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Modelling packages to meet Scotland's child poverty targets: Scenarios, benefits and trade-offs

January 2022

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1 Introduction

Around 1 in 4 children in Scotland live in relative poverty. This means they live in a household with an income 60% below the UK median income after housing costs have been deducted¹.

Child poverty can have serious and lifelong impacts across a range of outcomes, and the Scottish Government have stated their aim to reduce significantly the incidence of child poverty. The Child Poverty (Scotland) Act 2017² includes a target to reduce relative child poverty to 10% by 2030/31. The baseline child poverty level is estimated to be 25% in 2020 compared to 24% in the most recent period (2017-20). Meeting the target would represent an unprecedented reduction in child poverty to levels not seen in Scotland certainly since the early 1990s when the current statistical series began.

The purpose of the analysis in this report is to look at some of the large, national-level, devolved policy levers that the Scottish Government could use to meet the targets. We have focussed on childcare, employability programmes and social security. These are not the only options that the Scottish Government could take forward but are examples of structural policies that are capable of having a significant impact on household incomes and are Scotland wide in their reach.

By analysing variations of these types of policies, and different combinations, this analysis illustrates the scale of the impact on poverty and the associated costs and benefits of different options. We envisage that this will be helpful for policymakers and stakeholders who will be focused on developing actions for the next Tackling Child Poverty Delivery plan, due to be published by the Scottish Government by the end of March 2022. The modelling approach developed within this report is one that we hope will be emulated by the Scottish Government to ensure transparency and robustness of the delivery plan.

This report has been made possible due to financial support from abrdn Financial Fairness Trust and has been a collaborative project involving the Fraser of Allander Institute at the University of Strathclyde, the Policy Evaluation Research Unit at Manchester Metropolitan University and the Poverty Alliance.

The report is structured as follows: Section 2 provides a summary of the project and key findings, Sections 3 and 4 explain the approach and method in more detail, Section 5 provides the results and Section 6 the conclusions. Additional annexes that include more detail on aspects of the project are available.

¹ Latest statistics are available from the Scottish Government: <https://data.gov.scot/poverty/>

² Available at <https://www.legislation.gov.uk/asp/2017/6/contents/enacted>

2 Summary

The Scottish Parliament has set the Scottish Government a target of no more than 10 per cent of children in poverty by 2030/31. These targets provide the framing for our analysis. The targets are statutory and were passed with full agreement of every MSP in the Scottish Parliament. It is therefore assumed that policy makers will do what is required to meet them.

However, this report does not recommend a plan of action. The analysis within the report aim to help the Government, the Parliament and wider stakeholders understand some of the different options available and the trade-offs between these options.

The starting point of our analysis is a baseline showing what child poverty would be in 2030/31 absent any new policy interventions. The baseline includes the £20 Scottish Child Payment. This is estimated to broadly offset, on aggregate, other social security changes from the UK Government that are expected to reduce incomes.

Our analysis models large, structural policies, that could significantly impact household income. These large-scale policies are an obvious, although not the only, route through which to realise transformational change. Our focus is on policies that impact household incomes either through the labour market (via parental earnings) or social security mechanisms.

Labour market

Significant expansion of free childcare and employability programmes could have an impact on employment rates and hours worked for parents. There are knock-on economic benefits to the economy due to an expanded labour force as well as higher demand for goods and services from additional earnings and from income freed up for those previously paying for private provision.

However, the most generous policies we have modelled for these types of programmes (expanded childcare to 50 hours a week and employability support available on demand to all) have a limited impact on child poverty - in the region of a 3 percentage point reduction. This reflects a number of factors, including limitations on who is able to work and the existence of other barriers to paid work beyond childcare and employability support.

The gross cost of these policies that boost employment is offset to some extent by savings to both UK and Scottish governments from social security savings and increases in direct taxation. Nevertheless, the net cost of providing these schemes in the way we have modelled them is very large.

Social security

If no other policies were put in place, our modelling estimates that social security could ensure Scotland reaches its statutory targets. We have modelled this using different elements of the existing social security infrastructure. The amounts required to fill the gap left after the enhancement of childcare and employability programme provision are also large.

With 50 hours of childcare, the gap could be closed with a payment of £110 per child per week if paid through Child Benefit or £160 per child per week through the Scottish Child Payment.

A less generous childcare offer of 30 hours a week leaves poverty at a higher level than the 50 hours a week offer and requires a higher amount of social security to meet the targets. In this option we modelled a slightly more complex Scottish Child Payment that included a range of premiums.

Understanding lived experience

We have sought the participation of parents with lived experience of poverty for this project. This part of the work has been able to provide context and additional insights that modelling work on its own would never discover. For example, parents living in poverty with children who have a disability told us that extra childcare provision would be unlikely to make a difference for parents who are often required to take their children out of care or school settings at short notice and the absence of a meaningful earnings disregard in Council Tax Reduction can affect decisions around paid work.

The wider impact of modelled policies

The economic impact from the redistribution implied by the social security policies that we have modelled differs depending on the approach. They all boost consumption at the lower end of the income distribution, with decreases in consumption in the middle and top of the income distribution resulting from an increase in taxation required to pay for the social security expansion.

There are also other, less obvious, impacts that our modelling uncovers. For example, the cost of the childcare policies that we have included requires additional income tax to implement but, as already noted, there are also benefits that flow through to the economy (and back to the exchequer).

The expansionary impact of the policies we have modelled, if they did not have to be financed by higher income taxes in Scotland, would boost the size of the economy –

by a magnitude of around 2% to 4% depending on the policy mix. Once the impact of paying for the policies through income tax is modelled (and this modelling is particularly uncertain due to the potential range of behavioural responses) this expansion is likely to be offset leading to a slightly smaller economy overall - in the region of 2% to 3% smaller- than would otherwise be the case. By way of comparison, similar modelling in 2016 looking at the impact of Brexit estimated that the impact was estimated to be in the region of 2% (with a Norway-style trade deal) to 5% (under WTO rules without a trade deal)³.

In the longer term, the transformation of the incomes of those currently in poverty could yield significant gains for productivity, for example from improved education or health outcomes. We have not attempted to quantify these here.

