues to decrease (Exhibits 5 & 6). These changes in market share percentages reflect a 15,865-student increase in charter, private and home schooling as compared to WCPSS's increase of 13,784 between 2012-13 and 2018-19. Prior to 2012, the WCPSS market share had held at approximately 83 percent since 2003.

Exhibit 5: WCPSS Market Share

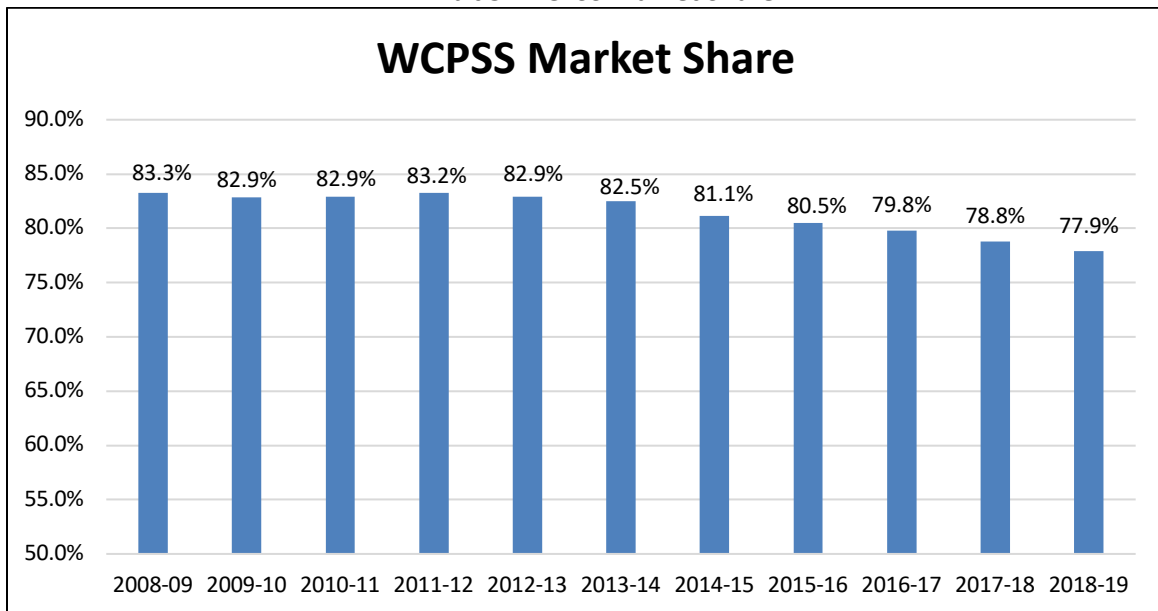
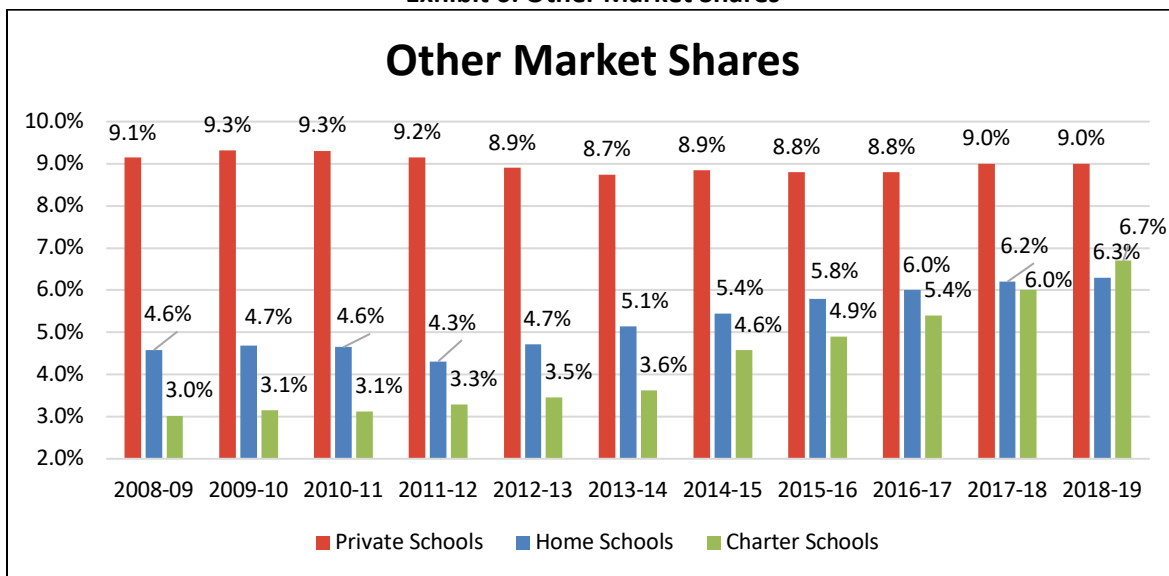


