

Working Paper no.3: What causes child poverty? What are the consequences? An economic perspective

August 2012

Purpose

1. This paper was prepared for the EAG to document some of the considerations on the causes and consequences of child poverty that influenced the direction of the EAG discussions and decisions. It should be read in conjunction with *EAG Working Paper no. 10: Reforms to the tax, benefit and active employment system to reduce child poverty* and *EAG Working Paper no. 5: Child poverty reduction targets*.
2. This paper has informed the direction and recommendations of the EAG's *Solutions to Child Poverty in New Zealand: Issues and Options Paper for Consultation*. These are preliminary findings, and a final report will be published in December 2012. The findings in this paper do not necessarily represent the individual views of all EAG members.

Introduction

3. This background paper addresses several vital questions. The first relates to the causes of child poverty. In this regard, the paper explores the *proximate* causes rather than the more *fundamental* or underlying causes. Hence, the primary concern is with the immediate and more readily policy amenable reasons behind the child poverty.
4. What events in a person's or families' life are associated with child poverty and what policies could be used to bring about change? This question has been answered in an extremely diverse theoretical and empirical literature from a wide variety of social science disciplines. The literature covers an enormous variability of positions, which address the issues of socioeconomic trajectories both in terms of intra- and inter-generational dynamics.
5. This paper cannot consider the vast literature on the intra- and inter-generational determinants of poverty here, but note that much of the economic literature is covered in Blank (2003), Blanden et al. (2007) and Bowles et al. (2007).

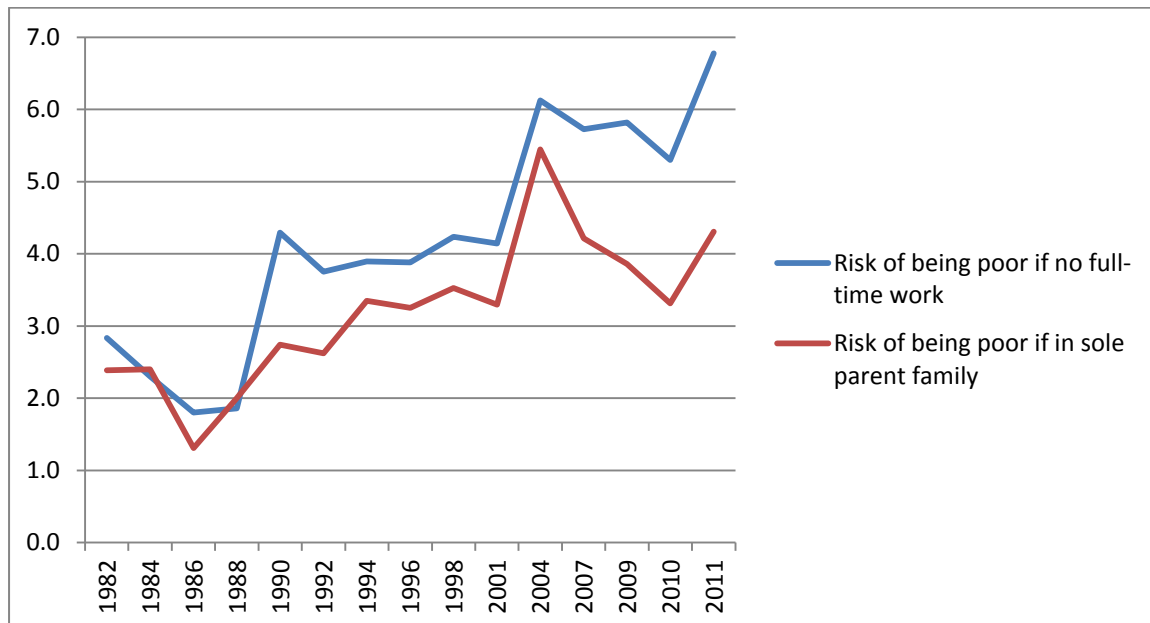
6. What this paper does cover is a particular economic perspective on the proximate causes of poverty. This consideration draws directly on the international literature on poverty comparisons and child poverty dynamics.
7. The second question explored here is the causal consequences of child poverty. We know that child poverty is correlated with just about every poor child outcome. Correlation, however, does not mean causation.
8. Understanding the causal relationships is vital for a full understanding of the true costs of child poverty, and also for assessing how much other child outcomes would improve consequent on reducing child poverty. In addition, understanding the causal impact of family income on child outcomes goes to the heart of questions about the best directions of resources in terms of investing in children. Is it better to spend on enhancing family incomes or purchasing services, such as early childhood education, on behalf of that child? While that last question cannot be fully answered here, it can at least be asked.