Overall, we know there is potential for positive impacts on GDP and the wider economy from alleviating child poverty, but we think these could be offset by the implications of funding these policies from domestic (devolved) taxation. However, any 'hit' to the economy is relatively small in a historical context. There are potential social and economic gains that could lead to a more prosperous economy in the long run.

Comparing options

We chose to model three scenarios (or packages) that each has a different emphasis.

- The first scenario (referred to as the 'economy max' package throughout) uses policies that maximise employment outcomes and minimise distortion to work incentives by using Child Benefit as the social security vehicle.
- The second scenario (referred to as the 'cost-effective' package) is focused on maximising impact for the lowest fiscal cost and has a more targeted approach using the Scottish Child Payment and a lower level of childcare support.
- The third scenario is a mixture of the first two scenarios and some additional policies such as an increased income disregard in the Council Tax Reduction scheme. This package was informed by input from parents with experience of living in poverty (referred to as the 'lived experience' package).

For each scenario, we first estimated the impact of the labour market changes to understand the potential progress towards the targets. Social security policies were

³ Roy, Graeme and Lisenkova, Katerina and McGregor, Peter and Figus, Gioele and Swales, John (2016) *Long-term Economic Implications of Brexit: A report for the Scottish Parliament*

then modelled and expanded until the poverty rate is reduced by a total of 15% points, which is necessary to meet the statutory 10% relative poverty target.

These results are discussed in full in Section 7. Here, we summarise a few key findings.

Table 1: Summary results table

	Scenario 1: (Economy max)	Scenario 2 (Cost- effective)	Scenario 3 (Lived experience)
1. Labour market changes			
a...impact on child poverty	-3% points	-1% points	-3% points
b...net cost (saving)	£1.8bn	£0.9bn	£1.8bn
2. Social security changes			
a...impact on child poverty	-12% points	-14% points	-12% points
b... net cost (saving)	£3.8bn	£3.2bn	£2.5bn
Total impact on child poverty (1a + 2a)	-15% points	-15% points	-15% points
Total policy net cost (saving)	£5.6bn	£4.1bn	£4.3bn
... to UK government	(£1.2bn)	(£0.1bn)	(£1.1bn)
...to Scottish Government	£6.8bn	£4.3bn	£5.4bn
Fiscally neutral wider GDP impact	-3.51%	-2.91%	-2.15%

Which option is 'best' depends on a wide range of factors

Costs (and savings) can differ markedly. Scenario 1 (economy max) and scenario 3 (lived experience) have more generous childcare policies which, compared to social security policies, are less effective at reducing poverty per pound spent.

However, policies that enable parents to work more can be beneficial for other policy priorities, such as reducing the gender pay gap and enhancing diversity in the workforce. As we will discuss below, the impact on the economy of an expanded workforce leads to more economic growth than the equivalent amount of money spent on social security.

There are positive fiscal benefits from increased earnings that outweigh some of the costs of providing the policies through income tax, notably increased National Insurance Contributions and reduced benefit payments. However, due to the

devolution settlement, not all of these will accrue to the Scottish Government. In fact, the UK Government is a net beneficiary of these packages in fiscal terms. Some of this income may flow back to the Scottish Government via the Barnett Formula, but decisions on this are outwith the control of Scottish Ministers.

Social security is a very direct means of providing income to those in poverty. However, different mechanisms have different outcomes and trade-offs.

The near-universal offer in scenario 1 (economy max) was the most expensive and least cost-effective of all the social security policies modelled. However, as noted below, its high take up did have beneficial impacts - particularly on the depth of poverty. The cost-effectiveness social security package in fact proved not to be the most cost-effective. This package integrated premiums for different 'priority' groups which we initially thought would more efficiently direct payments to those who needed them most. In reality, the flat rate Scottish Child Payment as modelled in scenario 3 (lived experience package) was more cost-effective.

The implications of such high social security payments on work incentives, particularly in the case of the means-tested policies in scenarios 2 and 3, could be significant. We have not attempted to model this impact, primarily due to a lack of evidence, particularly at the scale of the payments our modelling specifies. Over the next few years, as more evidence from the initial rollout of the Scottish Child Payment becomes available, it may be possible to improve this modelling to reflect some of the potential behavioural implications.

Adding in the macro picture tells a fuller story of the trade-offs

The macroeconomic model allows us to look at the wider impact of policies. All policies impact through the demand side of the economy with higher consumption of goods and services for those who benefit from the policy. The scenarios that have the more generous childcare offer have more of a positive impact via the supply side of the economy, with more economic impact per pound spent (net) than the social security policies.

The output of the macro modelling sometimes yield surprising results. For example, the first scenario (economy max) was the most expensive in fiscal terms out of all three packages. This means that the increase in income tax that would be required to pay for this policy was the highest of all three. When this is accounted for in the macro model, this scenario had the largest negative impact on the economy due to the impact of the additional tax burden. This highlights the importance of considering all costs and benefits when looking at possible options: a policy package designed to maximise potential economic impact actually performs the worst out of all three packages when all costs are taken into account.

Difference in take-up assumptions impacts on those in the deepest poverty

The impact of a (near) universal social security policy (Child Benefit) compared to a means-tested child benefit (Scottish Child Payment) differs in our analysis due to our assumptions on take-up. We assume 100% take-up for Child Benefit and take up for Scottish Child Payment is informed by take-up rates for the underlying 'passport' benefits (e.g. Universal Credit). Therefore, some children will not receive any additional income from the Scottish Child Payment.

There are two main implications:

- A larger amount of Scottish Child Payment is needed to move the same number of children out of poverty compared to a universal benefit. Some children who are relatively close to the poverty line would have left poverty with a lower payment. If these children are excluded from receiving the payment, a higher amount will be required to lift those in deeper poverty over the poverty line.
- There are more children left right at the bottom of the income distribution with the Scottish Child Payment, again because some children there are excluded from the benefit.

An important qualification to make is that there could be a significant increase in take-up for the 'passport' benefits as amounts of Scottish Child Payment rise. Nevertheless, a means-tested system is unlikely to reach 100% take-up.

Impact of housing and UK social security policy

These policies have been included as illustrations of additional impact rather than as part of the core packages as it would be more difficult for the Scottish Government to implement, although theoretically they should be possible.

