



Home-to-school transitions for financially disadvantaged children

Summary Report



Australian Government

**Australian Institute of
Family Studies**



everyone's family

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Summary Report

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Message from Elaine Henry, CEO The Smith Family

Giving our children the best start in life has never been more important.

As research from around the world makes clear, the early years provide the foundation for the development of skills and capacities that children need in order to reach their individual potential and make a broader contribution to society as adults. With their parents or carers as their first teachers, the relationships they form during this period will influence not only their own sense of belonging and self-worth but also the emotional empathy they bring to all of those with whom they will interact throughout their life.

The early years ought therefore to be filled with joyous first experiences of reading, playing and counting; of feeling healthy, safe and loved. These experiences are crucial in equipping young children for the many difficult transitions they will face as they progress through different stages in their life, the first and perhaps most critical of which is the transition from home to school.

For most children, leaving the security of their home environment to enter the institutional setting of the classroom is difficult enough. However, as this report makes clear, it is many times more challenging for children from disadvantaged families, whose parents often lack the basic support structures of family and the resources they need to promote the optimal development of their children in those crucial early years. Having missed out on these learning experiences and relationships, these children enter school already some years behind their peers, and without continued targeted support, this gap has been shown to widen.

At The Smith Family, we believe that every child should be given the best start in life, regardless of the circumstances into which they are born. Providing support to children when they enter school is not enough – a more preventive approach is required to build the capacity of parents in providing quality early childhood environments and experiences for their children *before* this key transition.

This preventive model underpins our work with disadvantaged families in communities across Australia. In the early years, we aim to ensure that

when a child reaches school age, they will have the foundations of literacy and numeracy on which to build, and are better prepared socially and emotionally to make a successful transition from home to school. We then continue through our *Learning for Life* suite of programs to provide these children with the support they need to successfully transition from primary to secondary school, and from secondary to tertiary education and/or the world of work.

This research on *Home to school transitions for financially disadvantaged children* is therefore extremely valuable in continuing to inform our support for the first critical stage of the life journey.

I hope you find this report enlightening.



Elaine Henry, OAM
Chief Executive Officer, The Smith Family



Introduction

The transition from home to school is a major change in children's lives, being the first compulsory and universal point of contact between the child and broader social institutions. This can be a challenging period for children, as they adjust to a generally much larger institution than they have previously encountered—with its own culture, rules and expectations, along with new people (both teachers and school mates), and the new physical environments of classrooms and playgrounds.

There is clear evidence that children vary in their “readiness” for this transition, with marked differences visible in children's cognitive and social/emotional skills when they enter school. The importance of making a good transition into school is indicated by evidence that school readiness is predictive of later outcomes: children who are less “ready” are less likely to excel academically and are more likely to have behavioural and emotional problems, be retained in a grade and drop out of school (Blair, 2001; Duncan et al., 2007; Reynolds & Bezruczko, 1993). Such children are also more likely to become teenage parents, engage in criminal activities and have poorer employment records (Schweinhart, 2003).

Given this evidence that a “good start” to schooling is so influential for later wellbeing, researchers have tried to identify the factors and processes associated with children's readiness for school. Current conceptualisations of children's school readiness (e.g., Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006) include multiple facets of children's development, such as their language development, cognitive abilities, general knowledge, approaches to learning, social/emotional development, and physical health and development. School readiness also encompasses the school's, family's and community's readiness for this transition; however this report focuses on children's readiness for school.

One key influence on children's school readiness has been found to be family financial disadvantage. Further, as children move through the school years, the differences in school engagement and progress between financially disadvantaged children and their more advantaged peers often widen. Understanding how these differences develop and become entrenched is an important task. This study seeks to identify the factors that facilitate or impede the school

transitions of Australian children from financially disadvantaged families.

This report provides a summary of the more comprehensive report prepared by the Australian Institute of Family Studies for The Smith Family on this issue. The full report is available from The Smith Family at www.thesmithfamily.com.au

What past research tells us

A literature review, accessible in the full version of this report, identified risk and protective factors related to children's readiness for school, especially children from financially disadvantaged families. The major conclusions included:

- Child, family and community characteristics all influence children's school readiness.
- Individual child factors and family factors appear to have a stronger impact on children's school readiness than community-level factors.
- The child characteristics of early cognitive ability and temperament have been consistently found to influence children's cognitive and behavioural readiness for school.
- Among numerous relevant family characteristics, parenting practices, the home learning environment, maternal education and family income, seem to be the most influential in determining school readiness.
- Not only do parenting and the home environment have a strong direct association with school readiness, they are also crucial mediators of the relationship between financial disadvantage and school readiness.
- Although community-level variables appear to have a minor impact on children's school readiness, childcare and preschool attendance have been consistently found to influence early child development.