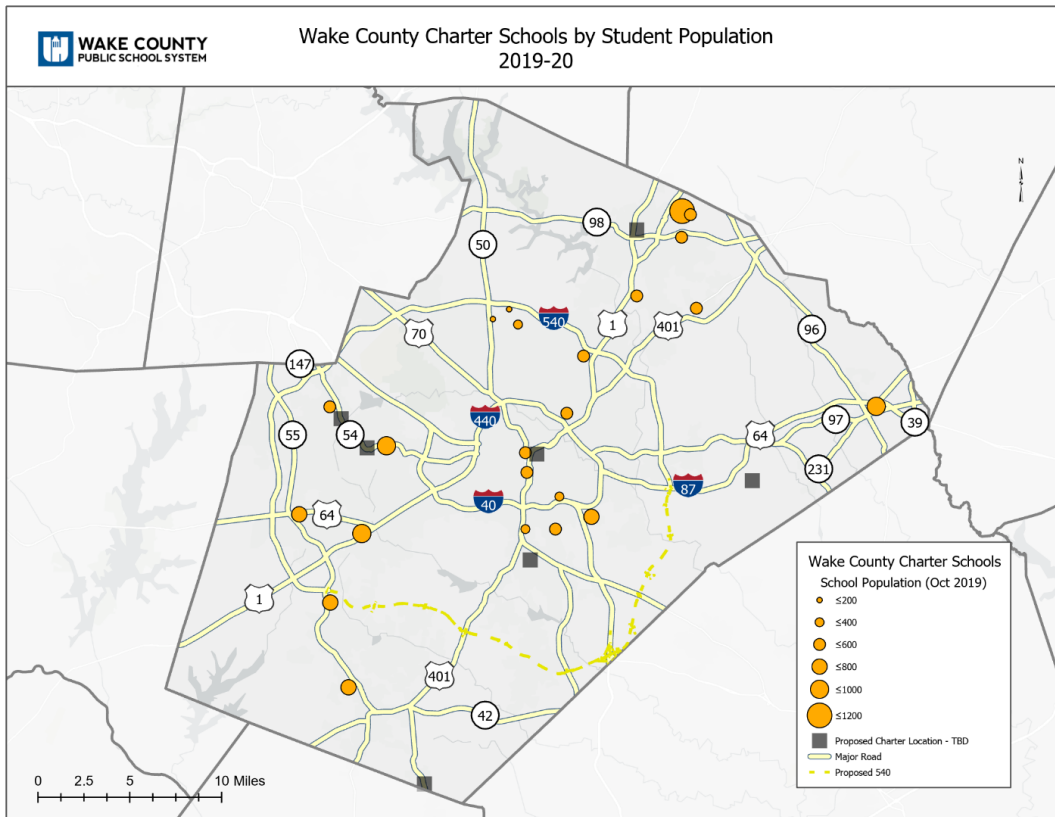
Exhibit 6: Other Market Shares



Note: 2013-14 - 2018-19 data is based on WCPSS Month-2 ADM; years prior are 20<sup>th</sup> day membership  
 Private and Home school data compiled from the North Carolina Division of Non-Public Education website. Data released Spring of current year. Charter school data from WCPSS Fall billing of charter school students.

For school year 2011-12, the NC General Assembly lifted the cap for charter schools, allowing for additional charter school openings. In 2018-19, total membership for the 23 charter schools located in Wake County was 14,336. School year 2019-20 saw the addition of one new charter school in the county for a total membership of 15,244 in 24 charter schools (Exhibit 7). The net gain for all charter schools located in the county was 275 in 2019-20; the lowest impact in several years.

