

Predicting Kindergarten Enrollment in Baltimore

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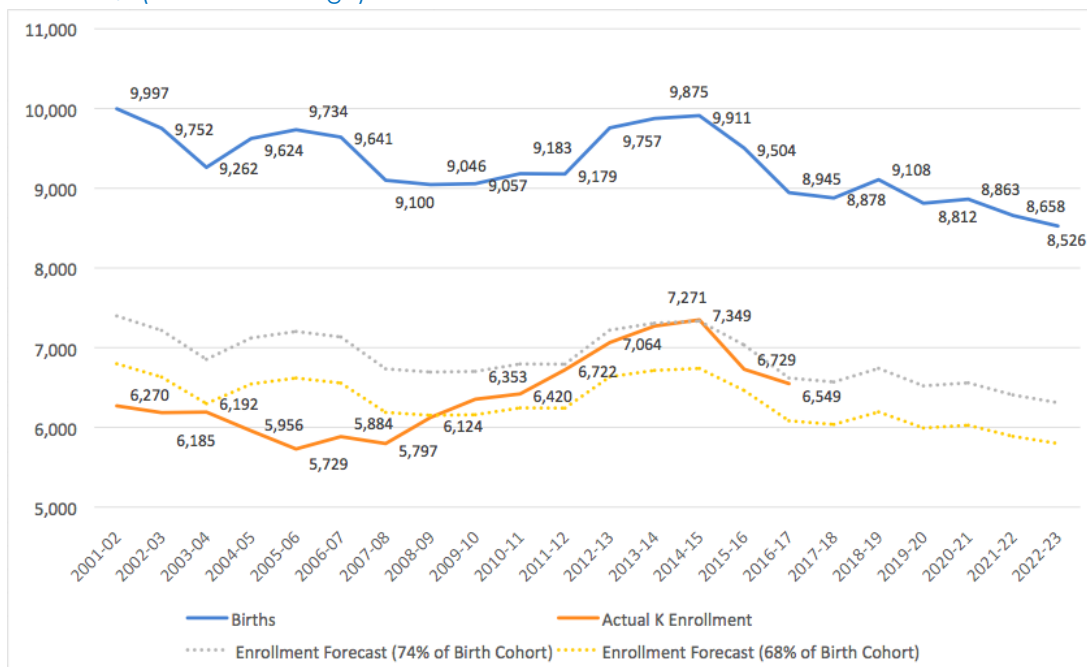
Using publicly reported data from the Maryland State Department of Education (MSDE) and the Maryland Department of Health and Mental Hygiene (DHMH), this brief examines the relation between the number of Baltimore-born children and the subsequent kindergarten enrollment in Baltimore City Public Schools (City Schools). We use this birth information to make predictions about kindergarten enrollment into the future.

We examine the number of babies born to Baltimore residents and then compare that number to the subsequent enrollment of five-year-old children in City Schools kindergarten. To be sure, each City Schools kindergarten cohort includes children who moved into the city after they were born, but the concept of enrollment rate is useful for understanding enrollment dynamics over time.

Prediction Rates. We created two predicted enrollment rates. The first, a high rate, is calculated by using the highest ratio (74%) reported over time. The low rate is calculated by using the average ratio (68%) observed in the past 16 years.

In Figure 1, the number of babies born in Baltimore from 1995 to 2016 are reported as well as the total kindergarten enrollment six years later, from 2001-02 to projections for 2022-23. The projected enrollment rates include two estimates.

Figure 1. Counts of birth and kindergarten enrollment bounded with predicted rates of 74% (historical high) and 68% (historical average).