Most of the findings cited in the review came from North American and British studies. Relatively few Australian studies were located that specifically addressed factors associated with financial disadvantage and children's school readiness. Notably, most of the studies focused on children's socio-emotional development rather than their cognitive readiness for school.

Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) appears to be the only comprehensive large-scale longitudinal Australian study examining children's cognitive, socio-emotional and physical development during the critical transition

period into school. It has also collected extensive data on children's home, childcare, preschool and school experiences (Sanson et al., 2002). The study thus provides a unique opportunity to examine the factors impacting on the school readiness and early school progress of Australian children, particularly those living in financial disadvantage.

Growing Up in Australia: The Longitudinal Study of Australian Children

Growing Up in Australia commenced in 2004 and was initiated and funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs and is managed in partnership with the Australian Institute of Family Studies. Two cohorts were recruited: 5,107 families with infants aged zero to one year, and 4,983 families with four- to five-year-olds. The children and families come from urban and rural areas of all states and territories of Australia.

The older group of children is the focus of this report. Information is used from Wave 1 (4,983 children aged four to five years, collected in 2004) and from Wave 2 (4,464 children aged six to seven years, collected in 2006). The response rate was 90% at Wave 2, at which time 68% of the children were in Year 1 of school and 27% were in Year 2. Information was obtained from parents and teachers, and direct assessments of the children's functioning. Further details of the LSAC study and its measures are available at www.aifs.gov.au/growingup and in the full report.



What was measured

Four types of *family financial disadvantage*, measured when children were 4–5 years of age, were used:

- a) equivalised family income in the lowest 15% of the LSAC cohort distribution (the average was \$183 per week);
- b) experience of financial hardship in the past 12 months, for example, not being able to pay gas, electricity or telephone bills on time, or adults or children going without meals;
- c) the family's main source of income being derived from government support; and
- d) parental perceptions of the family as being poor or very poor.

Children's school readiness at 4–5 years was measured by:

- a) pre-literacy/pre-numeracy skills;
- b) language skills; and
- c) social/emotional behaviour (conduct problems, hyperactivity, emotional problems, peer problems and prosocial behaviour) at home, as reported by parents.

Children's school achievement and adjustment at 6–7 years was measured by teacher reports of:

- a) literacy/numeracy skills;
- b) engagement in learning; and
- c) social/emotional behaviour at school.

What was found

Was financial disadvantage related to children's school readiness and progress?

Relationships between family financial disadvantage, children's school readiness and early school progress were first explored without considering the effects of other child, family and broader environmental factors. The findings consistently revealed that:

- The group of children from financially disadvantaged families showed lower readiness for school at 4–5 years than the group of children from non-disadvantaged families. Differences were most marked in the language area (see Figure 1).
- Two years later, at 6–7 years, more children from financially disadvantaged families were experiencing literacy/numeracy difficulties than their peers from non-disadvantaged families (see Figure 2). Likewise, children from financially disadvantaged families more often showed low engagement in learning.
- Children from financially disadvantaged families were also more likely to be reported by teachers as displaying difficult behaviour at 6–7 years, such as conduct problems, hyperactivity/inattention, emotional symptoms and problems getting on with peers, and were less likely to show prosocial behaviour.
- Differences at 6–7 years appeared to be most powerful for literacy/numeracy skills and approaches to learning.
- However, the findings also indicated that many children from disadvantaged families showed adequate school readiness and subsequently made satisfactory school progress. Further, a significant number of children from non-disadvantaged families did show low school readiness and poor school progress.
- Trends were generally similar across the four types of family financial disadvantage examined, and hence for all subsequent analyses, equalised family income in the lowest 15% was used as the measure of family financial disadvantage.

Overall, clear links were found between family financial disadvantage and children's readiness for school and their later academic achievement and adjustment.

What factors predict school readiness?

As previously seen, there was a relatively strong relationship between family financial disadvantage and school readiness. However, these analyses did not take into account the effects of other factors that might influence children's school readiness, or affect the links between family financial disadvantage and school readiness. The next step was to investigate connections between school readiness and other child, family and broader environmental factors that previous research has suggested are risks for school readiness.

