One-in-four families delay their child's school entry and older children are more school-ready: Big data study

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A UNSW-led study of more than 100,000 children indicates 1 in 4 families delay their child's school entry. Credit: Shutterstock

A UNSW-led study of more than 100,000 children is the largest ever to examine who delays starting school in New South Wales, and how a child's age when they start school relates to their 'readiness' in terms of development.

One in four families delay school entry until the year their child turns six – with striking geographical and social variation, a study of more than 100,000 NSW Kindergarten children has found. The data also indicates a strong relationship between age and developmental skills in the first year of school.

This is the first time that the magnitude of this relationship has been quantified in the Australian context. The analysis of the unique dataset, led by Dr. Mark Hanly at UNSW Medicine's Centre for Big Data Research in Health, was published today in academic journal Early Childhood Research Quarterly.

Every year, thousands of Australian parents face a difficult decision: should they send their child to school or delay until the following year? In New South Wales, for example, children born January to July can start school aged 4½ to 5 years, or delay a year and start aged 5.5 to 6 years. For NSW children born August to December, this choice isn't available—these kids almost always start school in the year after their fifth birthday, barring special circumstances.

To get a clearer idea of what the situation looks like in Australia's most populous state, the researchers used linked administrative data for 104,356 children who started at a NSW Public School in 2009 or 2012. Their aim was to identify child, family and area characteristics associated with delayed entry, and to explore the relationship between school starting age and five domains of child development, measured using the Australian Early Development Census (AEDC) in the first year of school.

The team found that one in four children delayed school entry – almost half of the January-July born children who were eligible to do so. There were striking geographical and social variation in the families who opted to delay.

"Boys, younger children, and children from relatively advantaged families and neighbourhoods – particularly in Sydney – were more likely to delay," says study director Dr. Kathleen Falster, of UNSW and the Australian National University.

"This might be because parents and teachers believe that boys and younger children are often less school-ready – but delaying school entry can come at an additional cost for families, especially if the alternative is expensive childcare."
The researchers also quantified the relationship between school starting age and early childhood development, and found a strong link between age and developmental skills in the first year of school.

Children born August to December have no choice about when to start school in New South Wales, so new starters with these birth dates are ideal to study how age is linked to development.

"When we compared their developmental data there was a clear trend: outcomes improved with each additional month of age," says study lead Dr. Mark Hanly.

"Month-on-month these differences are quite small, there's not a big gap between August-born children and September-born children, for example. However, accumulated over a full year, these differences add up, and unsurprisingly there is quite a large development gap between 4½ year-olds and 6 year-olds."

Vulnerable

The AEDC comprises more than 100 items across five domains (physical health and wellbeing; social competence; emotional maturity; language and cognitive skills; and communication skills and general knowledge). Teachers complete the assessment in the second term of the child's first year of full-time school. Children with scores in the bottom 25 percent for a domain, according to the 2009 AEDC benchmark, are classified by the AEDC as developmentally vulnerable or at risk in that domain. In this study, children who scored above the 25 percent cut-point on all five domains were considered to have positive development overall.

"What the data really show us is that, on average, children who start school in the year they turn six are more likely to have developed the skills and competencies needed to thrive in a formal learning environment, compared with their younger peers who start school in the year they turn five," Dr. Hanly says.

While the study makes no policy recommendation, it is highly relevant to the ongoing debate about school enrollment policies – and the potential impact of those policies on children's readiness for school, as well as classroom composition.

"One policy option is to raise the enrollment age to remove the most developmentally vulnerable children from the schooling environment – which would also narrow the gap between the youngest and oldest children in a classroom," says Associate Professor Ben Edwards from the Australian National University, early childhood education expert and co-author on the study.

However, there's unknown long-term consequences of school starting age policies, and a more solid evidence base is needed, the researchers say.

"For example, raising the school starting age may place added pressure on families to provide preschool care, or restrict work-force participation for parents. A later start to school may also have long-run effects on the age that young adults enter the workforce," A/Prof Edwards says.

Dr. Hanly concludes: "We also need more longitudinal research on the potential for initial age-related differences to impact later school outcomes – while some earlier studies have suggested academic gaps closed between younger and older children after first grade, the long-term implications just aren't clear yet."


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