2023 Enrollment Forecast Summary

Planning Department

1. Introduction

To better understand and plan for student enrollment in each upcoming school year, the DeKalb County School District's Planning Department creates an enrollment forecast for the first Tuesday in October of the following years. The forecast of enrollment at each school and in each grade is based on the most recent data available at the time. This data includes detailed enrollment and student geographic information for several previous years from the District's student information system (Infinite Campus), as well as birth data from the Georgia Department of Public Health and housing development information taken from a variety of sources including city and county governments.

The ultimate purpose of the DCSD Enrollment Forecast is to inform decisions for the fair allocation of resources and the provision of an excellent learning environment for the students of the DeKalb County School District. This document gives a short explanation of the methods used to calculate the DCSD Enrollment Forecast.
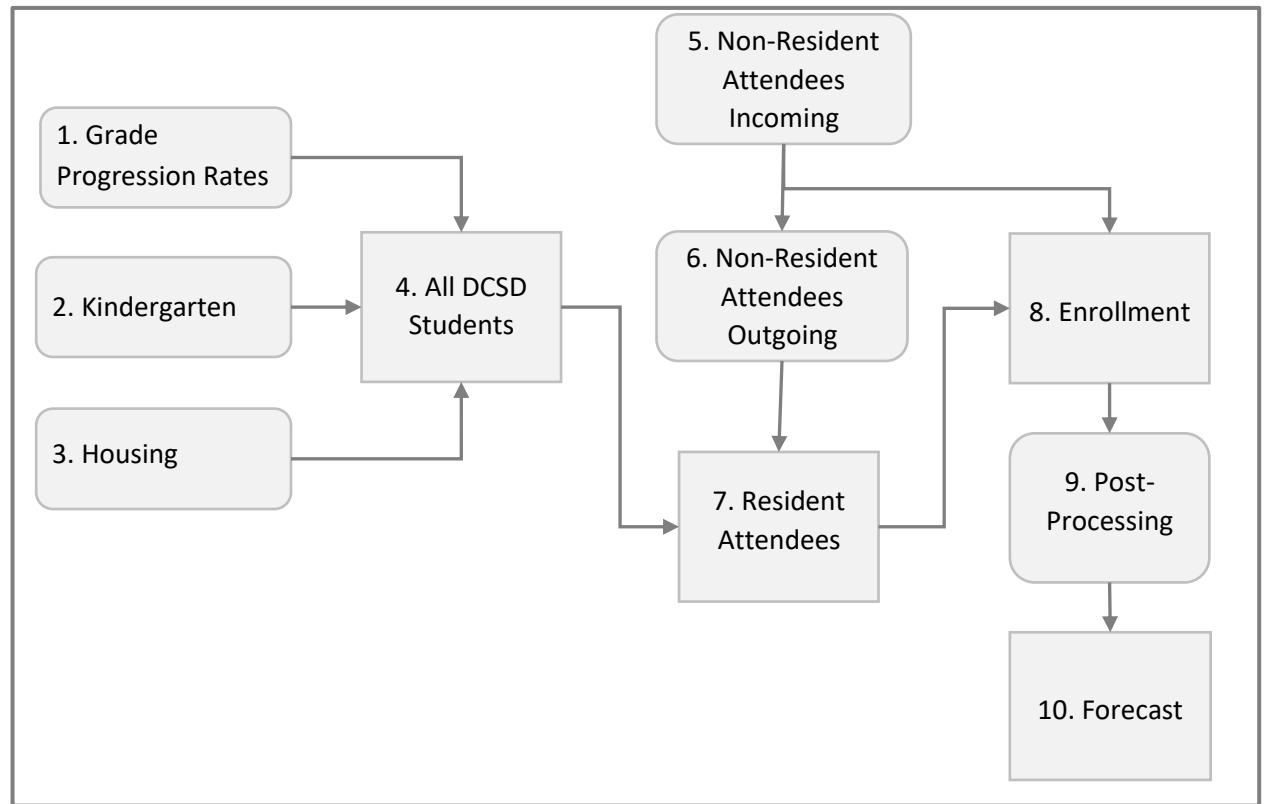
2. Methodology

The forecast uses a method of population forecasting called "cohort-survival analysis". In this method, future enrollment is forecasted based on historic matriculation patterns from grade to grade, birth rates, future housing development, and historic patterns of school-choice enrollment. The forecast is built using the following process:

1. **Grade Progression** – A *Grade Progression Rate* refers to the ratio of students enrolled in a grade (residing in a given school's attendance area) to students enrolled one grade lower, and one year prior. For example, the number of 3rd Graders living in the Allgood Elementary attendance area this year is divided by the number of 2nd Graders living in the same attendance area last year. This calculation is made for each grade from first through twelfth grades, for students living in each attendance area and for each of the last several years. An average grade progression rate is then multiplied by the base or previous year's count of students in a particular attendance area and grade to estimate the next year's resident student population in that grade and attendance area.