What events and policy systems matter for child income poverty?

9. This section considers the proximate causes of low net parental income which lead to child poverty. The proximate reasons why family income may be low include (i) events in the labour market, either in terms of the amount of work or the pay rates earned by adults in families with children, (ii) events in changing family structure and formation, which in turn influence the amount of labour which can be effectively supplied and hence the income earned by the family, and (iii) the nature of the tax-benefit system and the way in particular it monetarily compensates (or does not compensate) families for events in the job market, changes in family structure, or for having a child. It situates this discussion in a broader cross-country OECD context, and then considers dynamic evidence on what leads to movement into and out of child poverty.
10. Parental joblessness is positively associated with child poverty. In nearly all OECD countries during the early 2000s, including New Zealand, child poverty rates were significantly higher for jobless families than for families with at least one parent in paid work. Equally, jobless families are nearly everywhere, the most disadvantaged among the poor. On average across OECD countries, around one-third of poor families with children are jobless, compared to only 6 percent of all families with children. In other words, poor families with children are over five times more likely to be jobless. The New Zealand statistics are above average at 40 percent of poor families with children being jobless and 9 percent of all families with children being jobless (Adema and Whiteford 2007, p. 20).
11. New Zealand data over time show a high and increasing risk for children being poor if parents are without full-time work, compared to the risks of poverty if parents are in

full-time work (Figure 1).

Figure 1: Risks of child poverty rates by parental full-time employment status and by sole parent family status



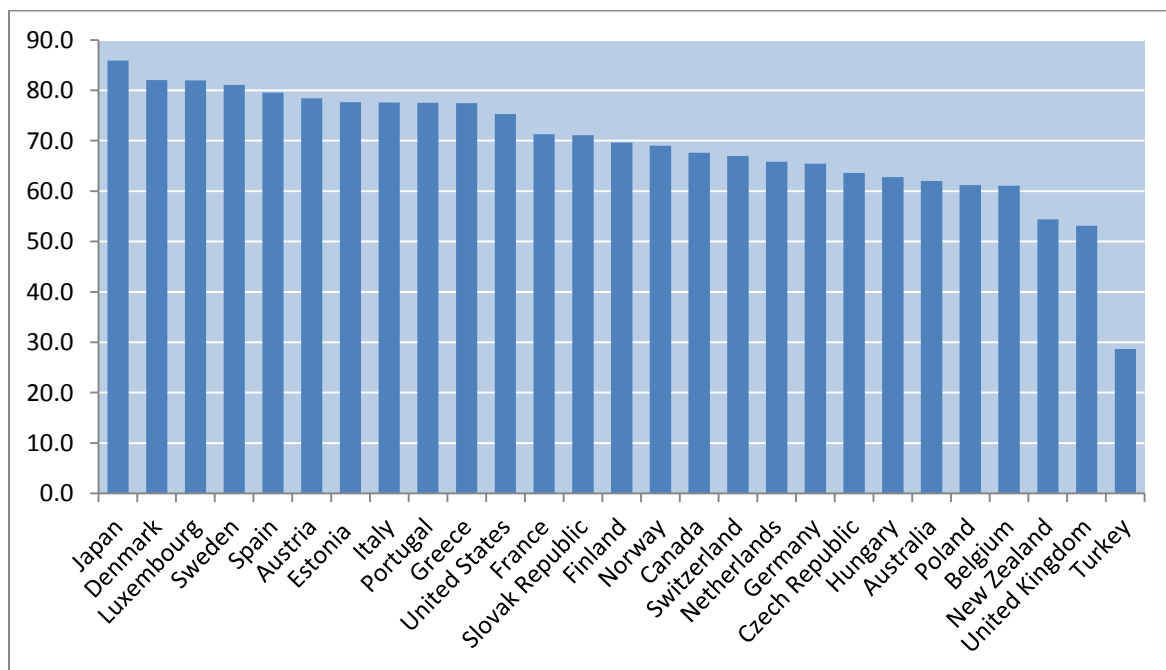
Note: 60 percent of median income after housing costs, constant value; comparison groups are at least one full-time worker and two parent family (Perry, 2012).

