

## Research evidence on policy supports and the effect on material hardship

Molly Grant  
Victoria University of Wellington

Kate C. Prickett  
Victoria University of Wellington

*Acknowledgements:* The authors would like to thank the Department of Prime Minister and Cabinet (DPMC) for funding this research. We thank Hugh Webb for his advice and feedback throughout the project, and for thoughtful critiques of the draft report from Bryan Perry and Tim Garlick (Ministry of Social Development). The feedback we received greatly strengthened the final report. We thank Cristhian Prieto Duran for his research support that contributed to collecting the literature for this study.

*Suggested citation:* Grant, M., & K. C. Prickett. (2023). *Research evidence on policy supports and the effect on material hardship*. Department of Prime Minister and Cabinet: Wellington, New Zealand.

## Table of Contents

<b>Executive summary</b> .....	<b>4</b>
<b>Introduction</b> .....	<b>8</b>
<b>Material hardship in context</b> .....	<b>10</b>
What is material hardship and why it matters .....	10
Drivers of material hardship .....	10
Material hardship measurement.....	11
Other approaches to material hardship measurement .....	12
Differences between moderate, severe, and persistent hardship.....	13
The intersection between income poverty and material hardship.....	14
<b>The Current Study</b> .....	<b>16</b>
<b>Methods</b> .....	<b>17</b>
<b>Findings</b> .....	<b>23</b>
<b>Income supports</b> .....	<b>25</b>
Income assistance benefits ( <i>n</i> = 17) .....	25
Income assistance delays and sanctions ( <i>n</i> = 9) .....	37
Other income-related supports ( <i>n</i> = 6) .....	39
<b>In-kind supports</b> .....	<b>42</b>
Food assistance ( <i>n</i> = 2) .....	42
Housing assistance ( <i>n</i> = 2) .....	43
Employment assistance ( <i>n</i> = 3).....	45
Childcare assistance ( <i>n</i> = 1) .....	47
Health insurance ( <i>n</i> = 1) .....	48
<b>Social supports</b> .....	<b>49</b>
Social networks ( <i>n</i> = 11) .....	49
<b>Multiple supports</b> .....	<b>51</b>
Participation in one or more programmes ( <i>n</i> = 4) .....	51
Work supports with income assistance ( <i>n</i> = 3).....	52
<b>Discussion</b> .....	<b>54</b>
<b>Key findings</b> .....	<b>54</b>
Direct income assistance alleviates material hardship .....	54
Money matters, but so, too, do in-kind supports.....	55
Effectiveness is dependent on families' current and context-specific needs .....	56
<b>Limitations and future research</b> .....	<b>57</b>
Differences in material hardship measurement and few policies explicitly targeting hardship as a goal, limits understanding of policy effectiveness .....	57
Translating international research to the Aotearoa New Zealand context .....	57
High quality, longitudinal data collection is needed to measure—and understand the phenomena of—material hardship .....	58
<b>References</b> .....	<b>59</b>

## Executive summary

In Aotearoa New Zealand (NZ), 10.3% of children were living in households experiencing material hardship in 2022 (Statistics New Zealand, 2023)—the inability to afford basic necessities, such as food, housing, and clothing. Having basic needs met is seen as a fundamental human right (European Union Agency for Fundamental Rights, 2018), and one that left unaddressed has longer term consequences for the wellbeing of individuals and broader society (Bramley et al., 2016; Heckman, 2006; Holzer et al., 2008).

Indeed, measuring and reporting on material hardship, in addition to other measures of economic security, such as income poverty rates, was legislated in Aotearoa NZ as part of the 2018 Child Poverty Reduction Act (Child Poverty Reduction Act, 2018). Understanding whether and how policies and programmes can help alleviate material hardship is important for governments seeking to meet material hardship targets and ensure children in Aotearoa NZ grow up with their basic needs met.

Unlike income poverty rates, which are generally impacted by income and household composition, along with broader societal economic trends, the drivers behind material hardship are less understood. Indeed, a sizeable proportion of families not considered “in poverty” based on income poverty measures still experience poverty in the form of material hardship, and vice versa—in 2021, 45% of those living in material hardship in Aotearoa NZ, were from households experiencing income poverty, while 55% had higher incomes (income poverty measured using After Housing Costs (AHC) 50% of median moving line income; Perry, 2022). This absence of complete correlation between income poverty and material hardship, means that rates of material hardship are often seen as difficult to reduce as hardship is assumed to be influenced by factors beyond income and housing, such as the cost of all goods and the varied consumption needs of families.

Furthermore, unlike income poverty rates, the impacts of policies in being able to shift material hardship rates are harder to model, and not currently modelled in Aotearoa NZ, in part due to the fact that the underlying mechanisms driving material hardship are not simply just correlated with income. Consequently, turning attention to the existing research evidence on effective policies and programmes for reducing material hardship can provide valuable insights into addressing this issue.

**This report sought to identify and analyse the breadth and depth of the research evidence examining the effectiveness of policies and programmes in alleviating material hardship.**

We did so through a systematic scan of the existing research literature, homing in on policy and programme evaluations that explicitly addressed the broad construct of material hardship (rather than domain-specific, such as food insecurity, for example) as an outcome, and analysing the studies’ findings across policy types.

The comprehensive and systematic search of the literature involved targeted word searches through a range of databases, including Google, Google Scholar, and JSTOR, with 255 pieces of literature identified. Two criteria were used to determine eligibility of relevant texts in the subsequent analysis: 1) material hardship had to be measured as an outcome variable

(or the study contained multiple measures hardship types); and, 2) an intervention, programme, or form of policy support was examined in relation to material hardship.

In total, 55 sources were identified as meeting these inclusion criteria, and thus, were included in analysis. The studies were reviewed and then weighted based on two key aspects. Namely, their ability to infer causal inference and relevance to the Aotearoa NZ context. A majority of the studies came from the United States-context, likely reflecting a number of reasons, including the prominence of policy analysis movement in the US and current size of the research community (Mintrom, 2007), availability of large public survey data, and within-country variation in larger-scale policy implementation (i.e., State level) that can be leveraged for causal inference. Although there was a lack of studies explicitly focused on evaluating supports that shift material hardship within the Aotearoa NZ context, the findings provide insights into effective initiatives that can address material hardship.

The 55 studies were reviewed, findings summarised, and then categorised according to the type of initiative or support examined in connection with material hardship. This classification allowed for conclusions for each respective area. Finally, our evaluation of the studies enabled multiple insights to be made regarding the efficacy of policies and the overall state of evidence that connects policy assistance to material hardship.

## Key findings

### *Direct income assistance alleviates material hardship*

The research consistently found that direct income assistance programmes—such as tax credits and income assistance—were effective in alleviating material hardship, with the studies examining income assistance generally rigorous in their methodological design and scope of population and subgroups being examined. Tax credits that boosted incomes for low-income families were particularly effective. For example, one US-based study found that receiving a Child Tax Credit (CTC) led to a 9.5% decrease in families facing any kind of material hardship, with families living in poverty experienced an 18% decrease in experiencing material hardship. Contextualising these findings in terms of income among families in poverty in the US, the poverty threshold for a single-parent household with two children is approximately US\$21,831 (NZ\$35,100). The authors estimated that the average monthly increase in pre-tax income due to the CTC was US\$187 (NZ\$300) per month. Extrapolating those figures to a single-parent family earning US\$20,000 (NZ\$32,100) per year (i.e., an “in poverty” family) represents a 11% increase in their monthly income. Targeting expansion of existing tax credits for low-income families—and expanding credits to non-working families—is likely to have an impact on material hardship rates. Importantly, these studies found no evidence that expanding tax credits disincentivised work.

### *Consistent income assistance is most effective in reducing material hardship, with how often families receive the income boost mattering for how families meet their needs*

Payments or cash transfers that families could expect and rely on—such as monthly or even annual transfers—were important for helping families plan and meet their needs. While one-off cash transfers, like stimulus checks, relieved material hardship in the immediate aftermath, the effects did not persist into the short nor long term.

When families received larger, annual payments, material hardship reduced because families spent more on larger consumption needs, such as medical care or large durables, which are essential for families, but which are typically put off to meet immediate needs. When families received monthly tax credits, they were more likely to report declines in hardships that are part of the regular monthly budget, like food and making rent.

#### *In-kind supports alleviate material hardship, but less effectively than direct income transfers*

In-kind supports, such as food vouchers and childcare assistance, were associated with declines in material hardship, albeit to a lesser extent than direct income transfers. There is suggestive evidence that direct cash transfers for specific needs, such as utilities and rent, may be more efficient in targeting material hardship, versus transferring funds directly to an energy provider or landlord. While these targeted cash transfer programmes are important for recognising the extra consumption needs of families (e.g., higher heating bills in winter, higher rents in more expensive cities), enabling households to redistribute funds that were initially earmarked for specific consumption needs is important for supporting families to reallocate their spending around the hardships they face. Specifically, the Winter Energy Payment in Aotearoa NZ was not found to reduce difficulty in paying for utilities among households with working-age individuals who received government benefits, however other areas of hardship declined, including having insufficient income to meet every day needs (Hyslop et al., 2022). This study highlighted that targeted financial assistance can have unintended, yet positive, spillover effects on other aspects of hardship, emphasising the importance of flexibility and adaptability in designing social support programs.

#### *Effectiveness is dependent on families' current and context-specific needs*

Although there is much evidence to suggest that income supports, such as tax credits, are effective in reducing material hardship, it is important to recognise that the effectiveness of programmes may depend on a range of factors. If benefit rates, for example, are not sufficient to cover basic needs, the programmes may not effectively shift material hardship regardless of expanded entitlements. Moreover, different populations have varying needs. For example, single-parent families and those with disabilities may face unique financial and work constraints that require targeted supports. A multiple and cumulative set of programmes may be particularly effective for subgroups with unique needs as the causes of material hardship are complex and multifaceted, stemming from a variety of factors such as low wages and inadequate social supports, and broader structural and systemic factors. Indeed, four of the included studies found evidence that participation in multiple programmes reduced hardships faced by families.

These studies recognised that individuals and families may participate in more than one programme and that the optimal “blend” of programmes varies based on specific needs. Additionally, several of the included studies highlighted certain policies had a stronger impact, or only had an impact, on reducing material hardship for specific demographic groups. In particular, these studies identified greater programme effects for households and families who were experiencing higher levels of material hardship initially. Taken together, these studies suggest the effectiveness of initiatives are sensitive to the wider system of welfare support in place as well as the existing economic need.

### *There is a lack of research in the Aotearoa NZ context*

Future research and data collection in the Aotearoa NZ context is essential for evidence-informed policymaking within this context. For example, the majority of studies examined came from the United States (a different policy context and consumption environment than Aotearoa NZ), primarily because, as mentioned, the predominance of US-based research in the field of policy analysis, but as well as the prioritisation of econometric techniques that lend themselves to causal inference (approaches that align with the quantitative focus that dominates US economic research). Generalising the findings to an Aotearoa NZ context may not be appropriate in some cases (e.g., the effectiveness of health insurance expansion), and should be interpreted in light of differences in the social safety net between the two countries. Yet, findings may be more appropriate to generalise in the case where there are similar subgroups of the population across the two countries, such as those living in severe hardship where families have similar experiences of deprivation, or from studies conducted in states with more generous social safety nets.

Moreover, it is important to note that although there were only a few studies beyond income assistance that explored the impact of non-cash support on material hardship, the conclusion should not be that there is no correlation between other social policies and hardship. Further research that is focused on exploring the effectiveness of non-cash supports in reducing material hardship is also needed. While non-cash supports such as employment interventions, budgeting skills programmes, intensive support interventions, and debt/debt servicing support, for example, were included in the search process, minimal evidence was found suggesting further evaluations of these programmes are needed.

High quality, longitudinal data collection is needed to measure and better understand the phenomena of material hardship in Aotearoa NZ, as well as incorporating material hardship outcomes into data collection and evaluation efforts across a range of policy and programme settings. Doing so can point to the underlying mechanisms that are driving rates of material hardship and point to policies and programme supports that will be most effective and efficient in alleviating material hardship.

## Introduction

This evidence review aims to provide an analysis and summary of ‘what works’ in terms of the role of policies and programmes in alleviating material hardship, with a particular emphasis of children and families. A comprehensive, systematic search of the existing international and domestic literature was conducted to seek out studies whose methodological design lent itself to better inferring or ruling out potential causal effects. The review also focused on studies that examined material hardship as a more holistic measure of income inadequacy in terms of meeting households’ everyday needs (compared with single measures of types of hardship, such as just food insecurity, or trouble paying utilities and rent). In this way, this review aims to provide insights from rigorous research evidence to draw conclusions on the effectiveness of policies that have been studied, as well as highlight policy and programmatic evaluation gaps in which evidence is more scarce, pointing to underexamined areas for future research.

Material hardship refers to being unable to afford or lacking essential needs, including food, housing, and clothing (Statistics New Zealand, 2019). While those experiencing material hardship are often also in income poverty, a large proportion (55%) of those who experience material hardship in Aotearoa NZ are not considered to be living “in poverty” based on income poverty measures (Perry, 2022). As a measure of economic insecurity, material hardship is used within multi-dimensional wellbeing frameworks as one indicator of wellbeing (alongside other, different indicators such as physical and mental health) as it provides a direct, tangible, and comprehensive assessment of individuals or households access to essential everyday items and amenities. Indeed, material hardship is associated, as both a cause and a consequence, with poorer outcomes, such as mental health and socioemotional development, for adults and children—outcomes that persist even after other income and wealth measures have been considered (Edmunds & Alcaraz, 2021; Lee, 2022; Sullivan et al., 2008; Yoo et al., 2009).

In Aotearoa NZ in 2022, 10.3% of children (118,900) were living in households experiencing material hardship (Statistics New Zealand, 2023). Four percent were considered to be living in households in severe hardship (i.e., lacking the basic necessities across a majority of everyday essentials<sup>1</sup>). Tamariki Māori (19%) and Pacific children (26%) were more likely to be living in material hardship than Pākehā children (8%).

Targeting material hardship rates is seen in Aotearoa NZ and internationally as an important social policy endeavour—one that is not only rooted in human and children’s rights perspectives that requires immediate attention (European Union Agency for Fundamental Rights, 2018)—but also a policy-malleable problem that has longer-term consequences for the wellbeing of individuals and broader society, from both a fiscal and social perspective (Bramley et al., 2016; Heckman, 2006; Holzer et al., 2008). Indeed, the Child Poverty Reduction Act 2018 in Aotearoa NZ mandated the measurement and reporting of material hardship, alongside other economic such as poverty rates related to income (Child Poverty Reduction Act, 2018).

---

<sup>1</sup> Material hardship was measured using the DEP-17 index—a cumulative measure of 17 items, used to examine meeting household’s every day needs and assess low living standards.



Aotearoa NZ already has a range of historical and newly implemented policies aimed at alleviating material hardship, such as income assistance programmes and tax credits, which have been a feature of New Zealand's social safety net for decades, along with newly implemented programmes such as the Families Package, which included new initiatives such as the Best Start payment and expanded existing policies such as increases to the Family Tax Credit and benefit rates (Robertson, 2017). While income poverty and material hardship rates have been trending down from 2018 through 2022, rates of material hardship are seen as difficult to reduce, given that hardship is influenced by a wide range of factors beyond income and housing, such as the cost of goods and the varied consumption needs of families. To better understand the economic well-being of households in Aotearoa NZ, the Living Standards Framework employs an income-wealth-consumption approach (Treasury, 2021). This framework posits that a household's economic well-being is shaped by three primary factors: income, wealth, and consumption (see section titled, "drivers of material hardship" for more information). These elements are interconnected and have a mutual influence, with alterations in one aspect impacting the others. Given that material hardship rates are complex to improve, however, and the impacts of policies on material hardship cannot be currently modelled in Aotearoa NZ, focusing on existing research evidence regarding effective policies and programs can offer insights for tackling this issue.

A better understanding of what evidence-based policies have been shown to matter for alleviating material hardship is important for meeting targets governments set for reducing material hardship and ensuring children in Aotearoa NZ are growing up having their basic needs met.<sup>2</sup> Thus, the aim of this review was to examine the breadth and depth of international and domestic research examining the role of policies in alleviating material hardship, with a particular focus on the quality of the evidence, effectiveness of these policies, and how this evidence translates to the Aotearoa NZ context.

---

<sup>2</sup> The target for the percent of children living in household reporting material hardship based on the DEP-17 measure is 6% for the 2027/28 financial year (New Zealand Government, 2019).

## Material hardship in context

### What is material hardship and why it matters

Living in material hardship refers to when people lack the ability to afford basic necessities such as food, housing, healthcare, or clothing (Statistics New Zealand, 2019). The measurement of material hardship is frequently used in assessments of wellbeing because it offers an evaluation of a household's or individual's ability to afford necessary everyday items and amenities, and thus, can serve as a direct representation of economic insecurity (Statistics New Zealand, 2019). Where other economic measures such as income poverty and wealth capture important aspects of financial wellbeing, material hardship measures are aimed at capturing the lived reality of economic situations and the basic needs people are not able to afford. While income poverty and wealth are correlated with hardship at a certain level, material hardship is a distinct economic wellbeing construct from these other economic wellbeing measures, and can provide a comprehensive understanding of material circumstances by accounting for income, expenses, and cost of living.

Material hardship and income inadequacy (e.g., when household income is insufficient to cover every day needs) are associated with poorer outcomes for adults and children, such as mental and physical health, and socioemotional and behavioural development (Edmunds & Alcaraz, 2021; Lee, 2022; Yoo et al., 2009). These correlations between material hardship and poorer outcomes persist, even after income and wealth measures are taken into account, indicating the potential that material hardship affects wellbeing in ways that are distinct from other economic security measures (Ashiabi & O'Neal, 2007; Gershoff et al., 2007; Neckerman et al., 2016; Sullivan et al., 2008; Zhang et al., 2022). Importantly, type, timing, depth, and duration and persistence of hardship experiences have been shown to matter in different ways and is associated with people's health and wellbeing in the short and long term (see Hardi et al., 2022; Ramanathan et al., 2021; Schenck-Fontaine & Ryan, 2022; Thomas, 2022; Zilanawala & Pilkauskas, 2012; for examples).

### Drivers of material hardship

Material hardship is a multifaceted and complex issue, shaped by a variety of factors at the individual and systemic levels where barriers are created for people to meet their basic needs. In Aotearoa NZ, Treasury's Living Standards Framework uses an income-wealth-consumption framework to understand the economic well-being of households. This framework posits that these three factors (i.e., income, wealth, consumption) within households are interrelated and influence each other, with changes in one factor affecting the others (Treasury, 2021). In this sense, material hardship can be viewed as a consequence of low income and low wealth, which in turn limits an individual or household's ability to purchase basic necessities and maintain a reasonable standard of living, especially if these experiences are sustained for a long period of time (Ahn & Song, 2017; Karpman et al., 2018). In addition to being a consequence, material hardship can also act as a cause, perpetuating persistent poverty by hindering an individual's or household's ability to improve their income and accumulate wealth over time.

Personal circumstance such as illness, or disability may further exacerbate material hardship through an increase in the costs of necessities and the limitation of employment opportunities (Levy, 2015). These factors can mean certain individuals are more susceptible

to hardship, given they face additional financial pressures and barriers to accessing resources and support. Consequently, it is crucial to acknowledge and address the unique challenges faced by these groups.

Experiencing material hardship extends beyond individual and household situations, however, and reflects broader societal problems. Structural and systemic issues such as income inequality, discrimination, inflated cost of living, inadequate access to educational and employment opportunities, and broader social policies contribute to this issue. These drivers have varying impacts, with some having slow acting and indirect consequences, while others have immediate and fast acting effects, such as a sudden rise in inflation (Menyhert, 2022). As a result, specific groups are at a heightened risk of hardship (Commission on Social Determinants of Health, 2008; Thurber et al., 2020), such as low-income earners, minority ethnic populations, and single-parent families (Perry, 2022). Prohibitive costs of necessities such as accommodation may also create significant strain for households (Shamsuddin & Campbell, 2022). These disparities demonstrate the need for policies and initiatives aimed at addressing underlying societal issues, as well as interventions which directly target material hardship. These numerous drivers, however, are also reflective of the complex issue that is material hardship and demonstrate the need for targeted policy support to assist families in moving out of hardship.

### Material hardship measurement

Within Aotearoa NZ, the Child Poverty Reduction Act 2018 mandates the measurement and reporting of material hardship, along with other indicators of economic security like income poverty rates (Child Poverty Reduction Act, 2018). The DEP-17 index is the most widely used measure of material hardship in Aotearoa NZ and is comprised of 17 items focused on evaluating low living standards, specifically with regards to the ability to pay for food, clothing, housing, utilities, and other everyday expenses (Statistics New Zealand, 2019). The DEP-17 index was designed to reflect a single latent variable of material hardship. Each item is assigned a value of “1” where the household reports hardship and “0” where they do not. Scores are then aggregated into a summary score. Two thresholds are used for establishing hardship groups based on summary scores across the index—material hardship (scores 6-8), and severe material hardship (scores 9 or higher). Using multiple survey items that ask about hardship across different domains has the advantage of reducing statistical ‘noise’ in the measurement should certain families and households not have similar consumption needs (e.g., not purchasing car insurance when they do not have a car). Additionally, the use of multiple items is beneficial for providing a comprehensive understanding of the material circumstances of households.