## Exhibit 7: Charter School Locations & Enrollment Size



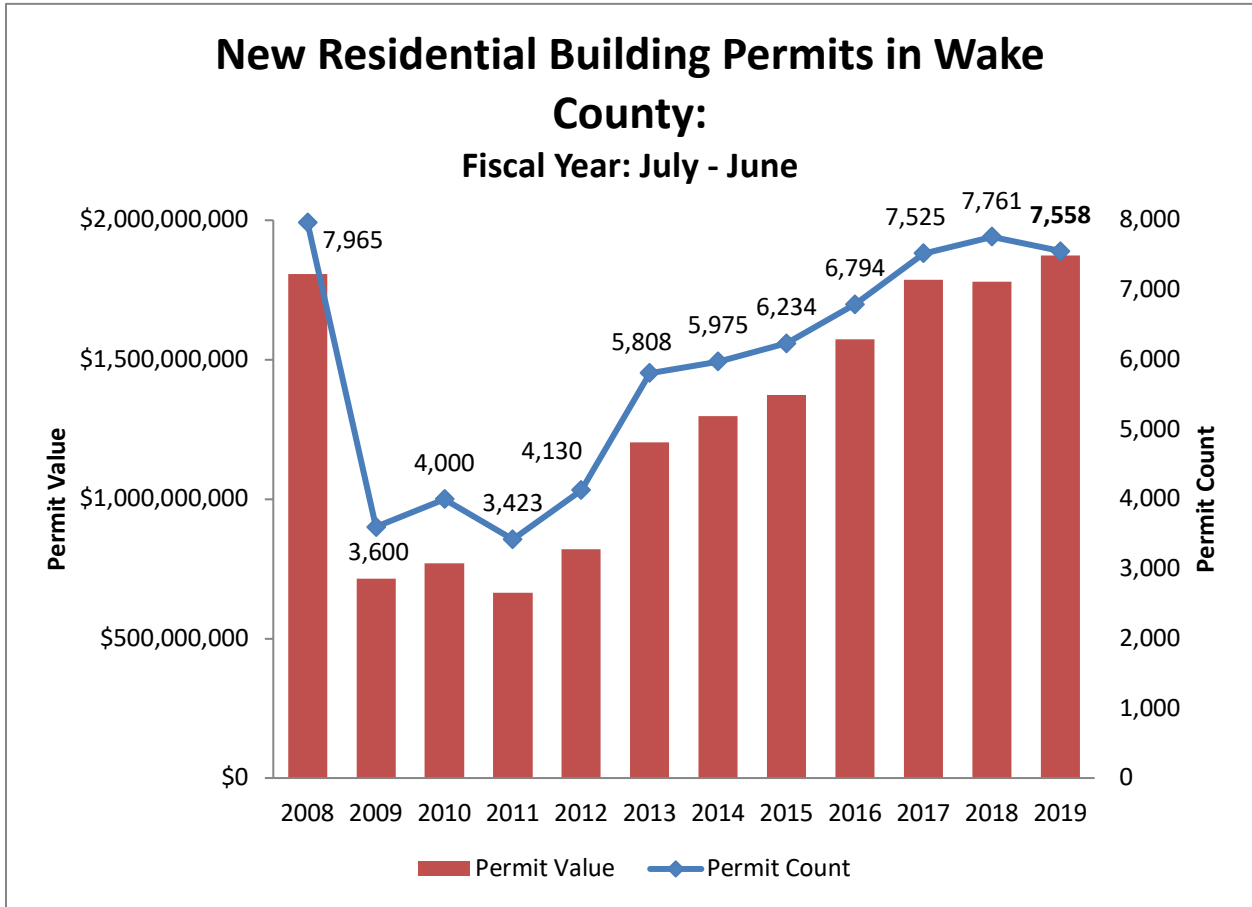
As of December 2019, six charter schools have applied to open in the fall of 2020 in Wake County: CE Academy (opening K-4), Doral Academy North Carolina (opening K-2), Kaleidoscope Charter High School (opening 9-10), North Raleigh Charter Academy (opening K-6), Wake Preparatory Academy (opening K-10), and Wendell Falls Charter Academy (opening K-6). For this forecast, the charter school impact on WCPSS membership for school year 2020-21 is difficult to predict due to the lack of information associated with this unprecedented number of charter schools opening at the same time.

