



DCSD 7-Year Enrollment Forecast Summary

November 29, 2018

Planning Department

1. Introduction

To better understand and plan for the future of enrollment in the DeKalb County School District, the Planning Department is updating the long-term enrollment forecast developed in 2016 by the MGT Consulting Group. The new DCSD 7-Year Enrollment Forecast considers the most recent trends and school programming to forecast enrollment for each school year from the Fall of 2019 through the Fall of 2025. The ultimate purpose of the DCSD Long-Term Forecast is to inform decisions for the fair allocation of resources and the provision of an excellent learning environment for the students of DeKalb County School District. This document will focus on the methods and results of the DCSD 7-Year Enrollment Forecast completed November 29, 2018.

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. **Mobility** – A *Mobility Rate* (also known as a *survival rate*) refers to the average ratio of students enrolled in a grade (in a given school’s attendance area) to students enrolled one grade lower, and one year prior. The calculation is made for the first through twelfth grades for students living in each attendance area and back several years. The average mobility rate¹ is then multiplied by the base or previous year enrollment in a particular school and grade to estimate the next year’s resident

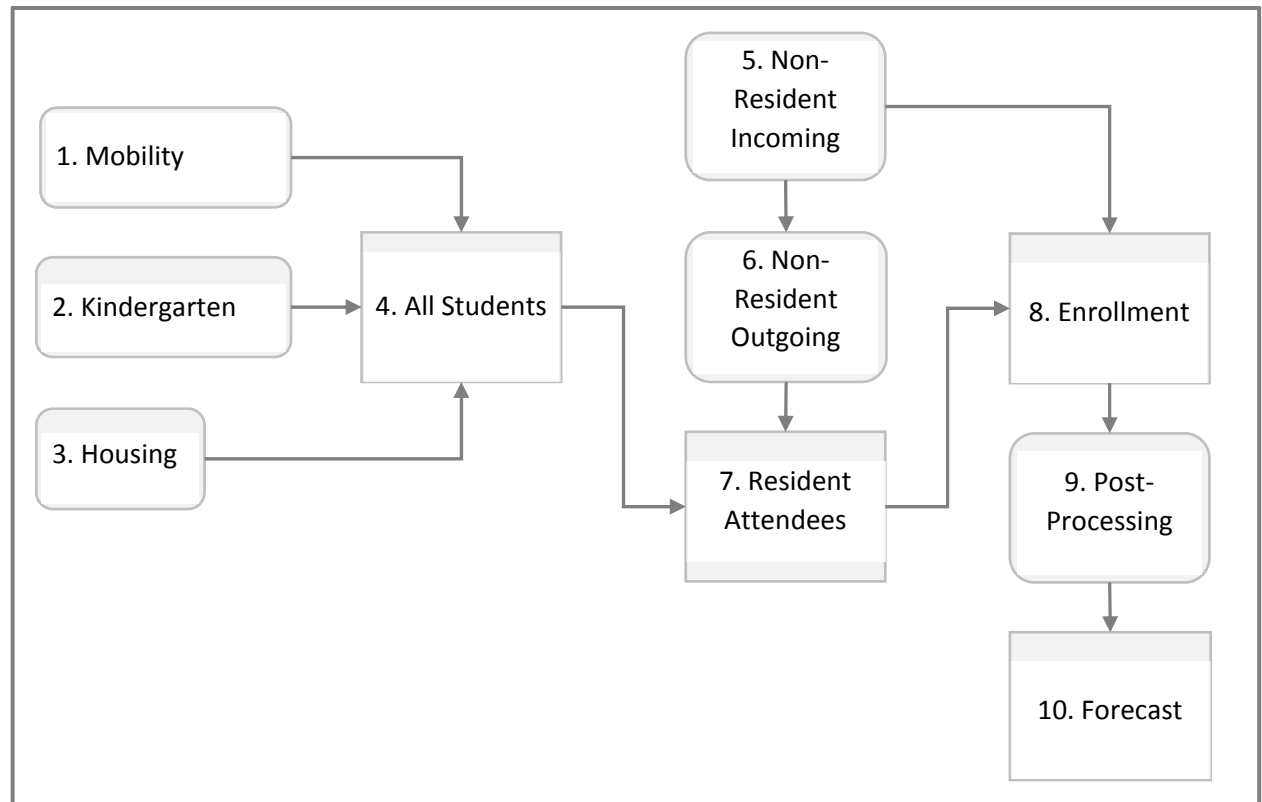


Figure 1 - Forecast Process

¹ The November 2018 forecast employs a varying average for each forecast year, meaning for each additional future forecast year an additional year of historic mobility data were included in the average.

student population in that grade and attendance area.