12. Children in a sole parent family are about three times more likely to be poor than children in a two parent family, across all OECD countries (with the exception of Switzerland). This includes all the Nordic welfare states, where the risk for children being in sole parent families is very close to New Zealand's, as well as the OECD mean (Adema and Whiteford 2007, p. 20). The most current comparative data indicate that about 21 percent of New Zealand children aged 0-14 years old live in a sole parent family, significantly more than the OECD (22 average of 16 percent) (OECD Family database). Part of New Zealand's comparatively mediocre child poverty performance is almost certainly due to the higher than average rate of sole parenting.
13. Conditional on having a higher than average relative share of sole parents, New Zealand is very poor in generating jobs for sole parents, who are largely, but not universally, women. This is in contrast to New Zealand's reasonably good performance at generating jobs for women overall, with an employment rate for all women somewhat above the OECD average (OECD Family database).
14. Figure 2 shows that the sole parent employment rate in New Zealand was only 54 percent, compared to an OECD average of 69 percent (data from 2007; OECD Family database).
15. The poor employment performance for sole parents is likely related in part to the long

average duration on benefit for New Zealand sole parents and the policy settings that have not encouraged sole parents beneficiaries to take up paid employment, compared to most OECD countries (other historical exceptions include the United Kingdom and Ireland). One of the New Zealand policy settings that has been relatively weak is the work testing requirements. These are the obligations for beneficiaries to demonstrate they are actively seeking employment or undertaking training.

16. Other explanations of poor employment performance for sole parents include limited suitable, accessible and affordable child care and early childhood education (ECE) provision.