The DEP-17 measure also has some limitations, including that other measurement tools and approaches to measuring material hardship may not necessarily translate to changes in the DEP-17 measure, and that it can take up significant survey time to assess all 17 items. The following paragraphs explore different approaches to measuring material hardship to help with the interpretation of the findings from the studies included in this review in relation to the DEP-17 index.

## Other approaches to material hardship measurement

A variety of other measurement techniques have been used across studies and across countries' national statistical offices to assess how individuals and families are experiencing material hardship. Most often these measures use multiple social survey items that span multiple domains or facets of hardship, such as food hardship, utility hardship, and medical hardship (Carle et al., 2009; Heflin et al., 2009; Thomas, 2022), with the intent of assessing a broad and reliable construct across diverse family and household consumption needs. These approaches tend to use items in a composite index to quantify the severity of hardship (Friesen et al., 2008; Stephens et al., 2010; Voth Schrag et al., 2020). In this sense, these measures are similar to DEP-17, however many studies also use the diverse items to create a dichotomous indicator to indicate the presence or absence of any hardship (Drew, 2015; Neckerman et al., 2016; O'Connor & Nepomnyaschy, 2020). A limitation of this approach is that reductions to hardship may be more difficult to detect unless households are shifting from material hardship to no hardship experiences at all. Consequently, the effectiveness of interventions aimed at reducing hardship may be underestimated or misinterpreted, and there is less information about the mechanisms driving hardship (e.g., does an intervention lead to a decline in food insecurity, or making rent payments, or being able to buffer against an unexpected and large cost?), leading to inadequate assessments of policies and programmes. In this way, DEP-17 may be more responsive to small or modest declines in hardship compared to dichotomous measures.

While the DEP-17 index explores discrete experiences of hardship across multiple domains, other approaches to measurement have exclusively concentrated on a specific domain of material hardship to examine the distinct aspects of these domains (Gerritsen et al., 2022; Gold, 2020; Yabroff et al., 2019). This domain-specific approach aims to understand the unique challenges that households face when dealing with specific forms of hardship to gain a more nuanced understanding of the underlying causes—and potential solutions to—these aspects of material hardship.<sup>3</sup>

Another measurement approach often employed in surveys is the use of single-item measures of 'income adequacy' (e.g., "Did you have not enough, just enough, enough, or more than enough money to meet your everyday needs, such as food, rent, and utilities?"). One key benefit of these types of measures is the ability to 'net out' the diversity of consumption needs across different household and family context (Deidda, 2015; Fuller et al., 2020; Ybarra et al., 2019). That is, when individuals are surveyed and asked to think about the everyday needs, these needs, while often similar to other families across the population, are allowed to be specific and flexible to individual households, and how they perceive their income to fit those needs. Studies that have adopted this single-item approach to measuring hardship potentially operate similarly to the DEP-17 which is assessing whether needs are met over multiple facets, in that when respondents are answering this single-item question, they are likely thinking about a variety of needs that their incomes are meeting or not, and assessing whether that need is met on the whole. In

---

<sup>3</sup> To ensure the relevance of the studies included in this review towards measuring hardship using the DEP-17 index in Aotearoa NZ, the review exclusively considered studies that encompassed multiple domains of hardship. Thus, studies that solely concentrate on one or two aspects of hardship have not been included in this review.

this way, these single-item adequacy measures may serve as a useful point of comparison with the DEP-17 measure.

Another key benefit is that single-item measures are short and easy to administer, making them ideal for use in surveys and studies where time and resources are limited (vs. multi-item measures). However, a concern with these measures is their validity and reliability compared to more comprehensive measures of material hardship, such as DEP-17, that include many more items. The lack of rigorous testing of these single-item measures raises questions about their ability to substitute for more comprehensive measures. Nevertheless, a study conducted by Nolan and Whelan (2010) showed that single-item self-report measures had an accuracy rate of over 60% across seven different European countries when compared to more comprehensive assessments of hardship. This finding instils confidence in the ability of single-item measures to provide comparable results to multi-item measures.

Another further approach to measuring material hardship is to use a scenario method. This involves presenting respondents with hypothetical scenarios of financial difficulties and asking them to rate the severity of hardship that they think they would experience (Henly et al., 2005; Kalil et al., 2002). For example, respondents may be asked to indicate how difficult it would be to meet their everyday needs if their income dropped by a certain amount. While scenario measures may not reflect the actual experiences of individuals and families, they allow insights into how individuals perceive and respond to hardship.

Overall, there is much variation in whether and how certain domains of hardship are considered. Each approach has strengths and limitations, but key to the measurement of material hardship is the need to reflect the multifaceted nature of deprivation. In this way, a better understanding can be gained of the experiences of individuals and families facing hardship and, in particular, an understanding that can be generalised across populations with diverse consumption needs, so that rates of material hardship are monitored and can be effectively targeted by policy supports.

It is important to note that alternate measures may not be directly comparable to the DEP-17 index and that when a policy initiative improves other measures of material hardship, this may not directly translate to improvements on the DEP-17 measure. However, these different approaches can provide complementary information of the nature of material hardship and be helpful in informing different policy interventions, particularly if the underlying construct being measured by these different approaches is similar.

### Differences between moderate, severe, and persistent hardship

In addition to measuring material hardship as a yes-no state (i.e., in hardship or not) or treating hardship as cardinal or ordinal scales, more comprehensive measures of material hardship tend to group experiences into severity and are used to take into consideration the duration of hardship. As with the measurement of material hardship itself, approaches to measuring severity of hardship varies, and terms such as “moderate” and “severe” are used to indicate the extent to which households are experiencing hardship at any given time (Campbell et al., 2022; Kim et al., 2022). Indeed, the DEP-17 index utilises the categories of “material hardship” and “severe material hardship” to indicate when households are experiencing a count of 6–8 hardships and 9+ hardships, respectively.

Living in moderate hardship often refers to individuals or households who are experiencing some difficulties in meeting their day-to-day expenses that, while considered not extreme, still present a significant burden. While those living in moderate hardship are not facing extreme deprivation, and the burden they experience is not so much to render them unable to meet their most pressing needs, they are facing struggles to obtain a decent standard of living. Severe hardship refers to when people are facing substantial difficulties in accessing the resources they need for a decent standard of living (Thomas & Waldfogel, 2022). Individuals and families living in severe hardship may not have access to basic housing, sanitation, and food, or it could mean that they are experiencing numerous hardships at once, such as trouble paying for utilities, medical care, and going without fresh fruit and vegetables. The burdens experienced when people are living in severe hardship are likely to be having a profound impact on their quality of life (Marçal, 2022). It is important to note that the difference between moderate and severe hardship is not always clear-cut, and that many families experience hardship on a continuum of difficulties, which can range from no hardship, little, moderate, and severe hardship. Additionally, persistent material hardship is distinct in that this does not refer to the extent of hardship experienced but rather hardship that is ongoing and long-lasting (Campbell et al., 2022).

This section has discussed moderate, severe, and persistent hardship to provide context around the ways hardship is conceptualised and operationalised in the studies included and analysed in this report. This context is important when interpreting findings relating to the Aotearoa NZ context. As explained, the DEP-17 index of material hardship employs two thresholds to categorise households as experiencing material hardship (6–8), or severe material hardship (9+). However, this index may not be directly comparable to other descriptions of moderate and severe hardship. For example, the DEP-17 index does not evaluate extreme forms of hardship, such as eviction, inability to afford food, or unpaid bills. As a result, when studies examine these extreme forms of hardship and label as “severe hardship,” these may not be directly comparable to the “severe material hardship” group using DEP-17 which is indicative of a high count of hardships.

### The intersection between income poverty and material hardship

Income poverty and material hardship are closely intertwined and the relationship between the two is complex. Where material hardship refers to the inability to afford basic necessities such as food, housing, and medical care, income poverty typically encapsulates a state of economic disadvantage characterised by low income (Townsend, 1987).<sup>4</sup> On the one hand, income poverty can—and has been evidenced to—contribute to material hardship, as people with low incomes may be limited in affording essential everyday items and maintaining a basic standard of living. Conversely, material hardship can exacerbate income poverty, as a lack of basic necessities may limit opportunities for upward social and economic mobility (e.g., inability to afford in-work costs), making it harder to exit from poverty. While income poverty and material hardship can coincide, hardships can be prevalent even when income levels do not fall below the poverty line (Neckerman et al., 2016; Perry, 2022). Equally, not all households with low-incomes experience hardship. For

---

<sup>4</sup> In developed nations, poverty is typically understood as exclusion from an acceptable standard of living due to inadequate financial and material resources (Perry, 2002).

example, strong social support networks that provide help in the form of shared resources, financial aid, or other types of support can help low-income families meet essential needs. Cultural practices or values in certain communities may also emphasise mutual support and resources sharing, helping low-income households to avoid hardship by pooling resources. Furthermore, access to savings or credit can play a crucial role in helping households avoid hardship, particularly when households experience temporary financial constraints, such as short-term job loss.

Domestic research confirms that the relationship between material hardship and income poverty is also complex within the Aotearoa NZ context. In a report designed to provide insights into three different indicators of poverty, Stephens (2022) found that, while between 10% and 16% of children in Aotearoa NZ in 2019-2020 would be considered “in poverty” when examining three key poverty measures independently (i.e., material hardship, fixed-line after housing costs (AHC50), and moving-line before housing cost (BHC50) poverty), only 3% of children were in poverty based on all three of those poverty measures. Approximately one-third of children considered in poverty based on the BHC50 and AHC50 indicators were also considered to in poverty based on the material hardship, only 28% of children in material hardship were considered to be in poverty based on the BHC50 measure, while 43% were in poverty based on AHC50 measure. This lack of complete overlap between measures of income poverty and material hardship suggests that, while these measurements are correlated, they represent distinct constructs.

Relying solely on income data to measure poverty provides only a partial understanding of the experiences of households in poverty and highlights the need for multiple measures to be used. Perry (2022) has further contributed to the work in this area, revealing that 45% of Aotearoa NZ children living in households experiencing material hardship come from low-income families, while the remainder are from higher-income households (using the AHC50 measure of income which accounts for income after deducting housing costs, averaged over the Household Economic Surveys from 2018–2021). As Perry explains, without total overlap between material hardship and income poverty, policies aimed at reducing material hardship need to consider improving incomes but also reducing the expenses families are having to bear related to basic necessities. Stephens (2022) further compliments this argument from a measurement perspective, demonstrating the utility in multi-pronged measures of poverty to develop different insights into child poverty.

Due to the complexities in analysing diverse policy interventions and underlying mechanisms, focusing on material hardship instead of income poverty can provide valuable insights. For one, as implied above, by focusing on material hardship rather than solely on income-based poverty, we can better understand the specific needs and challenges households face in terms of their daily necessities. In this sense, material hardship offers an understanding of the lived realities of deprivation in terms of the everyday struggles to meet a decent standard of living. By examining the latent construct of material hardship, this approach can reveal the different ways in which deprivation is experienced across a population so that a more comprehensive understanding of poverty can be gained than from just examining income poverty alone. For instance, studying material hardship can help to pinpoint the severity and types of poverty that aren't affecting the same subgroups as income poverty might be. Therefore, studies of material hardship can inform policies and

interventions that target the specific needs of these subgroups. This examination may be especially important in addressing issues of equity, as it can help to ensure that resources are distributed in ways that are responsive to the unique experiences and needs of different communities.

## The Current Study

With this understanding of material hardship as our backdrop, this review aims to understand the existing evidence on the effectiveness of existing policy levers in alleviating material hardship over the short-to-medium term period following policy interventions (< five years). We do so with a recognition of the variation in material hardship measurement across international and study-specific contexts and the diversity in populations being studied. We also recognise the variety in types of supports that can affect material hardship, while also recognising the limitedness in that interventions are typically not designed to specifically address material hardship, although addressing it may be an indirect outcome of implementation.

Specifically, this review aimed to:

- 1) Identify the breadth and depth of literature that examines the effectiveness of policies and programmes in terms of modifying or mitigating material hardship over the short to medium term;
- 2) Provide an assessment, with the evidence available, of the likelihood that key policies and programmes are causally associated with changes in material hardship;
- 3) From this research evidence, discuss the relative efficacy of policy and programmes in alleviating hardship and their applicability in an Aotearoa NZ context.

This examination was conducted in the context of understanding policies and programmes targeting material hardship in the population more broadly, but in particular for families with children and those low-income families that are experiencing severe hardship.<sup>5</sup> By answering these questions, this review sheds light on the which policy supports may be best placed to help shift material hardship, and in what ways. These insights can be used to inform decisions around initiatives that are needed to support Aotearoa NZ individuals and families to see reductions in economic hardship and enhance their overall wellbeing.

---

<sup>5</sup> Severe hardship was measured in different ways across the studies examined. The use of the term 'severe hardship' does not reflect a specific meaning, but is a term used in different ways across studies to mean the population in their studies experiencing more hardship than others experiencing no or moderate levels of hardship, depending on the measure being used.



## Methods

To answer these research aims, we conducted a systematic search of the existing literature to identify research that examined policy supports in relation to how they shifted—or not—material hardship. Our search was designed to be comprehensive, with the goal of capturing as wide a range of relevant work as possible.

### *Search process*

We took several steps to search for the appropriate literature, including exploratory and then more targeted approaches.

- 1) *Targeted word search through Google, Google Scholar, and JSTOR*  
Targeted word searches through Google, Google Scholar, and JSTOR were undertaken in efforts to capture both peer-reviewed academic work as well as “grey” literature. These included the terms: “material hardship evaluation”; “material hardship policies”; “material hardship programmes”; and “material hardship determinants”, with more and less restrictive combinations of these words.
- 2) *Policy interventions targeted search*  
In line with the core research questions, we also used Google Scholar and JSTOR to locate studies that examine the intersection of existing policies and programmes that are potential levers to shifting material hardship. This includes the following search terms, paired with the term “material hardship”: “income support”; “cash assistance”; “benefit receipt”; “food assistance”; “school lunch”; “childcare subsidies”; “public housing”; “accommodation supplement”; “energy efficiency”; “work incentives”; “employment interventions”; “budgeting”; “financial advice”; “nutrition programmes”; “intensive supports”; “problem debt”; “financial access”; “lending”; and, “public transportation”, among others.
- 3) *New Zealand consumption patterns targeted search*  
We also searched for literature related to key household expenditures in New Zealand, as identified in the 2018 Household Economic Survey (Perry, 2019), pairing the term “material hardship” with: “food”; “rent”; “mortgage”; “utilities”; “energy”; “heating”; “transport”; “vehicle”; and, “childcare”, among others.
- 4) *Research Rabbit exploration of key papers*  
Key pieces of literature that met the key prioritisation criteria (as specified above), and that appeared to have a strong causal methodological design were further examined in Research Rabbit, a citation-based literature mapping tool, to investigate further studies that cite these papers that we may have missed.
- 5) *Ministry website-specific searches for New Zealand research reports*  
As a final step, we conducted web searches of key Ministry websites (e.g., Ministry of Social Development, Oranga Tamariki, Statistics NZ, Department of Prime Minister and Cabinet) to ensure we had not missed key pieces of New Zealand-based evidence.

## *Selection criteria*

All works that were sourced in our initial searches were collected and saved in a Zotero library catalogue (a reference manager). Many of these articles, upon examination, were outside of the scope or not suitable for the review. To establish which studies were included, we based our inclusion criteria on the following points:

1) *A measure of material hardship was used as an outcome variable.*

We restricted the inclusion of studies to those that examined comprehensive measures of material hardship, given this is the construct of interest and the one most closely tied to Aotearoa NZ's key poverty measures. This meant, however, that studies that examined only one element of material hardship—such as only food insecurity, of which there are many studies—did not meet the selection criteria.

Exceptions were made for studies where individual hardship items, such as food insecurity, ability to pay rent, pay utilities, and met medical costs, for example, were examined in the same study where we could broadly summarise across items.

We did not discriminate across studies in terms of *how* material hardship was measured (e.g., single item responses, counts of material hardships), so long as the measure was attempting to measuring the underlying construct of material hardship (see section titled, “material hardship measurement” for more details).

2) *An intervention/programme/form of policy support was examined in relation to material hardship.*

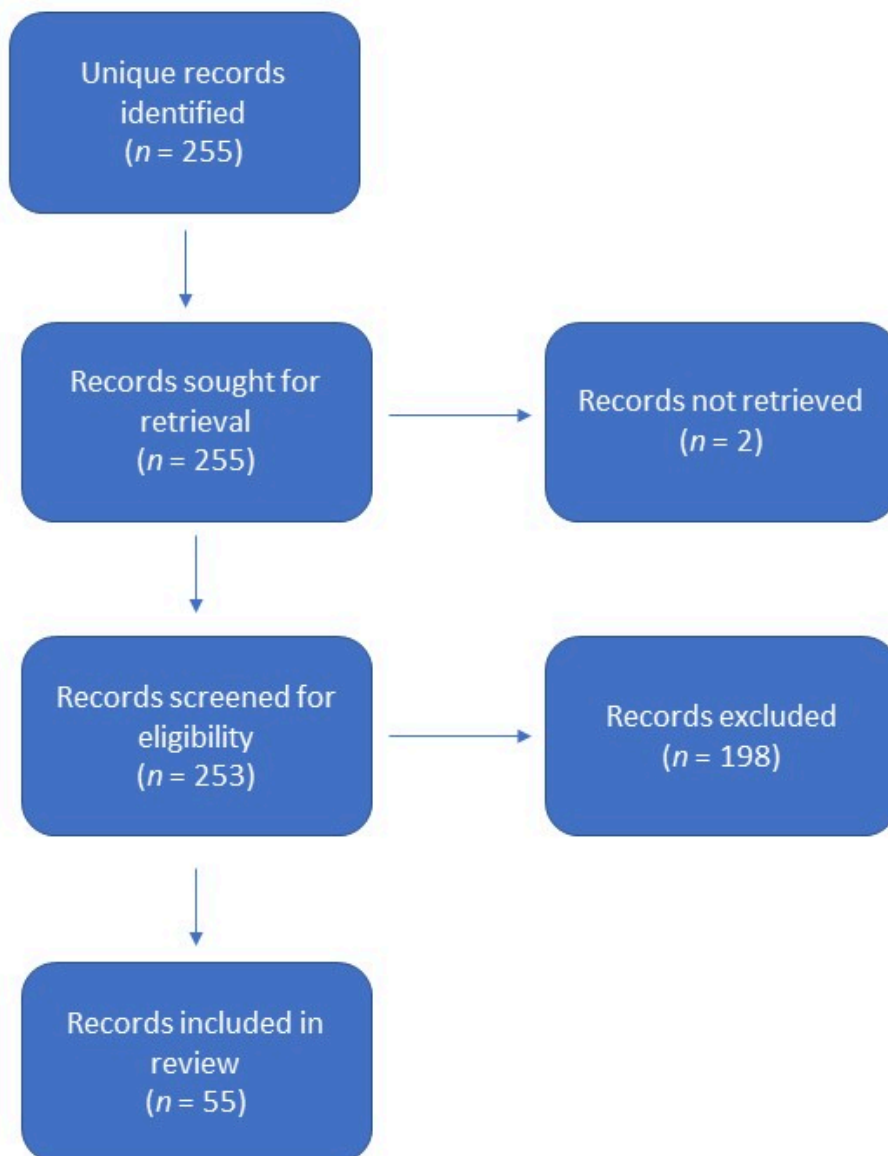
Because the review aims to provide insights into the evidence on the effectiveness of specific policies and programmes, we restricted inclusion criteria to those studies that were explicitly examining the role these policies/programmes played in shifting outcomes. While the programmes and policies did not need to be designed to explicitly target material hardship—in fact, the majority were not—the underlying construct of material hardship needed to have been measured and tested.

There were, however and again, some exceptions made. For example, examining the impact of policies or programmes being withdrawn, and the role of social networks and connectedness—although not ‘programmes’ per se—point to the importance of supporting networks and communities in buffering families from material hardship.

All works included in the findings section met these two inclusion criteria. There were a small number of exceptions where studies that did not meet the inclusion criteria were included (as noted above). We have clearly indicated so in the findings section where applicable.

Figure 1 details our process of selecting relevant works for inclusion. As seen, the sources that were extracted from our search, once duplicates were removed, resulted in 255 studies. Titles and abstracts were screened (and where necessary, full texts) according to the two criteria above. This resulted in a total of 55 studies for inclusion in our review.

**Figure 1. Diagram of Search Process**



The full texts of all 55 studies were reviewed and key details about each study were catalogued, including study design, key characteristics of participants, type of programme/intervention/policy support, and country of study. These details were used to categorise studies into groups, based on the type of support and quality of evidence. The supplementary file “Material hardship and policy evidence – Literature summary” contains the results of this cataloguing process.

### *Weighting schema*

A weighting schema was applied to the included literature, prioritising two key aspects: 1) studies that used analytical techniques that better inferred causal inference; and 2) studies that were New Zealand-based or better placed to be generalised to the Aotearoa NZ context, and with a focus on particular key sub-groups that are overrepresented in the New Zealand population who experience material hardship. This includes, but was not limited to,

low-income families, families in persistent hardship, whānau Māori and Pacific families, families with disabilities, and single parents.

Regarding analytical approaches, we gave more weight to studies that were either interventions, were able to employ experimental or quasi-experimental design (e.g., exogenous shocks, regression discontinuity), or used statistical techniques on descriptive data (e.g., difference-in-difference, propensity score matching) where the programme or policy was the intervention and material hardship the outcome. We also considered other quality indicators, such as peer-reviewed publications, when selecting studies.