By examining these simultaneously, the factors that acted as unique predictors of school readiness could be identified. Further, we could determine whether financial disadvantage itself remained a unique predictor of school readiness once these other factors were taken into account, and whether the impact of these other factors differed between the financially disadvantaged and non-financially disadvantaged groups of children.

The findings are separated into two main areas: the first focuses on predictors of children's **cognitive school readiness** (pre-literacy/pre-numeracy skills and language skills); and the second looks at factors related to **social/emotional school readiness** (conduct problems, hyperactivity, emotional problems, peer problems and prosocial behaviour).

A large number of risk and protective factors were identified for **cognitive** aspects of school readiness. When included along with other factors, family financial disadvantage remained a significant, albeit modest, risk factor for low language skills, but was not a significant risk for low pre-literacy/pre-numeracy skills.

Other influential factors included:

- the child characteristics of **male gender** (risk), a **less persistent temperament** style (risk) and being **older** (protective);
- the parental characteristics of **mother's education** (less than year 12 attainment conferring risk and a university education being protective), **mother's age** of less than 26 years (risk), *mother's labour force participation* (being in employment tended to be protective), **mother's Indigenous background** (risk), **mother's**

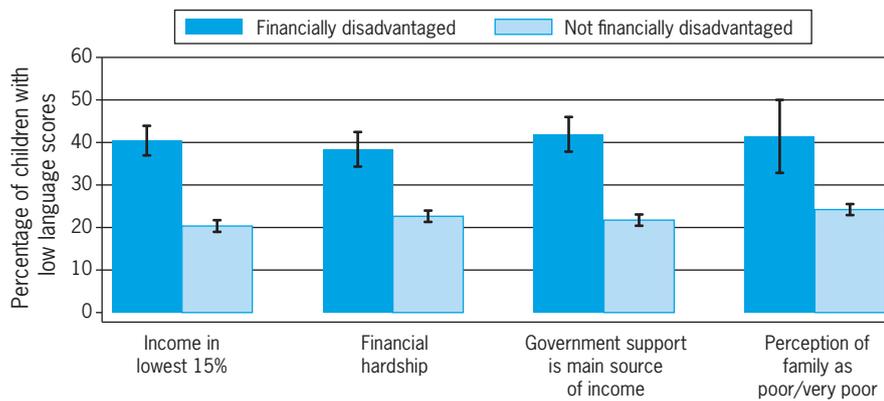


Figure 1 Percentage of children from financially disadvantaged and non-financially disadvantaged families with low language scores at 4–5 years

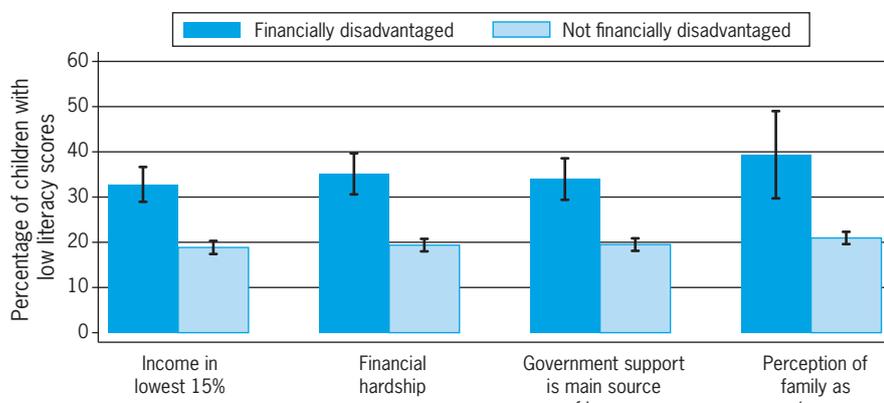


Figure 2 Percentage of children from financially disadvantaged and non-financially disadvantaged families with low literacy skills at 6–7 years

birthplace outside Australia (both risk and protective);

- an **inconsistent parenting** style (risk);
- aspects of the family educational climate, especially if the **child** was read to on fewer than 3 days per week and there were **less than 30 children's books** in the home (risks);
- **family residence** in a disadvantaged area (risk) and residence in a non-metropolitan but accessible area (protective); and
- children not being in **formal care or pre-school education** (risk) or **being in school** (protective).