Figure 2: Very low employment rates of lone parents in New Zealand

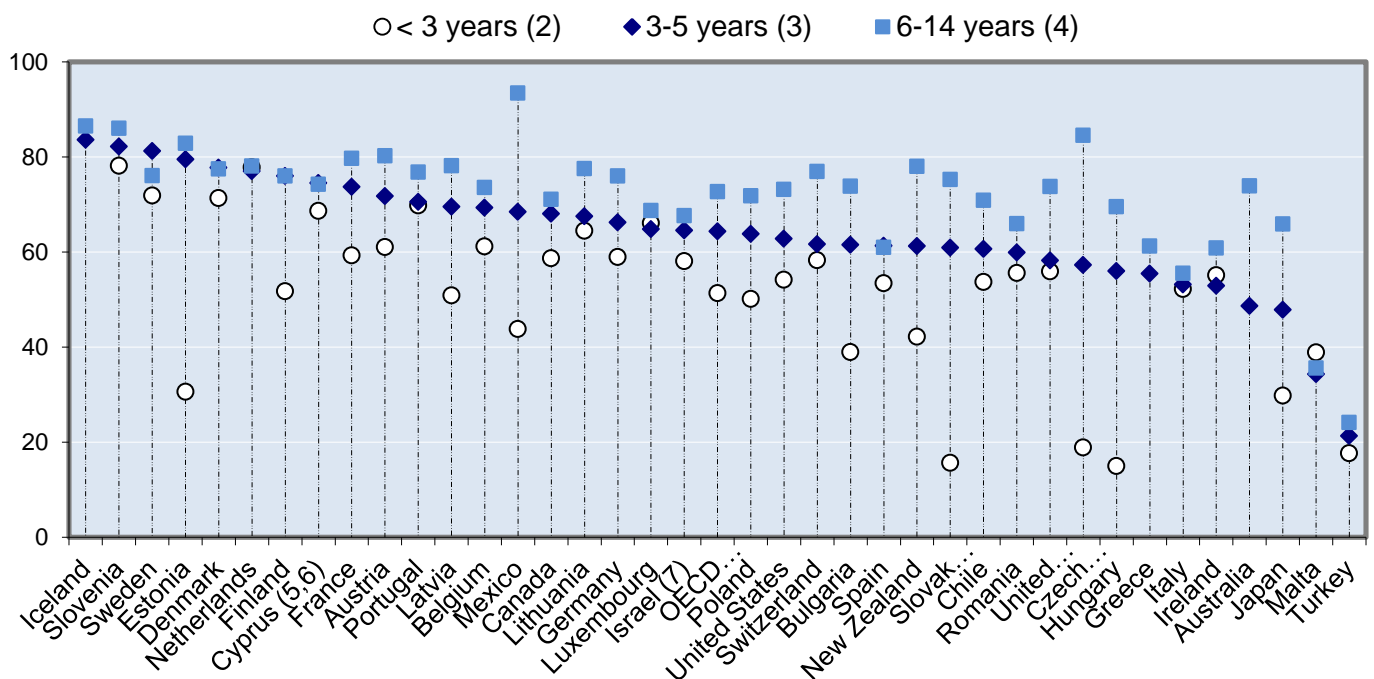


17. Note that the higher employment rates in Figure 2 do not imply full-time employment, as many of these countries have high employment in part-time jobs for sole parents.
18. We now consider the role that work tests can play in increasing sole parent employment rates. Approaches to work tests for sole parent benefits vary considerably across the OECD. Sole parent benefits are designed to enable the parent to remain the principal caregiver until the youngest child reaches a certain age. Over this period, job-search requirements are minimal and participation in job-search assistance may be voluntary. Once the child age limit is reached, sole parents can be automatically transferred to the unemployment benefit. Alternatively, there can be an expectation, as in many of the Nordic countries, that most sole parents are in principle able to find work following the end of paid parental leave. Belgium and Japan have no formal guidelines and leave decisions to case-worker discretion. Benefits paid to sole parents in Portugal and Spain are not subject to any work test. Austria, Germany,

France, Switzerland and Norway work test from when the youngest child is aged three years. Canada varies from when the youngest child is aged between six months to six years, depending on the province (OECD, 2007).

19. Patterns of return to work following child bearing may also effect rates of child poverty. Employment rates for New Zealand mothers with children under age 3 are well below OECD norms (see Figure 3). Mothers in New Zealand with a 6-14 year old have employment rates comparable with Denmark, for example, and well above the OECD average.

Figure 3: Maternal employment by age of youngest child



20. The higher rate of maternal employment for parents with older children correlates with lower child poverty rates for that group.

Dynamic factors moving children into poverty

21. There are a variety of events in the family life that can lead to children both entering into child poverty and exiting poverty. This section of the paper draws on both the New Zealand and international evidence to describe these main events and their proximate consequences. The events considered include: (i) the birth of a child; (ii) rises or falls in income; (iii) parents finding or losing work; and, (iv) parental separation and re-partnering. It should be emphasised that the analysis here considers the events and chances of becoming poor in a bi-variate manner. Thus, for example, if the event of gaining a job is considered, some of those who gain a job may also be re-partnering, and this second event is not factored out of the mix.

22. Wilson and Soughtton (2009) report that about 18 percent of New Zealand children

are born to a parent on a main benefit (about 13 percent of children are born to a parent on the DPB), down from 25 percent during the 1990s. Using a fairly tight definition of income poverty (50 percent of median income) and only couple families, the arrival of a new child was enough to push 10 percent of families into poverty (Ballantyne et al., 2004). Thus the event of birth alone is likely to be associated with a significant number of children finding themselves poor.

23. Losing a full-time worker is a common event for a child's family (the chances for a child that a parent loses a full-time job are about 10 percent annually), but the chances that it makes the child poor are only about one in five, much lower odds than for poverty caused by parental separation (Ballantyne et al., 2004).
24. While it is relatively unlikely, on an annual basis, that a child's parent will separate (about 2 percent of New Zealand couples with children separate annually, though this figure will have a considerable error margin), New Zealand and international evidence suggests that about half the children whose parents actually separate end up entering into income poverty.

Dynamic factors moving children out of poverty

25. Evidence from New Zealand and internationally suggests that parents moving into full-time work does the most to raise the chances of a child exiting poverty, for both sole parents and couple families. Getting a full-time job is about twice as effective at moving a child of a sole parent out of poverty as their re-partnering.
26. Least effective in pulling children in sole parent families out of income poverty are quite large rises in earnings for parents (20 percent), for those parents already employed. This demonstrates that the labour market decision to work or not to work are more important for sole parents than changes in hours worked for those already working. Large earnings rises are more important for poverty exits of children with coupled parents, though as will be argued below, the policy instruments to engineer such a rise may well be absent or ineffective (Ballantyne et al., 2004).
27. Thus, a parent getting a full-time job and changing family structures are both important for transitions into and out of child poverty. There is little strong evidence on success of policies intended to influence family formation¹. So we turn to consider where policy may be effective in terms of improving labour market outcomes.