2. **Kindergarten** - Kindergarten has no previous grade from which to draw mobility rates (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.² The average ratio of kindergarteners residing in each elementary attendance area per 100 births in that attendance area was calculated for the previous three (3) years of data and multiplied by the births for each future forecast year.³
3. **Housing** – A housing development analysis allows expected future housing development to influence the forecast. DCSD receives regular updates from DeKalb County and from each of the municipalities regarding plans for housing development. This information, along with third-party, is used to estimate the number of new units expected to be occupied in a given year. Historic rates of student enrollment by housing type and unit are used to estimate the number of students to expect from new housing development.
4. **All Students** – The first three steps of the forecast estimate the number of students expected to be living in an attendance area based on available data. Students who attend the school to which they are zoned, are referred to as “resident attendees.” Students enrolled in a school other than their zoned school are referred to as “non-resident attendees.” To forecast enrollment, non-resident attendees must be added to their attending school forecast (incoming) and removed from their zoned-school forecast (outgoing).
5. **Non-Resident Attendees, Incoming** – The historic non-resident incoming enrollment at each school was used to forecast non-resident incoming enrollment in future years. The forecast method for each school was selected based on its specific enrollment policies and its historic enrollment patterns.

² “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.

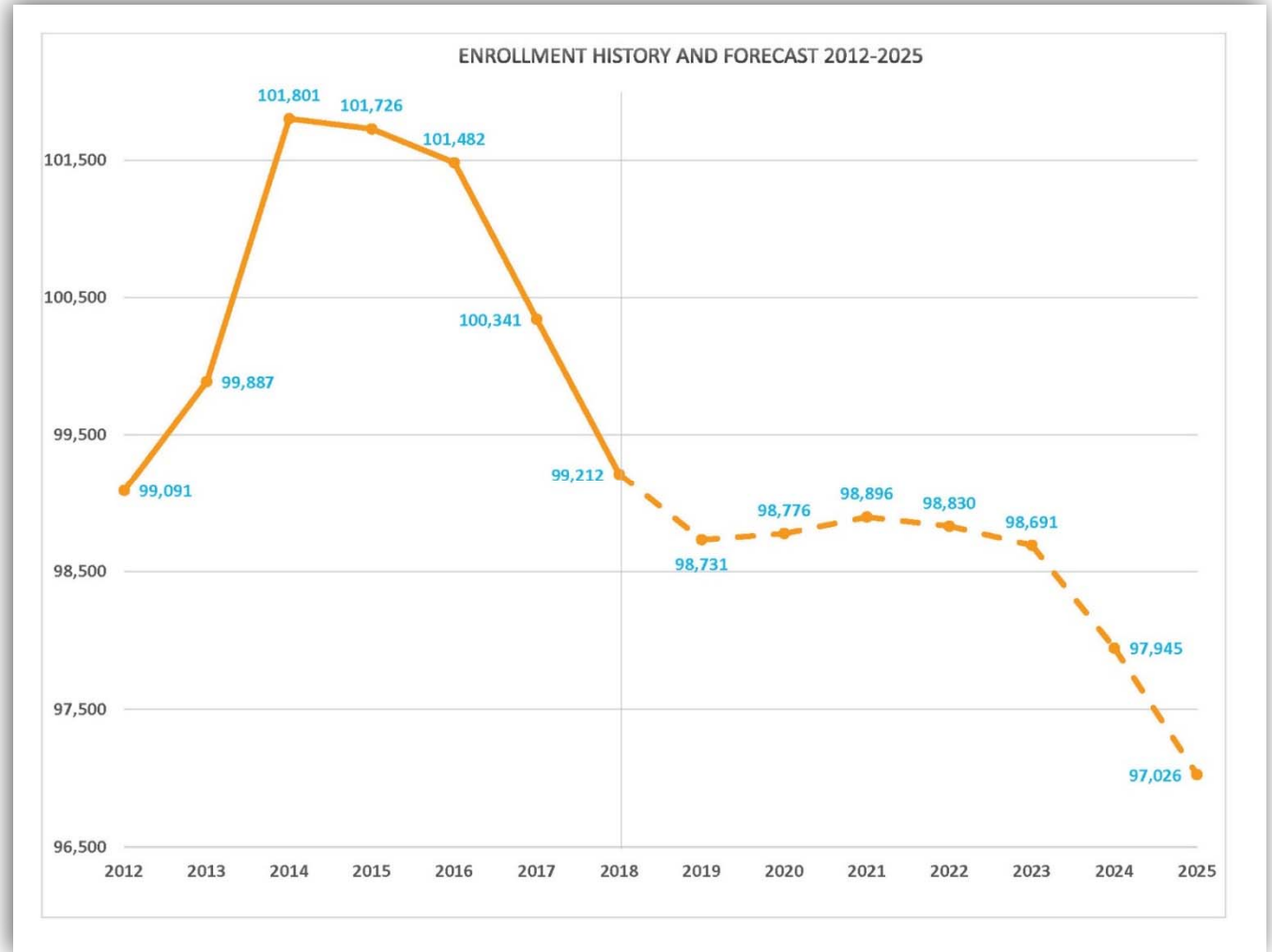
³ Kindergarten enrollment in several schools has low correlation with the number of births. In these cases future kindergarten enrollment was interpolated using a variety of methods.