Most risk and protective factors applied similarly to both financially disadvantaged and non-financially disadvantaged groups. For the financially disadvantaged group of children only, maternal employment was associated with better performance for both pre-literacy/pre-numeracy skills and language skills. Similarly, children being read to on fewer than 3 days a week was a stronger risk for low language

skills for financially disadvantaged than non-financially disadvantaged children. Thus, there was only limited support for the notion that parent and family factors may be more important for cognitive school readiness for financially disadvantaged children.

The risk and protective factors for social/emotional aspects of school readiness were explored. Family financial disadvantage was not found to be a *direct* predictor of social/emotional aspects of school readiness when other child, family and broader environmental factors were included.

Significant influences on **social/emotional** aspects of school readiness were:

- the child characteristics of **male gender** and a **less persistent temperament** style (risks for all facets except emotional problems);
- the parental characteristics of **mother's labour force participation** (being in employment was protective against hyperactivity and emotional problems), **mother's education** (less than year

12 attainment was related to poorer prosocial skills and a university education with a lower risk of conduct problems and hyperactivity), **mother's age** of less than 26 years (risk for conduct and emotional problems), **mother's Indigenous background** (risk for hyperactivity), **mother's birthplace** outside Australia (protective against low prosocial skills), **mother's psychological distress** (risk for hyperactivity, peer problems and emotional symptoms), and *father's absence* (risk for conduct and peer problems and low prosocial skills);

- a **hostile and inconsistent parenting** style (risk for all types of social/emotional problems), **lower parenting warmth** (risk for conduct and peer problems and low prosocial skills), and **low use of reasoning** (risk for low prosocial skills);
- the **child being read to** on fewer than 3 days per week, low levels of **other home learning activities**, and **fewer than 30 children's books** in the home (risks for low prosocial skills), **high TV viewing** (risk for all aspects except prosocial skills);
- **family residence** in a disadvantaged area (risk for conduct and peer problems); and
- children not being in **formal care or pre-school education** (risk for prosocial skills).

In general, the risk and protective factors were similar in impact across financially disadvantaged and non-financially disadvantaged groups.

In summary, multiple influences on school readiness were identified that span the child, parental, family and community domains. In almost all cases, these influences seemed to apply similarly for financially disadvantaged and non-financially disadvantaged groups. When family financial disadvantage was included along with the full set of predictor variables, it was not a significant predictor of school readiness, with the exception of children's language skills. Thus, the effects of family financial disadvantage seemed to be expressed through other family factors and characteristics.

Combining the risk factors

There is evidence that poor outcomes at school can be related to the total number of risk factors encountered by a child.

A combined risk index was created that included the measures of parental characteristics, parenting style, family educational climate, and neighbourhood disadvantage used in the previous multivariate analyses. Clear differences in the number of risks present within financially disadvantaged and non-financially disadvantaged families were evident. Among non-financially disadvantaged families, 41% had zero or one risk, compared to only 11% of financially disadvantaged families. At the other extreme, 40% of financially disadvantaged families experienced five or more risks compared to 14% of non-financially disadvantaged families.

This analysis indicated that more risk factors were present among the financially disadvantaged group of families, particularly at the higher end of the risk range (four or more risk factors). Thus, the prevalence of many of the predictors of school readiness differs between financially disadvantaged and non-financially disadvantaged groups, and this helps explain the higher rate of low school readiness among children from financially disadvantaged families.

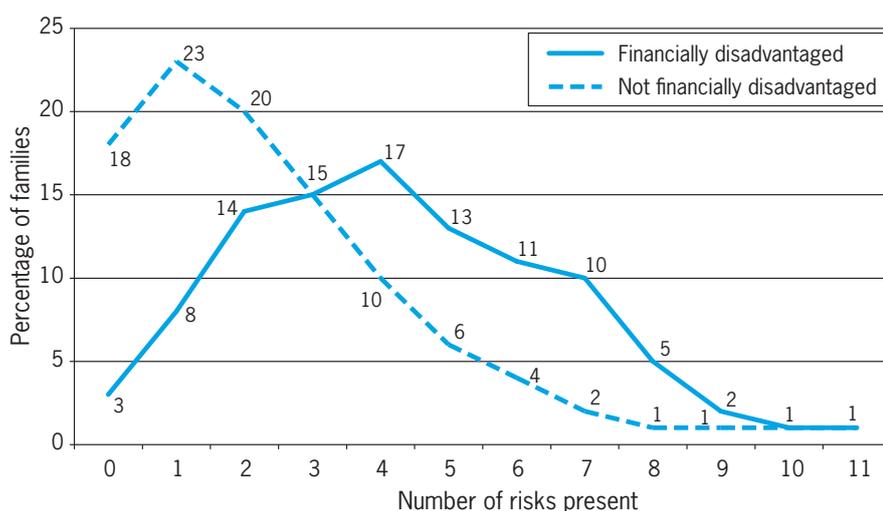


Figure 3 Number of risk factors present among financially disadvantaged and non-financially disadvantaged families

Are there links between financial disadvantage, school readiness, and subsequent school progress?