Improving labour market outcomes

28. Increasing the amount of family income from paid employment can be another way that some families can move out of poverty. This is particularly so where there are two

¹ See for example the USA Building Strong Families initiative, see http://www.mathematica-mpr.com/publications/pdfs/family_support/BSF_Brookings_Wood102710.pdf

parents. While this suggests that increases in minimum wages could provide an ancillary solution to some poverty problems, there is little evidence that further increases in the minimum wage in New Zealand are likely to combat child poverty. Minimum wage increases would have to be very large to matter. This is because the New Zealand minimum wage is currently one of the highest in the OECD relative to median wages, and the highest it has ever been in relative terms.

29. Lastly, for every dollar the minimum wage increases, the government deducts income tax and ACC levies. Working for Families in-work payments, the Accommodation Supplement, and child care subsidies are also abated away, meaning that even if a poor working family were dependent on minimum wages, very little of a one dollar rise would end up in their pockets as extra disposable income.
30. This brings us to labour market strategies that actively support the transition from benefit reliance to work.

A benefit strategy versus an employment strategy

31. One of the longstanding policy system issues in the child poverty debate, both within New Zealand and internationally, is the appropriate balance between a 'welfare benefits strategy', involving increasing benefit rates for low-income families with children and a 'work strategy', involving policies to increase employment among poor families. The need to choose between these two alternatives arises because of trade-offs between (i) adequacy of benefits and parental work incentives and (ii) the fiscal and economic costs of pursuing a benefit strategy.
32. In terms of broader contextual comparisons, New Zealand has an average child poverty rate compared to other OECD countries and a higher rate of material deprivation.² As noted previously, New Zealand is reasonably good at generating jobs for women, with an employment rate for all women somewhat above the OECD average. However, employment rates of women with younger children fall well below OECD averages. Most New Zealand women tend to return to full-time work when their child reaches the age of compulsory schooling. By the time their youngest child is aged 6-14 years old, the employment rate of New Zealand women compares favourably to that of Sweden and Denmark (see Figure 3).
33. The available evidence suggests a substantial focus in New Zealand needs to go towards supporting more women returning to work sooner than is currently the norm. Adema and Whiteford (2007) assess the relative efficacy of child poverty policies in a cross-OECD context. They conclude:

² All data here come from the OECD Family database.
Page 7 of 20

- Joblessness is strongly associated with a much higher risk of child poverty, and joblessness amongst families with children is high in New Zealand relative to other OECD countries (p. 17). OECD simulations show that increasing the numbers of parents in paid work in New Zealand would generate the largest by reductions in child poverty. The OECD suggests that policy reforms to reduce joblessness should thus be a priority in New Zealand (p. 29).
 - According to OECD tax-benefit modelling in terms of benefit adequacy measured in 2003 (before Working for Families), along with Australia, Denmark, and Germany, New Zealand had a social assistance system pushing disposable incomes of families with children above a 50 percent poverty line and closest to a 60 percent of median income poverty line (p. 26). In other words, at least relative to other OECD countries, benefit adequacy may be less an issue in New Zealand.
 - Increasing benefit rates can be an effective strategy in reducing child poverty, but for New Zealand, would involve relatively high spending compared to other countries to achieve similar drops in poverty because of our high income inequality (p. 29). This shows that increasing benefits alone will not be efficient.
 - The New Zealand minimum wage, as analysed in 2003, was sufficient to keep a sole parent family in full-time work out of poverty (p. 32). Relatively, our 2012 minimum wage is even higher.
 - Along with Australia and Germany, relatively low levels of parental labour market earnings are required for New Zealand children in sole parent families to escape poverty (p. 33).
34. In terms of policy design, there needs to be a strong system of benefit support for families with children to cushion them against the adverse consequences of child poverty, and a strong system which encourages parents on a benefit to secure sustainable employment (subject to various caveats – including access to affordable, high-quality ECE, and supports for work such as transportation, training, flexible, child-friendly work places). Equally, system design needs to avoid creating incentives that work against family formation by creating disincentives to partner or re-partner.

The effectiveness of changing family income compared to other policy measures to improve child outcomes

35. There are fewer discussions of the policy issues arising out of the literature on the causal effects of family income on child outcomes. The direct tax-benefit policy instruments for changing family income are much more amenable to government control than are the policy instruments to change maternal educational levels, which are effectively fixed in most adults. Moreover, family income can be changed much

more rapidly than maternal education, and hence the benefits to children arrive more rapidly. The faster return on investment makes immediate family tax-benefit policies more attractive than long-term policies to improve maternal education as policies for investment in children.