It is important to note that, due to this prioritisation, a significant majority of the studies that were included used quantitative approaches. This was important in terms of examining findings that were more generalisable, given larger sample sizes, and also providing insights into effect sizes. This focus on quantitative studies, however, meant that some of the rich insight from qualitative data that can portray people's experiences with different policies and programmes and explain the mechanisms through which these different interventions and supports shift material hardship was lost. To this end, we draw from qualitative studies to provide context and potential explanations for the pattern of results found.

Regarding the prioritisation of Aotearoa NZ research—and to preview—we find little New Zealand evidence examining the role of policy and programmes in alleviating material hardship. Only two studies met our inclusion criteria that were based in Aotearoa NZ (Gray et al., 2021; Hyslop et al., 2022). Most of the research using more rigorous quantitative approaches is international and, more specifically, comes from the US. We highlight the research on material hardship thus far by contextualising this report in the descriptive portrait of material hardship in Aotearoa NZ (above) and emphasise the research which looks at subgroups that may be particularly salient for understanding material hardship in Aotearoa NZ, such as low-income families and sole parents.

## *Analysis*

The 55 sources were each reviewed and then organised into sections based on the type of initiative/support that was examined in relation to material hardship, allocating more analysis to studies prioritised by the weighting schema above. This organisation allowed us to review the works in each section, extract the relevant findings, and then draw conclusions about each area.

## *Limitations and caveats*

Given the scope of the project and prioritisation approach to the literature, there are several important limitations and caveats for interpreting the findings, the outcome being examined, and the context in which the studies being examined were collected.

## *Experimental and quasi-experimental designs and material hardship*

Experiments, such as Randomised Control Trials (RCTs) are typically designed to impact narrower outcomes through a treatment designed to explicitly target that outcome. For example, food assistance on food insecurity versus a more comprehensive measure like material hardship. Indeed, many of the strong(er) RCTs and natural experiments presented

in this review that examine material hardship were not often designed with the intention to explicitly focus or shift the needle on material hardship. This created limitations for the scope of the literature examining material hardship as well as our understanding of how policies and programmes shift material hardship.

In terms of methodological limitations, because material hardship was not the primary focus during the design of these studies or data collection, it is more often than not measured via single-items or fewer items than more statistically reliable measures of material hardship. From a lens of policy efficacy, then, because these supports are not designed to shift material hardship, nor measure hardship accurately, if studies find policies and programmes ineffectual at impacting material hardship then methodological issues may play a role.

Similarly, that there are a limited number of studies beyond income assistance examining the role of non-cash supports on material hardship should not be interpreted that there is no connection between other social policies and hardship. A lack of evidence that policies outside income support shift hardship could reflect actual efficacy of those programmes or, more likely, that many study designs do not include measures of material hardship in their data collection efforts to study the impact in the first place.

#### Focus on wellbeing outcomes with material hardship as the mediator

Similarly, RCTs, particularly those promoting child wellbeing, are typically aimed at shifting child development measures, with material hardship often seen as the causal mechanism through which child development is impacted by policy supports and programmes. This causal mechanism, however, is often not testing explicitly or in a methodologically rigorous way that allows for a careful examination of the direct and indirect pathways through shifts in material hardship. A large literature on child development that posits that material hardship is a key mechanism indicates a range of other potential programmes that may alleviate material hardship exists but is not the focus of this review.

#### Generalisability to Aotearoa New Zealand context

As noted above, only two studies from Aotearoa NZ were included in the review based on the selection criteria. A majority of the studies are from the US, where the social safety net differs in ways that are typically less generous than in Aotearoa NZ. We attempt to contextualise and ground the findings and note subgroups that may be of particularly importance in terms of their salience for transposing findings to subgroups in Aotearoa NZ.

#### Identifying and comparing effect sizes across studies

In a similar vein, although identifying and comparing effect sizes across the studies was within the original project scope, it was determined during the analysis stage that it would be challenging to do this in a meaningful comparative way given the wide scope of interventions and policy changes being examined and differences in outcome measurement and study populations. Indeed, even within specific types of supports, such as income tax transfers, most studies varied on how material hardship was measured, the population and subpopulations being examined, the country or US state context, and the type and generosity of the intervention, as just several examples. In many cases, effect sizes were not reported in a standardised way, or data were not provided in a way that would allow the reader to calculate effect sizes.

Where possible, we report effect sizes as they were reported in the studies, or we have provided our own calculations. These effect sizes are often presented as standardised measures, such as a percent of standard deviation change to indicate distributional change in material hardship within the study population, and, when calculated by us, include a Cohen's *d* (1988) interpretation of the effect size (e.g., a 20-49% of a standard deviation shift is considered a small effect, 50-79% a moderate effect, etc.).

### The COVID-19 pandemic

Finally, many of the studies adopting experimental and quasi-experimental designs were able to because of the climate the COVID-19 pandemic created for rapid social policy responses. Many governments, including New Zealand's, implemented a range of one-off, reoccurring, and expanded benefits—often in ways that lend themselves to more discrete, causal econometric study designs. In short, the pandemic created an opportunity to better 'test' whether policy shifts economic insecurity. Importantly, though, confounded in the pandemic-related studies are people's worries about COVID-19, added care responsibilities, and heightened fears around future economic prospects. If these broader contextual worries are not shared equally or in similar ways across the 'treatment' (e.g., those receiving the expanded entitlements) and 'control' (i.e., not receiving the treatment) groups, then this needs to be taken into consideration when generalising pandemic-related policies.

In the findings, we note when studies are conducted so that they can be contextualised either before or during the COVID-19 pandemic, but we also note that given the larger, and potentially more likely external causes of shocks such as job or wage loss during this time (vs. individual selection which may be more endogenous to hardship experiences), that this would make selection effects (e.g., into job loss vs. job stability) less salient.

## Findings

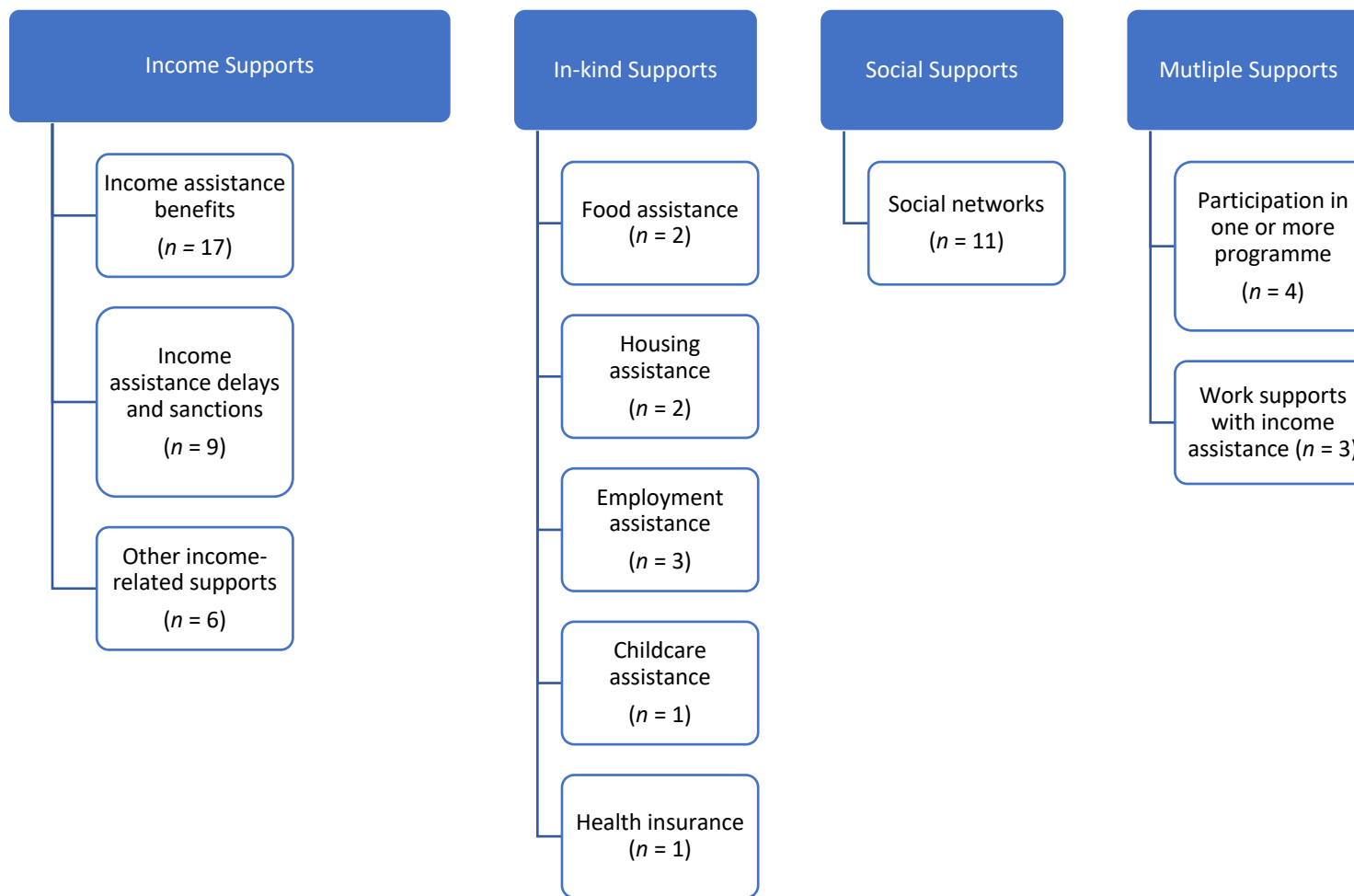
This section presents the analysis results conducted to assess the current literature on how various forms of policy-relevant support shift material hardship for individuals and families. Each of the 55 sources were categorised into relevant sections based on supports type. Some studies are referred to in multiple sections where there was overlap or where more than one type of support was examined in the individual study.

This findings section has been divided into four main areas: 1) income supports; 2) in-kind supports; 3) social supports; and 4) multiple supports—an area reflecting studies that look at interventions that had a multipronged-support element. Each of these sections have been further divided into sub-sections to provide a more detailed breakdown of the studies. Within these categories the findings from the sources have been summarised and conclusions provided.

A visual representation of this organisation can be found in Figure 3.

Where we were able to, we have translated effect sizes into percentage point changes and attempted to contextualise findings within their broader context and in relation to Aotearoa NZ incomes, for example. Depending on the level of statistical and background detail provided in the studies and the applicability of making comparisons across studies in terms of their findings and effect sizes, particularly in consideration to policy and programmatic costs, this findings translation is not always appropriate or feasible.

Figure 3. Organisation of Findings Section



Note. Sample size does not equal 55 studies because some studies are referenced across multiple support areas.



## Income supports

Income assistance programmes are designed to offer financial assistance to individuals and families facing difficulties in meeting their basic needs. Such supports can take various forms, including cash transfers, tax credits, and other forms of, typically, direct monetary assistance. These programmes are often administered by governments with the goal of addressing drivers of material hardship such as job loss/unemployment, insufficient wages, and high cost of living. This section—organised into three types of supports—provides an overview of the effectiveness of income assistance programmes as a means of reducing material hardship. The first section focuses on several types of assistance benefits in relation to hardship. The second section discusses the literature on how changes to income assistance affect material hardship. Finally, the third section covers other forms of income assistance, including savings contribution plans, wage increases, and welfare reform.

### Income assistance benefits (*n* = 17)

Income assistance benefits are typically provided by the government or other organisations to help individuals and families meet their basic needs and prevent or mitigate material hardship. The specific types and amounts of income assistance that are given to programme participants vary widely depending on the country, region, and individual circumstances but generally, these supports aim to provide a stable source of income, to assist in paying for expenses and being able to afford basic food, clothing, housing, and medical care (Sullivan et al., 2008). Income assistance programmes are administered to households in different ways, with most having eligibility requirements.

The following sub-sections present evidence from studies that met the selection criteria and focus on some form of income assistance. The sub-section headings indicate the type of income assistance programme.

#### *Tax credits (n = 8)*

Eight of the studies that met the inclusion criteria examined tax credits in relation to material hardship. A tax credit is a reduction in the amount of tax owed by an individual or family and can be refundable or non-refundable (Moffitt, 2016). A non-refundable tax credit reduces the tax liability, but any unused portion of the credit cannot be refunded to the taxpayer. On the other hand, a refundable tax credit not only reduces the tax liability but also provides a refund to the taxpayer if the credit amount is greater than the tax owed.

#### *Child Tax Credit*

Five of the included studies focused on the Child Tax Credit (CTC) in the United States (Bathia et al., 2022; Collyer et al., 2022; Lens et al., 2022; Parolin et al., 2021; Pilkauskas et al., 2022) with all studies focused on the expansion of the CTC on July 15<sup>th</sup>, 2021, as a short-term economic response to the COVID-19 pandemic. The CTC is intended to provide tax relief for taxpaying families with children to help offset the costs of raising a family (Collyer et al., 2022). Taxpayers (e.g., households with at least one working parent) must have an income below US \$150,000 (NZ\$241,000) for a couple or below US\$112,500 (NZ\$181,000) for single-parent families. With a median household income of US\$70,784 in 2021 (Semega & Kollar, 2022), the expansion of the CTC was wide-reaching of American families and

represented one of the largest expansions of the United States social safety net. Importantly, families without working adults or who did not work enough to file taxes were also eligible for the CTC but had to sign up for monthly CTC direct payments.

The expansion increased credits from an annual credit of US\$2,000 (NZ\$3,200) to US\$3,000 (NZ\$4,800) for children aged six years and over, and from US\$2,000 to US\$3,600 (NZ\$5,800) for children aged 0-5 years. All families received the full tax credit amount, regardless of total household income, so long as their total household income did not exceed the threshold for eligibility. The age limit for qualifying dependent children increased from 16-years to 17-years old.

The full annual amount of the tax credit was typically direct deposited to families in six monthly instalments over six months from July through December 2021 for families who filed tax returns in the prior year. Those with no or low-enough incomes that did not require taxes to be filed were able to sign up for the CTC, receiving half of their CTC shortly after sign-up, and the other half upon submitting taxes in the subsequent year.

All five studies **found evidence of the CTC reducing material hardship for families**. Three of these studies were quasi-experimental in design, one was descriptive, and one qualitative. Despite these different designs all produced evidence to demonstrate that the CTC reduced material hardship for the participants in these studies.

For example, a quasi-experimental study by Collyer and colleagues (2022) compared the changes in material hardship experiences of families before and after receiving CTC payments. Using two longitudinal datasets that were particularly well-suited to examining within-family material hardship change (i.e., repeated measures of material hardship within families, covering pre- and post-CTC expansion), this study employed difference-in-difference estimates as a technique to estimate the causal effect of the monthly CTC payments on the likelihood of experiencing any hardship, multiple hardships, and count of hardships (0-5 hardships). The measure of count of hardships likely provides the most relevant comparison to the DEP-17 index used in the Aotearoa NZ context, although the number of hardships examined in the study is not the same as in the DEP-17 index.

The results suggested that receiving the CTC led to a 9.5% decrease in the likelihood of families facing any kind of hardship compared with the pre-treatment hardship rate (reduction statistically significant at  $p < .05$ ). In addition, significant declines in the share of families facing multiple hardships were observed (10.6% reduction,  $p < .05$ ). The reductions were greater for families living in poverty, with an 18% reduction in the likelihood of facing any hardship compared with the pre-treatment hardship rate, and a 22.9% reduction in the likelihood of facing multiple hardships ( $p < .05$ ). To contextualise these findings in terms of income among families in poverty in the US, the poverty threshold for a single-parent household with two children is approximately US\$21,831 (NZ\$35,100). The authors estimated that the average monthly increase in pre-tax income due to the CTC was US\$187 (NZ\$300) per month. Extrapolating those figures to a single-parent family earning US\$20,000 (NZ\$32,100) per year (i.e., an “in poverty” family) represents a 11% increase in their monthly income.

As another example, Pilkauskas and colleagues found evidence that increases to the CTC in 2021 significantly reduced the total number of hardships experienced by those receiving the CTC among low-income families (Pilkauskas et al., 2022). When material hardship was examined six months following the extended CTC payments, the low-income families who participated in the study experienced a **significant reduction to the total number of hardships experienced, on average, of 17% ( $p < .05$ )**. This finding indicates that the expansion of the CTC demonstrates promising effectiveness in mitigating the incidence of material hardships for these low-income families. It should be noted that the sample included those who received an increase to their tax credit and those who were newly eligible to receive the tax credit due to the expansion. Thus, reductions in hardship may be partly attributed to participants newly receiving the credit, rather than to increases alone.

This study, along with the evidence from other CTC studies, **provides strong evidence that income assistance in the form of CTCs can be instrumental for families in reducing their experiences of material hardship, particularly for the most economically disadvantaged families.**

It is important to note that the authors across these studies who examined work outcomes also found no evidence of change in employment behaviours (e.g., employment status, number of work hours worked) among parents, indicating parents did not use an increase in tax credits as a substitute for work-related income, and instead, tax credits represented a complement to work-related incomes that resulted in a net-income boost.

### Earned Income Tax Credit

Three studies examined a different type of tax credit in the US—the Earned Income Tax Credit (EITC). The US Internal Revenue Service administers the nationwide EITC, which is a refundable tax credit intended to help low-to-moderate-income working individuals and families, with greater tax credits for those with dependent children. The tax credit applies to all income earned from employment (and investments), phasing out at US\$53,120 (NZ\$85,600) and US\$46,560 (NZ\$75,900) for two-parent families and single-parent families with one child, respectively, at US\$59,478 (NZ\$95,800) and US\$42,918 (NZ\$69,100) for two children, and US\$63,698 (NZ\$102,600) and US\$56,838 (NZ\$91,600) for three or more children. The maximum amount that can be received is \$3,995 (NZ\$6,440), \$6,604 (NZ\$10,640), and \$7,430 (NZ\$11,970) for families with one, two, or three or more children, respectively (Internal Revenue Service, 2023).

Typically, recipients of the EITC receive this credit in a lump sum once a year at tax time. The EITC is unique in its design, in that the credit rate on earned incomes is based on three phases: 1) the phase in; 2) the plateau; and 3) the phase out. Similar to other tax credit programmes or benefit assistance programmes the earned credit on each dollar earned during the “phase in” period is highest for the first dollars earned (in the case of the EITC, between US\$1 and US\$16,510 for a two-parent family with two children, for example) until the maximum tax credit benefit is reached. This rate is US\$0.34 on each dollar earned for families with one child to US\$0.45 for families with three or more children. However, income earned during phase two—the plateau—does not impact the maximum benefit received, with no “penalty” to the maximum credit amount until a certain threshold (for a

two-parent family with two children, again, this plateau period is earnings between US\$16,510 and US\$21,560).

In addition to the federal EITC, some states also offer an additional EITC. Thirty (plus the District of Columbia and Puerto Rico) of the 50 US states offer their own EITC, which currently ranges anywhere between 3% and 100% of the EITC federal credit, depending on the state (Centre on Budget and Policy Priorities, 2023). This variation in state-level EITC payments is typically what is leveraged in the quasi-experimental design studies.

To begin, Davison and colleagues (2018) used a correlational design to examine rates of hardship at tax filing time and six months after tax time in US states that offered an additional supplementary EITC and states that did not. When comparing follow-up survey responses during and post-tax filing period, individuals in non-credit states were found to be more than 15% likely to report experiencing hardships during the period since the baseline survey compared to those in credit states ( $p < .001$ ). Due to the correlational study design these results cannot be interpreted as causal, but **this study provides suggestive evidence that EITC-type credits can be valuable tools for insulating low-moderate income households against hardship.**

As well as looking at cumulative hardship, the study also broke hardship into three categories: 1) everyday needs (e.g., skipped meals, rent, and bills); 2) medical hardship (e.g., skipped medical care, dental care, or prescriptions); and 3) financial hardship (e.g., overdrawn bank accounts and having credit cards declined). They found that hardship declined in all three categories at similar rate. This suggests that larger, lump sum payments, such as an annual tax credit, may a better mechanism for ameliorating stickier, more expensive hardships, such as dental visits, because of the way these lump sums act as savings mechanisms for families. This interpretation aligns with an extant literature examining how American families spend their EITC. For example, these studies have found that households spent more on durable goods in the month they received the EITC (vs. other months) (Barrow & McGranahan, 2000; Goodman-Bacon & McGranahan, 2008), with the largest expenditures on extra vehicles expenditures (e.g., new vehicle, vehicle repairs, tyres) used to commute to and from work—expenditures in line with the one of the key outcomes of the EITC, which is to incentivise work. Other research has found EITC receipt associated with declines in debt and increases in savings (Gao et al., 2009; Smeeding et al., 2000). These expenditures are ultimately necessary both for buffering against future costs that result in hardships to meeting everyday material needs (for example, having to skipping meals, miss a utility payment, or not turn on the heat because the car broke down), but also free up resources in the interim to meet hardships families may already be experiencing.

Moreover, given the structure of the EITC, which includes credit incentives for more earned income, research has found the EITC leads to increases in employment and work hours (and, in turn, more income in total) for single parents with children (Hoynes, 2019; Hoynes & Rothstein, 2017), while having a negligible impact on men's employment but small reductions in work hours among married women (Eissa & Hoynes, 2006). Qualitative research has shed light on the ways that, because the EITC is seen by recipients as a reward for work by low-income earners who receive it, temporary increases in consumption (e.g.,

replacing an old refrigerator, seeing the dentist) are justified among households whose spending is highly constrained for most of the year (Sykes et al., 2015).