Next, the combined influence of family financial disadvantage and school readiness at 4–5 years on children’s subsequent school achievement and adjustment at 6–7 years was explored.

The findings demonstrated the importance of children entering school with well-developed cognitive and social/emotional skills:

- Children who had shown poorer cognitive school readiness skills at 4–5 years had the highest rates of literacy/numeracy difficulties 2 years later.
- There were also noticeable differences in children’s engagement in learning according to their level of cognitive and social/emotional school readiness.
- Higher levels of social/emotional problems at 4–5 years (as reported by parents) were significant risks for later social/emotional problems at 6–7 years (as reported by teachers).

Comparison of the school progress of children from financially disadvantaged and non-financially disadvantaged families revealed that financial disadvantage was a source of vulnerability for academic achievement, engagement in learning, and social/emotional school adjustment (Figures 4 and 5):

- Children from financially disadvantaged families who had shown low school readiness at 4–5 years tended to have more literacy/numeracy

problems, lower engagement in learning, and more social/emotional difficulties at 6–7 years than children from non-financially disadvantaged families who had also shown low school readiness. This indicates that family financial disadvantage continues to shape development as children progress through school.

- Among children with adequate school readiness at 4–5 years, more children from financially disadvantaged families exhibited lower school achievement, lower learning engagement or school adjustment problems than did children from non-financially disadvantaged families.

The final set of analyses focused exclusively on children from financially disadvantaged families, and explored the impact on school achievement and adjustment of continuing financial disadvantage over the two waves (from 4–7 years), and school readiness at 4–5 years. These analyses included all facets of school readiness (cognitive and social/emotional) and the stability of family financial disadvantage from 4–5 to 6–7 years, with other child, family and broader environmental characteristics at 4–5 years included to control for their effects.

Continuing family financial disadvantage, in comparison to intermittent disadvantage, was a risk for literacy problems, but not for numeracy problems, low engagement in learning, or social/emotional school adjustment difficulties.

Several aspects of school readiness (cognitive and social/emotional) were linked to a range of outcomes at 6–7 years:

- Cognitive aspects of school readiness (language and pre-literacy/pre-numeracy skills) were

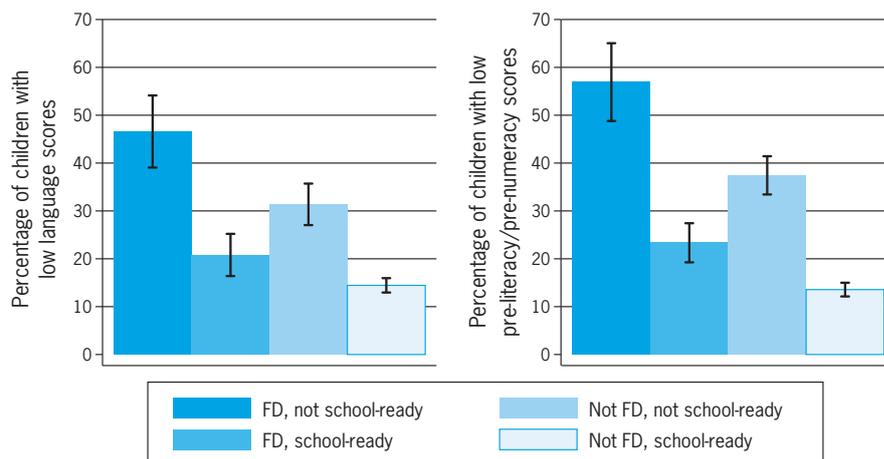


Figure 4 Children from financially disadvantaged (FD) and non-financially disadvantaged families with numeracy difficulties at 6–7 years, by low or adequate language skills at 4–5 years (left) and low or adequate pre-literacy/pre-numeracy skills (right) at 4–5 years

