Declining Annual Births May Predict Lower Kindergarten Enrollment in the Future
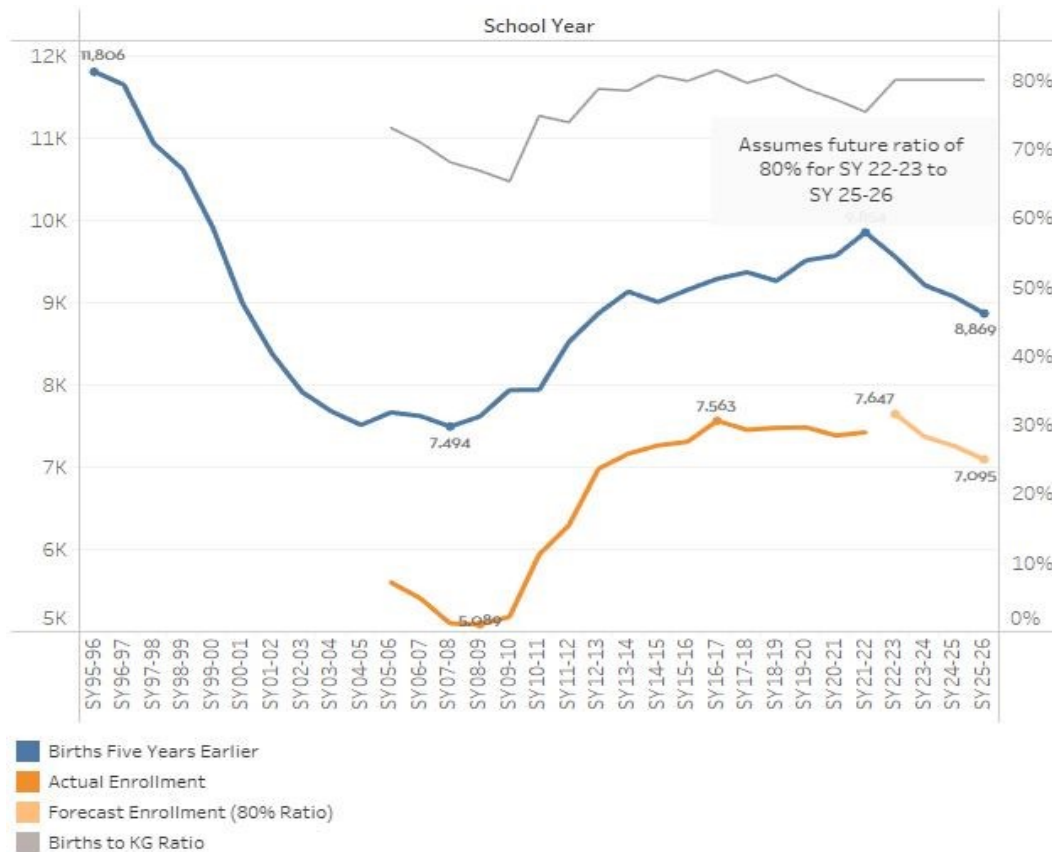
Birth to kindergarten enrollment ratios reached 81% in SY16-17 and SY18-19 and have since fallen to 75%.

As stated in the Annual Births in DC EdSight, the number of annual births for Washington, DC residents started increasing yearly after 2003 with a few exceptions and peaked in 2016, reaching nearly 10,000 births that year. After 2016, annual births have steadily declined, dropping below 9,000 births in 2020 (the latest data available).

Births are one component of later enrollment, as children can enroll in kindergarten if they are five years old as of September 30 of that school year. Kindergarten is compulsory unlike PreK3 and PreK4, so neighborhood DCPS schools must accommodate any in boundary kindergarten student who wishes to enroll.

Figure 1: Lagged Annual Births Compared to Kindergarten Enrollment

Legend:
- Births Five Years Earlier
- Actual Enrollment
- Forecast Enrollment (80% Ratio)
- Births to KG Ratio

Sources: Natality Data, Vital Records Division, Center for Policy, Planning and Evaluation, DC Department of Health. Note: Excludes non DC resident births and includes DC resident births occurring in other states. OSSE Audited Enrollment, SY2005-06 through SY2021-22

Birth to K Ratio Definition

The *birth to kindergarten ratio* is the metric showing how many kindergartners enroll in public school as compared to the number of births five years earlier. The metric compares aggregate enrollment to aggregate births—not whether specific children born in DC enroll later in public school. Still this provides a helpful understanding of the relationship between births and enrollment.

Figure 1 shows the separate elements. The orange line shows the audited public school kindergarten enrollment (DCPS and public charter together). The blue line displays the total number of births to DC residents from five years earlier. The birth to kindergarten ratio (in gray) is calculated from the number of citywide public kindergarten enrollment divided by total births five years earlier.

For example, by dividing public school kindergarten enrollment in SY2021-22 (7,424 students) by the number of births 5 years earlier in 2016 (9,854 annual births), we get a capture rate of 75% — meaning that public school kindergarten enrollment in SY2021-22 is 75% of the 2016 annual births in DC.

Differences Before and After the Pandemic

Between SY2014-15 and SY2019-20—before the pandemic—the birth to kindergarten ratios hovered between 79% and 81% (meaning approximately 80% of those born between 2009 and 2014 enrolled in public school kindergarten five years later).

During the pandemic, when public school elementary enrollment decreased for the first

time in years, the ratio dropped to 77% in the first year (SY2020-21) and further to 75% for SY2021-22. SY2021-22 could potentially have had the highest kindergarten enrollment to date because 2016 had the greatest number of births; however, the pandemic had a chilling effect on enrollment.

Estimating Future Kindergarten Enrollment

Applying a range of birth to kindergarten ratios to the number of births from 2017 to 2020 can help us estimate how many kindergarteners *may* enroll between SY2022-23 through SY2025-26.

The light orange line in Figure 1 shows the forecasted, or estimated, future kindergarten enrollment based on a 80% cohort ratio (the average ratio prior to the pandemic). Because births started decreasing after 2016, the estimated future kindergarten enrollment is also estimated to decrease, potentially falling to 7,095 kindergarten students in SY2025-26.

Using the 75% cohort ratio reflective of the pandemic years (not shown in Figure 1 but available in EdScape), the estimated future kindergarten enrollment could decrease further, possibly falling to 7,169 kindergarten students in SY2022-23 and to 6,652 kindergarten students by SY2025-26, enrollment levels similar to 10 years ago.

Please visit EdScape to explore other enrollment scenarios based on varying ratios.

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