These six charter schools have had their application approved by the State Board of Education and are currently in a planning year to prepare for their first school year. The forecast team will track their impact as new information is made available.

### 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 2019, the Wake County employment rate is 3.5. This is lower than the North Carolina and US rate of 4.0 and 3.6, respectively. The last year that unemployment was this low in Wake County was 2007. New residential building permit data (Exhibit 8) in Wake County for Fiscal Year 2019 reflects a 2.6 percent decrease compared to FY 2018. The value of the new residential permits in FY 2019 was 5.3 percent higher than FY 2018. However, these factors are not translating into population increases for school-aged children.

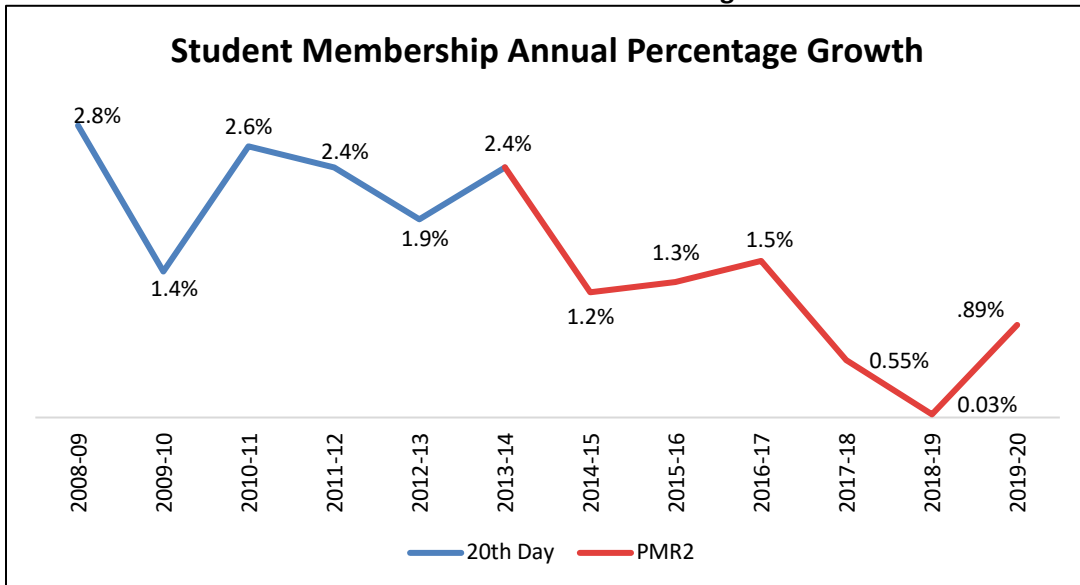
Exhibit 8: New Residential Building Permits



Projections

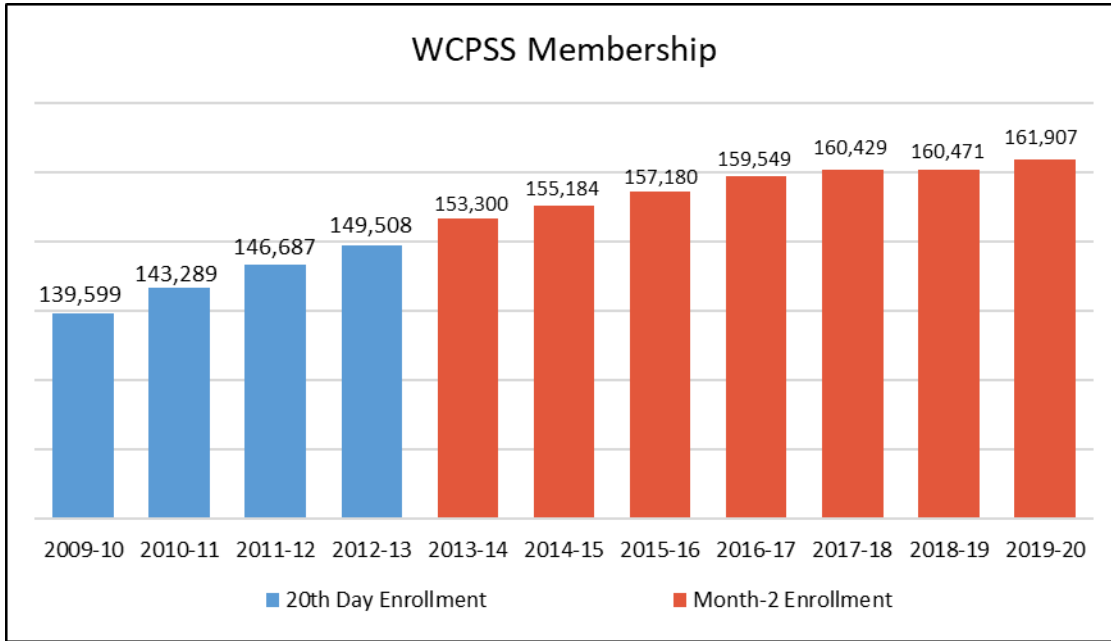
Yearly student enrollment growth, on a percentage basis, has been less than prior years (Exhibit 9) except for 2019-20. This may be largely due to only one charter school opening this year. At the same time, enrollment is about the same with 161,907 students (Exhibit 10).