Figure 1 - Forecast Process

2. **Kindergarten** - Kindergarten has no previous grade from which to draw a grade progression rate (pre-K is funding dependent, not population dependent, and therefore unreliable as an indicator for future kindergarten population). Therefore, the kindergarten forecast uses live births six years prior as the primary source to forecast the future kindergarten population.[1] The average ratio of DCSD kindergarteners residing in each elementary attendance area per 100 births in that attendance area is calculated for the previous three (3) years of data and multiplied by the births for each future forecast year.[2]

3. **Housing** – A housing development analysis allows future housing development expected to influence the enrollment forecast. DCSD receives regular updates from DeKalb County and from each of the municipalities in the District regarding plans for upcoming housing development. This information, along with third-party development data, is used to estimate the number of new housing units expected to be occupied by the next Fall, and in future years. Historic rates of student enrollment per housing unit (or *yield rates)* by housing unit type are then used to estimate the number of students expected from each new housing development for each future year.

4. **All DCSD Students** – The first three steps of the forecast are combined to estimate the number of all DCSD students expected to reside in an attendance area based on available data. To turn the forecast of students residing in an area into a forecast of students enrolled in a school, forecasted non-resident attendee students must be added to their attending school forecast (incoming) and removed from their zoned-school forecast (outgoing). Students enrolled in a school other than their zoned school are referred to as "non-resident attendees."

5. **Non-Resident Attendees, Incoming** – The historic non-resident incoming enrollment at each school is used to forecast non-resident incoming enrollment in future years. The forecast method for each school is selected based on its specific enrollment policies and its historic enrollment patterns.

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[1] "Six years prior" was used because the live birth data used was from September 2 to September 1 of each year, corresponding to the eligibility period for kindergarten. Because a student must be in their sixth year of life (at least five years old), kindergarteners counted in October of each school year would have to have been born during the eligibility period beginning six years prior.

