



The case for universal access to two years of early learning

One in five Australian children start school behind

Every year, over 60,000 children (one in five) start school with significant vulnerabilities that impact their ability to succeed at school and thrive throughout their lives (AEDC, 2016; J. J. Heckman, Moon, Pinto, Savelyev, & Yavitz, 2010).

Children from all backgrounds can experience challenges in key areas of cognitive, social and physical development. In fact, half of the children who are developmentally vulnerable live in middle and high-income communities. Yet some children experience much higher rates of vulnerability:

- Children in low-income communities are 4 times more likely to be vulnerable than children in high-income communities.
- Two in five Aboriginal and Torres Strait Islander children are developmentally vulnerable.
- Children in regional and remote Australia are 5 times more likely to have language and cognitive vulnerabilities than children in major cities.

In Australia, 731,300 children (17.4%) live in poverty. These children have significantly reduced life chances and opportunities to succeed. Research shows that most children who start school behind stay behind.

- Only 12% of children who start school developmentally vulnerable are on track in Naplan by Year 3, and they are five times less likely to score in the top two bands of Naplan (Pascoe & Brennan, 2017).
- Children are more likely to be in the bottom 20% in Naplan assessments in Years 3, 5 and 7 if they are developmentally vulnerable when they start school (Brinkman, 2014).
- Children who are in the bottom 20% in Year 9 only have a 9% chance of getting an ATAR above 50 (Houng & Justman, 2014).
- Nearly a quarter of young people do not graduate Year 12, leading to significant lifetime fiscal and social costs (Lamb & Huo, 2017).

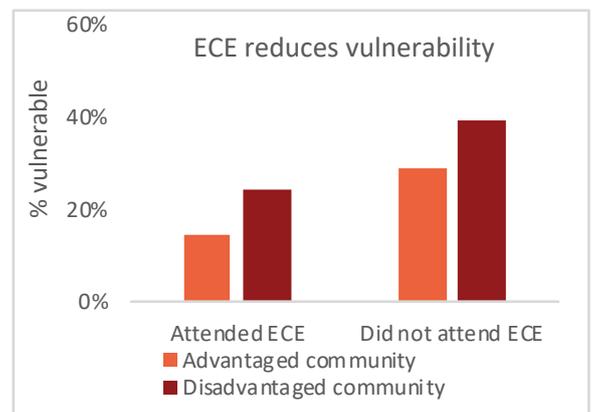
Australian children's performance in national and international assessments has held steady or declined over the past decade, while other countries have been accelerating. The gap between advantaged and disadvantaged students is growing, with students poorer backgrounds now around three years behind, one of the bigger gaps in the OECD (Connors & McMorro, 2015).

- Around one-third of Year 4 students and around one-third of Year 8 students fail to achieve the nationally agreed proficient standard in international math assessments (Pascoe & Brennan, 2017).
- There is a 2.5 year gap between wealthy and poor students in math, with low SES students making up 45% of low performers in math and reading.

Giving children the right start sets them up for life

Increasing the number of children who start school on-track is one of our best strategies to boost educational achievement and change a child's life trajectory. Nearly 60% of children who start school on track are in the highest bands in Year 3 Naplan test results (Pascoe & Brennan, 2017).

Research shows that a nurturing, responsive and stimulating home environment combined with quality



Source: AEDC, 2014



early childhood education (ECE) from age 3-5 sets children up for success (Fox et al., 2015). Children from all backgrounds are significantly less likely to be developmentally vulnerable when they start school if they attend quality ECE – with particularly strong effects for children from disadvantaged backgrounds (AEDC, 2014).

- Attending more than one year of preschool is associated with a 33 point gain in international OECD test scores for 15 year olds, the equivalent of an extra year of school (Mostafa & Green, 2012).
- A child who has no preschool is nearly twice as likely to perform poorly in international tests than a child who has attended more than one year of pre-primary education (Mostafa & Green, 2012).

ECE improves literacy and numeracy, but its most powerful impacts are on ‘soft’ skills like managing emotions, building relationships, working memory and mental flexibility, persistence, curiosity and creativity – the 21st century skills most in demand in the workforce (J. Heckman, Stixrud, & Urzua, 2006).

ECE has to be high quality to change children’s trajectories

It is only high quality early education that delivers substantial and sustained impact (Tayler, Cloney, & Niklas, 2015). Low quality can lead to significant harm – impacting early language and cognitive development, as well as levels of stress and anxiety and behavioral issues (Baker, Gruber, & Milligan, 2015; Herry, Maltais, & Thompson, 2007).

The most important part of ‘quality’ is the value-add that teachers and educators provide through the learning opportunities they create and in the way they talk with children and stretch their thinking (Wall, Litjens, & Taguma, 2015).

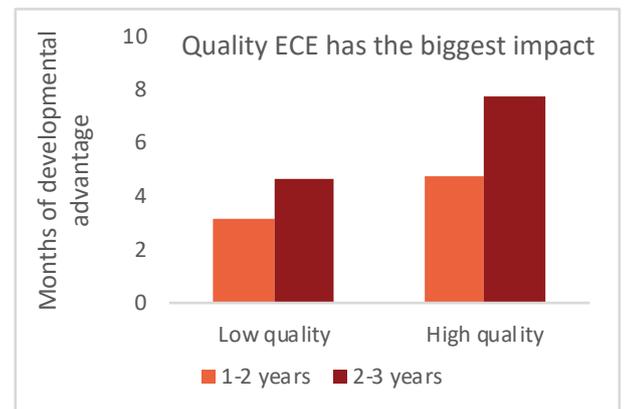
Factors like qualifications, group size, ratio of educators to children, the physical space and regulations around health and safety are all essential to create the conditions in which teachers and educators can be effective (Torii, Fox, & Cloney, 2017).