In another quasi-experimental design using a difference-in-difference approach, a study of low-middle income households across the US found that **sizable changes in the EITC helped to alleviate medical hardships, but no measurable impact was found for other domains of hardship** (housing or food hardship) (Kondratjeva, Roll, et al., 2021). Several states made changes to their EITCs between 2012 and 2016. Kondratjeva and colleagues evaluated these changes in relation to hardship and found medical hardship to be reduced. As the authors discussed, medical hardship over other hardships, may have shifted due to the credit being large enough to have covered healthcare costs, like doctor's visits, which were otherwise difficult for these households to afford. While the changes to benefits may have been sufficient to cover medical expenses, these may not have been enough to substantially help with larger expense like mortgage or rent payment, and hence the reason these domains did not shift.

Finally in an randomised control trial, researchers found that increases to EITC payments **did not significantly reduce material hardship** (Miller et al., 2018). This study involved low-income US participants residing in New York City *who did not have dependent children* in the treatment group who received a larger tax credit through the Paycheck Plus Programme than those in the control group. The study was designed to test the impact of a larger EITC for low-income workers without children, as the EITC typically affords a lower payment to households without children. No reductions in hardship were observed over three years. While the authors of this study did not discuss reasons for these findings, it should be noted that reductions to severe income poverty as well as increases to employment rates were found. These findings suggest that additional financial support can make a difference for individuals, even if increases to this EITC were not sufficient to alleviate material hardship. Alternatively, the measurement tool used to assess hardship only captured severe forms of hardship, such as eviction, inability to afford food, or unpaid bills, so shifts in less severe forms of hardship may have gone unnoticed.

In summary, the evidence that tax credits that boost families with children's incomes, either through monthly credits or annual lump sum credits, suggests that these income boosts result in declines in material hardship. Whether these credits come monthly or annually, however, appears to affect the underlying consumption mechanisms through which these declines in material hardship occur.

### *One-off cash transfers (n = 3)*

One-off cash transfers are isolated payments given to selected recipients to assist in meeting basic consumption needs (Garcia, 2012). Typically, these transfers are provided by formal institutions (e.g., governmental organisations) with the motivation that added income should enable households to maintain their essential consumption during times of individual and household income shocks or broader economic upheaval, such as during recessions. Compared with other interventions aimed at alleviating economic burdens for individuals, cash transfers can offer: the ability for assistance to reach recipients quickly without requiring the additional infrastructure of other forms of assistance (e.g., food

banks); lower costs to organisations; and flexibility in terms of individuals being able to allocate the assistance to their specific needs (Arnold et al., 2011).

Two of the included studies evaluated how a one-time unconditional cash transfer affected material hardship. These studies both focused on cash transfers as part of the GiveDirectly programme, which was administered in the US in 2020, at the time of the COVID-19 pandemic and provided low-income benefit recipients with a one-time lump-sum of US\$1,000 (NZ\$1,610). Two randomised control trials (RCTs) were conducted on the programme, where the first trial recruited families with children (Pilkauskas et al., 2022). The second trial included a broader set of material hardship indicators as well as households without children (Jacob et al., 2022).

In the first study, conducted with families in Michigan, Pilkauskas and colleagues (2022) found **no statistical difference** between the material hardship index scores of the control and treatment groups. In sub-group analyses the US\$1,000 transfer **reduced material hardship for the most economically disadvantaged families** (those with less than US\$500 (NZ\$805) in total family income in the previous month). Among these respondents, receipt of the US\$1,000 cash transfer was associated with a 0.17 standard deviation (SD) decrease in standardized composite index of material hardship items at the one-month follow up ( $p < .001$ )—a small effect size.<sup>6</sup> Additionally, at the three-month follow up, the transfer was associated with a 0.11 SD decrease in material hardship for this group ( $p < .01$ )—a negligible effect size. Differences between the full sample and those facing the most severe economic disadvantage is likely reflective of the size of the transfer relative to income—US\$1,000 stimulus represented a nearly 75% increase in annual income for the lowest income group, compared to an 8% increase, on average, for the full sample.

In the second study, Jacob and colleagues (2022) investigated the effect of a US\$1,000 cash transfer using an expanded material hardship measure. The sample differed to the first study in that participants were living in a broader geographical area, and households without children were also included. Where the first study found a statistically significant impact for those facing the most economic disadvantage, the second study **did not find any statistically significant impacts on material hardship** for either the full sample or for any of the subgroups, even when adjusting for the observable sample differences. The differences in findings between this study and the one previously cited may be attributable to changes that low-income families in the United States experienced between the two data collection sweeps because of the unfolding COVID-19 pandemic.

A third study evaluated a one-time direct cash payment which provided up to US\$1,200 (NZ\$1,930) per adult, and additional amounts for dependent children during 2020 as part of the US federal government's response to COVID-19 pandemic-related hardship (Karpman & Acs, 2020). Participants in this quasi-experimental study were adults whose families lost work or work-related income due to the pandemic and sought assistance through unemployment insurance. A two-period difference-in-difference analysis was conducted to estimate the association between the one-time payment and hardship. Results found that adults who received the one-time supplement **reported greater reductions in material**

---

<sup>6</sup> Based on Cohen's *d* (Cohen, 1988) effect size index.

**hardships over a three-month period** than those who did not receive assistance (10.3 percentage point difference,  $p < .05$ ).

Together, the **results from these three studies did not lead to a clear conclusion about the efficacy of one-time cash transfers in mitigating hardship** during a period of great disruption (i.e., the COVID-19 pandemic). Some evidence was found to support one-time cash transfers in shifting material hardship, **especially for the most economically disadvantaged families**. However, as indicated in the second study, it remains possible that a one-time cash transfer of US\$1,000 is not enough to shift material hardship, and it is unlikely that alleviating of material hardship continues beyond several months after the stimulus is received.

#### *Unemployment-related income assistance (n = 2)*

Unemployment-related income assistance, or “unemployment benefits”/ “unemployment insurance,” describes financial income assistance payments, often provided by the government, with the intention of temporarily financially supporting people who are experiencing income shocks due to job loss, while they continue to look for employment (Kuka, 2018). To qualify for such benefits, eligibility requirements are often specified, such as actively looking for employment, and being the primary or sole earner in a household (Grubb, 2000).

Two of the included studies examined unemployment-related benefit receipt in relation to material hardship. The first study explored how unemployment benefits received during the COVID-19 pandemic in the US moderated the relationship between pre-pandemic household income and material hardship experienced during the pandemic (Karpman & Acs, 2020). Leveraging pandemic-related changes in the Unemployment Insurance (UI) programme provisions, which saw eligibility expanded, and increases in benefit rates and the length of eligibility, this study used a two-period difference-in-difference approach to examine the difference in material hardship between those who lost their jobs and gained unemployment insurance compared to those who lost their jobs and did not gain unemployment insurance, pre- and post-enactment of the UI expansion. The expansion to UI benefits were through a series of measures, including extending the benefit period for an additional 13 weeks beyond the regular UI benefits duration (which was typically 26 weeks in most states). Additionally, a new Federal Pandemic Unemployment Compensation programme was introduced, providing a weekly benefit supplement of US\$600 (NZ\$965). Furthermore, the expanded eligibility criteria for UI benefits included workers who do not qualify for regular UI benefits, such as those who are self-employed or without a long enough work history.

The study found that increases in programme eligibility and weekly benefit rates lead to **modest declines in material hardship for those who received assistance**, whereby the proportion reporting any material hardship (i.e., one or more hardships) remained consistent pre- and post-insurance programme expansion among those receiving UI, compared to a 14% increase (or 5.4% percentage-point increase) in any hardship among those who did not receive UI. In sum, it would be expected that, in the absence of a change in the UI provisions such as increases in benefit rates, hardship would have increased among

those receiving UI, too, with the additional weekly benefit supplement of US\$600 (NZ\$965) protecting UI recipients from increased hardships during this time.

The stagnation in hardship among benefit receivers and increase in hardship among those who did not receive benefits, was driven by larger increases in the unmet need to medical care because of costs among those not receiving benefits, and declines in reports of food insecurity among those who did receive benefits. **The finding that there was a difference in the “any hardship” hardship measure, however, attenuated modestly in models that accounted for the full range of observable characteristics** that differentiated those who received UI and those who did not. Statistical differences in the individual hardship items of “problems paying utility bills” and “unmet need for medical care because of costs,” however, remained.

The authors also examined worries around meeting basic needs, finding that large declines in worrying about paying for essential items (e.g., food, rent, utilities, debt, medical costs) among UI receivers, pre- versus post-expansion, whereas there was no change in reports of worry around essential items for those who applied but did not receive UI. These worries declined between 6-17 percentage points, depending on the essential item being examined.

The authors also tested whether there were any additional effects on hardship of receiving a one-time economic impact payment (up to US\$1,200 for single adults, US\$2,400 for married couples, plus up to US\$500 for each dependent child) as well as the expanded UI benefits, compared to those who received just the expanded UI benefits and not the economic impact payment (see also, section titled, “One-off cash transfers”). **The one-time economic impact payment in addition to receiving UI benefits was associated with large declines in any hardship compared to those who just received UI benefits**, primarily driven by declines in food insecurity and problems paying utility bills. These models controlled for differences in observable characteristics between the two comparison groups.

In contrast to the findings that saw differences in the decline in worries between those who received UI and those who did not pre- and post-expansion, the authors found no difference in the decline in worries about meeting essential needs among UI recipients who received the economic impact payment and those who did not. The authors posit that this may be because the impact payments were used to cover larger bills or debts and knew this payment would not reoccur to meet other needs in the future.

The second study looked at how unemployment benefits during the COVID-19 pandemic moderated the relationship between pre-pandemic household income and material hardship in Israeli adults (Kondratjeva, Schwartz-Tayri, et al., 2021). Several sub-groups were involved in this study including those who lost their jobs and received unemployment benefits, and those who did not lose their jobs and were not receiving benefits. Low-, medium-, and high-income households were included in the study. For low-income households, there were no significant difference in reported hardship between those who received unemployment benefits and those who did not. While the correlational design cannot indicate causality, this may indicate that benefits helped shield the households who experienced job loss from additional hardships that may have arisen due to unemployment. However, middle-income households receiving unemployment benefits had more hardship



compared to those not receiving benefits, perhaps suggesting that the benefit was not enough to prevent added hardships due to job loss. These findings may also be attributable to the significant fixed costs (e.g., regular mortgage payments) that many middle-income households have that cannot be readily cut and cannot be met with relatively modest unemployment benefits following an unemployment shock. Overall, these results indicate **that unemployment benefits may have efficacy for low-income households in preventing additional hardships.**

Overall, the two studies reviewed suggest that the receipt of unemployment benefits during the COVID-19 pandemic had mixed effects on material hardship. Both studies found evidence that unemployment benefits provided some hardship relief. However, the studies also indicated that benefits were not always enough to prevent added hardships due to job loss. Further research is needed to fully understand the effects of unemployment benefits and material hardship, particularly in the aftermath of the COVID-19 pandemic.

### *Pensions (n = 1)*

Pension programmes are often government-provided retirement benefits that are afforded to individuals who have reached a certain age. These benefits are intended to provide a basic income to individuals who may be at risk of economic hardship in their older age. One of the studies that met the inclusion criteria examined a pension scheme in relation to hardship (Ahn et al., 2023). This study, based in South Korea, investigated whether the transition to a new Basic Pension Scheme (BPS) that doubled monthly benefit levels alleviated material hardship. Social protection in South Korea primarily caters to traditional forms of employment and includes four major social insurance schemes (OECD, 2022; Social Insurance Information System, 2016). These include public pensions (public official pension, military pension, private school teachers' pension, national pension), health insurance, employment insurance, and workers' compensation insurance (e.g., social insurance against aging, disease, industrial accidents, unemployment). Regarding the elderly population, the elderly poverty rate in South Korea is persistently high, and public pensions and social insurance were introduced relatively recently. As part of the transition to a new BPS, maximum monthly benefit rates doubled to KRW200,000 (NZ\$245) for single older adults and KRW320,000 (NZ\$392) for couples in 2014. The BPS is a universal, non-contributory pension programme that is funded through government revenue, rather than contributions from individuals or employers.

The study by Ahn and colleagues (2023) implemented a regression discontinuity design and found that the increased pension assistance decreased the cumulative material hardship score by 63% of a standard deviation—a large effect size<sup>7</sup>—and reduced individual items measuring hardship (e.g., food insecurity, ability to pay utilities) between 1.6-5.0 percentage points (2.3–7.9%). Given the lower incidence of material hardship within this population to begin with, the authors considered these effect sizes to be substantial. The results from this study **provide causal evidence that significant reductions in hardship can be achieved through pension programmes for older citizens.** Importantly, the authors found these effects to be concentrated among the lowest-income groups.

---

<sup>7</sup> Based on Cohen's *d* (Cohen, 1988) effect size index.

### *Disability income assistance (n = 1)*

Disability income assistance programmes are government-run programmes that provide financial aid to people who are unable or restricted in their ability to work in paid employment due to their disability. These assistance programmes are designed to help to cover the costs of necessities. One of the included studies examined the effect of the Supplemental Security Income Program (SSI) in the US on material hardship (Schmidt & Danziger, 2012). The SSI is means-tested income support provided to those who meet certain disability criteria. This study included sole mothers in an urban Michigan county who were all beneficiaries of the Temporary Assistance for Needy Families (TANF) income assistance programme (a programme providing cash assistance to very-low single-parent income families) and were categorised into three mutually exclusive groups based on SSI application and receipt status: 1) unsuccessful SSI applicants; 2) SSI recipients; and 3) never applied. The study found that people who applied for SSI but didn't receive it, and those who did receive SSI, were equally likely to experience material hardship. **Both groups, however, were more likely to experience hardship than people who never applied for SSI, although unsuccessful applicants were more likely to report that they expected there to be hardships in the next two months.** Material hardship differences between those who applied for SSI and those who did not are explained by differences in health conditions and ability to access alternative sources of support, pointing to the way that selection of people with complex needs into income assistance programmes can account for counterintuitive “effects” of policies and programmes when compared to the general population.

### *General cash transfers (n = 1)*

One study sought to examine the *potential* impact of income cash transfers, more generally, using a multi-country study design. Notten and Guio (2020) examined the association between income and material hardship across 32 European countries, using these estimates to predict the effect that a nominal 150 Euro cash transfer would have on rates of material hardship. The researchers found that a hypothetical cash transfer of this amount was associated with declines in material hardship, with these declines being steeper in countries with higher levels of deprivation. Country-level findings ranged from a decline of 0.090 hardships (on a 0-13 scale) in Bulgaria to 0.003 hardship in Norway. Moreover, there were larger correlations between the income transfer and material hardship among people receiving non-pension-related income support from the government (e.g., unemployment insurance, sole parent support), and these associations were larger still for those receiving government support and living in countries with less generous welfare systems.

Although this study presented correlations and does not examine policies or changes in policies, the findings provide additional support for other studies' findings that income support can alleviate hardship, and that increased income support likely has a potential outsized impact for those experiencing more deprivation to begin with.

### *Paid parental leave (n = 1)*

The arrival of a new baby often necessitates time off work. While this is a joyous time for many, there are often significant financial implications. Parents who take time off may face a loss of income due to not receiving their regular salary or wages during their absence from work. This loss of income may be particularly challenging for families who do not have

savings or other forms of financial support to ‘smooth’ or buffer their consumption needs. Paid parental leave policies aim to provide temporary economic relief to parents who are caring for a new child. These policies typically replace a portion of one or both parents’ incomes during their time off as a way to mitigate this financial impact.

One study that met the inclusion criteria examined parental leave initiatives in relation to material hardship. Specifically, the study used national-level data from the US to examine whether states that offered paid parental leave and the generosity of income assistance programmes for low-income single parents was linked to lower levels of hardship among low-income single women following the birth of their children (Ybarra et al., 2019). Two paid parental leave schemes were evaluated—the Paid Family Leave (PFL) and Temporary Disability Insurance (TDI). These programmes both offer wage replacement during time away from work due to pregnancy or to spend time with a new-born. PFL provides paid time off for caregiving purposes, whereas TDI supports leave from work due to a disability including pregnancy and recovery from childbirth. These programmes were both examined for effects on material hardship.

Results from the regression analysis showed that the **availability of PFL was significantly associated with an increase in participants’ inability to meet their essential expenses** in the year following giving birth ( $p < .05$ ). Differently, the **availability of TDI was significantly associated with a decrease in hardship related to paying essential expenses** ( $p < .05$ ). While the results relating to the PFL were not as expected, the authors offer explanations for why these results were observed. For instance, some states with PFL may have been providing relatively low benefits that are insufficient to prevent material hardship. Additionally, it may have been that a more disadvantageous sample of participants were residing in states with PFL, or that some of the states had low participation PFL. Regardless of the explanation, the limitations of one regression analysis in being able to explain whether paid parental leave programmes help alleviate material hardship is evident and the findings from this one study are mixed. Results relating to the TDI payments **suggest that parental leave payments may act as a buffer for single mothers in protecting against hardship**.

It is important to note again that the sample were mothers who were eligible for TANF—a programme available to single mothers with very low or no income. Wage replacement rates through PFL and TDI were typically set between 33-66%.

#### *Supplemental benefit assistance (n = 1)*

Providing additional targeted benefits to households that are already receiving government assistance may be a strategic approach to reducing financial strain and alleviating the burden of living expenses. With the aim of promoting greater financial stability and reducing material hardship, such programs may provide targeted support so that households can better meet their basic needs. One study, conducted in Aotearoa NZ, examined the effects of a supplemental programme, the Winter Energy Payment (WEP), as an additional form of assistance for beneficiaries (Hyslop et al., 2022).

The Winter Energy Payment (WEP) is a government-funded programme that was introduced in Aotearoa NZ as part of the 2018 Families Package. The programme was designed to assist

older New Zealanders (i.e., those receiving New Zealand superannuation), and households with working-age individuals and veterans who receive government benefits with the additional costs of heating their homes during the winter months, when energy bills are typically higher (Ministry of Social Development, n.d.). These bills can create financial strain that may result in difficulties affording other necessities, or even resorting to forgoing heating to circumvent higher costs. Individuals that are eligible for the WEP receive a non-taxable payment of NZ\$20.46 per week for singles and NZ\$31.82 per week for couples, which is paid out from 1 May through to 1 October directly into a bank account. While the WEP provides a small unconditional cash transfer treatment relative to recipients average total weekly expenditure, this payment is viewed as a substantial energy subsidy, relative to the average recipients energy expenditure (Hyslop et al., 2022). Moreover, although the payment is labelled as a payment for energy/utilities, the payment is an unconditional cash transfer which does not need to be spent on utility bills.

Hyslop and colleagues (2022) used a quasi-experimental approach to examine the effects of the introduction of the WEP on measures of material hardship. Although multiple outcomes are examined, in line with the scope of this report, we have focused on the analyses that examined WEP receipt and the financial hardship measures of difficulty paying for utilities, anticipation of struggling to afford an unexpected expense of \$500 and having insufficient income to meet the everyday needs such as housing, food, clothing and other necessities. Compared with non-beneficiary households, significant reductions to the inability to afford an unexpected expense of \$500, as well as having insufficient income were observed for working-age individuals who received government benefits, using a difference-in-difference approach ( $p < .01$ ). The estimated coefficients suggest the WEP was associated with a reduction in the incidence of these hardships falling by 9.2-percentage points for the unexpected \$500 expense measure, and a 4.9-percentage point reduction for having insufficient income to cover basic expenses. No statistically significant results were observed relating to difficulty paying for utilities. Additionally, the estimated effects for superannuation or veteran benefit recipients were statistically insignificant and substantively small, implying essentially no effects on material hardship.

The results from this study suggest that the introduction of the WEP policy has led to a reduction in material hardship during the winter months among households with working-age individuals who received government benefits. The finding of material hardship reducing, generally, but not for difficulty paying for utilities, specifically, is noteworthy. These findings suggest that households are potentially distributing the WEP to other areas of immediate need, such as food and clothing. The results also imply that there are essentially no effects on hardship for individuals receiving superannuation or the veteran's pension, which may reflect that these recipients face relatively fewer financial hardships to begin with.

### *Key takeaway: Income supports*

Seventeen studies that examined income assistance and material hardship were reviewed in this section. These forms of assistance included tax credits, one-time cash payments, unemployment assistance, pensions, disability assistance, paid parental leave, and supplemental benefit assistance. Despite the differences in the type and delivery of the income assistance programmes, the study designs, and target populations, all but three of the studies showed that income assistance programmes can shift and reduce material hardship. Consistent and anticipated income assistance (through monthly or annual anticipated payments) appears to alleviate material hardship more so than one-off payments. This broad consistency of findings highlights the importance of income assistance programmes for reducing hardship. These studies showed particularly salient findings regarding the positive effects of income assistance benefits for low-income families and those facing the most economic disadvantage. These families are often the most vulnerable to financial stress and material deprivation and income assistance benefits can help alleviate the burden of financial strain by providing them with supports to help meet their basic needs.