We first looked at the impact of the reversal of the two-child limit and the benefit cap. These are both UK Government policies that are expected to increase rates of child poverty in future years. If this was implemented, then we would expect an additional 1.2 percentage point reduction on the baseline. The cost would be in the region of £150 million.

Secondly, we looked at the impact of housing policies, if the government were to find a way to cover the rents of parents living in poverty, this would reduce poverty in the baseline by around a percentage point.

Conclusions and reflections

This analysis takes as given that the targets will be met and analyses some of the complementarities and trade-offs by combining a range of large, national scale, policies. Whilst the Scottish Government may include a wider range of policies in the upcoming delivery plan, the policies we have analysed are likely to be under active consideration.

Our modelling has shown that, even with these small selections of policies, the targets can be reached and indeed the Scottish Government has a range of options within these policies that it can consider if it wants to achieve other objectives. This type of analysis a key element of a standard policy appraisal process where costs and benefits of different options are considered and we would hope to see a similar approach emulated by the Scottish Government in the next Tackling Child Poverty Delivery Plan.

This analysis shows that modelling the whole policy, including its funding requirement, provides insights that would otherwise be missing. A particular strength of the approach adopted here is that it analyses both the microeconomic and the system-wide, macroeconomic impacts of the policy packages. This highlights the importance of utilising models in the development of policy. Bringing in the voice of lived experience has also been shown to be extremely informative, again providing insights that would otherwise be absent.

The remainder of this report and the annexes provide further detail on the analysis.

3 Our approach

This work builds on prior modelling completed for the Poverty and Inequality Commission in early 2021 which looked at whether the child poverty targets could be reached by analysing a number of potential policy levers. These included social security policy, active labour market policies and policies on housing costs. Each of these levers was pulled to the extent required to meet the Child Poverty targets, or to their fullest extent if meeting the child poverty targets was not possible with the lever.

This previous analysis found that social security policy by itself could reduce poverty and meet the targets but at a high cost and with declining effectiveness at higher levels of payment. Active labour market policies could provide a significant boost to incomes, but getting people into work and increasing hours for all parents to full-time would not increase incomes enough to meet the targets. Reducing housing costs had smaller, albeit significant, potential.

The main conclusion from this work was that whilst social security on its own may be a feasible route towards the interim targets, a combination of work, social security and housing policies would be needed to map a feasible route towards the final target.

This led us to this subsequent programme of work where we build evidence-based policy packages, including multiple levers, that the government could implement and the subsequent potential costs and benefits.

By government, we mean all layers of government, but with the assumption that devolved policy is the default route to reach the targets as set by the devolved Scottish Parliament. The target we have focused on for this analysis is the relative child poverty target.

By policy, we mean actions that are expected to have an attributable impact on household finances. The effect may be direct (for example, social security) or one step removed (childcare provision which increases parental hours worked).

By evidence-based, we mean a reasonable set of publicly available (or derivable) data assumptions on cost and impact that have a credible and quantifiable line of sight from devolved policy to household income. We show what can be achieved with the policies we feel we have reasonable evidence on which to model.

We do not include policies in our model if we do not have a methodology that provides quantifiable estimates. However, that is not to say that the Scottish Government, or others, could not use their own information to construct estimates for new or different policy packages.

We do not comment on whether the policies we have included are the right policies or whether government policy is the only or correct route to reduce child poverty. For example, if all private-sector employers increased minimum wages, this could also impact household finances. However, this is outwith devolved policy control, and therefore outwith the scope of this analysis.

We model three packages to show that there are different options available to government(s) each with different implications and trade-offs. These are laid out in Section 5.

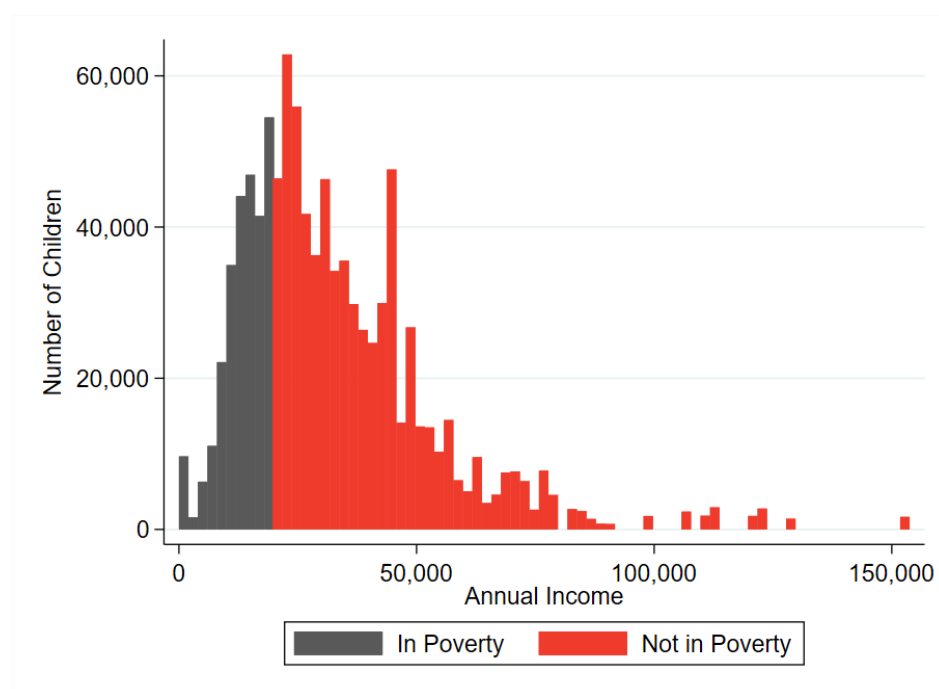
4 How we have produced the results

Microsimulation modelling⁴ allows us to implement a policy change and track the impact through to household income. If a policy change increases the income of a family previously in poverty above and beyond the poverty line, then the children in this family will no longer be in poverty.

The modelling process starts with a database of a representative sample of households in Scotland derived from the DWP's Family Resources Survey which shows us how much households currently earns as well as whether they are currently eligible and receiving social security income, plus any income from other sources such as investment income or pensions. Population weights are used to scale up the sample to Scotland level.