36. In an interesting comparison, both Taylor et al. (2004) and Berger et al. (2005) consider the policy impact of: 1) raising family income, or 2) increasing provision of Early Head Start (a United States early childhood home visiting and education programme) on child education outcomes. In both cases, income transfers to disadvantaged families of the same dollar size of Head Start programmes compare favourably as policies to providing families with Head Start itself. However, neither study incorporates the possible impact of further positive family income effects from Head Start arising from the enabling of parental employment, while the children are in a Head Start programme, on child well-being. Furthermore, they did not consider the constraints that would be faced in attempting to expand an Early Head Start-style programme on a similarly nation-wide basis, where there are important infrastructure and staffing issues that need to be addressed. It follows that if the studies incorporated these factors, the income transfer policy would be more favourable than expanding the early childhood service provision.
37. Similarly, Duncan (2006, p 13) provides United States evidence that a US \$3,000 net income increment for several years during pre-school for a child of a poor family raises cognitive performance by about 1.5 points. This compares to a gain of 11-15 percentage points for an intensive home visiting and early childhood education programme at a total cost of US \$40,000, and 9 percentage points for a Perry-style intensive early childhood education intervention at a cost of US \$15,000. A randomised experiment of class size reduction costing US \$7,500 in Tennessee raised outcomes by 3 percentage points. Using Duncan's analysis, assuming 'several years' means two years, and assuming linear responses, what impact would handing out US \$40 000 (Abecedarian), US \$15,000 (Perry) and US \$7,500 (Tennessee) in cash to families have on cognitive performance?
38. In summary, current evidence is that direct income support is an important policy tool for enhancing the well-being of disadvantaged children. Increasing family income of children through the tax and benefit systems is an important and effective tool as part of a child poverty reduction plan, but should not be seen as a cure-all to problems of child well-being.

Consequences of child income poverty

39. This section investigates whether low income matters for the well-being of children, and whether there is a basis for a focus on income poverty of children. It concludes that there is a causal link between income poverty and a number of important

dimensions of child well-being, including child poverty. *Working Paper no.2: Lifecourse effects of child poverty* provides some additional views on this topic.

40. Mainstream economic theory predicts that low family resources are one crucial factor leading to poor child outcomes. Time and money are the two key resources that parents have to invest in their children. The skills and information available to parents and the importance parents place on education and their orientation toward the future, further shape the extent and form of these investments, as do the children's personal endowments and characteristics.
41. One of the strongest determinants of parental investment in children, and the one which is arguably the most directly policy-amenable, is access to money. Neoclassical household production theory predicts that children from low-income families fall behind in part because their parents have fewer resources to invest in their children (Becker and Tomes, 1986). Low-income parents have less money to buy books and educational materials, high-quality child care settings and schools, and good neighbourhoods.
42. The other main theoretical story linking family income and child well-being is the parental stress model, where low family income raises parental stress, which then in turn reduces child well-being through a variety of channels.
43. Additionally, low-income parents may also have less time to invest in children, as they are more likely to be single, to work non-standard hours, and have inflexible work hours compared to higher income parents.
44. The evidence suggests that as total family expenditure rises, spending on items that increase the children's learning increase at a higher rate (Kaushal et. al., 2011). This effect is higher spending on enrichment items is larger in lower income quintiles. Spending on enrichment items is smaller for families with pre-school children than for families with school-aged children.

Relationship between family income and child well-being

45. There are four major questions to consider regarding the relationship between family income and child well-being:
 - (i) Is there a causal effect?

Low family income empirically predicts just about every poor current and future child outcome, usually strongly compared to other single predictive factors. But when considering potential positive effects of reducing child poverty by raising incomes of poor children, the crucial issue is whether higher net after-tax income and social assistance causes better current and future outcomes for children.

Governments can directly change net family income by benefit and tax

policy. But for tax and benefit policy to be effective in raising child well-being, the relationship must be a causal one, with causality running from family income to child well-being.

(ii) How big is the causal effect?

The stronger the relationship between family income and child well-being outcomes, the more effective is tax/transfer policy in promoting child well-being.

(iii) Is the effect of income bigger for poorer children?

A third issue for policy is whether the relationship between family income and child outcomes is non-linear. If the response of child well-being to family income is stronger for poorer families, average child well-being may even be raised by transferring money from rich to poor families with children. Higher efficiency could be combined with greater equality. However, if the relationship is linear, income transfers from rich to poor families have a stronger impact on reducing inequality between children, with a constant average level of child well-being.