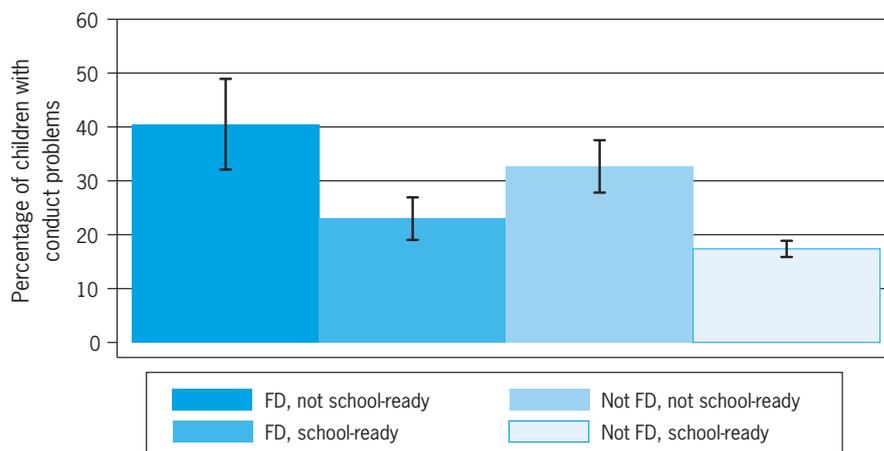


Figure 5 Children from financially disadvantaged and non-financially disadvantaged families with conduct problems at 4–5 years and 6–7 years

related to later literacy/numeracy outcomes and engagement in learning.

- Lower cognitive school readiness was associated with higher levels of hyperactivity and emotional problems.
- Early conduct problems were risks for multiple later adjustment difficulties, and also for later numeracy problems.
- Emotional problems (e.g., anxiety, withdrawal) were related to lower levels of conduct problems and hyperactivity in the school context.

Thus, for children from families who were financially disadvantaged when the children were 4–5 years old, their level of readiness for school was a very salient influence on their early primary school progress.



Why are there links between school readiness, financial disadvantage and other risk factors?

Two models have been proposed to explain why financial disadvantage and other factors should be related to poorer school readiness. The *family stress model* proposes that the effect of income on children's school readiness is through its impact on family relationships and interactions.

The *investment model* argues that poorer school readiness and progress results from constraints on parents' ability to invest in the most advantageous experiences and environments for their children, and is sometimes also invoked in relation to the psychological capital parents can facilitate within their children. The links between school readiness and a number of factors in the current study could be explained by either model.

Overall, the current findings are compatible with the findings from previous research that the family stress model provides a better explanation for children's social/emotional outcomes, while the investment model may best explain children's cognitive outcomes. However, neither model on its own appears adequate; they are not mutually exclusive and probably most likely act in unison.

Implications for Intervention

Based on the current findings, it is evident that, with few exceptions, the same child, family and community factors affect school readiness in children from financially disadvantaged and non-financially disadvantaged families, but that these factors tend to be more common in the financially disadvantaged group. Additional support is thus needed for financially disadvantaged families, as they tend to carry a greater cumulative burden of risk.

However, it is also important to recognise that the financially disadvantaged group comprises only 15% of the population and so does not include the bulk of those with low school readiness. Consequently, to focus policy and service provision efforts solely on financially disadvantaged children would miss many children in need of support to become school-ready. An alternative approach is to focus efforts on risk factors that are strongly related to school readiness, irrespective of a family's financial status. Because of the higher prevalence of these factors in the financially disadvantaged group, interventions targeting these variables would apply particularly, but not exclusively, to the financially disadvantaged group.

Thus, the data suggests that interventions should have a broader lens than low income, and should focus on the predictive factors that are often more prevalent in financially disadvantaged families.

Possible factors for intervention

Child gender. A higher proportion of boys experienced difficulties in terms of school readiness as well as school progress. These findings suggest that further attention should be given to strategies to support boys' transitions into school, including effective transition programs, the provision of role models and mentors, staggering school entry ages, or modifying preschool and school curricula and teaching methods to better fit the needs of boys.

Child persistence. Low levels of persistence were shown to be important predictors of low school readiness and progress. Extremely low persistence can be a symptom of attention-deficit/hyperactivity disorder (ADHD), but even at less extreme levels, low attentiveness and distractibility can disrupt children's social relationships and their capacity to learn. It is arguable that too little attention is given to such aspects of child individuality in training programs for parents, carers and teachers. Some of the components in such training would include the

importance of tailoring approaches to "fit" the child's capacities, such as tasks of varying lengths and complexities, short timeframes, careful management of increasing demands, structured rather than unstructured approaches, setting small achievable goals and providing tangible rewards.