Chart 1 shows the current equivalised income distribution for children and the location of the child poverty line which is set at 60% of the (UK) median income. The x-axis shows equivalised annual household income, truncated at £160,000 as there are very few households in Scotland with income above this level. The y axis shows how many children in Scotland have a household income at each point on the income distribution.

Chart 1: Baseline income distribution



⁴ The microsimulation has been carried out using the IPPR tax-benefit model

By modelling a policy change, we can simulate what this would mean for each family in the income distribution and how many children move over the poverty line as a result. The poverty line may change if the policies impact those around the median, and change median income as a result. However, changes made in Scotland are unlikely to have a large impact on the poverty line as it is based on a UK median.

Figure 1 shows the process of modelling policies simultaneously and how we have used the micro model to evidence policy packages that meet the child poverty target of 10% of children in relative poverty by 2030/31.

Figure 1: Microsimulation Process

1. Baseline	Each option started from a baseline of expected levels of poverty in 2030/31. This baseline incorporates all announced social security policies from both the UK and Scottish governments, including the £20 Scottish Child Payment.
2. Work policy analysis	<p>Policies that increase the number of adults in work and/or the number of hours worked are simulated. These policies increase earned income and will move some children out of poverty.</p> <p>Some parents are excluded from work policies: parents with a child under the age of 1 and; parents who report that they have a disability or long term health condition that limits their life 'a lot'.</p>
3. Social security analysis	<p>Once work policies have taken effect, those who are eligible for a given social security policy receive a direct increase in their income. Not all eligible families will receive the benefit as it depends on take-up rates.</p> <p>The amount available under the social security policy is increased until the 10% child poverty target is reached.</p>

Additional policies For one of the options, we also simulate the impact of a housing policy that removed housing costs for families with children in poverty as well as the impact of the removal of the two-child limit and the benefit cap.

These additional policies represent areas where there are devolved powers available, but implementing changes would be complex for the Scottish Government due to the devolution settlement and interactions with reserved benefits. These are both areas where the UK Government could choose to implement changes that could impact the poverty targets.

The evidence base used at each stage of modelling for each option is discussed in Section 5.

Costs

A fiscal cost of each of the options is estimated (see Annex B for methodology). This allows us to estimate the extent to which income tax would need to be increased in Scotland in order to pay for the new policies (fiscal neutrality). Some options also produce cost savings (for example, an increase in hours worked may mean less social security income paid to the household), and this is also taken into account in calculating fiscal neutrality.

Impacts on the economy

As well as improving the standard of living for people who receive additional income due to the policies, there are secondary impacts that we look at. For example, if incomes increase, then people will have more money to spend. This in turn creates income for other people in the economy and may increase the number of jobs in the economy and increase measures such as GDP.

On the other hand, if income tax has to increase to pay for these policies, then this may have a negative effect on the economy as those people who are paying more tax will themselves have less money to spend. It may also have an impact on decisions such as whether to work additional hours. However, there may be offsetting effects. For example, investment in childcare provision means that there are employment gains and potential for increased consumption from those who used to pay for provision.

We model these interactions in a CGE model that is built on evidence observed by behaviour. For example, it uses the Living Costs and Food Survey to estimate how much consumption increases as income increases, and how this differs in different parts of the income distribution.

5 The policy packages

This section summarises the packages we have modelled. A summary table is also available in Annex A. Each package has a slightly different formulation and type of work and social security policies, reflecting the optimisation of different objectives alongside tackling child poverty. The results in this section show how far the work-based policies could take Scotland towards the targets and, absent any other policies put in place, how much social security would need to increase to meet the targets.

The three scenarios that we model are additional to a baseline which incorporates all announced social security policies from both the UK and Scottish governments, including the £20 Scottish Child Payment and UK Government policies such as the two-child limit. The baseline child poverty level is estimated to be 25% in 2020 compared to 24% in the most recent period (2017-20)⁵. Without the Scottish Child Payment, our model estimates that child poverty would be at 27% by 2030/31. The Payment, therefore, is in aggregate, offsetting what would be much greater increases in child poverty if it were absent.

Scenario 1: Emphasis on the wider economic impact

Work policies apply to all unemployed or inactive parents excluding mothers/single fathers with a child under the age of one, and parents who have a severe disability who we do not expect to be seeking paid work.

In this scenario, we include generous childcare provisions (50 hours plus wraparound childcare for primary school-aged children) which we assume would allow parents who are currently constrained in their ability to work due to lack of childcare to work full-time. An employability programme, that all can self-refer to, is also included.

The social security vehicle used in this option, Child Benefit, has high take-up (assumed to be 100% in the model). Child Benefit is not withdrawn until earnings reach £50,000 for one parent or their partner⁶ which limits the damage to work incentives for parents who could potentially move into work or increase their hours.

Chart 2 shows that the combination of the work policies leads to a reduction of around 3 percentage points from the modelled baseline. A payment of £111 per week per child would be required to meet the targets.

⁵ Our modelling is based on figures from before the pandemic. The pandemic will have an impact on poverty, but this could be relatively short term. Using pre-pandemic figures is likely to give us a better estimate of underlying average rates of poverty.

⁶ <https://www.gov.uk/child-benefit-tax-charge>

Chart 2: Scenario 1 (economy max)