### **Income assistance delays and sanctions ( $n = 9$ )**

As discussed in the previous section, income assistance programmes are a key social policy tool designed to reduce material hardship. Moreover, the income assistance programmes detailed above most-oft examined whether expanded entitlement and eligibility and higher rates alleviated material hardship. Built into many welfare systems, however, are the use of sanctions to benefits, such as penalties for not meeting work obligations, and also administrative complexities of enrolment, for example, that can lead to delays in families receiving their entitlements. Studies examining these features of programmes can also shed light of the what the role of the absence of these programmes means for low-income families' ability to meet their short-term consumption needs. Nine of the included studies examined the effects of income assistance delays and sanctions.

#### *Delays to income assistance ( $n = 2$ )*

Delays to income assistance (e.g., tax refunds or credits) may present a particular issue for households where assistance is vital to meeting everyday costs (Morduch & Schneider, 2017). Without expected financial support, households may struggle to pay for necessities and may be at risk of experiencing added or deepened material hardship. Two studies explored the effects of delays in families receiving the EITC for material hardship (Kondratjeva et al., 2022; Maag et al., 2016). In this first study, a difference-in-difference approach was used to compare US low-income families who experienced a delay in their tax credits with those families who did not face delays (Kondratjeva et al., 2022). While there were no significant differences in the average levels of hardship at baseline between the groups, after six-months, those who experienced delays **reported significantly higher food insecurity** than those who didn't (6.9 percentage point difference,  $p < .05$ ). **No significant differences were observed across other hardship indicators** (e.g., utility hardships, medical hardships). A cumulative measure of hardship was not examined, however, and therefore it is unclear whether those in severe hardship, with hardship across all domains would have

been impacted by assistance delays. The results from this study do indicate that food consumption may be the first necessity that households begin to compromise on following a delay in assistance. These results suggest that timely access to benefits is important for avoiding added food hardship.

A second study examined individuals' *perceived* effects of a delay either the EITC or CTC in the US (Maag et al., 2016). Maag and colleagues used descriptive statistics to show that low-income households reported that a delay in income assistance would likely result in increased hardship, with 80% of respondents having already reported at least one area of hardship. While this analysis does not allow causal conclusions to be made, it does allow us to understand how participants felt about the potential impact of a delay. **In this case, the study showed that participants expected that there was a high likelihood of hardship if income assistance was delayed.**

The results from these two studies **provide evidence of delays to income assistance**, even when income assistance is not ceased, can have a negative effect on household abilities to meet their basic needs. These studies highlight the importance of timely access to income assistance for low-income households to mitigate the risk of further hardship.

#### *Sanctions (n = 7)*

Beneficiary recipients can have their payments reduced or discontinued if they do not adhere with welfare regulations, such as attending appointments, seeking employment, or social obligations such as enrolling children in child-care or with a health provider (Gray et al., 2021). While sanctions may prompt recipients to change their behaviour in accordance with regulations, concern arises for others when the barriers that led to them being sanctioned are not easily addressed (Kalil et al., 2002). Consequently, sanctions which reduce benefit receipt may result in added hardships for households due to loss of financial support.

Seven of the included studies examined the effects of having benefits sanctioned on material hardship (Gray et al., 2021; Kalil et al., 2002; Lee et al., 2004; Livermore et al., 2015; Norris et al., 2003; Reichman et al., 2004, 2005). Consistent results were found across all these studies to suggest that those who were sanctioned were more likely to experience higher levels of material hardship than those receiving a benefit who were not sanctioned. For example, three of the studies examined mothers who received assistance through the TANF programme but had their benefits reduced or discontinued involuntarily (Livermore et al., 2015; Reichman et al., 2004, 2005). All three studies found that, compared with benefit recipients who were not sanctioned, involuntary leavers reported statistically significant higher levels of material hardship ( $p < .05$ ). Although these results cannot be interpreted as causal due to the study designs, the findings do demonstrate that sanctioned participants were experiencing greater hardship.

The results from these studies are relevant to a US context, where the studies were conducted, but preliminary evidence from one study suggests these findings may also be applicable to an Aotearoa NZ context. In a mixed-methods study, 248 people who received income assistance benefits were recruited who had recently had sanctions imposed to their welfare entitlements in Aotearoa NZ (Gray et al., 2021). Participants said they reduced

spending on necessities like food and heating to manage finances during sanctions, and also relied on support from family and friends due to loss/reductions to their benefits. Furthermore, results from the thematic analysis indicated that **hardship was one of the most immediate effects of the sanctions** and resulted in trouble affording food affordability and paying for utilities.

Taken together, the seven studies examining the effects of welfare sanctions on material hardship consistently suggest that involuntary reductions or discontinuation of benefits is likely to lead to increased hardships.

#### *Key takeaway: Income assistance delays and sanctions*

The studies reviewed in this section provide insight into how changes to income assistance may affect individuals and families in terms of their material circumstances. The evidence on delays to benefits as well as partial or complete sanctions suggest that if policy changes were to result in delays or sanctions to benefits, the material wellbeing of families may be compromised. Studies that examined different types of hardships found that families managed these delays and declines in benefits in the immediate term by going without or buying cheaper food.

### **Other income-related supports (n = 6)**

Finally, savings contribution plans, wage increases, and broader structural welfare reforms are among remaining types of income assistance interventions that have been examined in the literature in terms of their impact on material hardship.

#### *Savings contribution plans (n = 3)*

Savings contribution plans refer to a type of savings programme that can help individuals and families who are facing financial difficulties to save money for emergency expenses and longer-term goals (Heim & Ramnath, 2016). These plans typically involve setting aside a portion of income each month into a savings account, with the goal of gradually building up a financial cushion. This type of plan can provide a sense of security and stability, and can help individuals and families manage material hardship by reducing the need to rely on high-interest debt (e.g., credit cards or payday loans) or can be used as a safety net during financial shocks to avoid material hardships (Gjertson, 2016). To contribute to such plans—or at least the programmes most prevalent in the literature—individuals must often reduce consumption, which may lead to increased hardships in the short term.<sup>8</sup>

The first study used an RCT to evaluate the impact of the Assets for Independence (AFI) programme on material hardship (Mills et al., 2019). The AFI was a US-based initiative,

---

<sup>8</sup> We note that there are savings contribution initiatives and ideas, such as “Baby Bonds” (Cassidy et al., 2019), that have been proposed that require only government investment. While aimed at generating longer-term wealth equality, it is hypothesised that plans like these may also help offset hardship and hardship stress/worry in the short-term if these savings schemes ‘free up’ money for consumption in the immediate term.



implemented to promote savings and asset building for low-income households. AFI provides matched savings accounts where the amount that is saved by households is matched to a certain extent. Participants are often provided with additional education and skill-development to help reach their savings goals. When examining the number of hardships participants experienced, after one year, the AFI treatment group experienced an average of one hardship less than the control group ( $p < .05$ ). This difference equated to a 34% reduction in material hardship. These results **provide promising evidence for the use of savings plans in reducing material hardship and suggest that low-income households may be able to save without the burden of increased hardship**. The authors note, however, that the methods that the treatment group utilised to reduce hardship and save are not fully clear. It may be that programme participants were able to save more than what was required by the savings programme, and this was set aside to alleviate hardship.

The other two studies examined the short-term effects of savings contribution plans for a sample of adults in the US. These studies did not find that contributions decreased or increased hardship (Despard et al., 2018; Heim & Ramnath, 2016). For example, the study by Heim and Ramnath (2016) examined participants with varied levels of income (low–high income brackets) finding that, for the overall sample, there was **no evidence that contributing to a savings plan was likely to increase material hardship**. When results were examined across household income quintiles, these findings held, with none of the estimations significant at the  $p < .05$  threshold, suggesting that savings contribution plans may not increase or decrease material hardships in the short-term at any income level.

#### *Wage increases (n = 2)*

Wage increases have the potential to either mitigate or worsen material hardship (Woo et al., 2022). On one hand, if wage increases are significant and keep pace with the cost of living, these increases can help to alleviate material hardship by enabling people to better afford basic necessities. On the other hand, if wage increases are not sufficient to cover the rising cost of living, there may be no effect in alleviating hardships. Nevertheless, such increases can be expected to mitigate the likelihood of a household slipping backwards. Additionally, if wage increases result in people no longer qualifying for certain income-tested benefits, material hardships may increase (Sabia & Nielsen, 2015).

Two of the included studies examined wage increases in relation to material hardship. The first study examined a sample of full-time low-wage workers in the US who received a wage increase in 2016 (Woo et al., 2022). One group received raises that moved their incomes above US\$15 (NZ\$24) per hour—a move onto a ‘living wage,’ the authors argue, that represented an average increase of US\$2 per hour. Another group also received a raise of US\$1 per hour, on average, but their hourly wage stayed below \$15. In this pre-post study, compared to before the raise, **material hardship significantly decreased** in the year following the wage increase (6–17% difference between pre- and post-wage increase across the hardship indicators of housing, medical, food, and financial hardships; all statistically significant at  $p < .05$ ) for the group of workers whose wage rose above US\$15 per hour. For workers who received a raise but were still earning less than US\$15 per hour, hardships declined in some areas, such as housing hardship, but not in the breadth of other hardships, such as financial and food insecurity.



The findings from this study provide evidence that raising the wages of low-wage workers can have meaningful implications for addressing material hardships. The second study (Sabia & Nielsen, 2015) comes to a different conclusion, however, when examining the minimum wage in a sample of US adults between the ages of 16–64. Difference-in-difference estimates were used, and **no evidence was found that minimum wage increases reduced material hardships** across a different sample of adults in the US. As the authors discuss, raising the minimum wage may not be enough to target those who are most in need. It is important to note that the federal minimum wage in the US (note: while all states must comply with the federal minimum level, many states have their own minimum wages thresholds that are set higher than the federal mandate) is almost half of New Zealand's minimum wage in real terms at US\$7.25 (NZ\$11.60) per hour, compared to NZ\$22.70 (US\$14.20) in 2023.

When considered together, the results suggest that wages likely play a role in mitigating material hardship, but that the efficacy of wage rises depends on the baseline wage and the amount of the increase. Additionally, the role of a wage increases in affecting material hardship is likely to depend on the extent to which other supports compensate for wage growth. For example, in Aotearoa NZ, increases to wages may be offset by Working For Family benefit reductions. It is important to continue examining the effects of minimum and living wage increases on material hardship through further research to better understand what level of increase or base wage is needed to alleviate hardship.

#### *Welfare reform (n = 1)*

Welfare reforms describe broader changes in the collective of assistance programs that are designed to support the social and financial wellbeing of individuals and families (Welfare Expert Advisory Group - Kia Piki Ake, 2019). One study examined the major changes to anti-poverty programmes during the 1990s in the US for three groups of people from a nationally-representative sample—those living in deep poverty; other poor households; and those close to living in poverty (i.e., near poor) (Shaefer & Ybarra, 2012). The welfare reforms decreased the amount of public assistance received by households in deep poverty but raised the amount received by other low-income households. For example, it is estimated that in 2004, the average monthly public cash transfer amount received by single-parent families under 50% of the US poverty line (i.e., deep poor) had declined by 38% relative to 1984, whereas for single-parent families living between 50-100% of the poverty line, this increased by 86% (Ben-Shalom et al., 2011).

Shaefer and Ybarra (2012) analysed the material hardship experiences among low-income households with children, both prior to and following significant changes to the social safety net in the US throughout the 1990s. Findings showed that **material hardship rates between 1992–2005 increased for deep-poor households but remained about the same for other poor households and decreased for those close to living in poverty (near poor)**. Additionally, difference-in-difference estimates showed that, by 2005, the deep-poor households had their risk of material hardship increase by a statistically significant 7.4 percentage points, compared to near-poor households. Overall, these results can be interpreted as lesser and near poor households being as well as or better off from the 1990s welfare reform in terms of material hardship, but deep-poor households being worse off. These findings highlight policy changes likely have differential effects depending on the

depth of poverty experienced, and broader, sweeping reforms can help or harm in disparate ways in terms of material hardship levels.

***Key takeaway: Other income supports***

This section evaluated the feasibility of interventions that can reduce material hardship, relating to savings contribution plans, wage increases, and welfare reform. Results provide a mixed assessment, driven by differences in the interventions and supports and people's initial income levels. Results from the studies relating to wage increases show that for people in deep poverty or on very low wages to begin with, small or modest changes in their income are unlikely to shift material hardship in meaningful ways.

## **In-kind supports**

Where income assistance programmes provide cash payments or vouchers that can be used to purchase goods and services, in-kind supports provide specific goods or services directly for everyday needs. Not only can in-kind supports provide targeted assistance, but these supports can also relieve financial burden in these areas, freeing up families' incomes to devote to other areas of need. In-kind supports are provided by a range of government and non-governmental organisations and these supports can take many different forms including food assistance programmes, housing assistance, or work supports. This next section explores the effectiveness of in-kind supports as tools for addressing material.

### **Food assistance ( $n = 2$ )**

In-kind food supports are policy initiatives that are implemented to help alleviate material hardship, especially among low-income households. Importantly, food represents a key essential for all individuals and families and is almost always included as an indicator of hardship in comprehensive measurement tools aiming to capture material hardship, likely due to food being the second largest category of expenditure after housing for low-income households in Aotearoa NZ. This form of support involves providing food assistance directly to individuals and families through the provision of food items or meals, or vouchers that can be redeemed for food at participating retailers. Food assistance is often used as a temporary tool during times of economic hardship but can also serve as a longer-term strategy in efforts to reduce hardship.

Our review of literature identified two studies relating to in-kind food supports and material hardship. The focus for this report was to examine the efficacy of interventions aimed at addressing the comprehensive construct of material hardship—which food insecurity is part of. Accordingly, although many other studies were initially identified through the search process, on closer examination these studies were primarily focused on interventions targeting food hardship and insecurity, only or specifically. In line with the criteria set forth for this review, which aimed to identify interventions with potential to ameliorate overall material hardship—rather than those that targeted specific domains—these studies were not included in the final analysis. Nevertheless, a body of literature exists on this topic, though is not covered here.

The Supplemental Nutrition Assistance Programme (SNAP) is administered by a governmental department in the US and provides eligible households with funding to purchase food (United States Department of Agriculture’s Food and Nutrition Service, 2021). Eligibility is determined based on a range of factors including household income and size, among others. Typically, families earning below 130% of the US federal poverty line (approximately US\$38,600 (NZ\$61,700) for a family of two-adult and two children, or US\$30,700 (NZ\$40,000) for a family of one adult and two children) are eligible for SNAP benefits, although this is higher in some states. The average SNAP benefit amounts to US\$684 (NZ\$1,094) for a family of four and US\$577 (NZ\$923) for a family of three per month (Center on Budget and Policy Priorities, 2015). SNAP benefits can be used to purchase food items such as bread, meat, fruits, and vegetables, but cannot be used to purchase non-food items, such as tobacco products or alcohol. The primary purpose of SNAP is to alleviate hardship and improve nutrition. Both included studies focused on food assistance examined the SNAP programme in relation to material hardship. The predecessor of SNAP was ‘food stamps.’

The first study employed an instrumental variables approach, specifically the use of a bivariate probit model, to estimate the causal effect of SNAP participation on material hardship by accounting for unobserved factors (Shaefer & Gutierrez, 2013). This study of low-income families with children estimated SNAP to reduce a variety of hardship indicators—food insecurity by 38.3%, housing hardship by 33.0%, utility hardship by 42.4%, and medical hardship by 45.7% (all changes were statistically significant at  $p < .05$ ). These findings imply **substantial reductions to hardship**, with benefits extending beyond food hardship to non-food expenses, too. The second study found aligned results, using a similar methodology to examine increases to the eligibility income threshold of the SNAP programme and material hardship (Han, 2016). In a sample of households with a gross income between 100–200% of the federal poverty line, the expansion **decreased non-food hardships** including housing and utility hardship, with the total number of non-food hardship decreasing by 12.0 percentage points ( $p < .05$ ). Additionally, expansion of SNAP eligibility led to reduction in food hardship for families with children.

#### ***Key takeaway: Food assistance***

In-kind food supports are policies designed to reduce food insecurity, primarily for low-income households. Although food insecurity is an element of material hardship, the two studies reviewed here found that the SNAP programme that provided funds to families to explicitly purchase food not only decreased food insecurity, but also decreased material hardship more generally, and other non-food hardships, specifically. These findings suggest that in-kind food supports can be a policy lever that helps families reduce food insecurity as well as overall material hardship.

### **Housing assistance ( $n = 2$ )**

Stable, affordable, and healthy housing is essential for individuals and families in meeting their basic needs of safety and shelter, as well as having a range of other positive effects

such as overall wellbeing, reduced family stress, and health outcomes (Martinez et al., 2021). Housing costs may greatly drive the higher hardship rates, particularly where the cost of rent or mortgage payments are increasing at a faster rate than individuals and families are able to afford. Consequently, many people may struggle to maintain affordable housing which can lead to housing hardship specifically, but also an increase in overall material hardship experienced, generally, as families make budget cuts in other areas to meet rent and mortgage payments. Housing assistance programmes may help to address material hardship by offering affordable housing options, financial assistance towards rent or mortgage payments, and providing supportive services to help maintain stable housing.

We reviewed two studies that examine the intersection of housing and material hardship. Both studies examined initiatives at making rent more affordable or free.

The first study explored the effect of in-kind housing support in the form of living rent-free for low-income women in Louisiana, US, in 2006 (Livermore et al., 2015). All participants had been involved in the Strategies to Empower People (STEP) programme—a programme associated with TANF cash assistance. Using logistic regression, results showed that living-rent free reduced the odds of experiencing material hardship by 50% for programme participants (OR: 0.50,  $p < .05$ ). Although the results cannot be interpreted as causal, this indicates that when women were able to live rent free, they were significantly more likely to be able to reduce their chances of experiencing material hardship. By eliminating the financial burden of paying rent, programme participants may have been able to allocate more funds towards other areas of need such as food insecurity. This study shows **promising evidence for housing interventions that fully fund the cost of rent** for those who experience hardship.

The second study of housing assistance in the US examined low-income participants and housing subsidies in the form of public housing (subsidised housing) or rent-stabilising housing vouchers. Housing assistance was provided by the government, and participants receipt of this assistance was tracked over one year. Participants were categorised into one of three groups: 1) never received housing assistance but were eligible; 2) receiving housing assistance (before and/or at the 12-month follow-up); or, 3) past-participants/programme leavers (received assistance at some point but not at the 12-month follow-up). Propensity score matching was used to reduce bias and improve the validity of causal inference, although the non-experimental design can still only provide correlation estimates of the housing assistance programme participation and material hardship. Results showed some housing-related benefits for current housing assistance programme participants. Compared with the reference group of participants who did not receive housing interventions, however, there were no statistically significant effects to material hardship for those **living in subsidised housing or in rent-stabilising housing**. These results are somewhat surprising given that housing costs generally make up a substantial portion of basic expenses, particularly for low-income households.

These results may reflect that the effects of housing subsidies may take more time to show up in other areas of material hardship (e.g., food hardship), but also point to the potential cumulative needs of the families being served in these interventions. For example, to qualify many of these families needed to already have been in severe hardship or have multiple

complex needs (e.g., being enrolled in a transitional housing programme). Moreover, in the US context it could also point to neighbourhood-effects of the location of subsidised housing, and potential detrimental effects of relocating people outside the communities from which they draw support (Ludwig et al., 2013). Additionally, the subsidy may not have been sufficient to fully alleviate the housing-related hardship, which could still impact other areas of household economic wellbeing. Alternatively, it may be that these beneficiaries of housing assistance may have needed additional resources, such as food assistance or medical benefits, to see reductions in overall material hardship experiences.

#### ***Key takeaway: Housing assistance***

Housing assistance programmes may help address material hardship by offering affordable housing options, financial assistance, and supportive services. The two studies that met the inclusion criteria had mixed results. While one study found that living rent-free reduced the odds of experiencing material hardship, the second study showed that living in subsidised or rent-stabilising housing had no influence on material hardship. Both studies examined participants who were already receiving benefits or living in public housing, with one group also participating in another development programme. Both studies had sample selection and methodological challenges that limited generalisability of the findings to populations outside of their studies.

### **Employment assistance ( $n = 3$ )**

Employment interventions aim to help individuals and families by providing opportunities to gain employment, develop skills, or access education and training. The purpose of these interventions is to provide targeted support, particularly to those facing poverty or material hardship, to assist in transitioning out of deprivation, increase economic mobility, and improve overall wellbeing through the labour market. From a broader social and economic perspective, employment interventions can have positive outcomes for increasing economic activity and improving health and wellbeing outcomes across communities. Employment interventions may also help to address systemic issues such as discrimination, and limited access to education and training by providing opportunities for people to upskill or gain employment. For example, job training programmes can help individuals to gain skills they need to find employment in specific industries. Such opportunities may have indirect effects for material hardship, by increasing income to better afford necessities, or improving skills to increase earning potential, for example.

Our review of the literature indicates a significant gap in research pertaining to employment interventions and material hardship. Despite an extensive search, we were only able to identify one study that specifically focused on employment interventions and material hardship. This lack of research does not necessarily reflect the ineffectiveness of employment interventions to target material hardship. Indeed, there is broader research that examines the role that employment supports (on their own, or in combination with income support) play in longer-term trajectories of earnings and experiences of poverty.

Rather this lack of research that examines material hardship as an outcome of work supports highlights the underdeveloped area of study and the need for further exploration.