Exhibit 9: Student Enrollment Percentage Growth



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

**Exhibit 10: Historical Student Enrollment**



A significant adjustment in projected student enrollment was made last year as staff reviewed the change in resident live births from 2009 to 2018 and the lack of growth in actual Kindergarten through 2nd grade enrollment from 2012 to 2018. Staff concluded the impact of decline in resident live births and actual K-2 enrollment to have a major impact on projected student enrollment. This reflected in a decrease of approximately 20,000 student to be gained over a 10-year period.

For the first time since 2013, Kindergarten showed an increase in enrollment this year. Staffs concluded this was a temporary change due only to one charter school opening in 2019.

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 no longer reflect an increase in resident live births with a subsequent increase in Kindergarten and elementary enrollment to follow. Though the increase in resident live births corresponds to an increase in Kindergartener numbers five years later, this connection is now being impacted by increasing enrollment in non-WCPSS school systems. Staff has revised earlier projections to account for a more realistic annual growth percentage-based shifts in County demographics, how population groups have reacted to the economic recovery, and lower than anticipated enrollment growth.

Enrollment growth continues to be moderate, with some years reflecting decreases. The enrollment forecast for next school year is 161,940 students, which is growth of 33 students (.02%) over the 2019-20 student enrollment. As in the past, there can be a variance of 1.0% allowing for a range of 1,600 less or more students (Exhibit 11).

Neighboring LEAs experienced varying degrees of growth and loss over the past three school years, based on NC DPI Month-1 membership (Exhibit 12).

**Exhibit 11: Student Enrollment Forecast**

School Year Starting	-1%	Mid-Point	1%	# of Additional Students	% Growth
2012 20th Day	148,013	<b>149,508</b>	151,003	2,851	1.96%
2013	151,767	<b>153,300</b>	154,833	3,570	2.38%
2014	153,632	<b>155,184</b>	156,736	1,884	1.23%
2015	155,608	<b>157,180</b>	158,752	1,996	1.29%
2016	157,954	<b>159,549</b>	161,144	2,369	1.51%
2017	158,825	<b>160,429</b>	162,033	880	0.55%
2018	158,866	<b>160,471</b>	162,076	42	0.03%
2019	160,288	<b>161,907</b>	163,526	1,436	0.89%
2020	160,321	<b>161,940</b>	163,559	33	0.02%
2021	160,621	<b>162,243</b>	163,865	303	0.19%
2022	161,482	<b>163,113</b>	164,744	870	0.54%
2023	161,553	<b>163,185</b>	164,817	72	0.04%
2024	161,535	<b>163,167</b>	164,799	-18	-0.01%
2025	161,459	<b>163,090</b>	164,721	-77	-0.05%
2026	161,449	<b>163,080</b>	164,711	-10	-0.01%