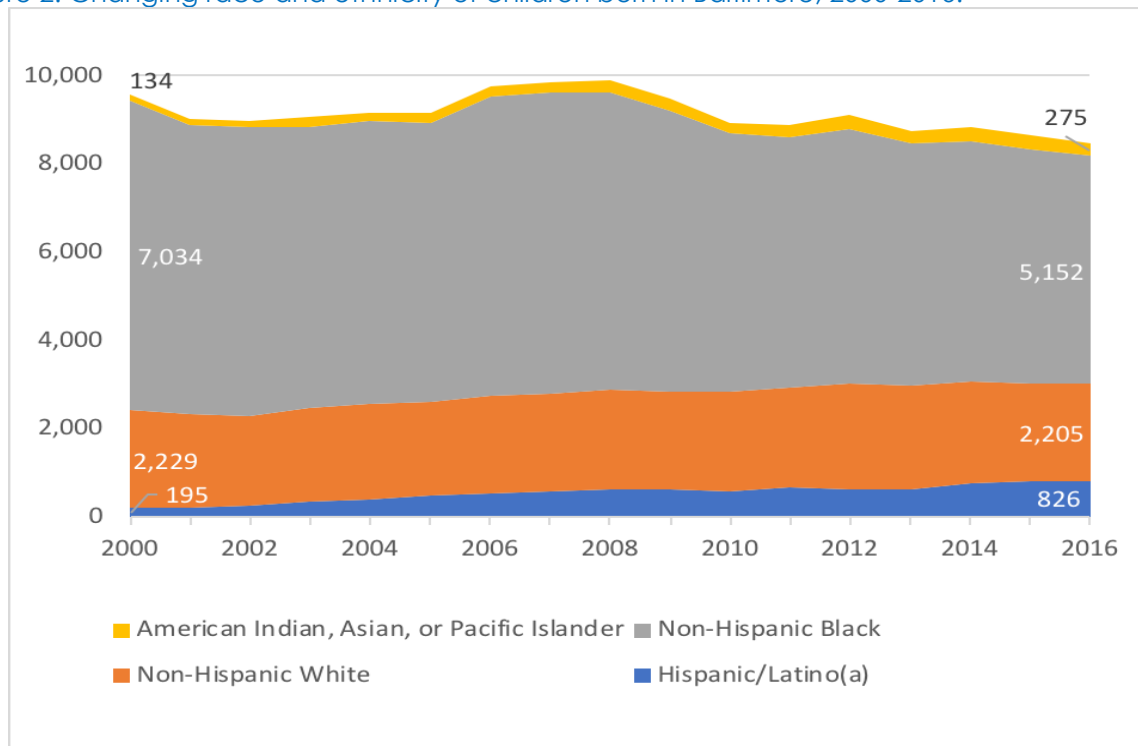
Sources: Publicly reported data from Maryland State Department of Education (mdreportcard.org) and Maryland Department of Health and Mental Hygiene (*Maryland Vital Statistics Annual Reports*)

School year, 2014-15 represented a peak in number of children enrolled in kindergarten for two reasons: it represented the second highest number of births over this period along with the peak enrollment rate (74%). Subsequent to that year, the number of babies born to Baltimore residents declined along as did the enrollment rate. Figure 1 also shows that the enrollment rate has been relatively high in recent years. The lowest observed figure was 59% in 2005-06 school year.

Going forward, 2016, the most recent year of birth data, had the lowest number of births since 1995 (8,526). Without an increase in the proportion of youth enrolling over the next five years, the kindergarten population will decline.

The changing demographics of Baltimore also tells part of this story, we investigated births since 2000 (when Hispanic/Latino(a) data began to be publicly reported in the DHMH data). As Figure 2 shows, the decline is not uniform across racial and ethnic groups. In fact, it is observed exclusively among Baltimore’s African-American/Black population. In 2000, over 7,000 African-American/Black babies were born to Baltimore residents; in 2016; the figure was 5,152. Over the same period, the Non-Hispanic White population was nearly constant (approximately 2,200), the American Indian, Asian, or Pacific Islander population doubled (from 134 to 275), and the Hispanic population increased four-fold (approximately 200 to over 800).

Figure 2. Changing race and ethnicity of children born in Baltimore, 2000-2016.



Source: Maryland DHMH, *Maryland Vital Statistics Annual Reports* (Table 9A)

The trend is of declining enrollment has continued steadily in recent years, and the decline has been accelerated by decreasing numbers of non-Hispanic African-American/Black children born in Baltimore City.

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