# Are Children Born Later in the Year More Likely To Be Identified as Students With Disabilities?

A national study found that in states where children had to turn 5 by September 1 to be eligible for kindergarten that year, students born in August were more likely to be diagnosed with attention deficit hyperactivity disorder, or ADHD, than those born in earlier months. After reading about it, *Chalkbeat's* Amy Zimmer asked IBO whether similar findings for a broader range of disabilities applied to the city's schools (where the cutoff for eligibility is December 31 of that year). To find out, we examined student-level data from the city's Department of Education and looked for trends in the identification of students with disabilities by month of birth and year of birth for four cohorts: kindergarten through 3rd graders in school year 2017-2018.

Using students' birth-year as well as birth-month allows us to examine patterns without conflating standard-age students with over-age students, who comprise a disproportionate share of the special education population. We also focused on these early-grade students because differences in child development on a month-to-month basis are likely greatest at these ages compared with older cohorts.[1] Among the four grades we looked at in 2017-2018, the education department classified roughly a fifth of the students in the city's traditional public schools as students with disabilities.

In addition to examining the aggregate patterns, we looked at whether birth-month mattered by type of disability, highlighting the differences across the six largest categories—autism, emotional disturbance, intellectual disability, learning disability, speech and language impairment, and other health impairment.

Students Born Later in the Year More Likely to Be Identified With a Disability, School Year 2017-2018
By Birth Month and Year
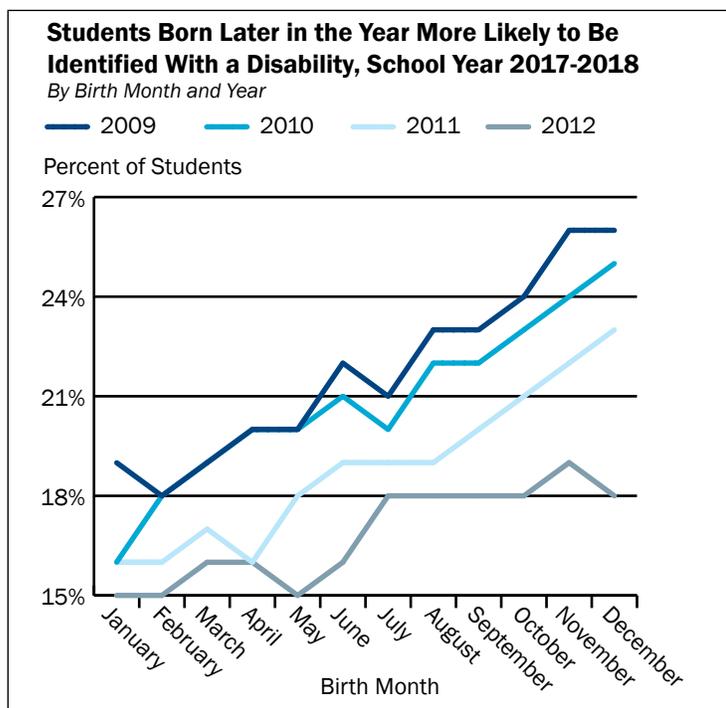
- There is a strong relationship between birth-month and classification as a student with disabilities. Among students born from 2009 through 2012, a larger share with November and December birthdays were classified with disabilities compared with those born in January and February. Across the four cohorts, the average rates of classification for students born in January and February was 16.5 percent and 16.8 percent, respectively, compared for example with students born in November and December (22.7 percent and 23.1 percent, respectively).
- Classification rates were the highest for students in the oldest cohort (2009 births), children born in 2009 and therefore 8 years old in 2017-2018; among the four grades examined, the longer a student had been in the school system, the more likely they were to be identified to receive special education services.