[2] Kindergarten enrollment in several schools has low correlation with the number of births. In these cases, future kindergarten enrollment was interpolated using a variety of methods.
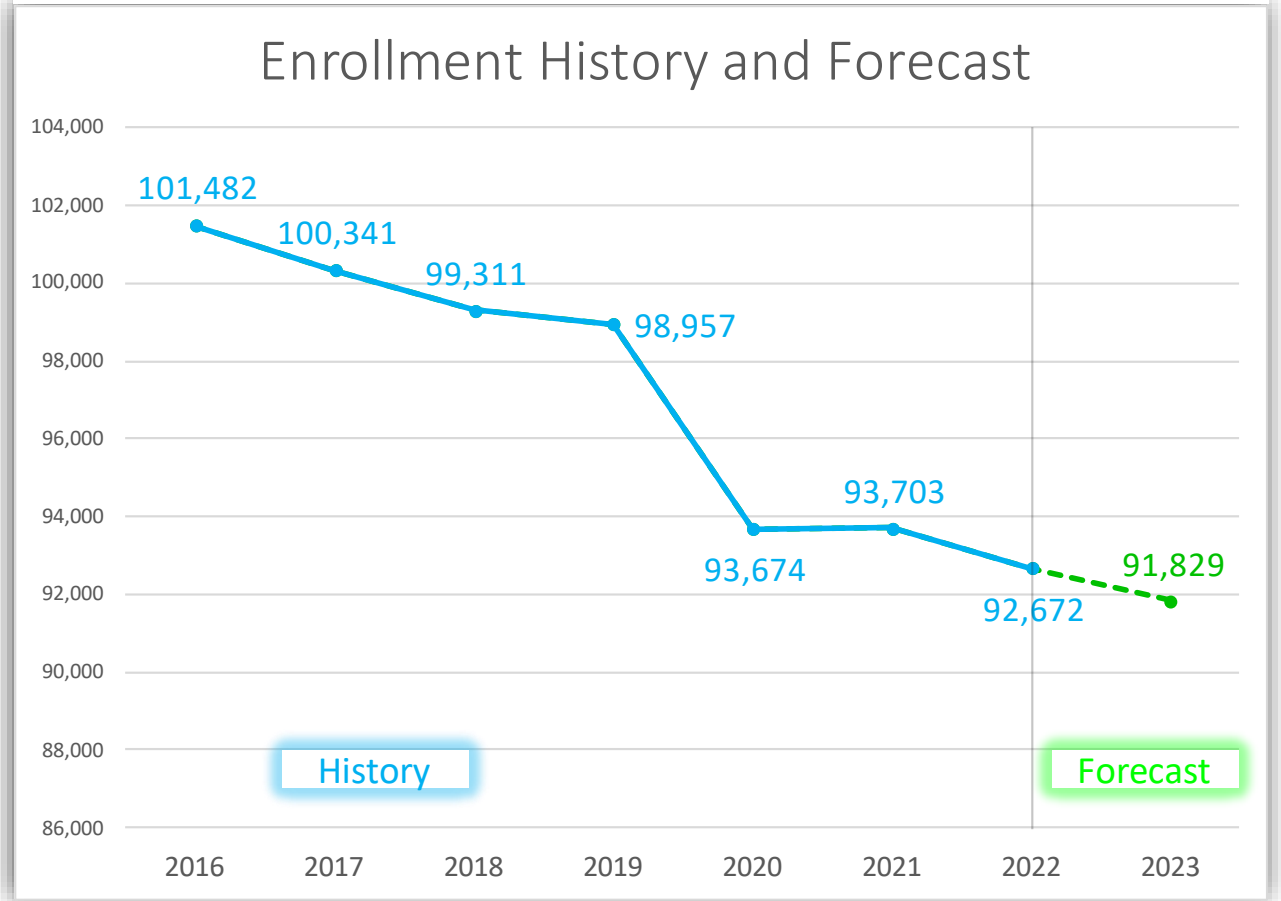
6. **Non-Resident Attendees, Outgoing -** The non-resident attendees outgoing (NRO) is calculated using the most recent year of enrollment data. The number of non-resident attendees in each grade residing in each attendance area is then divided by the district total number of non-resident attendees in that grade. This ratio is then multiplied by the total non-resident students by grade derived from the non-resident incoming forecast (see #5) to forecast the number of non-resident outgoing students for each attendance area.

7. **Resident Attendees –** Students who attend the school to which they are zoned are referred to as "resident attendees." Resident attendees by grade in each elementary, middle, and high school attendance area are forecasted by excluding the total number of non-resident attendees outgoing from All Students residing in the attendance area (step 4 minus step 6).

8. **Enrollment –** The Non-Resident Attendee Incoming forecast and the Resident Attendee forecast by grade for each school are added together to generate the Preliminary Enrollment Forecast (step 5 plus step 7).

9. **Post – Processing –** The forecast model does not consider programmatic changes such as opening or closing schools, changing the location of special programs, etc. To account for this, changes must be made in post processing. To keep the overall forecast the same, all changes must account for both enrollment increases at particular schools and enrollment decreases from where those students are expected to be coming from.

10. **Forecast –** The final result is a forecasted enrollment for each grade at each school for each forecast year.

