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« Previous | Next »

Michael Hansen | June 22, 2016 12:41pm

How much does it benefit a child to delay kindergarten entry for a year?

Editor's Note: This post originally appeared on U.S. News and World Report's Knowledge Bank blog.

To the delight of many school kids, including my own, summer is finally upon us. The next couple of months for them will be filled with athletic camps, swimming parties, barbecues, and stays at Grandma's house. And for my preschooler, he will be celebrating a late summer birthday.

If we were holding this conversation at a social gathering, my mention of both a male preschooler and a late summer birthday in the same sentence might lead you to a follow-up question I've heard in these settings: "Are you going to redshirt him?" And knowing that I conduct education policy research professionally, you might press me further, "Does it actually pay off?" Allow me to use this space to answer this question that many parents have faced.

Academic redshirting is the practice where a five-year-old child's caretaker chooses not to enroll her or, more commonly, him in kindergarten even though he is of appropriate age by the state's cut-off date for enrollment. Rather, children who are redshirted temporarily delay enrollment and thus start kindergarten one

year older than they otherwise would have been.

It's worth taking a moment to first talk about the prevalence of redshirting and who is doing it. Depending on the data, estimates of redshirting rates range between 3.5-5.5 percent of children eligible to enroll in kindergarten based on their age. Over 70 percent of redshirted children were born in the summer months and it is twice as common among boys as among girls. It is also significantly more common among white students—roughly 6 percent of white students are redshirted compared to less than 3 percent of Asian students, and 2 percent or less among black and Hispanic children.

Redshirting also appears to be a bit of a luxury item: redshirting is nearly twice as prevalent in schools serving affluent student bodies as it is among those whose mean household income was close to the poverty line. This finding is unsurprising, given that the choice to redshirt may mean sending your child to preschool or daycare one additional year before kindergarten, which could be financially prohibitive among some low-income families.

As to whether redshirting pays off, there's a popular notion that it does. After all, widely-cited research has shown a modest but significant correlation between initial age differences in children have long-lasting effects on student performance across many developed countries. These relationships between relative age and student outcomes were popularized by media accounts and, notably, in Malcolm Gladwell's bestselling book *Outliers*.

What the popular notion misses, however, is all of the follow-up research studies that have continued to probe this question in the years since that first study was published. According to these studies, there are two hypothesized effects that are confounded in the well-known correlation between age and student outcomes. The first is the age-at-test effect, which says two kids taking the same test at the same time will give an advantage to the older kid purely based on the mechanical relationship between age, maturity, and cognitive development. The second is the relative-age effect, which is the additional advantage a child receives by being the oldest, and therefore highest performing, in the classroom (e.g., more challenging assignments, assigned to the honors class).

Gladwell's take in *Outliers*, and the popular belief, is that this second, relative-age effect is really driving the differences that we see across kids in so many different countries. But these follow-up studies have used novel data sets to carefully separate out the relative-age effect from the age-at-test effect and come to a very different conclusion. Together, these studies suggest that the primary driver of these observed differences is the age-at-test effect. Interestingly, the age-at-test effect may be stronger among males than

females; thus parents are likely seeing big differences in cognitive ability among redshirted boys (which could be driving the differences in redshirting prevalence by gender). However, these differences are due to the boys simply being older, and not due to greater advantages from schools or teachers.

The relative-age effect is negligible and could possibly even be negative, meaning that being the oldest, highest-achieving in your class may potentially serve as a disadvantage. In fact, higher relative age has been linked to lower levels of educational attainment, primarily due to a higher likelihood of dropping out of high school among males.

Many parents worry about increasing academic pressure for kindergarteners, questioning whether their child will thrive in an environment where kindergarten is the new first grade and whether redshirting might help provide a leg up. In short, there's no reason to believe that redshirting your child will instill some long-term educational advantage. While a child's age at the time of testing does make a difference in early elementary grades, and redshirting will enable him to score closer to the top of the class rather than the bottom, being the oldest in the class does not appear to convey any advantage on its own. Moreover, the testing advantage for being the oldest tends to diminish with time; thus when it comes time to apply to colleges, the child's age-at-SAT is a minor factor in the grand scheme of things.

So there's my answer to your question about whether redshirting pays off. And with the length of that belabored response, you can probably also see why I don't get invited to many social gatherings!

Michael Hansen

Senior Fellow and Deputy Director, Brown Center on Education Policy , Governance Studies, Brown Center on Education Policy

@DrMikeHansen

Dr. Michael Hansen is a Senior Fellow at the Brookings Institution and the Deputy Director of the Brown Center on Education Policy. A labor economist by training, he has conducted original research on the teacher quality, value-added measurement, teacher evaluation, and teacher responses to incentives and accountability using state longitudinal data systems. Other areas of research include school turnaround and STEM learning.

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SuburbanMom • 4 days ago

My son missed the cut off by one day and was held back a year. I'm happy for the extra year of savings for college. Every little bit helps.

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CarlP • 4 days ago

This article appears to only be assessing the impact of redshirting on test scores. There is also the emotional readiness issue - which I am sure is much harder to measure. We red-shirted our son in the early 1980s. He was born on Nov. 30th, 24 hrs before the age cut-off. I do believe that he benefited from a feeling of accomplishment for many years which presumably influenced his academic success. However, by the time he was in 12th grade he had outgrown the teacher imposed control/conform environment more appropriate for younger children. At this point he started rebelling and almost got kicked out of school and his grades slipped significantly despite having been an honors student. Perhaps this is illustrative of why the higher drop out rate. He graduated a bitter young man who wanted nothing to do with more schooling. He took a gap year which he used productively and then completed college in 4 years and is now an MD. Leon Bostein's book "Jefferson's Children" suggests that high schools should end at the age of 16 due to faster physical and emotional maturation then 100 years ago when our current high school system was designed. Students would then bridge into various directions: higher education - going directly to 2 and 4 year colleges, apprenticeships/internships, community service, etc with perhaps going to academic colleges a bit later.

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Israel Cohen • 4 days ago

It may be worthwhile to compare the effects described in this article with my own experience of "early schooling." In 1942 at my age 5 years 5 months, the Duval county Florida public school system would not accept me in the 1st grade. I began 1st grade in a private school and began public school a year later in the 2nd grade. I was always about 1 year younger and shorter than other students in my class until high school graduation in 1954. Of the approximately 5000 U of Florida ROTC students, there was 1 student shorter than me, standing next to me on my left when we were on the drill field, a genuine case of Schadenfreude on my part.
Starting early had no adverse effects on my academic progress. My 9th grade algebra teacher placed me in the back of the room with an extra desk-chair facing me and told the class that anytime that extra desk was unoccupied, other students could go there for private instruction. My 11th grade English teacher exempted me from all tests and gave me straight A's in exchange for my grading the tests of all the other students in my class. (My ability to do this was so obvious to my classmates that no one objected to this arrangement.) My 11th grade Chemistry teacher sent me to a 2-week summer science camp. I made the highest score in my high school on the MAA (Mathematical Assn of America) test during my junior and senior years ('53 & '54)..
It did have some serious adverse social effects. The tallest girl in my 5th grade class "adopted"

me as her "child." But she did teach me the Greek alphabet. I was usually chosen last and sometimes not chosen when teams were selected for various sports. My performance was substandard in many sports, especially basketball. And, of course, my classmates were ready for social dating long before I was.

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John O'Malley • 4 days ago

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