Early bird catches the worm: The causal impact of pre-school participation and teacher qualifications on Year 3 NAPLAN cognitive tests

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Abstract
Using data from the Longitudinal Study of Australian Children (LSAC), this is the first analysis for Australia to evaluate the impact of attendance at pre-school programs on matched Year 3 nation-wide NAPLAN test outcomes in the domains of numeracy, reading, spelling, writing and grammar. We also disaggregate the impact of specific teacher qualifications on children’s cognitive outcomes. While one year of learning in Year 3 is represented by about 50 NAPLAN points, we find average pre-school domain effects as much as 10–15 points. The impacts for NAPLAN scores in numeracy, reading and spelling domains are the strongest and are significant. The highest increases in NAPLAN scores were attained by children whose pre-school teachers had diploma- or degree-level qualifications, identifying for the first time the crucial nature of teacher qualifications in driving nationally representative long-run pre-school treatment outcomes.