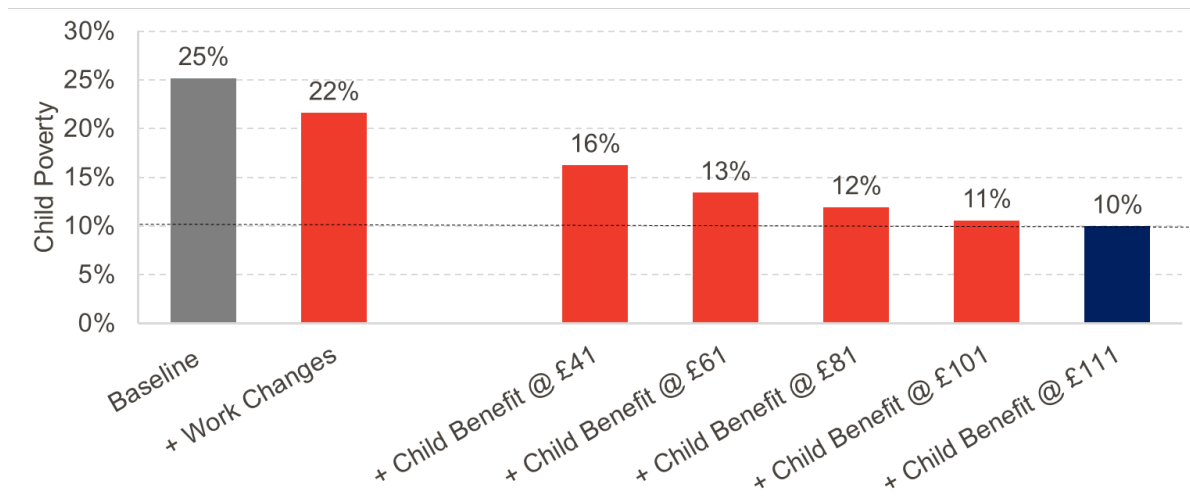
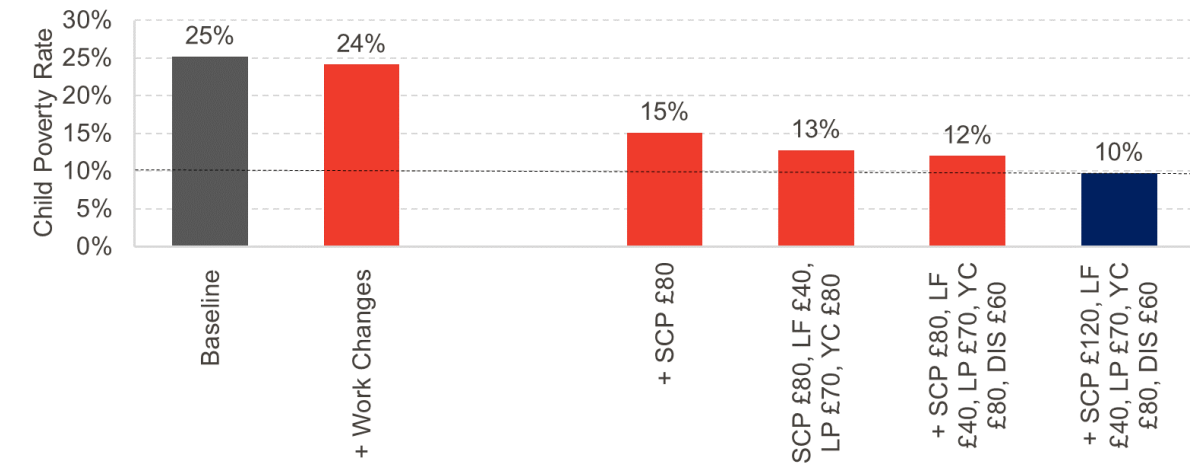
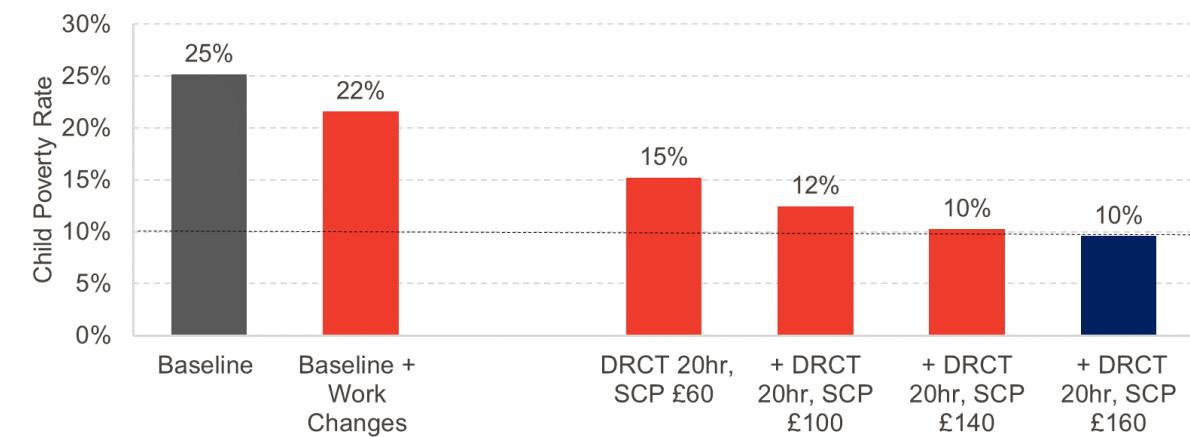


Chart 3: Scenario 2 (cost effective)



Note: SCP = Scottish Child Payment; LF = Large Families Premium; LP = Lone Parent Premium; YC = Young Child Premium; DIS = Disabled Family Premium

Chart 4: Scenario 3 (lived experience)



Note: SCP = Scottish Child Payment, DRCT = Income disregard for council tax set to 20hr on the minimum wage.

Scenario 2: Emphasis on maximising cost-effectiveness

This policy aims to lower the cost of policies by reducing scope and targeting. The trade-off here is that fewer parents will have constraints to work removed and there will be potentially large 'cliff edges' where eligibility for means-tested social security ends.

Childcare policies here provide provision which we assume would allow more parents who are currently constrained in their ability to work due to lack of childcare to work part-time. The same excluded groups apply in this package as in Scenario 1. The same employability assumptions also apply.

As shown in Chart 3, the work policies only contribute a 1 percentage point decrease in child poverty compared to the baseline. The difference in the impact of the work policies in Scenario 2 is down to the difference in childcare provision.

The social security policy used here is the means-tested Scottish Child Payment and use premiums in order to target payments at those in the deepest poverty. We have not modelled a taper here, and therefore once a certain earnings limit is reached, parents will face a significant cliff edge in terms of their social security income.

The complexity of the system and potential stigma mean that take-up rates are assumed to be lower than Child Benefit. In addition, although not explicitly modelled, there is the risk of adverse work incentives meaning that parents do not take on additional hours of work when the earnings threshold that signals the end of eligibility is reached.

Scenario 3: Emphasis on the views of people with experience of living in poverty

Scenario 3 brings in insights from questionnaires and roundtable discussions with parents with lived experiences of poverty. The key differences are that, additionally, parents felt that having a child with a disability or ill health made paid work extremely challenging due to children often needing to be cared for at home. They felt that the option of 50 hours childcare and wrap-around childcare for children was vital to allow parents (without disabled children) to work in the type of jobs commonly available to them, such as shift work.