Students Born Later in the Year More Likely to Be Identified with Learning Disability, School Year 2017-2018
By Birth Month and Year

— 2009 — 2010 — 2011 — 2012

Percent of Students
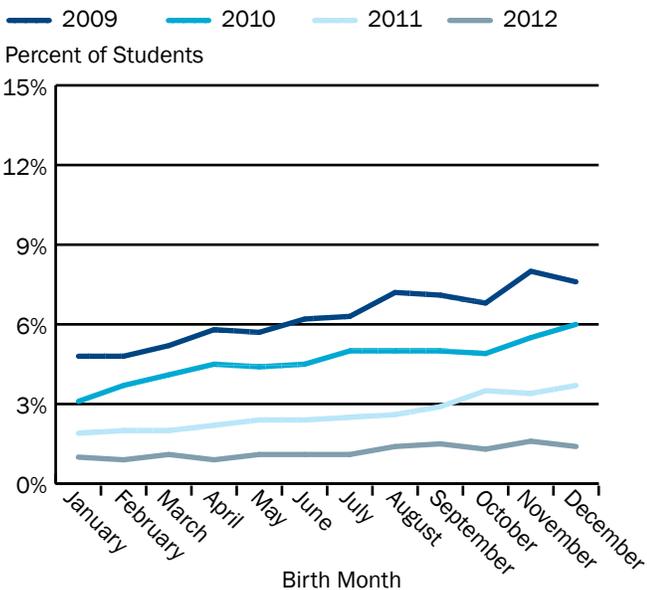
Birth Month

Students Born Later in the Year More Likely to Be Identified with Speech or Language Impairment, School Year 2017-2018
By Birth Month and Year

— 2009 — 2010 — 2011 — 2012

Percent of Students

Birth Month
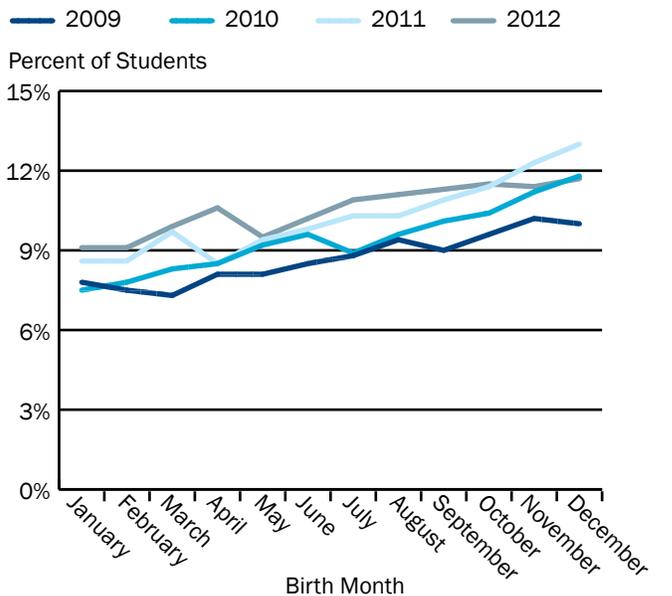
- IBO found that being born later in the year had differing correlations depending on type of disability. The largest positive correlations occurred with learning disability and speech or language impairment (which together accounted for almost 70 percent of students with disabilities in our sample), while emotional disturbance and intellectual disability elicited the smallest correlations.
- To see if other factors such as gender, race and ethnicity, poverty, and English language learner status affected our findings, we took a closer look at the kindergarten cohort of 2017-2018 (students born in 2012). These students were least likely to be over-age for their grade. Even after controlling for these other variables, IBO again found a statistically significant association between being born in the latter part of the year and identification as a student with disabilities. The relationship was strongest for students with learning disability and students with other health impairment. (To see the results of IBO's multivariate regressions for the entire analysis, click here.)

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Endnote

[1]Jack J. Wisniewski, Ted J. Andrews and James A. Mulick (1995), "Objective and Subjective Factors in the Disproportionate Referral of Children for Academic Problems," *Journal of Consulting and Clinical Psychology*, 1995, Vol. 63, No. 6, 1032-1036. The study found a significant relationship for students age 10 and younger.

SOURCES: Special Education Student Information System and Student-Level Biographic data, 2017-2018
NOTE: Excludes students in charter schools for whom we do not have reliable disaggregated data on type of disability classification.