We were able to identify two additional studies which were related to employment and hardship—although these did not focus on the effects of employment interventions, we have examined these in detail to indicate the work that has been done in this area to examine employment and hardship. These two studies use the same data source but differ in some respects, particularly relating to employment. Hence, both are included. Additionally, three studies in the section titled ‘Multiple Supports’ focus on employment interventions that are used alongside other types of support.

#### *In-kind employment support (n = 1)*

The first study tested whether programmes that transitioned participants into employment were better than general life-skill programmes at alleviating hardship for welfare beneficiaries in Madrid, Spain (Ayala & Rodríguez, 2013). This quasi-experimental study evaluated different programmes among four mutually exclusive groups. Results from the propensity score approach that matched participants to non-participating participants on observable characteristics, **suggest that across the different interventions, levels of hardship were not significantly different.** A possible explanation for these results is that increased employment does not automatically alleviate hardship. For example, if family income does not increase substantially between welfare receipt and work-related income, hardships may not shift. This interpretation, however, needs further investigating.

#### *Other employment-related studies (n = 2)*

In terms of the two studies related to employment, the first study focused on the experiences of single mothers who were receiving cash assistance from the Family Independence Programme (FIP), which is a programme in the US that provided cash assistance to eligible families who were experiencing hardship (Danziger et al., 2000). The programme also promoted employment, aimed to increase employability, and help families to reduce hardship and achieve financial stability and independence. The study by Danziger and colleagues (2000) categorised participants into four groups depending on the proportion of months they were in paid employment over about 12 months: 1) no employment; 2) some months; 3) most months; and 4) all 12 months. Descriptive statistics of the prevalence of material hardship across each of these groups were provided. Using an aggregate measure of multiple hardships, the likelihood of experiencing material hardship declined as the extent of employment increases. No test of statistical difference between the groups, however, is reported so these results should be interpreted with caution.

Using data from the same study of single mothers, in a second study Danziger and colleagues (2002) examined whether it was better for single mothers, in terms of alleviating material hardship, to remain on welfare benefits or to transition to employment after the 1990s welfare reforms in the US (Danziger et al., 2002). Typically, when welfare recipients who are unemployed transition to paid employment, benefits decline as income increases. This may be beneficial when income gains are greater than benefit reductions. Income gains, however, may be limited from employment opportunities if the decline in benefit is greater than or similar to the income gained from employment. In some cases, it may be

more difficult to afford basic expenses in paid employment than when receiving welfare benefits (Edin & Lein, 1997).

The study focused on single mothers who were all receiving cash assistance from TANF in 1997 and in the follow-up survey in 1999, classifying mothers into five groups: 1) wage-reliant mothers; 2) combining work and welfare; 3) welfare reliant; 4) neither welfare nor work; and 5) mixed/cyclers. Descriptive statistics revealed that welfare-reliant participants were significantly more likely to experience three (of the ten) types of hardship compared to wage-reliant mothers—severe hunger (12.2 vs. 28.6 percent), experienced a night of homelessness (2.1 vs. 10.0 percent), and experienced a telephone cut-off (25.9 vs. 48.6 percent). When aggregate scores of hardships were compared across groups, however, there were no statistically significant differences.

#### ***Key takeaway: Employment assistance***

There is a significant gap in research which evaluated the effectiveness of employment interventions in relation to material hardship. One study specifically focused on employment interventions and material hardship, finding no differences in alleviating hardship for those in an employment programme versus a life-skills programme.

Two additional studies provided preliminary evidence that paid employment may be beneficial for reducing material hardship for single mothers receiving welfare benefits. Given the descriptive nature of these studies, however, it is difficult to draw conclusive evidence on the relationship between employment and material hardship reduction.

#### **Childcare assistance (n = 1)**

As parents think about transitioning back to work, for some families, childcare is a significant cost that can impinge on material wellbeing, particularly in Aotearoa NZ which has some of the most unaffordable childcare costs in the world (OECD, n.d.). Childcare assistance, in the form of free or subsidised childcare, may help families to cover these costs and not compromise on other necessities. Additionally, if childcare costs are subsidised, parents may also be given space to gain and maintain employment or education opportunities (Anderson & Levine, 1999) which, in turn, may be beneficial for families in terms of material wellbeing. Thus, targeting material hardships through the provision of childcare subsidies may be a viable policy initiative to promote economic mobility and alleviate hardship for families.

Despite a thorough search, only one study was identified that examined childcare assistance and material hardship. As mentioned earlier, the absence of research does not reflect the ineffectiveness of childcare assistance programmes in being able to relieve hardship, per se, but rather suggests that further work could be done to evaluate these programmes in relation to material hardship.

One study was concerned with patterns of stability or instability in childcare assistance recipients in the US, where most of the respondents were living in poverty or near poverty. (Kim & Henly, 2021). This study focused on four categories of subsidy use over the course of 12 months: 1) continuous users; 2) long-term leavers (participants who were at one time



receiving subsidies but in the 12 months prior to the study were no longer receiving this); 3) short-term leavers (participants who left the subsidy programme in the 12 months); 4) cyclers (those who left the programme but returned in the 12 months). Logistic multivariate regression estimated that, when compared to continuous users, **cyclers were significantly more likely to experience any form of hardship** (OR: 2.59,  $p < .001$ ). Additionally, **long-term leavers, short-term leavers, and cyclers who significantly more likely to experience severe material hardship** (OR: 1.98–3.15,  $p < .05$ ). Although the study design prohibits from being able to tell whether subsidy instability precedes hardship, these findings suggest that families are at risk of severe material hardship across all forms of subsidy instability. These results warrant further investigation but highlight the potential negative consequence of instability in childcare assistance and the importance of providing consistent support.

#### ***Key takeaway: Childcare assistance***

Preliminary evidence suggests that childcare subsidies show potential in being able to alleviate hardship. While only one study was able to be identified, this study provides evidence of stable childcare assistance in being associated with reductions in hardship. Further research is required to gain a complete understanding of the efficacy of different childcare assistance programmes and levels of support in alleviating material hardship.

### **Health insurance ( $n = 1$ )**

High costs of healthcare can place a significant financial burden on individuals and families. When healthcare costs become too high, individuals and families may choose to forgo healthcare or cut back on other essential needs such as food, housing, or transportation (Saloner, 2013). Healthcare assistance that reduces the financial burden of healthcare cost, particularly for low-income households may help families to evade hardship.

Our review indicated a gap in research examining health insurance or health care interventions and material hardship specifically focused on comprehensive (rather than domain-specific) measures of material hardship. One study, however, was identified that focused on health insurance eligibility and two kinds of material hardship—housing and food insecurity. This study has been included in the review to illustrate how health insurance may be examined in relation to material hardship and to highlight the limited work in this area. We acknowledge that the health care context differs in Aotearoa NZ compared to the US, with the US unique in its very high-cost health care system. There are, however, costs associated with visiting a doctor, filling prescriptions, and dental care for adults in Aotearoa NZ that do cause hardships and result in people delaying care due to costs (Grant et al., 2023).

The study by Saloner (2013) examined the expansion of the Children’s Health Insurance Programme (CHIP) to include healthcare insurance for children of low-income families. This study focused on whether expansions to the CHIP programme—where eligibility can differ across states—decreased the probability of low-income families experiencing housing and food insecurity. **Instrumental variable estimates did not reveal evidence of reductions in these hardships.** One explanation for these findings may be attributed to the low healthcare



use by children, and therefore the limited impact of CHIP in improving the economic circumstance of families. Indeed, the study found that access to health insurance increased families' use of health care. In the absence of insurance, it is likely they were not using the health care system for non-urgent care. Another explanation is that the costs of healthcare is only one component of the challenges faced by low-income families and that other factors (e.g., housing and food costs) persist. Further examination of healthcare insurance in relation to material hardship is needed to understand the efficacy of these interventions in alleviating hardship.

#### ***Key takeaway: Health insurance***

Reducing the financial burden of healthcare costs, through healthcare assistance may aid families in avoiding hardship. There was a significant gap in the research examining health insurance interventions and material hardship, with the one study reviewed finding no evidence that health insurance eligibility reducing hardships. The health insurance eligibility, however, was only related to the health care of children in the household who may not present a significant cost due to their lower use of healthcare services.

## **Social supports**

Individuals and families may draw on support from their social networks as a strategy to prevent or cope with hardship (Heflin et al., 2011). When people are finding it difficult to meet their basic needs, receiving support from personal networks, such as friends, family, or non-profit organisations may help. Support can be emotional (such as having someone to talk to), informational (e.g., receiving advice), instrumental (e.g., help with childcare or picking up groceries), and financial (e.g., receiving gifts or borrowing money; Henly et al., 2005). While social support may not play as large of a role in reducing material hardship as other formal supports (such as income assistance), it may still alleviate some of the burdens associated with hardship.

While these are not policies or programmes, we have included them in the review because they point to the importance (or not) of community in providing support, potentially in ways that policies and government can reinforce. These studies can also shed light on the sources of resilience in the face of hardship, identifying the ways people buffer or 'smooth over' periods of hardship.

### **Social networks (n = 11)**

We identified 11 studies on social support (Brisson & Altschul, 2011; Campbell & Pearlman, 2019; Heflin et al., 2011; Henly et al., 2005; Kang, 2013; Kim & Henly, 2021; Lee & Lee, 2016; Livermore et al., 2015; Mills & Zhang, 2013; Nepomnyaschy & Garfinkel, 2011; Voth Schrag et al., 2020). These studies examined support networks directly available to households and included perceived support of friends, family, and those in the neighbourhood.

In the studies, measures of social support varied across the domains of social support and included: emotional, financial, instrumental, and informational support. Most of the social support measures were questions asked to participants about their perceptions of social support available to them. Consistent across all 11 studies, evidence was found to indicate that social supports helped to alleviate material hardship, whether examined as specific domains of hardship or as a composite index of hardships. All quantitative results were statistically significant. For example, in a study of Australian families with children, social support was examined in relation to material hardship (Lee & Lee, 2016). The participants in this study included a nationally representative sample of Australian children and therefore, families from across the income spectrum are represented. This study focused on social support as a composite score that included emotional and instrumental support and logistic regression analyses found that a one unit increase in social support reduced the odds of experiencing hardships by 23% ( $p < .001$ ). While further investigation is warranted because these results cannot be interpreted as causal, the **findings from this study do point to preliminary evidence for social support helping to alleviate material hardship burdens.**

Notably, all social support studies examined the relationship between social support and hardship using a type of regression analysis, except for one study which was qualitative in design and collected data through interviews. The nature of these study designs mean that we were limited in being able to draw causal conclusion about the ability of social supports to reduce hardship. Accordingly, we were not able to ascertain whether social support leads to a reduction in material hardship or alternatively, if living in material hardship causes people to draw on social support more readily.

***Key takeaway: Social support***

The studies found evidence that social support has the potential to alleviate hardship. Due to the studies design, these results cannot be interpreted as causal but nevertheless, these studies provide preliminary evidence that social supports can serve as an effective means for individuals and families dealing with material hardship.

## Multiple supports

This report has reviewed a range of programmes that can alleviate material hardship, and it is clear that there is no one-size-fits-all solution—there are varied approaches through which programmes may target material hardship. Individuals and families may be receiving one or more types of supports based on their specific circumstances and needs. Examining the receipt of any type of support is one way to understand if *any* participation across a range of supports affects material hardship. Additionally, when households are participating in multiple benefit programmes this “stacking” may have additive effects where programme participants can experience greater benefits than they would from one programme alone. In the studies included in this review, these ‘stacked’ programmes typically involved income assistance along with programmes that aimed to support employment. This section reviews the relevant literature related to participating in one or more programmes as well as multiple programmes.

### Participation in one or more programmes ( $n = 4$ )

Four of the studies that met our inclusion criteria focused on participation in any one of multiple benefit programmes. These studies recognised that many individuals and families participate in more than one programme and that the most effective combination of programmes differs according to specific needs. The unique effects of programmes may be difficult to disentangle when families are participating in multiple programmes. Thus, including multiple programmes in analyses may more accurately account for interactive effects. Benefit programmes in all four studies were mixed in type and included both income supports and in-kind supports.

Two studies led by McKernan (one conducted in 2018, the other in 2021) recognised that low-middle income families in the US often use multiple programmes and accordingly, examined the participation of families in any of three programmes (TANF, SNAP, and/or Medicaid/SCHIP (very low-income government-provided health insurance)). The first study examined the causal relationship between programme participation and material hardship, using a two-stage least squares (2SLS) model with instrumental variables (IV) approach (McKernan et al., 2018). Low-moderate income families with children (incomes below 200% of the federal poverty line) who participated in one or more of the programmes experienced a **48% reduction, on average, in the number of hardships** ( $p < .05$ ). This **substantial reduction to hardship demonstrates the effectiveness of these programmes in protecting families from hardship**. A similar study by McKernan and colleagues (2021) using the same data and analytical approach but instead limiting the sample to very-low-income families (400% of the FPL or below), also found a reduction in material hardship. In this study, a 10-percentage point increase in the share of low-to-moderate income families receiving supports, **reduced the average number of hardships** by 1.1 percentage points.

In a different study, Wu and colleagues (2022) investigated whether benefits mitigated the material hardships experienced by single mothers facing employment problems in the US. The study employed logistic regression analyses and found that **public benefits mitigated the experience of single mothers’ medical hardship. These benefits, however, failed to mitigate other domains of hardship**. Public benefits included both in-kind assistance (e.g., food, medical, housing) as well as income cash assistance. Although these results cannot be

interpreted as causal, and we cannot disentangle effects of specific programmes because most participants were receiving more than one benefit, these results may demonstrate the effectiveness of medical assistance in alleviating the burden of medical costs.

Finally, a study by Heflin and colleagues (2011) used qualitative data from interviews with single women from highly disadvantaged neighbourhoods in Cleveland, US. The study was designed to understand what participants do to mitigate hardship and meet their basic needs. Some of the women indicated that they were participating in multiple programmes (including TANF, SNAP, Medicaid, housing subsidies, and others) to make ends meet. An analysis of interview data suggested that **specific programmes are used by these women to target specific domains of hardship** (e.g., Medicaid to target medical hardship) but that **multiple programmes are also used to address hardship across domains**. These results should not be interpreted to mean that hardship across domains should be dealt with in a siloed manner, but highlights that considering multiple domains simultaneously is essential when trying to address the multifaceted issue of hardship.

#### *Key takeaway: Multiple supports*

Four studies assessing the effect of participating in one or more programmes all offered evidence that participation in multiple programmes has the potential to reduce hardships faced by low-income families. The types of benefit programmes across all four studies included both income supports and in-kind assistance. Notably, two of the studies utilised methods to establish causality between programme participation and hardship relief, enhancing the robustness of these findings.

### **Work supports with income assistance (n = 3)**

Work is often seen as one of the most important ways to reduce material hardship. A recognition of the interplay of work and other complex needs has meant that many work-promoting programmes have focused on how to pair work supports with other types of income assistance and supports to relieve material hardship. Three of the included studies evaluated the effects of using work supports in tandem with income assistance and other programmes to alleviate hardship.

One study examined interventions as part of the Family Self-Sufficiency (FSS) programme, designed to assist families in the US receiving housing assistance to become economically self-sufficient (Nunez et al., 2015). For example, participants may be supported to boost their earnings by gaining employment or build savings by contributing to an interest-bearing escrow account. Three interventions were evaluated—the FSS programme alone where participants received housing assistance and worked with a case manager towards goals, such as training, employment, and reducing debt; FSS plus added work-related cash incentives; and cash incentives only, without FSS. Using an experimental design, this randomised control trial conducted over four years, examined a range of employment, income, and wellbeing outcomes. An analysis of the impacts on material hardship revealed no differential impacts for the overall sample of programme recipients or for any subgroups. **At face value these results suggest that the FSS programme and incentives are not enough to positively impact material hardship.** A possible explanation for these results, however,

may be that workforce interventions are not enough to reduce hardships and that earning gains need to be larger than the employment gain and incentives provided to shift hardship. A different reason may be that these results are an artefact of the measurement, where material hardship was measured as any hardship experience (e.g., not aggregate). Thus, it is unclear whether participants saw a reduction of the number of hardships experienced. A different measurement approach may have meant intervention impacts would be observed.

In a similar study of a different employment-related intervention, an experimental study assigned US families to two intervention groups related to the Minnesota Family Investment Program (MFIP) (Gennetian & Miller, 2002). The two groups received either: 1) financial incentives to encourage work and mandatory participation in employment-focused activities; or 2) cash assistance and job training/education assistance. Despite observed impacts on employment, earnings, and income, the programmes **did not significantly affect measures of material hardship**. Although the authors do not offer explanations for these findings, it may be similar to the study above where work interventions are not enough to reduce hardship, and earnings need to increase more substantially to see an impact in the three years following the start of the intervention.

The New Hope Project was an RCT conducted in Wisconsin, US, that enrolled over 1,000 low-income families (Bos et al., 1999). Participants were offered a package of services that included wage supplements to boost income, childcare subsidies, health insurance, and job opportunities for those not in full-time work. The programme aimed to increase income and reduce reliance on public assistance, with the goal of helping families achieve economic self-sufficiency. Participants who received the treatment were compared to control groups. Reductions in hardship were observed for unmet medical needs, dental needs, and periods without health insurance. Across the full sample, **a composite measure of hardship showed an 11% reduction for programme recipients compared to control groups ( $p < .01$ )**. Further sub-group analysis revealed that a 13% reduction in the number of hardships was found for those not employed in full-time work at the start of the study.

***Key takeaway: Work supports with income assistance***

Although work is seen as an important pathway to alleviating material hardship, there is also a recognition of the need for additional supports to make work *work* for families at the level required to alleviate hardship. Three studies were evaluated in efforts to understand how work supports in combination with income assistance and other programmes were associated with material hardship. Results across all three studies did not offer a straightforward conclusion about the efficacy of these interventions. On one hand, two studies did not find evidence that multiple interventions shifted material hardship. However, there were some key limitations to these studies. On the other hand, one study found that work supports that boosted income along with several other programme supports significantly reduced hardship.

## Discussion

Experiences of material hardship—a lack of financial resources to maintain an acceptable standard of living and meet basic needs—are associated with poorer outcomes for adults and children. Policies aimed at alleviating material hardship in the immediate and short-term are not only in line with human and children’s rights perspectives on meeting people’s most basic needs, but also important for the longer-term collective wellbeing of societies.

This review aimed to comprehensively locate and examine the international and domestic research that provided evidence of the effectiveness of policies and programmes in alleviating material hardship. Based on our analysis of the literature, several key findings emerged in terms of policy effectiveness as well as the broader state of the evidence base linking policy supports to material hardship.

## Key findings

### Direct income assistance alleviates material hardship

The evidence provided support for the effectiveness of direct income assistance in alleviating material hardship. Tax credits that boosted incomes for low-income families, in particular, were most effective. For example, one study found that the expansion of the Child Tax Credit from US\$2,000 per year per child (spread over six months) to US\$3,600—or an increase of US\$133 (NZ\$213) per month—was associated with an 18% decline in experiencing any hardship and a 23% decline in experiencing multiple hardships among low-income families. Targeting expansion of existing tax credits to low-income families—and expanding tax credits to non-working families—is likely to have a significant impact on rates of material hardship.

Importantly, studies that also examined the impact of cash transfers and credits on employment found that tax credits did not affect people’s work behaviours. It is important to note that in the case of tax credits that were particularly effective in alleviating material hardship, the structure of the tax credit is explicitly designed to *not* discourage work. It does so by making sure entitlements increase with more earned income (to a threshold), and that additional earned income does not affect maximum entitlement levels until moderate earned income levels are reached.

### Frequency and consistency of income assistance matters

It is important to note that not all income assistance impacted material hardship—and the ways in which families received the cash transfers affected the underlying mechanism through which families’ hardship lessened. For example, one-time, one-off payments, such as stimulus checks, mattered for material hardship in the immediate month of receiving it, but the effects on material hardship in the short term were negligible. Moreover, these payments appeared to only matter for material hardship among those households with the lowest incomes, indicating that stimulus or hardship checks that encompass a wider income spectrum of households are not efficient policy levers for targeting material hardship.

Interestingly, the Earned Income Tax Credit (EITC)—which is similar to a one-off payment because it is received just once a year—did have a more enduring impact on material

hardship. The likely interpretation of this difference is that families know to anticipate receiving the EITC and plan for how to spend those payments in ways that relieves material hardship. In essence, families are using the EITC payment as a proxy savings mechanism.

Monthly credits and annual payments appeared to operate differently in terms of how they affected material hardship. Lump sum payments affected areas of hardship that constitute larger one-off expenses, such as health care bills. Although this does not translate to the New Zealand-context specifically, it could be that lump sum payments are used to pay for other large expenditures that prior research on NZ material hardship has shown is most likely to be delayed or unaffordable, such as visits to the dentist (Grant et al., 2023). It is important to note that one of the mechanisms through which the hardship measurement was affected might not necessarily be through indicators explicitly measuring larger outlays, like visiting the dentist or having \$500 available in case of an emergency, but that families being able to pay off debt or replace a vehicle, frees up resources for other expenses such as utilities and food. Indeed, research on how American families spend their EITC receipts supports this interpretation (Barrow & McGranahan, 2000; Goodman-Bacon & McGranahan, 2008).

Regular monthly receipt of credits was more important for elements of material hardship that were more temporal and ongoing, such as food security, paying utilities, and making rent, with the assumption that families accommodate these changes in their income as part of their regular budget. This interpretation aligns with the strong evidence that showed that, for families receiving the benefit, delays in receiving or sanctions in their benefits led to an increase in material hardship.