No particular preference for a certain type of social security option was expressed, although simplicity was spoken about. We could have modelled either Child Benefit or Scottish Child Payment but, in order to provide a counter to the other options, we modelled a flat rate Scottish Child Payment option.

At the roundtable event, Council Tax came up often, with parents noting that, once they entered work, they were no longer eligible for full Council Tax Reduction (CTR) and this could affect work decisions. We, therefore, increased the income disregard significantly so that full CTR would be available until earnings were much higher.

Figure 2: Underpinning assumptions for work policies

As discussed in Section 3, we have limited our analysis to policies where we have been able to derive reasonable evidence on the impact and cost to ensure that there is some empirical basis for our assumptions.

This does not necessarily mean that our assumptions will be accurate when applied in future years. Where we feel there are particular reasons for uncertainty or potential bias, we have noted this.

Childcare

The evidence on the impact of free childcare provision on parental earnings is not conclusive. Whilst many parents, including those in our lived experience roundtable cited the importance of adequate and affordable provision to enable paid work, it is certainly not the only factor that impacts parental employment. We, therefore, have not assumed that increased free childcare provision will lead to all parents working. However, we have assumed that it will remove one, important, barrier.

In order to estimate the possible scale of the impact of removing this barrier to work, we have looked at families in Scotland with children of school age. Children of primary school age in Scotland receive around 30 hours of schooling a week in term time. Therefore, we have assumed that if 30 hours of free childcare were available, the employment rates for mothers in couples, fathers in couples, and lone parents of eligible children could be the same as similar parents of primary age children. For 50 hours of childcare plus after-school care for primary age children, we have assumed that parental employment rates equalise to parents of secondary school pupils.

These assumptions on childcare are likely to be at the top end of the possible impact. For example, a parent of a 2-year-old may not feel that 30 or 50 hours of childcare for their child will be of benefit to their wellbeing, and may put this factor above any financial consideration.

Employability

We have used evidence from the evaluation of Fair Start Scotland, the main employability programme run by the Scottish Government. We have looked at the number of people who are referred to the programme who have a sustained job outcome of at least 12 months. For those referred in 2018/19, this figure was 8%, and we have chosen to use this figure as it should be relatively unaffected by Covid-19. We assume that all people can self-refer, and therefore 8% of those that remain unemployed or inactive after the childcare assumptions are applied are additionally assumed to be work in 2030/31.

This is likely to be an underestimate of the impact of the programme, as there will be some cumulative impact over time meaning the figure in sustained employment by 2030/31 will be higher, depending on when the expanded scheme was put in place. We do not have information on what happens to those who are part of Fair Start Scotland over the longer term to enable us to make a different assumption.

Additional policies

We also looked at two variations on Scenario 3. The first looked at the impact of the reversal of the two-child limit and the benefit cap. These are both UK Government policies that are expected to increase rates of child poverty in future years. If this was implemented, then we would expect an additional 1.2 percentage point reduction on the baseline. The cost would be in the region of £150 million.

Secondly, we looked at the impact of housing policies, if the government were to find a way to cover the rents of parents living in poverty, this would reduce poverty in the baseline by around a percentage point.

These policies have been included as illustrations of additional impact rather than as part of the core packages as it would be more difficult for the Scottish Government to implement, although theoretically, it should be possible for them to do so.

6 Lived experience research

The focus on working with people with lived experience within this project builds upon the increased focus on participation within policy making in Scotland. This work adds to this evidence base, embedding the insights and realities of people living in poverty into policy-making processes.

Poverty Alliance led the involvement of 'lived experience' within this work. This project has provided an opportunity to apply an innovative methodology in micro and macro modelling that the voices of people experiencing poverty have traditionally been excluded from. We believe the approach taken within this project is one of the first of its kind in the UK and provides key opportunities for learning and innovation in both social and economic policy and in the application of participation. This project has created an opportunity for new forms of knowledge creation and thinking around tackling child poverty.

To facilitate the incorporation of 'lived experience' within this project, research tools of questionnaires and an extended online focus group were used to draw out and understand the perceptions and potential behavioural responses to different modelling areas such as social security and labour market interventions. Alongside this, these tools also gathered wider data on the experiences of child poverty and the impacts of the Covid-19 pandemic in Scotland.

Key findings

Here we summarise some of the main points of consensus that came through the lived experience work. A more detailed overview, along with a full explanation of the methodology is included in Annex D.

The pandemic

The experience of poverty had intensified since the COVID 19 pandemic. Households within this study reported that there was increasing pressure on families in terms of income adequacy and increasing precariousness in daily life. Pressures included the loss of income due to the withdrawal of the Universal Credit Uplift, rising fuel prices as well as hidden costs for families with disabilities.

"I was one of those people who come into the Universal Credit system for the first time in the benefit system this year,then just looking at that and the perfect storm of these fuel bills going up, it's just like oh my gosh, this feels like the—and going into winter, just feel, when you need more public transport, your kids don't want to walk anywhere, you can cajole them in the summer to go somewhere, but you suddenly, it's—there's some terrifying costs that you don't, that are unexpected—you just think, 'I can't see where that's going to come from.'"

Elaine * single parent, recently unemployed and carer for children

Work

Broadly across the lived experience components of this study, there was a recognition of the importance of employment as an exit route from poverty. Participants discussed that paid employment provided benefits to households in terms of positive impacts on household wellbeing as well as potential financial advantages such as greater income coming into the household.

These advantages were recognised to be only present when other structural challenges and barriers to sustainable employment had been removed. Households reflected the need to tackle barriers such as support to access the labour market, job availability and the wider economic impacts of the pandemic in terms of job loss across many sectors.

For single parent households, this study highlighted structural barriers for this household type around moving into the labour market, including the additional challenges of living in a rural area.

“And try and find a sixteen hour job when you’re in a rural area,So you’re having to travel to get a job, so you’re going to be more in childcare then to wrap around the, although it’s a sixteen hour job, it could end up being thirty hours a week you’re away by the time you have maybe an hour’s travel there, an hour’s travel back. It’s a whole extra expense that way as well”

Kay single parent and volunteer and carer for children*

Childcare

For all household types, availability of accessible and affordable childcare was central to sustaining employment, education, or training. Experiences of provision included issues around access to places in preferred childcare providers as well as the high costs many experienced in practice. Greater investment in this area was central for families to achieve outcomes within the household such as engaging in training.