(iv) Are the effects larger earlier in the lifecourse?

Lastly, also of policy relevance, is the question of whether family income has a greater influence during some parts of the child's life-cycle than in others.

46. It is clear from the research that benefit support for children in poor families, while certainly important for improving critical current and longer-term child outcomes, should also be supported by a range of other policies around maternity and primary health care, early childhood education, active employment interventions, parenting and schooling.

Does income matter more for younger or older children?

47. A further question of considerable interest is whether income has a different effect on child outcomes depending on the stage of the child's life-cycle. There are two competing hypotheses, predicting different patterns. One is that, as early childhood is a critical development period where vital foundations are more easily established, income is more critical here (see Heckman, 1999, 2007). The other is that the teen years are a period where what is needed to succeed is more likely to cost money and where economic standing is more important (Mayer, 2002, p. 50).

48. Evidence on the importance of the point in the child's life cycle for tax/transfer policy can be found in United States studies that use traditional longitudinal data, fixed effects methods and experimental data. A majority of studies using such methods show that income early in the life-cycle is what matters, especially for higher-risk children (Duncan and Brooks-Gunn, 1997; Levy and Duncan, 2000; Morris et al., 2004). An interesting recent study using fixed effects methods found that family income during early childhood had a significant impact on early educational outcomes, and

also on behavioural effects into middle childhood as well (Votruba-Drzal, 2006). The evidence for the importance of early family income is most compelling for a child's education and cognitive development. Using United Kingdom data, Doyle et al. (2007) estimate that there is some evidence of larger effects of family income on chronic health conditions during early childhood, but the relationship does not exist for self- or parent-assessed health. There is evidence from New Zealand to support the 'early income is better' hypothesis for educational outcomes (Maloney, 2004).

49. There are some studies that dispute the importance of income for younger children. Some studies show that poverty between age 4-9 years is more important than poverty in the first three years (NICHD, 2005), or argue that the evidence on income timing during the child's life cycle is not strong, and depend on the specification (Mayer, 2002, pp. 49-52). There is also German evidence on educational outcomes that suggests that 'later is better' (Jenkins and Schluter, 2002). Canadian research provides little in the way of support for this 'early income is best' hypothesis, although the authors point out that their data allows them limited ability to answer this question (Phipps and Lethbridge, 2006).
50. While there is evidence for the importance of adequate income at various stages of a child's life-cycle, on balance the evidence supports the view that investment in the early years is most important.

Children's views of well-being

51. A UK-based ISER study by Knies (2012) investigates whether child life satisfaction is associated with family poverty, or with a set of new material deprivation measures of child poverty, introduced to help target effective policies that make a real difference to children's lives. The study showed no child life satisfaction association with household income or household material deprivation in a multi-variate context, but a significant (ten percent) association with measures of child material deprivation.
52. Burton and Phipps (2010), considering Canadian teens aged 12-17 years, report a strong negative association between life satisfaction and multi-period low family income. They also report the importance of good relationships with parents and between parents, and having a teacher perceived as fair for life satisfaction of Canadian teens.
53. Children's well-being is much more strongly associated with the quality of relationships, such as levels of family conflict, than with family structure. A simple measure of how families were getting on together was able to explain over 20 percent of the variation in overall well-being, whereas family structure could only explain less than two percent of this variation.
54. The research also suggests that life events may have a significant impact on well-being. Recent changes in family structure had a small but significant association with

lower well-being and also showed that some of the above differences in relation to family structure were attributable to recent change. Recent experiences of bullying by other young people had a stronger association.

55. Nevertheless, some small sub-groups within the survey such as disabled children and young people not living with parents (with extended family or public care) had substantially lower than average levels of well-being; and the cumulative effect of multiple disadvantage can have a significant impact on well-being.
56. In other words, child deprivation items matter but relationships, especially with parents, do matter. These non-monetary dimensions are much more important for subjective measures of child well-being and have a stronger child focus than does low family income per se.