Parenting practices. Parenting has been a focus of a great number of interventions, the majority of which adopt a social learning/behavioural model and/or a relationship/attachment model. The main aim of social learning/behavioural models—such as The Incredible Years program in the USA and UK (Gardner, Burton, & Klimes, 2006), and Triple P in Australia and overseas (Roberts, Mazzucchelli, Studman, & Sanders, 2006), —is to develop parents' ability and strategies to identify, observe and respond effectively to children's behaviour problems. The main focus of relationship/attachment models is building the parent-child relationship and strategies that foster warm, sensitive and positive relationships. An example is the Brief Psycho-Educational Group-Based Program (Bradley et al., 2003), which has successfully reduced hostile, aggressive and anxious child behaviour, as well as over-reactive and "verbose" parenting. Given the particular salience of parental hostility and inconsistency for school readiness found in the study, it appears that social learning/behavioural programs may be the most effective type of intervention.

Mother's education. Low maternal education was only modestly related to social/emotional problems. The current findings therefore do not point to maternal education as being a critically important target for intervention.

Educational climate. Family-based reading to the child, their amount of TV watching and other educational activities in the home were related to a number of aspects of children's school readiness among both financially disadvantaged and non-financially disadvantaged families, although low levels of reading mattered more in the context of financial disadvantage. A stronger educational climate has been found to have a compensatory effect on children's school readiness among low-income families (Dearing, McCartney, & Taylor, 2001). These findings suggest that "what parents do is more important than who parents are" (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004, p. ii), and that encouragement of a strong educational focus in the home is a worthwhile target of intervention.

An example is Let's Read, an initiative of the Centre for Community Child Health that is being developed and implemented across Australia in 90 communities in partnership with The Smith Family. Let's Read is a community early literacy program aimed at promoting the importance of reading to children from birth by providing training by professionals and educational resources to help parents improve their reading habits with children (Centre for Community Child Health, 2005). Very few such programs have been evaluated in terms of their impact on children's school readiness or progress, but the scarce findings to date indicate that there are improvements in child language (Brooks-Gunn & Markman, 2005). This appears to be an important area for further development.

Neighbourhood disadvantage. Children living in disadvantaged areas were more likely to have cognitive and social school readiness problems, although effects were relatively modest. In recent years in Australia, a number of national and state-based programs have been established that target disadvantaged communities and seek to support young children and their families. Examples include programs under the Australian Government Stronger Families and Communities Strategy (such as the Stronger Families Fund and the Communities for Children project), as well as a number of smaller programs run by non-government organisations (NGOs) with arguably smaller reach. While these programs seldom directly address disadvantage itself, they do aim to provide more effective and integrated services and build community cohesion. Evaluation data in terms of impact on children's school readiness are not yet available.

Childcare/preschool experiences. The current data confirmed overseas findings that the experience of an educationally oriented preschool curriculum was important for school readiness, especially for financially disadvantaged children. Current government initiatives aiming to provide 15 hours per week of high-quality early childhood education to all children in their preschool year may help to increase the school readiness of all children (Productivity Agenda Working Group, 2008). However, more intensive efforts may be needed for the most vulnerable, including the financially disadvantaged.

Multimodal interventions

To date, the most promising strategy for improving school readiness among disadvantaged children in the US has been the delivery of multimodal programs that combine high-quality early education with parent support. Such programs are characterised by not

only a cognitively stimulating curriculum, but also attention being paid to health, nutrition, parenting and family support services, and are delivered by well-trained staff in small groups. An example is the combination of the Head Start program (National Head Start Association [NHSA] Research & Evaluation Department, 2008), which contains both a child and parent program, with Webster-Stratton's The Incredible Years parenting program (Webster-Stratton & Reid, 2008). Together they result in improvements in most aspects of school readiness, including greatly improved child behaviour. An Australian model is The Smith Family's Families Learning Together model, which will combine the education and care of children, the enhancement of parents' education and parenting skills, and healthcare. Families Learning Together will integrate four streams of learning within a single cohesive learning system for parents and their children by providing:

- **early education and development for children**—to aid their cognitive and non-cognitive development and assist their transition to school;
- **parenting education for adults**—to build their confidence and capacity to provide a stable home environment;
- **parent and child together time**—to improve skills and strengthen relationships and communication within families; and
- **adult education for parents**—to assist them in engaging in learning opportunities and improving their prospects for entering the workforce.

Similarly, the Australian Pathways to Prevention program promotes child language and social development in a highly deprived community, and has been found to improve language, cognitive school readiness, and many aspects of children's behaviour.