Recognising the caring requirements faced, households raised that sustained employment required flexibility to meet their needs. Barriers were discussed around the availability of employment within localities that offered hours that could accommodate caring responsibilities. Unseen challenges whilst in employment which impacted the sustainability of employment i.e. emergency caring due to childhood illness, attitudes of employers and, working conditions in practice. These added to other structural issues such as the availability of childcare.

“I’ve got two boys who have got additional needs and for seven years I was getting phone calls from the school to come and get them all the time, so I could never have a job”

Patricia single parent and carer for children*

Larger families highlighted sustaining employment was difficult for example due to childcare availability for different ages of children.

Across this study, a clear consensus emerged around employment expectations for households caring for disabled children. It was perceived there needed to be greater investment in social security to support their income and recognize their needs.

Social Security

The importance of adequate social security was emphasized consistently by lived experience participants as well as the need for a social security system that recognized household needs and circumstances for those not able to access employment.

Households with long term conditions or disabilities raised many hidden costs and barriers for example supporting children with engagement with schooling due to complexities of behavioural conditions. Alongside this was a discussion on the role and value attributed to caring more generally. There was a perception that there was a lack of recognition within society and through systems such as social security of the value of the caring responsibilities many households were doing and the inadequate levels of income within the household as a result of this.

Generally, there were mixed views on the role of the state in the form of social security in supporting families when children were young with some advocating for more state support in the form of benefits than others. This was situated around perceptions of childhood development with a focus that children required parents and caregivers to be more present within the households within their early years. It was perceived that greater work expectations were more applicable for those with older children.

Transition points

Transition points were perceived by lived experience participants to be challenging, for example moving into employment presented additional costs and, in some cases, drops in incomes due to loss of entitlements. Costs such as transportation, council tax, and childcare costs posed risks to transition becoming a sustained and viable outcome.

That's what's putting a lot of people off going back to work because you have to pay the childcare first, before they've even got any wages or anything"

Kay* single parent and volunteer and carer for children

More broadly the relationship between social security and employment was highlighted for families that had undergone a separation. For example, the duality of costs due to separate housing costs. Experiences of obtaining child maintenance and adequacy of income from social security were thought to be insufficiently considered within the social security system.

7 Comparing the impact of scenarios

This section takes a detailed look at the differences among the three scenarios we have developed.

The devolution settlement makes this analysis a little more complex than would be the case if the modelling was at UK level. As well as costs, there are savings associated with the labour market policies due to increased income tax receipts, National Insurance Contributions (NICs) and reductions in benefit expenditure, but only some of these are under devolved competence.

Any increase in income tax receipts flow to the Scottish exchequer. However, NICs and the majority of the benefit system remains reserved to Westminster, so these savings flow to the UK Treasury. Some of this income may flow back to the Scottish Government via the Barnett Formula, but decisions on this are outwith the control of Scottish Ministers.

For policymakers in Scotland, the cost implications to the Scottish Government are key for budgeting and we therefore split these out in the analysis in Table 2 and in later analysis.

Comparing cost effectiveness in meeting the targets

Table 2 shows the final results for the microsimulation, including the net costs for both the work policies and the social security policies. This allows us to work out the net cost effectiveness for each scenario which we have shown in Chart 5 as total net cost per 1 percentage point reduction in child poverty. Scenario 2 (cost-effective package) has the lowest cost per 1 percentage point reduction in poverty. This is true whether looking at total net costs or just those accruing to the Scottish Government.

Looking at Chart 5 the first thing that stands out is that the work related policies are much less cost-effective than the social security policies across all three policy packages. This reflects limits on the effectiveness of the policy: not all parents in poverty can work, and that other barriers beyond lack of childcare and employability support prevent parents from working – for example availability of transport. Other factors such as pay also matter for poverty. This does not mean that these policies are not worth pursuing. As noted in Section 6, parents with experience of poverty noted additional wellbeing benefits to being in work as well as financial rewards. Provision of early learning can also have benefits for children's later attainment at school.

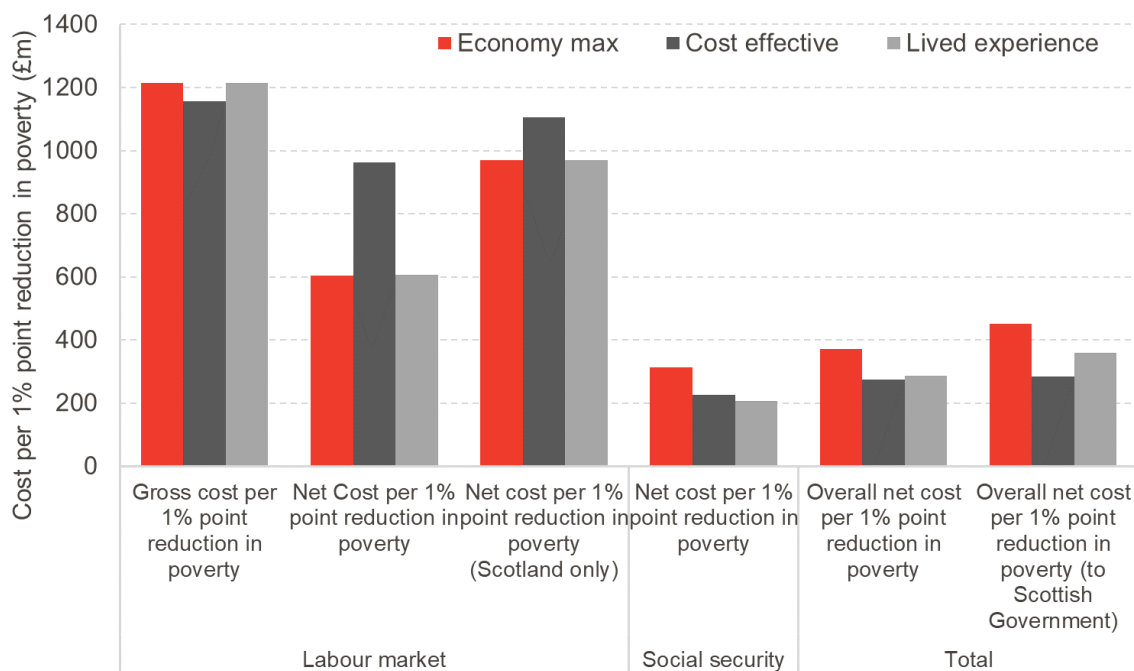
Another finding that stands out in Chart 5 is the difference between gross and net cost effectiveness for the work related policies. Net costs take into account the income that flows back from tax, NICs and social security savings. The cost per 1% point reduction in child poverty is broadly the same for the work policies across the three scenarios when gross costs are considered, but when savings are factored in

the cost effective package is actually the least cost effective. The difference is less acute when we only factor in savings to the Scottish Government.