Missing from this literature was a long-term examination of temporary, short-term changes in the tax credit system. That is, for example, the Child Tax Credit was effective in alleviating hardship for many American families, but whether six months of tax credits was enough to help families “catch-up” on their bills or save to accommodate the drop in income to the pre-tax-credit expansion period is still to be examined. Research on the US poverty rate indicates that rates dropped dramatically during the CTC expansion, but reverted back to pre-tax-credit expansion rates once the expanded CTC ended (Center on Poverty and Social Policy, 2023). It will be important to know whether these trends are replicated in measures of material hardship.

### **Money matters, but so, too, do in-kind supports**

The evidence suggested that income transfers were the most effective and efficient ways of alleviating material hardship. But other supports, such as assistance labelled to support energy payments, food vouchers and childcare assistance, also were associated with alleviating material hardship, albeit to a lesser extent. For example, the study by Hyslop and colleagues (2022) demonstrated that Aotearoa NZ’s Winter Energy Payment (WEP) has led to a reduction in financial hardship during the winter months among households with working-age individuals who received government benefits. If we extrapolate the findings from the evaluations of the US Supplemental Nutrition Assistance Program we also have suggestive evidence that direct cash transfer supplements like the Winter Energy Payment and Accommodation Supplement are an efficient way of targeting material hardship. While these targeted cash transfer programmes are important for recognising the extra



consumption needs of families (e.g., higher heating bills in winter, higher rents in high-cost cities), enabling households to redistribute funds that were initially earmarked for those increased consumption needs may be important for supporting families in meeting their specific consumption needs.

An outstanding question, however, is whether in-kind assistance to families to pay for goods directly, such as utilities, rent, and food, is more effective than in-kind assistance that is transferred directly from the government to the provider, such as a landlord or energy company, in shifting material hardship. The findings that in-kind support to families matters, coupled with the evidence on the importance of income assistance, suggests that money directly families may be more efficient, however there was less research to adjudicate whether the same shifts in hardship would be found via government transfers directly to providers on behalf of families.

Programmes that offered non-in-kind supports (e.g., employment services) that were not also accompanied by cash transfers were not effective in alleviating hardship. These types of programmes, however, when accompanied by income supports (e.g., providing quality job opportunities as well as boosting income to make work *work* for families) offered promise for lifting families out of poverty and alleviating material hardship in the short term.

### **Effectiveness is dependent on families' current and context-specific needs**

Although there is much evidence to suggest that income supports, such as tax credits, are effective in reducing material hardship, it is important to recognise that the effectiveness of programmes may depend on a range of factors. These factors could include the design of the programme, the amount of financial assistance provided, the duration of the support, and the specific population being supported. For example, the level of benefits provided had a significant bearing on the effectiveness of these types of programmes. If benefits are not sufficient to cover basic needs, the programmes may not effectively shift material hardship. Moreover, different populations may have varying needs and may require tailored programmes to address their specific challenges. For example, single-parent families and those with disabilities may face unique financial and work constraints that require targeted supports. Indeed, studies that examined 'any' programme participation, and some that looked at the cumulative effects of programmes, found that people who participated in multiple types of programmes, net of the cumulative support across the programmes, experienced declines in material hardship. It is likely that any one programme will not be effective for all families, and while it appears that lifting incomes through tax credits and benefit rates is an effective anti-poverty tool, this may not be enough in-and-of-itself, especially in the case of constraints or inefficiencies (e.g., housing shortages, caregiving time responsibilities) in converting income to meet material needs.

These findings highlight that the causes of material hardship are complex and multifaceted, and material hardship can stem from a variety of factors including low wages, lack of employment opportunities, discrimination, and inadequate social supports. But also show that these programmes alone may be inadequate to address underlying structural and systemic issues that perpetuate hardship. These deep-rooted societal factors require broader systemic change. By combining income assistance programmes with other interventions, a more comprehensive approach to tackling hardship may help to ensure that



individuals and families have access to resources and opportunities to exit from hardship and prevent hardship in the first instance.

On the flipside, many of these studies found a greater—or only an—effect of some policies on material hardship among certain groups. Primarily, many of the studies were able to isolate larger effects of programmes for more economically-insecure families—the ones who likely had higher rates of material hardship to begin with. This consistent finding points to the need of a better understanding of the association between income, family characteristics, and material hardship, in order to design effective and efficient policy targeted at families who are experiencing material hardship.

## **Limitations and future research**

Of course, this review is not without limitations, and in addition to the limitations noted in the “Methods” section of this report, there are gaps in the international and Aotearoa NZ research that point to a need for further research and a more comprehensive understanding of the mechanisms that drive material hardship.

### **Differences in material hardship measurement and few policies explicitly targeting hardship as a goal, limits understanding of policy effectiveness**

Overall, there were a limited number of studies using methodological approaches that better suggest causal inference and target material hardship as a comprehensive construct of consumption needs not being met. As noted earlier, this lack of evidence makes sense in the context of policy evaluation. That is, RCTs and other targeted policy interventions are focused on directly measuring the particular outcome the intervention is positioned to target. For example, the effect of food vouchers on food insecurity. Material hardship is a more comprehensive concept of consumption needs and hence, narrow policy interventions and programmes may not be designed to move the “hardship needle.”

It is important to highlight again that the lack of studies or evidence around some programmes does not necessarily mean those studies are not effective in terms of alleviating material hardship. Availability of data and the type of data needed to effectively test certain policies and programmes likely account, in part, for the scant research.

### **Translating international research to the Aotearoa New Zealand context**

Overall, only two of the studies included in the review that met our inclusion criteria included a New Zealand-based sample. Although the findings of these studies were consistent with the findings from the international research, it is important to contextualise the setting for much of this research. A majority of the studies were situated in the US—a country with one of the least generous welfare safety nets in the developed world (although there is large state-to-state variation). It is also a country where medical costs constitute a larger portion of families’ expenditures, given its private health care system coupled with limited public health insurance for working-age adults. On the one hand, the findings may point to the outsized benefit that programme expansion may have for US families’ experiences of material hardship, compared to families in Aotearoa NZ. On the other hand, it could point to larger more complex debt propositions for US families (e.g., medical bills,

taking on more debt during job loss), meaning that New Zealand families' material hardship may be more responsive to similar programme expansions.

Given these different consumption settings, it may mean that programmes that were more efficient at moving material hardship on every day essential needs—such as a regular, monthly tax credit expansion over an annual delivery mechanism—may be better placed in shifting material hardship in Aotearoa NZ. Overall, however, this review points to the need for more research in the Aotearoa NZ context and a better understanding of the mechanisms underpinning material hardship. This is particularly relevant given that studies find both individual and country-level factors (e.g., economic crisis, changes in social spending) affect material hardship (Guio et al., 2020; Verbunt & Guio, 2019).

### **High quality, longitudinal data collection is needed to measure—and understand the phenomena of—material hardship**

In line with the point above, then, high quality, longitudinal data collection—where measures of material hardship are collected from the same families at multiple, short-term intervals—is essential for unpacking what drives material hardship in Aotearoa NZ and the potential effectiveness of policies targeting hardship. This data collection effort, however, is also essential to understanding better how well material hardship indicators are measuring the underlying construct of material hardship. That is, are our material hardship measures effectively measuring day-to-day hardship, and doing so accurately across our diverse Aotearoa NZ population?

Although not discussed in this report, then, it is important to note that measurement and construct validity are essential areas of future research. Understanding both what different measures of material hardship are measuring, and whether certain measures are doing a better job than others at tapping into the comprehensive construct of consumption poverty (rather than domain-specific measures), can point to the underlying mechanisms that are driving rates of hardship. In turn, this understanding can point to policies and programme supports that will be more or less effective and efficient in alleviating material hardship.

## References

- Ahn, S., Kang, J. Y., Chun, Y., & Park, S. (2023). The effect of social pension on material hardship among older adults in Korea: Regression discontinuity estimation. *Social Policy and Society*, 1–19. <https://doi.org/10.1017/S1474746422000550>
- Ahn, S., & Song, N. K. (2017). Unemployment, recurrent unemployment, and material hardships among older workers since the Great Recession. *Social Work Research*, 41(4), 249–262. <https://doi.org/10.1093/swr/svx020>
- Anderson, P., & Levine, P. (1999). *Child Care and Mothers' Employment Decisions* (No. w7058). National Bureau of Economic Research. <https://doi.org/10.3386/w7058>
- Arnold, C., Conway, T., & Greenslade, M. (2011). *Cash transfers literature review*. Department for International Development.
- Ashiabi, G. S., & O'Neal, K. K. (2007). Children's Health Status: Examining the Associations among Income Poverty, Material Hardship, and Parental Factors. *PLOS ONE*, 2(9), e940. <https://doi.org/10.1371/journal.pone.0000940>
- Ayala, L., & Rodríguez, M. (2013). Evaluating social assistance reforms under programme heterogeneity and alternative measures of success. *International Journal of Social Welfare*, 22(4), 406–419. <https://doi.org/10.1111/ijsw.12008>
- Barrow, L., & McGranahan, L. (2000). The Effects of the Earned Income Credit on the Seasonality of Household Expenditures. *National Tax Journal*, 53(4.2), 1211–1243. <https://doi.org/10.17310/ntj.2000.4S1.08>
- Bathia, D., Suggs, M., Hunter-Rainey, S., Forte, A., Liy, A., Camero, D., Sims, J., & Iruka, I. U. (2022). *Are Black and Latine Families with Babies Feeling Relief from the Child Tax Credit?* (Equity Coalition Rescue Plan Microbrief Series 21-004, p. 4). Equity Research

Action Coalition, Frank Porter Graham Child Development Institute, The University of North Carolina at Chapel Hill.

Ben-Shalom, Y., Moffitt, R. A., & Scholz, J. K. (2011). *An Assessment of the Effectiveness of Anti-poverty Programs in the United States* (Working Paper 17042). National Bureau of Economic Research. <http://www.nber.org/papers/w17042>

Bos, J. M., Huston, A. C., Granger, R. C., Duncan, G. J., Brock, T. W., McLoyd, V. C., & Others, A. (1999). *New Hope for People with Low Incomes: Two-Year Results of a Program To Reduce Poverty and Reform Welfare*. MDRC, 16 East 34 Street, New York, NY 10016. <https://eric.ed.gov/?id=ED433455>

Bramley, G., Hirsch, D., Littlewood, M., & Watkins, D. (2016). *Counting the cost of UK poverty*. Joseph Rowntree Foundation.

Brisson, D., & Altschul, I. (2011). Collective Efficacy Predicting Experience of Material Hardship in Low-Income Neighborhoods. *Urban Affairs Review*, 47(4), 541–563. <https://doi.org/10.1177/1078087411400043>

Campbell, C., O'Brien, G., & Tumin, D. (2022). Timing and Persistence of Material Hardship Among Children in the United States. *Maternal and Child Health Journal*, 26(7), 1529–1539. <https://doi.org/10.1007/s10995-022-03448-9>

Campbell, C., & Pearlman, J. (2019). Access to Social Network Support and Material Hardship. *Social Currents*, 6(3), 284–304. <https://doi.org/10.1177/2329496518820630>

Carle, A. C., Bauman, K. J., & Short, K. (2009). Assessing the Measurement and Structure of Material Hardship in the United States. *Social Indicators Research*, 92(1), 35–51. <https://doi.org/10.1007/s11205-008-9287-7>

Cassidy, C., Heydemann, R., Unah, N., & Jr, W. D. (2019). *Baby Bonds: A Universal Path to Ensure the Next Generation Has the Capital to Thrive*. Samuel Dubois Cook Center on Social Equity at Duke University and the Insight Center for Community Economic Development. [https://insightccd.org/wp-content/uploads/2019/12/ICCED-Duke\\_BabyBonds\\_December2019-Linked.pdf](https://insightccd.org/wp-content/uploads/2019/12/ICCED-Duke_BabyBonds_December2019-Linked.pdf).

Center on Budget and Policy Priorities. (2015, October 1). *A Quick Guide to SNAP Eligibility and Benefits*. <https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits>

Center on Poverty and Social Policy. (2023). *3.7 million more children in poverty in Jan 2022 without monthly Child Tax Credit*. Columbia University Center on Poverty and Social Policy. <https://www.povertycenter.columbia.edu/news-internal/monthly-poverty-january-2022>

Centre on Budget and Policy Priorities. (2023). *The Earned Income Tax Credit*. <https://www.cbpp.org/sites/default/files/atoms/files/policybasics-eitc.pdf>

Child Poverty Reduction Act. (2018). *Child Poverty Reduction Act 2018 No 57 (as at 01 September 2022), Public Act Contents – New Zealand Legislation*. [https://legislation.govt.nz/act/public/2018/0057/latest/LMS8294.html?search=ts\\_act%40bill%40regulation%40deemedreg\\_child+poverty\\_resele\\_25\\_a&p=1](https://legislation.govt.nz/act/public/2018/0057/latest/LMS8294.html?search=ts_act%40bill%40regulation%40deemedreg_child+poverty_resele_25_a&p=1)

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). L. Erlbaum Associates.

Collyer, S., Gandhi, J., Garfinkel, I., Ross, S., Waldfogel, J., & Wimer, C. (2022). *The Effects of the 2021 Monthly Child Tax Credit on Child and Family Well-being: Evidence from New York City*. SocArXiv. <https://doi.org/10.31235/osf.io/rnmfv>

- Commission on Social Determinants of Health. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health: Final report of the commission on social determinants of health*. World Health Organization.
- Danziger, S., Corcoran, M., Danziger, S., & Heflin, C. M. (2000). Work, Income, and Material Hardship after Welfare Reform. *Journal of Consumer Affairs*, 34(1), 6–30.  
<https://doi.org/10.1111/j.1745-6606.2000.tb00081.x>
- Danziger, S., Heflin, C. M., Corcoran, M. E., Oltmans, E., & Wang, H.-C. (2002). Does it pay to move from welfare to work? *Journal of Policy Analysis and Management*, 21(4), 671–692. <https://doi.org/10.1002/pam.10080>
- Davison, G., Roll, S. P., Taylor, S. H., & Grinstein-Weiss, M. (2018). *The State of State EITCs: An Overview and Their Implications for Low- and Moderate-Income Households* (CSD Research Brief No.18-04). Washington University, Center for Social Development.
- Deidda, M. (2015). Economic Hardship, Housing Cost Burden and Tenure Status: Evidence from EU-SILC. *Journal of Family and Economic Issues*, 36(4), 531–556.  
<https://doi.org/10.1007/s10834-014-9431-2>
- Despard, M. R., Taylor, S., Ren, C., Russell, B., Grinstein-Weiss, M., & Raghavan, R. (2018). Effects of a Tax-Time Savings Experiment on Material and Health Care Hardship among Low-Income Filers. *Journal of Poverty*, 22(2), 156–178.  
<https://doi.org/10.1080/10875549.2017.1348431>
- Drew, J. A. R. (2015). Disability, Poverty, and Material Hardship since the Passage of the ADA. *Disability Studies Quarterly*, 35(3), 4947.  
<https://doi.org/10.18061/dsq.v35i3.4947>
- Edin, K., & Lein, L. (1997). Work, welfare, and single mothers' economic survival strategies. *American Sociological Review*, 62(2), 253–266.

- Edmunds, C., & Alcaraz, M. (2021). Childhood Material Hardship and Adolescent Mental Health. *Youth & Society*, 53(7), 1231–1254.  
<https://doi.org/10.1177/0044118X211001896>
- Eissa, N. & Hoynes, H. (2006). Behavioral Responses to Taxes: Lessons from the EITC and Labor Supply. In *Tax Policy and the Economy* (ed. J. M. Poterba, Vol. 20, pp. 74–110). MIT PRESS.
- European Union Agency for Fundamental Rights (Ed.). (2018). *Combating child poverty: An issue of fundamental rights*. Publications Office of the European Union.  
<https://doi.org/10.2811/429865>
- Friesen, M. D., Woodward, L. J., Fergusson, D. M., Horwood, L. J., & Chesney, A. (2008). Living Standards and Material Conditions of Young New Zealand Families. *Social Policy Journal of New Zealand*, 33, 23.
- Fuller, A. E., Garg, A., Brown, N. M., Tripodis, Y., Oyeku, S. O., & Gross, R. S. (2020). Relationships Between Material Hardship, Resilience, and Health Care Use. *Pediatrics*, 145(2), e20191975. <https://doi.org/10.1542/peds.2019-1975>
- Gao, Q., Kaushal, N., & Waldfogel, J. (2009). How Have Expansions in the Earned Income Tax Credit Affected Family Expenditures? In J. P. Ziliak (Ed.), *Welfare Reform and its Long-Term Consequences for America's Poor* (1st ed., pp. 104–139). Cambridge University Press. <https://doi.org/10.1017/CBO9780511605383.005>
- Garcia, M. (2012). *The Cash Dividend: The Rise of Cash Transfer Programs in Sub-Saharan Africa*. World Bank.
- Gennetian, L. A., & Miller, C. (2002). Children and Welfare Reform: A View from an Experimental Welfare Program in Minnesota. *Child Development*, 73(2), 601–620.  
<https://doi.org/10.1111/1467-8624.00426>

- Gerritsen, S., D'Souza, A., Goodsell-Matthews, T., Paine, S.-J., Swinburn, B., & Wall, C. (2022). Nutrition of Young Children Living in Households Accessing Food Grants and Foodbanks: Findings from the Growing Up in New Zealand Cohort Study. *NSNZ 2021*, 55. <https://doi.org/10.3390/msf2022009055>
- Gershoff, E. T., Aber, J. L., Raver, C. C., & Lennon, M. C. (2007). Income Is Not Enough: Incorporating Material Hardship Into Models of Income Associations With Parenting and Child Development. *Child Development*, 78(1), 70–95. <https://doi.org/10.1111/j.1467-8624.2007.00986.x>
- Gjertson, L. (2016). Emergency saving and household hardship. *Journal of Family and Economic Issues*, 37(1), 1–17. <https://doi.org/10.1007/s10834-014-9434-z>
- Gold, S. (2020). Is housing hardship associated with increased adolescent delinquent behaviors? *Children and Youth Services Review*, 116, 105116. <https://doi.org/10.1016/j.childyouth.2020.105116>
- Goodman-Bacon, A., & McGranahan, L. (2008). How do EITC recipients spend their refunds? *Economic Perspectives*, 32(2). <https://ssrn.com/abstract=1134060>
- Grant, M., Prickett, K. C., Morton, S. M. B., Miller, S., Pillai, A., & Paine, S.-J. (2023). *Now We Are 12: Material Hardship. Snapshot 2. Growing Up in New Zealand*. [www.growingup.co.nz](http://www.growingup.co.nz)
- Gray, C., Apse, M., Johnson, J., Moore, T., Bridley, G., & Buchana, M. (2021). *Understanding welfare sanctions in Aotearoa New Zealand*. Beneficiary Advisory Service. <http://www.bas.org.nz/ns/wp-content/uploads/2021/08/Understanding-welfare-sanctions-in-Aotearoa-New-Zealand.pdf>
- Grubb, D. (2000). *Eligibility criteria for unemployment benefits*. OECD. <https://www.oecd.org/social/labour/2724341.pdf>



- Guio, A.-C., Marlier, E., Vandenbrouke, F., & Verbunt, P. (2020). *Micro- and macro-drivers of child deprivation in 31 European countries: 2020 edition*. Publications Office.  
<https://data.europa.eu/doi/10.2785/831285>
- Han, J. (2016). The Impact of SNAP on Material Hardships: Evidence From Broad-Based Categorical Eligibility Expansions: SNAP and Material Hardships. *Southern Economic Journal*, 83(2), 464–486. <https://doi.org/10.1002/soej.12171>
- Hardi, F. A., Goetschius, L. G., Peckins, M. K., Brooks-Gunn, J., McLanahan, S. S., McLoyd, V., Lopez-Duran, N. L., Mitchell, C., Hyde, L. W., & Monk, C. S. (2022). Differential Developmental Associations of Material Hardship Exposure and Adolescent Amygdala–Prefrontal Cortex White Matter Connectivity. *Journal of Cognitive Neuroscience*, 34(10), 1866–1891. [https://doi.org/10.1162/jocn\\_a\\_01801](https://doi.org/10.1162/jocn_a_01801)
- Heckman, J. J. (2006). Skill Formation and the Economics of Investing in Disadvantaged Children. *Science*, 312(5782), 1900–1902. <https://doi.org/10.1126/science.1128898>
- Heflin, C., London, A. S., & Scott, E. K. (2011). Mitigating Material Hardship: The Strategies Low-Income Families Employ to Reduce the Consequences of Poverty\*: MITIGATING MATERIAL HARDSHIP. *Sociological Inquiry*, 81(2), 223–246.  
<https://doi.org/10.1111/j.1475-682X.2011.00369.x>
- Heflin, C., Sandberg, J., & Rafail, P. (2009). The Structure of Material Hardship in U.S. Households: An Examination of the Coherence behind Common Measures of Well-Being. *Social Problems*, 56(4), 746–764. <https://doi.org/10.1525/sp.2009.56.4.746>
- Heim, B. T., & Ramnath, S. P. (2016). The impact of participation in employment-based retirement savings plans on material hardship. *Journal of Pension Economics & Finance*, 15(4), 407–428. <https://doi.org/10.1017/S1474747215000050>