Emerging empirical evidence on child well-being

57. Recent research work has used a variety of sophisticated methods to separate out the causal effects of low income on poor child outcomes from the more correlational work considered above. The methods used to control for selection on unobserved characteristics include sibling models, fixed effects, instrumental variables (IV), and data from welfare and anti-poverty randomised experiments (see Levy and Duncan, 2000; Morris et al., 2004; Dahl and Lochner, 2012; Duncan, 2011). Overall, this work has found effects which are modest to large in size, and larger than those found using the older methodologies.
58. United Kingdom research on the relation between parental income and child well-being outcomes using instrumental variables to allow for the endogeneity of parental education and income has found a stronger impact of income on both child education outcomes at age 16 (Chevalier et al., 2005), and child health (both subjective and chronic conditions) (Doyle et al., 2007). There is also some evidence of larger effects for poorer families. French research on educational attainment using semi-parametric methods also concludes that family income may have sizeable impacts on children's educational attainment that are larger for smaller families (Maurin, 2002).
59. Black et al. (2012) use the quasi-experiment of a sharp price change for Norwegian childcare at age five to identify effects on parents and children. They find no effects on parental labour supply and childcare use, but find that the associated rise in disposable income has a significant positive impact on child academic performance in junior high school. They estimate a permanent one percent change in family income raises test scores in junior high by about three percent of a standard deviation, which they regard as a large effect.
60. Another natural experimental result is reported by Dahl and Lochner (2012), who use variation in the amount of the earning income tax credit (EITC) that families are eligible for over time and household type to identify the effects of family income on

children. They find that each \$1,000 of income improves childrens' test scores by six percent of a standard deviation. They find larger effects of income on test scores for more disadvantaged families, for younger children and for boys.

61. A similar EITC-based natural experiment methodology is used by Hoynes et al. (2012) to consider the impact of family income on infant health. A \$1,000 rise in EITC income reduces the incidence of low-birth weight for single low-educated mothers by 7-11 percent and increases average birth weights of that group by 19 grams. Qualitatively similar results were found by Strully et al. (2010).
62. Milligan and Stabile (2008) exploit a natural experiment resulting from changes in Canadian Child Payments, a direct anti-child poverty instrument targeted at children. Benefits vary across provinces and were reformed at different times. They find that an extra \$1,000 of Child Payments leads to an increase of about 7 percent of a standard deviation in mathematics scores and IQ tests for 4-6 year old children. They also examine the consequences of the income rise on other child outcomes. They find that higher Child Payments significantly lower both child aggression and maternal depression, and reduce the proportion of families going hungry. There are also positive causal impacts on a few measures of child physical health.
63. A study using the Norwegian oil boom as an instrument for income growth in order to determine the causal impact of income changes finds no evidence for an impact of parental income on child educational attainment and IQ (Løken, 2007). More recently, the same author, has shown that if the same research design departs from the assumption of a linear effect of family income on child outcomes, an increasing concave (diminishing returns) non-linear relationship emerges. In short, poor children gain significantly more educationally from family income gains than children in more well-off families (Løken et al., 2011).
64. Between-sibling and between-cousin variation, arguably a very conservative methodology, is used by D'Onofrio et al. (2009) to test the causal hypotheses about the association between family income and childhood behavioural problems. In these within-family analyses, boys exposed to lower family income exhibited significantly higher levels of behavioural problems.
65. A random assignment experiment in Wisconsin that led to exogenous differences in family income due to relatively small increases in child support pass on is used by Cancian et al. (2010) to measure the effect of income on the risk of maltreatment reported to the child welfare system. They find consistent evidence of a causal effect, reducing maltreatment reports.
66. The distribution on casino profits only to those of pre-determined (Native American) ethnicity is used by Copeland et al. (2010) to examine the role that an exogenous increase in household income due to a government transfer unrelated to household

characteristics plays in children's long run outcomes. Affected children have higher levels of education in their young adulthood and a lower incidence of criminality for minor offenses. The effects on poorer children were large. An additional US \$4,000 per year for the poorest households increases educational attainment by one year at age 21 and reduces having ever committed a minor crime by 22 percent at ages 16–17.

Summary of the consequences of poverty on well-being

67. In summary, the evidence shows family income matters for children, both during their childhood and over the course of their lives. The literature reviewed here suggests the following:

- Low family income measured over several years better predicts current and future child outcomes than current annual income.
- There is a causal effect of low family income on poor child outcomes.
- Negative effects of low income on children are strongest for cognitive ability and education outcomes than for behaviour and for both physical and mental health outcomes.
- Negative effects of low income in early childhood are typically larger than during late childhood.
- Income effects for children in poorer families are stronger than for children in families with higher incomes.

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