*Membership since 2013 is based on Month 2 enrollment*

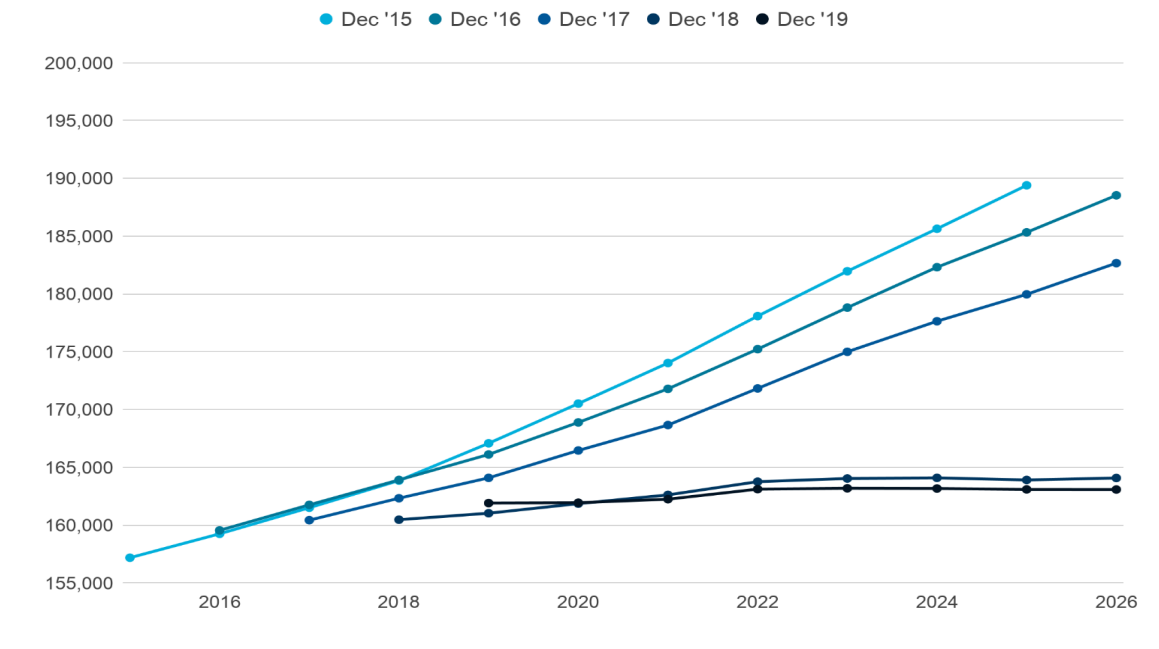
**Exhibit 12: Comparisons of Surrounding LEAs**

LEA	Month- 1 2017-18	Month-1 2018-19	Month-1 2019-20	Net Gains/Loss
Chatham County Schools	8,746	8,802	8,950	204
Durham Public Schools	32,706	32,029	32,476	(230)
Franklin County Schools	8,134	8,110	8,008	(126)
Granville County Schools	7,454	7,321	7,166	(288)
Harnett County Schools	20,390	20,216	20,039	(351)
Johnston County Public Schools	35,711	35,561	36,517	806
Nash-Rocky Mount Schools	14,911	14,684	14,855	(56)
Wake County Public School System	158,710	158,733	160,342	1,632

#### Comparison of Projections

The updated enrollment forecast is significantly lower than those developed before, but in line with last year's forecast. These projections have been updated to account for changes in demographic trends to include population shifts and the impact of increasing school choices. Exhibit 13 reflects the revisions made to the forecast trajectory in recent years.

### Exhibit 13: Comparison of Forecasts



#### Conclusion

Student enrollment projections for the 2020-21 school year reflect the slow overall enrollment growth experienced in past years and particularly, the lack of growth in younger populations in Wake County over the last five years. Despite growth in Kindergarten this year, K-5 projected enrollment is about 800 less as students age forward and the unknowns associated with charter school openings.

Lower membership trends, in turn, affect the WCPSS K-12 membership forecast. The current forecast predicts a 2020-21 Month-2 K-12 Average Daily Membership of 161,940, an increase of 33 (.02%) over 2019-20. The forecasted ten-year annual growth average of 120 will result in a total K-12 membership of 163,100 in 2029-30; however, most of this growth is expected in the next few years.

Highlights of assumptions used in generating the membership forecast:

- 12,500 Resident Live Births (RLB) in Wake County for 2019.
- Based on recent data trends, RLB 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 2019 to 2024 period is .05%.
- As many as six new charter schools in 2020-21.

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