- Henly, J. R., Danziger, S. K., & Offer, S. (2005). The contribution of social support to the material well-being of low-income families. *Journal of Marriage and Family*, 67(1), 122–140. <https://doi.org/10.1111/j.0022-2445.2005.00010.x>
- Holzer, H. J., Whitmore Schanzenbach, D., Duncan, G. J., & Ludwig, J. (2008). The economic costs of childhood poverty in the United States. *Journal of Children and Poverty*, 14(1), 41–61. <https://doi.org/10.1080/10796120701871280>
- Hoynes, H. (2019). The Earned Income Tax Credit. *The ANNALS of the American Academy of Political and Social Science*, 686(1), 180–203. <https://doi.org/10.1177/0002716219881621>
- Hoynes, H., & Rothstein, J. (2017). Tax Policy toward Low-Income Families. In A. J. Auerbach & K. Smetters (Eds.), *The Economics of Tax Policy* (pp. 183–225). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190619725.003.0012>
- Hyslop, D., Riggs, L., & Maré, D. C. (2022). *The impact of the 2018 Families Package Winter Energy Payment policy* (Motu Working Paper 22-09). Motu Economic and Public Policy Research.
- Internal Revenue Service. (2023). *Earned Income and Earned Income Tax Credit (EITC) Tables*. <https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/earned-income-and-earned-income-tax-credit-eitc-tables>
- Jacob, B., Pilkauskas, N., Rhodes, E., Richard, K., & Shaefer, H. L. (2022). The COVID-19 Cash Transfer Study II: The Hardship and Mental Health Impacts of an Unconditional Cash Transfer to Low-Income Individuals. *National Tax Journal*, 75(3), 597–625. <https://doi.org/10.1086/720723>
- Kalil, A., Seefeldt, K. S., & Wang, H. (2002). Sanctions and Material Hardship under TANF. *Social Service Review*. <https://doi.org/10.1086/342998>

- Kang, J. (2013). Instrumental social support, material hardship, personal control and neglectful parenting. *Children and Youth Services Review, 35*(9), 1366–1373.  
<https://doi.org/10.1016/j.childyouth.2013.05.009>
- Karpman, M., & Acs, G. (2020). *Unemployment Insurance and Economic Impact Payments Associated with Reduced Hardship Following CARES Act* (p. 19). Urban Institute.
- Karpman, M., Gonzalez, D., Zuckerman, S., & Adams, G. (2018). *What Explains the Widespread Material Hardship among Low-Income Families with Children?* (p. 20). Urban Institute.
- Kim, B., Kim, D. H., Jang, S.-Y., Shin, J., Lee, S. G., & Kim, T. H. (2022). Family economic hardship and adolescent mental health during the COVID-19 pandemic. *Frontiers in Public Health, 10*, 904985. <https://doi.org/10.3389/fpubh.2022.904985>
- Kim, J., & Henly, J. R. (2021). Dynamics of child care subsidy use and material hardship. *Children and Youth Services Review, 124*, 105979.  
<https://doi.org/10.1016/j.childyouth.2021.105979>
- Kondratjeva, O., Roll, S. P., Despard, M., & Grinstein-Weiss, M. (2021). The impact of state earned income tax credit increases on material and medical hardship. *Journal of Consumer Affairs, 55*(3), 872–910. <https://doi.org/10.1111/joca.12382>
- Kondratjeva, O., Roll, S. P., Despard, M., & Grinstein-Weiss, M. (2022). The Impact of Tax Refund Delays on the Experience of Hardship Among Lower-Income Households. *Journal of Consumer Policy, 45*(2), 239–280. <https://doi.org/10.1007/s10603-021-09501-4>
- Kondratjeva, O., Schwartz-Tayri, T., Bufe, S., Roll, S., Gal, J., & Grinstein-Weiss, M. (2021). Did Government Benefits Help Israeli Households Avoid Hardship during COVID-19?

Evidence from a National Survey. *Social Policy Institute Research*.

<https://www.doi.org/10.7936/d88k-2q35>

Kuka, E. (2018). *Quantifying the benefits of social insurance: Unemployment insurance and health*. National Bureau of Economic Research.

[https://www.nber.org/system/files/working\\_papers/w24766/w24766.pdf](https://www.nber.org/system/files/working_papers/w24766/w24766.pdf)

Lee, B. J., Slack, K. S., & Lewis, D. A. (2004). Are Welfare Sanctions Working as Intended? Welfare Receipt, Work Activity, and Material Hardship among TANF-Recipient Families. *Social Service Review*, 78(3), 370–403. <https://doi.org/10.1086/421918>

Lee, H. (2022). Family economic hardship and children's behavioral and socio-emotional outcomes in middle childhood: Direct and indirect pathways. *Children and Youth Services Review*, 138, 106527. <https://doi.org/10.1016/j.childyouth.2022.106527>

Lee, J.-S., & Lee, K. (2016). Material Hardships and Social Support Among Australian Families with Children. *Journal of Child and Family Studies*, 25(5), 1539–1549.

<https://doi.org/10.1007/s10826-015-0327-z>

Lens, V., Arriaga, A., Pisciotta, C., Bushman-Copp, L., Spencer, K., & Kronenfeld, S. (2022). *Child Tax Credit: Transforming the Lives of Families* (p. 13). Center on Poverty and Social Policy at Columbia University.

Levy, H. (2015). Income, Poverty, and Material Hardship Among Older Americans. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 1(1), 55–77.

<https://doi.org/10.7758/RSF.2015.1.1.04>

Livermore, M., Powers, R. S., Lim, Y., & Davis, B. C. (2015). Predicting Material Hardship Among Former Welfare-to-Work Participants: An Income- and Resource-Packaging Model. *Journal of Social Service Research*, 41(2), 158–171.

<https://doi.org/10.1080/01488376.2014.972011>

- Ludwig, J., Duncan, G. J., Gennetian, L. A., Katz, L. F., Kessler, R. C., Kling, J. R., & Sanbonmatsu, L. (2013). Long-term neighborhood effects on low-income families: Evidence from Moving to Opportunity. *American Economic Review*, *103*(3), 226–231.
- Maag, E., Roll, S., & Oliphant, J. (2016). *Delaying Tax Refunds for Earned Income Tax Credit and Additional Child Tax Credit Claimants* (p. 25). Urban Institute & Brookings Institution.
- Marçal, K. E. (2022). Patterns and predictors of material hardship among poor families with children. *Journal of Community Psychology*, jcop.22978.  
<https://doi.org/10.1002/jcop.22978>
- Martinez, S. M., Esaryk, E. E., Moffat, L., & Ritchie, L. (2021). Redefining Basic Needs for Higher Education: It's More Than Minimal Food and Housing According to California University Students. *American Journal of Health Promotion*, *35*(6), 818–834.  
<https://doi.org/10.1177/0890117121992295>
- McKernan, S.-M., Ratcliffe, C., & Braga, B. (2021). The effect of the US safety net on material hardship over two decades. *Journal of Public Economics*, *197*, 104403.  
<https://doi.org/10.1016/j.jpubeco.2021.104403>
- McKernan, S.-M., Ratcliffe, C., & John Iceland. (2018). *Policy Efforts to Reduce Material Hardship for Low-Income Families* (p. 18). Urban Institute.
- Menyhert, B. (2022). *The effect of rising energy and consumer prices on household finances, poverty and social exclusion in the EU*. Publications Office of the European Union.
- Miller, C., Katz, L. F., Azurdia, G., Isen, A., Schultz, C. B., & Aloisi, K. (2018). *Boosting the Earned Income Tax Credit for Singles: Final Impact Findings From the Paycheck Plus Demonstration in New York City* (SSRN Scholarly Paper No. 3281797).  
<https://papers.ssrn.com/abstract=3281797>

- Mills, G. B., & Zhang, S. (2013). *Social Support Networks and Their Effects on Hardship Avoidance* (p. 25). Urban Institute.
- Mills, G., McKernan, S.-M., Ratcliffe, C., Pergamit, M., & Braga, B. (2019). First-Year Impacts on Savings and Economic Well-Being from the Assets for Independence Program Randomized Evaluation. *Journal of Consumer Affairs*, *53*, 848–868.
- Ministry of Social Development. (n.d.). *Winter Energy Payment*. Work and Income. Retrieved 20 April 2023, from <https://www.workandincome.govt.nz/products/a-z-benefits/winter-energy-payment.html>
- Mintrom, M. (2007). The policy analysis movement. *Policy Analysis in Canada: The State of the Art*, 71–84.
- Moffitt, R. A. (2016). *Economics of Means-Tested Transfer Programs in the United States, Volume I*. University of Chicago Press.  
<https://doi.org/10.7208/chicago/9780226370507.001.0001>
- Morduch, J., & Schneider, R. (2017). *The financial diaries*. Princeton University Press.
- Neckerman, K. M., Garfinkel, I., Teitler, J. O., Waldfogel, J., & Wimer, C. (2016). Beyond Income Poverty: Measuring Disadvantage in Terms of Material Hardship and Health. *Academic Pediatrics*, *16*(3, Supplement), S52–S59.  
<https://doi.org/10.1016/j.acap.2016.01.015>
- Nepomnyaschy, L., & Garfinkel, I. (2011). Fathers' Involvement with Their Nonresident Children and Material Hardship. *Social Service Review*, *85*(1), 3–38.  
<https://doi.org/10.1086/658394>
- New Zealand Government. (2019). *Notification of Setting of Targets Under the Child Poverty Reduction Act 2018*. <https://gazette.govt.nz/notice/id/2019-ps2326>

- Nolan, B., & Whelan, C. T. (2010). Using non-monetary deprivation indicators to analyze poverty and social exclusion: Lessons from Europe?: Using Non-Monetary Deprivation Indicators to Analyze Poverty. *Journal of Policy Analysis and Management*, 29(2), 305–325. <https://doi.org/10.1002/pam.20493>
- Norris, J., Scott, R., Speiglmán, R., & Green, R. (2003). Homelessness, Hunger and Material Hardship among those who Lost SSI. *Contemporary Drug Problems*, 30(1–2), 241–273. <https://doi.org/10.1177/00914509030301-210>
- Notten, G., & Guio, A.-C. (2020). *At the margin: By how much do social transfers reduce material deprivation in Europe?* European Union. <https://data.europa.eu/doi/10.2785/79558>
- Nunez, S., Verma, N., & Yang, E. (2015). *Building Self-Sufficiency for Housing Voucher Recipients: Interim Findings from the Work Rewards Demonstration in New York City* (SSRN Scholarly Paper No. 2662077). <https://papers.ssrn.com/abstract=2662077>
- O'Connor, J., & Nepomnyaschy, L. (2020). Intimate Partner Violence and Material Hardship Among Urban Mothers. *Violence Against Women*, 26(9), 935–954. <https://doi.org/10.1177/1077801219854539>
- OECD. (2022). *Strengthening the social safety net in Korea* (OECD Economics Department Working Papers No. 1733; OECD Economics Department Working Papers, Vol. 1733). <https://doi.org/10.1787/45486525-en>
- OECD. (2019). *Benefits and wages—Net childcare costs—OECD Data*. The OECD. <http://data.oecd.org/benwage/net-childcare-costs.htm>
- Parolin, Z., Ananat, E., Collyer, S. M., Curran, M., & Wimer, C. (2021). *The Initial Effects of the Expanded Child Tax Credit on Material Hardship* (Working Paper No. 29285). National Bureau of Economic Research. <https://doi.org/10.3386/w29285>

- Perry, B. (2002). The mismatch between income measures and direct outcome measures of poverty. *Social Policy Journal of New Zealand*, 19.  
<https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/journals-and-magazines/social-policy-journal/spj19/19-pages-101-127.pdf>
- Perry, B. (2019). *Household incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2018*. Ministry of Social Development.
- Perry, B. (2022). *Child Poverty in New Zealand: The demographics of child poverty, survey-based descriptions of life 'below the line' including the use of child-specific indicators, trends in material hardship and income poverty rates for children, and international comparisons – with discussion of some of the challenges in measuring child poverty and interpreting child poverty statistics*. Ministry of Social Development.  
<https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/child-poverty-in-nz/2022-child-poverty-report-overview-and-selected-findings.pdf>
- Pilkaukas, N., Michelmore, K., Kovski, N., & Shaefer, H. L. (2022). *The Effects of Income on the Economic Wellbeing of Families with Low Incomes: Evidence from the 2021 Expanded Child Tax Credit* (Working Paper No. 30533). National Bureau of Economic Research. <https://doi.org/10.3386/w30533>
- Pilkaukas, N. V., Jacob, B. A., Rhodes, E., Richard, K., & Shaefer, H. L. (2022). *The COVID Cash Transfer Study: The Impacts of Unconditional Cash Transfers on Low-Income Families* [Data set]. American Economic Association.  
<https://doi.org/10.1257/rct.5852-1.0>
- Ramanathan, S., Balasubramanian, N., & Faraone, S. V. (2021). Association between transient financial stress during early childhood and pre-school cognitive and



- socioemotional development. *Infant and Child Development*, 30(6).  
<https://doi.org/10.1002/icd.2267>
- Reichman, N. E., Teitler, J. O., & Curtis, M. A. (2005). TANF Sanctioning and Hardship. *Social Service Review*, 79(2), 215–236. <https://doi.org/10.1086/428918>
- Reichman, N. E., Teitler, J. O., Garfinkel, I., & Garcia, S. (2004). Variations in maternal and child well-being among financially eligible mothers by TANF participation status. *Eastern Economic Journal*, 30(1), 101–118.
- Robertson, G. (2017). *The Families Package*. New Zealand Government.  
<https://www.treasury.govt.nz/sites/default/files/2018-02/families-package-dec17.pdf>
- Sabia, J. J., & Nielsen, R. B. (2015). Minimum wages, poverty, and material hardship: New evidence from the SIPP. *Review of Economics of the Household*, 13(1), 95–134.  
<https://doi.org/10.1007/s11150-012-9171-8>
- Saloner, B. (2013). Does expanding public insurance prevent material hardship for families with children? *Medical Care Research and Review*, 70(3), 267–286.  
<https://doi.org/10.1177/1077558712470566>
- Schenck-Fontaine, A., & Ryan, R. M. (2022). Poverty, Material Hardship, and Children's Outcomes: A Nuanced Understanding of Material Hardship in Childhood. *Children*, 9(7), Article 7. <https://doi.org/10.3390/children9070981>
- Schmidt, L., & Danziger, S. (2012). Filling holes in the safety net? Material hardship and subjective well-being among disability benefit applicants and recipients after the 1996 welfare reform. *Social Science Research*, 41(6), 1581–1597.  
<https://doi.org/10.1016/j.ssresearch.2012.06.001>
- Semega, J., & Kollar, M. (2022). *Income in the United States: 2021*.

- Shaefer, H. L., & Gutierrez, I. A. (2013). The Supplemental Nutrition Assistance Program and Material Hardships among Low-Income Households with Children. *Social Service Review, 87*(4), 753–779. <https://doi.org/10.1086/673999>
- Shaefer, H. L., & Ybarra, M. (2012). The welfare reforms of the 1990s and the stratification of material well-being among low-income households with children. *Children and Youth Services Review, 34*(9), 1810–1817.  
<https://doi.org/10.1016/j.childyouth.2012.05.009>
- Shamsuddin, S., & Campbell, C. (2022). Housing Cost Burden, Material Hardship, and Well-Being. *Housing Policy Debate, 32*(3), 413–432.  
<https://doi.org/10.1080/10511482.2021.1882532>
- Smeeding, T. M., Phillips, K. R., & O'Connor, M. (2000). *The EITC: Expectation, Knowledge, Use and Economic and Social Mobility* (JCPR Working Papers 139). Northwestern University/University of Chicago Joint Center for Poverty Research.
- Social Insurance Information System. (2016). *Comparison of 4 Major SIS's*.  
<https://www.4insure.or.kr/ins4/ptl/eng/guid/MainPculLayout.do>
- Statistics New Zealand. (2019). *Measuring child poverty: Material hardship*. Statistics New Zealand. [www.stats.govt.nz](http://www.stats.govt.nz).
- Statistics New Zealand. (2023, March 23). *Child poverty statistics: Year ended June 2022*. StatsNZ. <https://www.stats.govt.nz/information-releases/child-poverty-statistics-year-ended-june-2022/>
- Stephens, C., Alpass, F., & Towers, A. (2010). Economic Hardship Among Older People in New Zealand: The Effects of Low Living Standards on Social Support, Loneliness, and Mental Health. *New Zealand Journal of Psychology (Online), 39*(2), 49–55.

Stephens, M. (2022). *Analytical Note 22/04: Insights from New Zealand child poverty data.*

The Treasury. <https://www.treasury.govt.nz/publications/an/an-22-04>

Sullivan, J. X., Turner, L., & Danziger, S. (2008). The relationship between income and material hardship. *Journal of Policy Analysis and Management*, 27(1), 63–81.

<https://doi.org/10.1002/pam.20307>

Sykes, J., Križ, K., Edin, K., & Halpern-Meekin, S. (2015). Dignity and Dreams: What the Earned Income Tax Credit (EITC) Means to Low-Income Families. *American*

*Sociological Review*, 80(2), 243–267. <https://doi.org/10.1177/0003122414551552>

Thomas, M. M. C. (2022). Longitudinal Patterns of Material Hardship Among US Families.

*Social Indicators Research*, 163(1), 341–370. [https://doi.org/10.1007/s11205-022-](https://doi.org/10.1007/s11205-022-02896-8)

02896-8

Thomas, M. M. C., & Waldfogel, J. (2022). What kind of “poverty” predicts CPS contact:

Income, material hardship, and differences among racialized groups. *Children and Youth Services Review*, 136, 106400.

<https://doi.org/10.1016/j.childyouth.2022.106400>

Thurber, K. A., Thandrayen, J., Banks, E., Doery, K., Sedgwick, M., & Lovett, R. (2020).

Strengths-based approaches for quantitative data analysis: A case study using the Australian Longitudinal Study of Indigenous Children. *SSM - Population Health*, 12,

100637. <https://doi.org/10.1016/j.ssmph.2020.100637>

Townsend, P. (1987). Deprivation. *Journal of Social Policy*, 16(2), 125–146.

<https://doi.org/10.1017/S0047279400020341>

Treasury. (2021). *The Living Standards Framework (LSF) 2021.*

<https://www.treasury.govt.nz/publications/tp/living-standards-framework-2021->

html

United States Department of Agriculture's Food and Nutrition Service. (2021). *Supplemental Nutrition Assistance Program (SNAP)*.

<https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program>

Verbunt, P., & Guio, A.-C. (2019). Explaining Differences Within and Between Countries in the Risk of Income Poverty and Severe Material Deprivation: Comparing Single and Multilevel Analyses. *Social Indicators Research*, 144(2), 827–868.

<https://doi.org/10.1007/s11205-018-2021-1>

Voth Schrag, R. J., Ravi, K. E., & Robinson, S. R. (2020). The Role of Social Support in the Link Between Economic Abuse and Economic Hardship. *Journal of Family Violence*, 35(1), 85–93. <https://doi.org/10.1007/s10896-018-0019-8>

Welfare Expert Advisory Group - Kia Piki Ake. (2019). *Welfare and wellbeing – purpose of the welfare system*. <https://www.weag.govt.nz/weag-report/whakamana-tangata/reforming-social-security-kia-piki-ake-te-mana-tangata/welfare-and-wellbeing-purpose-of-the-welfare-system/#:~:text=The%20purpose%20of%20the%20welfare,an%20adequate%20standard%20of%20living>

Woo, J., Shook, J., Goodkind, S., Ballentine, K., Engel, R., Kim, S., & Petracchi, H. (2022). Do wage increases help? Wage increases and material hardships among low-wage hospital workers. *Journal of Human Behavior in the Social Environment*, 1–14. <https://doi.org/10.1080/10911359.2022.2036282>

Wu, C.-F., Yoon, S., Kang, J., & Schneider, W. J. (2022). How Do Public Benefits Affect the Material Hardship of Under- and Unemployed Single Mothers?: Lessons from the Great Recession. *Journal of the Society for Social Work and Research*, 722446. <https://doi.org/10.1086/722446>

- Yabroff, K. R., Zhao, J., Han, X., & Zheng, Z. (2019). Prevalence and Correlates of Medical Financial Hardship in the USA. *Journal of General Internal Medicine*, *34*(8), 1494–1502. <https://doi.org/10.1007/s11606-019-05002-w>
- Ybarra, M., Stanczyk, A., & Ha, Y. (2019). Paid Leave, Welfare, and Material Hardship After a Birth. *Family Relations*, *68*(1), 85–103. <https://doi.org/10.1111/fare.12350>
- Yoo, J. P., Slack, K. S., & Holl, J. L. (2009). Material Hardship and the Physical Health of School-Aged Children in Low-Income Households. *American Journal of Public Health*, *99*(5), 829–836. <https://doi.org/10.2105/AJPH.2007.119776>
- Zhang, X., Zhang, Y., & Vasilenko, S. A. (2022). The longitudinal relationships among poverty, material hardship, and maternal depression in the USA: A latent growth mediation model. *Archives of Women's Mental Health*, *25*(4), 763–770. <https://doi.org/10.1007/s00737-022-01238-4>
- Zilanawala, A., & Pilkauskas, N. V. (2012). Material hardship and child socioemotional behaviors: Differences by types of hardship, timing, and duration. *Children and Youth Services Review*, *34*(4), 814–825. <https://doi.org/10.1016/j.childyouth.2012.01.008>