3. Results of the DCSD One-Year Enrollment Forecast

Overview

District enrollment is forecasted to be lower in Fall 2023 (see *Figure 2* – Enrollment History and Forecast). Historically, DCSD Enrollment peaked at 101,801 in the Fall of 2014. Enrollment began to decrease in the Fall of 2015 and continued to decrease in the Fall of 2016, 2017, 2018, and 2019. After the onset of the COVID-19 pandemic in 2020, enrollment dropped by 5,283 students to 93,674. Despite expectations of a rebound in 2021 and 2022, enrollment remained about the same in 2021 and fell to 92,672 in Fall 2022. Enrollment for Fall of 2023 is expected to be 91,829 students, a decrease of 843 students from Fall of 2022.
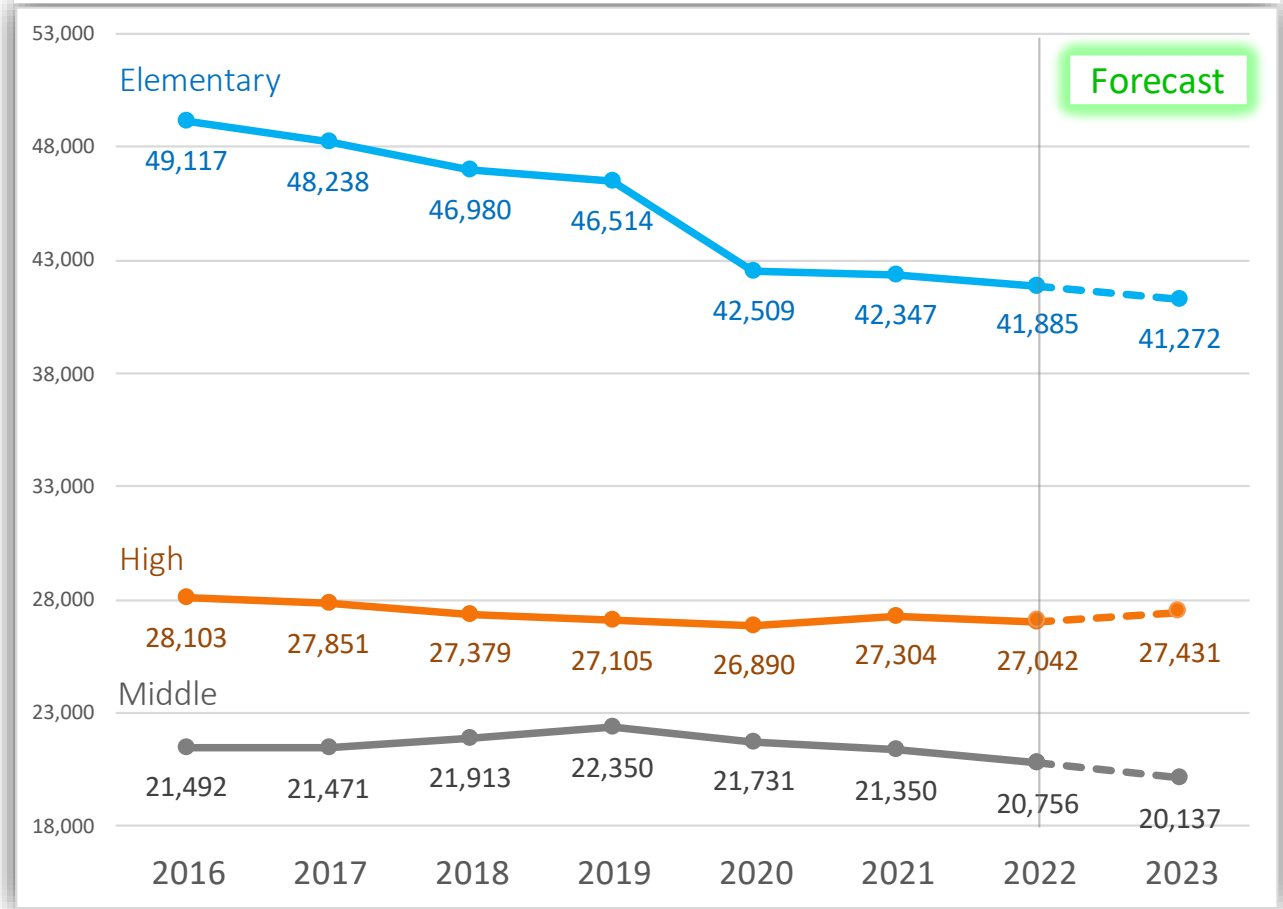
Figure 2 - Enrollment History and Forecast