6. **Non-Resident Attendees Outgoing** - The non-resident attendees outgoing (NRO) were calculated using the most recent year of enrollment data (2018).
The number of non-resident attendees in each grade residing in each attendance area was divided by the district total number of non-resident attendees in each grade. This ratio is then multiplied by the total non-resident students by grade derived from the non-resident incoming forecast to forecast the number of non-resident outgoing students for each attendance area.
7. **Resident Attendees** – Resident attendees by grade in each elementary, middle, and high school attendance area were forecasted by excluding all non-resident attendees outgoing for the years being reviewed.
8. **Enrollment** – Adding the Non-Resident Attendee Incoming forecast and the Resident Attendee forecast gives the Preliminary Enrollment Forecast.
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 increases at particular schools and decreases from where those students are coming from.
10. **Forecast** – The final result is a forecasted enrollment for each grade enrolled at each school.

3. Results

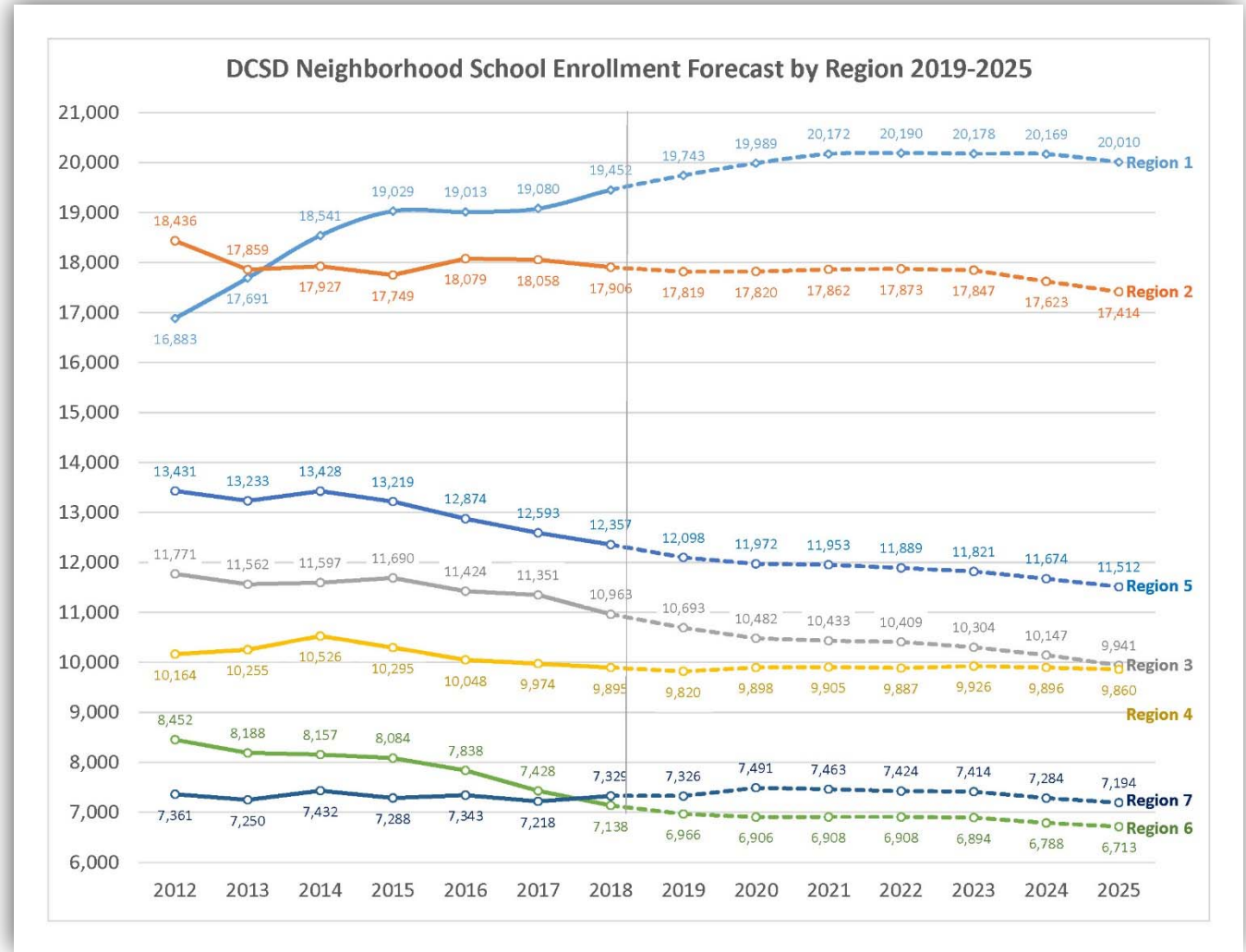
Overview