In Australia, disadvantaged children are significantly less likely to have access to high quality early education (Cloney, Cleveland, Hattie, & Tayler, 2015), with only 7% of children from low SES families attending the highest quality programs (Torii et al., 2017). In low quality Australian centres, children can have as little as 11 words spoken to them per hour, compared to more than 40 in high quality centres (Degotardi, 2017).

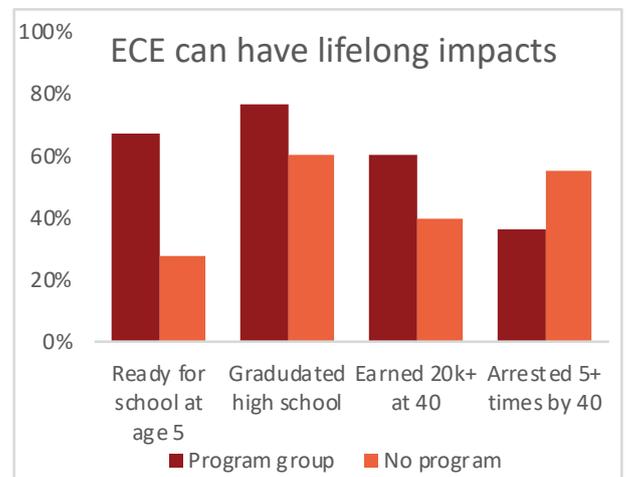
ECE delivers a return on investment

Improving children’s wellbeing and learning boosts their achievement at school, their likelihood of graduating school, and their ability to be productive and prosperous members of their community.

High quality ECE produces benefits for the individual, government and society, with effective universal early childhood education programs (in the US) consistently achieving at least a 1:2 return (Cannon et al., 2017). Lower quality ECE programs do not impact children’s development or deliver a positive ROI (Dalziel, Halliday, & Segal, 2015).



Source: Taggart, Sylva, Melhuish, Sammons, and Siraj (2015)



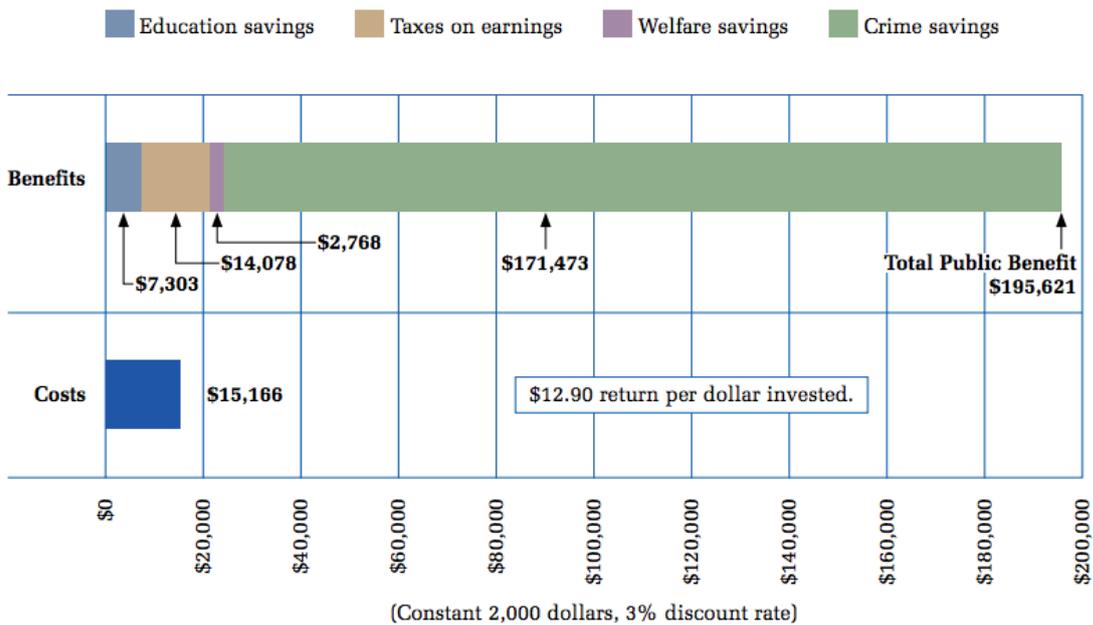
Source: J. Heckman, Moon, Pinto, Savelyev, and Yavitz



The most significant returns generated through higher educational achievement, which leads to:

- Reduced education spending
- Reduced crime
- Increased employment and tax revenue
- Reduced welfare costs.

Historically high-intensity programs targeted at highly vulnerable children (in the US in the 1960/70s) have generated returns of between 1:10 to 1:17, with reduced crime being the most significant driver of savings (delivering 88% of total benefits, see below) (Schweinhart et al., 2005). The returns are higher the longer the children’s outcomes are measured (the children in the Perry Preschool study are now aged over 40) and largely reflect the social context of the United States and high incarceration rates of black males (J. Heckman et al., 2009).



More recent cost-benefit analysis have examined universal ECE programs delivered to a more socio-economically diverse cohort and generally involving lower levels of quality (Cannon et al., 2017; WSIPP, 2017). These programs have also been implemented more recently (mid 2000s onwards), so participants are much younger – and previous experience shows a large proportion of the benefits accrue in adulthood (with only small benefits from ‘education savings’).

The ROIs for these studies have been closer to 1:2-4, with benefits generated through reduced expenditure on students repeating years of schooling (0.01%) and expenditure on special education for children with learning difficulties (0.02%), and the anticipated increases in employment, earnings and tax revenue (87%) and decrease in crime (15%).



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