These combined programs address a number of the risk factors identified in this report, such as parenting, educational stimulation and neighbourhood disadvantage.

The Australian Government's proposed network of Parent and Child Centres for all children aged 0–5 years, which would integrate maternal and infant health services with long day care, preschool education, playgroups and parental support, may provide another model for multimodal support (Department of the Prime Minister and Cabinet, 2008). These centres are intended to enable universal access to low-cost services in a convenient "one-stop" location. Whether they can meet the diverse needs of disadvantaged families and provide intensive enough support remains to be seen.



Overall conclusions

Children from financially disadvantaged families are at greater risk of poor school readiness, due to the much higher rates of risk factors evident among this group and the accumulation of risks experienced. As anticipated, school readiness was a powerful predictor of school achievement and adjustment two years later, and the experience of financial disadvantage compounded the probability of poor school progress, especially if it was experienced at both 4–5 and 6–7 years.

The two models that have been proposed to explain the association of financial disadvantage with low school readiness both appear to have explanatory worth, not only to explain this association but also to account for direct associations between a number of predictors and school readiness, and later school achievement and adjustment. In general terms, the family stress model appears to account best for social/emotional problems, and the investment model best explains cognitive difficulties. However, the two models are not mutually exclusive and probably operate conjointly.

A number of implications can be drawn from the findings to guide future interventions to reduce the gap between financially disadvantaged and non-financially disadvantaged children in school readiness, achievement and adjustment, as well as to promote optimal school progress for all children.

Glossary

Child persistence	The capacity to maintain attention and see tasks through to completion.
Cognitive skills	A person's intellectual, information processing, thinking and reasoning abilities.
Conduct problems	Problems such as: often fights with other children or bullies them; or steals from home, school or elsewhere. This was measured using a sub-scale of the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997).
Continuous financial disadvantage	Families were categorised as experiencing continuous financial disadvantage if they were classified as "low income" when the children were both 4–5 years and 6–7 years.
Emotional problems	Problems such as often being unhappy, depressed or tearful; or having many worries or often seeming worried. This is measured using a sub-scale of the SDQ.
Equivalised family income	Details were collected of the income received by the child's primary carer (in 97% of families, this was the child's mother), as well as by their partner, if they had one. The gross weekly income of both parents was summed to derive total parental income. When comparing incomes across differing families, it is necessary to adjust total income for household size and composition to take into account differences in the costs of living. The Organisation for Economic and Co-Operation and Development's (OECD's) widely used equivalence scale was utilised in this project to adjust household family income for household size and composition.
Hyperactivity	Behaviours such as being restless, overactive, or unable to stay still for long; or being easily distracted or having a wandering concentration. This was measured using a sub-scale of the SDQ.
Intermittent financial disadvantage	Families were categorised as experiencing intermittent financial disadvantage if they were classified as "low income" when children were 4–5 years but were above the criterion for low income when the children were 6–7 years.
Language skills	Children's receptive language and vocabulary. This was measured by a short form of the Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn, 1997) and administered by a trained interviewer during a home visit to the family. The interviewer stated a stimulus word together with a set of pictures and asked the child to select the picture that was closest to the word's meaning.
Low income	Families with income in the lowest 15% of the LSAC cohort distribution.
Peer problems	Problems such as being rather solitary, or preferring to play alone; or being picked on or bullied by other children. This is measured using a sub-scale of the SDQ.
Persistent temperament	See Child persistence
Pre-literacy skills	The ability to perform tasks such as writing letters, words and sentences. This was measured by the Who Am I? test (de Lemos & Doig, 1999) and administered to the child by a trained interviewer during a home visit to the family.
Pre-numeracy skills	The ability to perform tasks such as copying shapes and writing numbers. This was measured by the Who Am I? test (WAI) (de Lemos & Doig, 1999) and administered to the child by a trained interviewer during a home visit to the family.
Prosocial behaviour	Behaviour such as being considerate of other people's feelings; or volunteering to help others, such as parents, teachers, other children. This is measured using a sub-scale of the SDQ
Psychological capital	"An individual's positive psychological state", e.g., having the confidence to take on challenging tasks; feeling optimism about one's capacity; being able to redirect one's efforts when needed; or having the ability to bounce back from difficulties (adapted from Luthans, Youssef, & Avolio, 2007).
Social/emotional skills	The range of positive and negative aspects of children's behaviour measured by the SDQ.

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