DCSD Enrollment grew from 99,091 in the Fall of 2012 to a peak of 101,801 in the Fall of 2014. Enrollment began to decrease in the Fall of 2014. Enrollment began to decrease in the Fall of 2015 and continued to decrease in the Fall of 2016 and 2017 before falling to 99,212 in the Fall of 2018. The DCSD Long-Term Forecast projects enrollment to continue to decrease to 97,026 enrolled in 2025, 2,186 fewer students than the October 2018 FTE count (-2.2%).



Regions

Enrollment in Region 1 is expected to increase from 19,452 in 2018 to 20,010 in 2025 (+2.9%). Enrollment in Region 2 is expected to decrease from 17,906 to 17,414 in 2024 (-2.7%). Enrollment in Region 3 is expected to decrease from 10,963 to 9,860 (-9.3%). Enrollment in Region 4 is expected to decrease slightly from 9,895 to 9,860 (-0.4%). Enrollment in Region 5 is expected to decrease from 12,357 to 11,512 (-6.8%). Enrollment in Region 6 is expected to decrease from 7,138 to 6,713 (-6.0%). Region 7 is expected to decrease from 7,329 to 7,194 (-1.8%).



[Grade Groups](#)

Elementary school enrollment (K-5) is expected to decrease from 50,019 in 2018 to 48,334 in 2025 (-3.4%). Middle school enrollment is expected to decrease from 21,814 to 20,651 (-5.3%). High school enrollment is expected to increase from 27,379 in 2018 to 28,041 in 2025 (+2.4%).