Enrollment History and Forecast
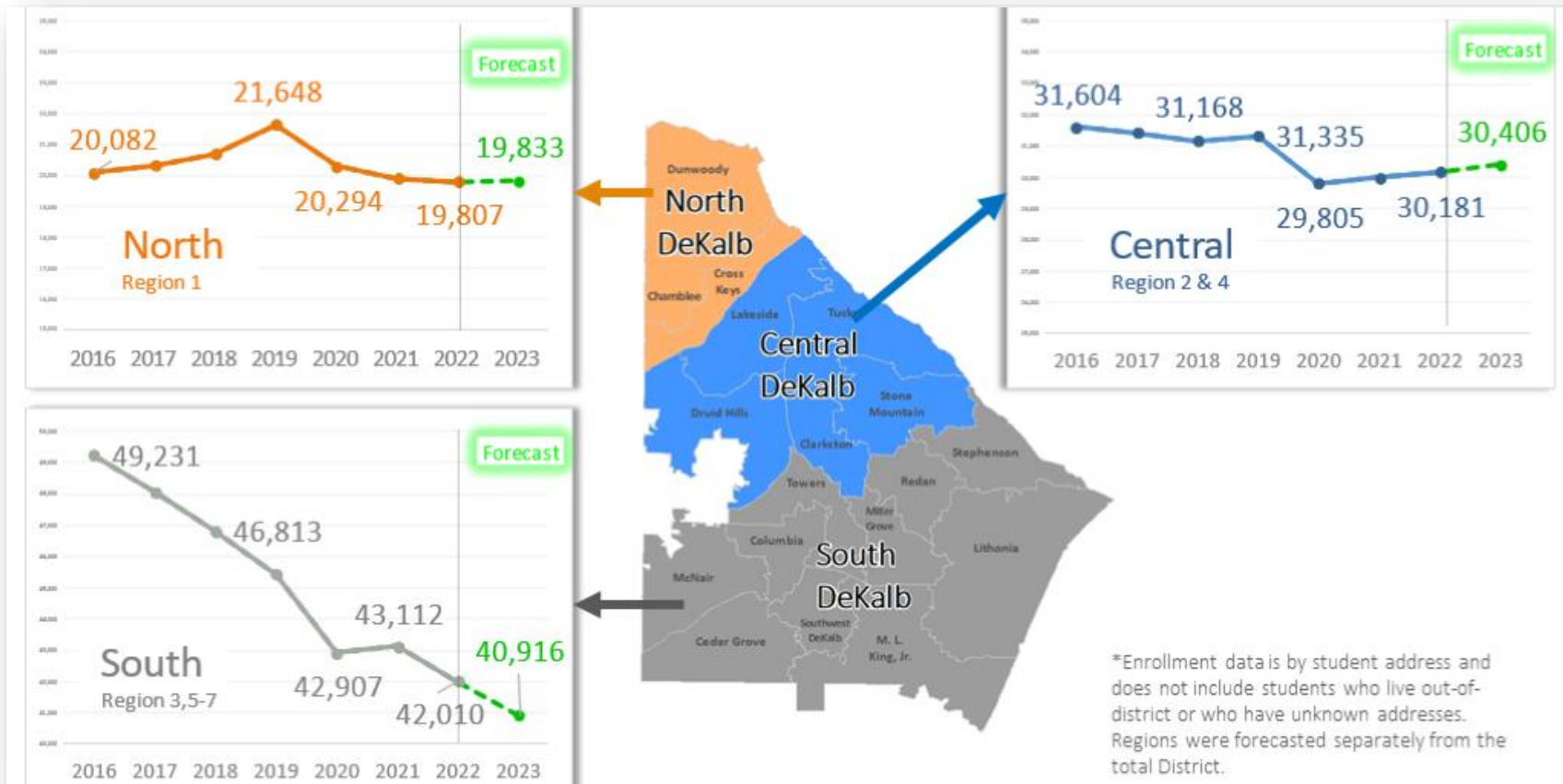
Grade Groups

Elementary school enrollment (K-5) is expected to decrease slightly from 41,885 in 2022 to 41,272 in 2023 (-1.5%). Middle school enrollment is expected to decrease slightly from 20,756 in 2022 to 20,137 in 2023 (-2.9%). High school enrollment is expected to increase slightly from 27,042 in 2022 to 27,431 in 2023 (+1.5%). Elementary school enrollment peaked in 2015 at 52,389 students. As elementary students matriculated into the upper grades, middle-school enrollment peaked in 2019 and high-school enrollment is expected to peak in the Fall 2023.

Figure 3 - Enrollment History and Forecast by Grade Group

Regions

Figure 4 - Enrollment History and Forecast by Student Address, Regions

The number of DCSD students living in North DeKalb (Region 1) is expected stay about the same: from 19,807 in 2022 to 19,833 in 2023 (+0.1%). The number of DCSD students living in Central DeKalb (Regions 2 & 4) is expected to increase: from 30,181 in 2022 to 30,406 in 2023 (+0.7%). The number of DCSD students living in South DeKalb (Regions 3, 5-7) is expected to decrease: from 42,010 in 2022 to 40,916 in 2023 (-2.6%)