Table 2: Overview of poverty reduction and costs

	Scenario 1: (Economy max)	Scenario 2 (Cost- effective)	Scenario 3 (Lived experience)
Labour market changes			
...impact on child poverty	-3% points	-1% points	-3% points
...gross cost	£3.6bn	£1.2bn	£3.6bn
...net cost	£1.8bn	£0.9bn	£1.8bn
Social security changes			
...impact on child poverty	-12% points	-14% points	-12% points
... net cost	£3.8bn	£3.2bn	£2.5bn
Total impact on child poverty	-15% points	-15% points	-15% points
Total policy net cost (saving)	£5.6bn	£4.1bn	£4.3bn
... to UK government	(£1.2bn)	(£0.1bn)	(£1.1bn)
...to Scottish Government	£6.8bn	£4.3bn	£5.4bn

Chart 5: Overview of cost effectiveness defined as cost per 1% point reduction in child poverty



In terms of social security, there is little difference between total net costs and Scottish Government net costs and we only show the total in Chart 5. Unsurprisingly, the near-universal child benefit in scenario 1 (economy max) is the least cost-effective. More surprisingly, the scenario 2 (cost-effective) package is not the most cost-effective. This package integrated premiums for different ‘priority’ groups which we initially thought would more efficiently direct payments to those who needed them most. In reality, the flat rate Scottish Child Payment, as modelled in scenario 3 (lived experience), was more cost-effective. This is even though the lived experience package includes the income disregard for Council Tax Reduction as an additional social security measure. This has a cost of around £300 million but with little immediate impact on child poverty. It was included as our lived experience research highlighted it as an issue that parents feel disincentivises them from returning to work. If this policy was removed from scenario 3, the overall cost-effectiveness of this package would be higher still.

Although the scenario 2 (cost effective) package is not always the most cost-effective when the social security or labour market policies are compared across the three scenarios, once all the policies are combined into the total package, scenario 2 is the most cost-effective. This is because the total package relies more on social security policies which are, on average, more cost effective compared to labour market policies.

The uncertainties of behaviour change

The analysis shown in Table 2 excludes any behavioural effects from the social security measures. If any of these scenarios became reality, these would be significant, but uncertain. For example:

- The higher social security amounts in all scenarios could increase the reservation wage with fewer people employed in the labour market. Whether or not this would be the case for those living in poverty would depend on their situation, such as the 'cost' of work (e.g. commuting expenses) that would determine whether they would be financially better off not in paid work, and the extent to which they valued work in itself.
- Take up rates for the Scottish Child Payment could increase as its value increases reflecting the higher opportunity cost of not applying for the 'passport' benefits. This would increase the cost of the policy, but potentially make it more effective at tackling poverty.
- The lack of a taper in Scottish Child Payment risks disincentives to increase hours once parents come close to the end of the Universal Credit taper (and potentially incentivises parents currently not eligible for Universal Credit to reduce hours worked). All else being equal, this would increase the cost of the policy with no additional impact on effectiveness.

Over the next few years, as more evidence from the initial rollout of the Scottish Child Payment becomes available, it may be possible to improve this modelling to reflect some of the potential behavioural implications. However, scenario 1 would be impacted the least by behaviour change due to the already high take-up and a much higher threshold for losing eligibility. This package would be the most effective across the three in avoiding adverse behaviour change.

Comparing impact beyond the changes in the headline poverty rate

Successfully meeting the child poverty targets is central to the Child Poverty (Scotland) Act. However, outcomes for children are likely to be improved if their income rises, even if they remain under the poverty line.

It is difficult to produce a statistic that captures this change sufficiently, and we have therefore chosen to show it visually. Figure 3 shows the distribution of income of children who are in poverty in the baseline, and how this distribution changes after the policies have been implemented.

Comparing the light grey bars and the dark grey bars shows that in scenario 1, there are fewer children left under the £10,000 equivalised income threshold than in the other two scenarios. This reflects the higher take-up of Child Benefit where every child will get some financial benefit from the higher payment. Where take-up is below 100%, as in scenarios 2 and 3, some children will miss out on any increase to their income, leaving their financial situation in the same position as before the policy intervention; their 'depth' of poverty will remain unchanged.

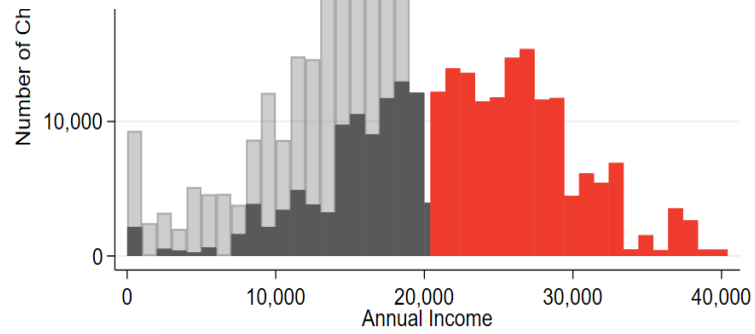
There are other nuances to explore. For example, in scenario 1 the poverty line moves upwards. This is due to Child Benefit also being paid to households around the median income threshold, which is enough to shift the (UK) median income, and hence the relative poverty line upwards. In this situation, there are children who would not be termed as in poverty if we were using a static poverty line⁷.

For those children who do leave poverty, Figure 3 shows that there are different 'destinations' between the three scenarios shown by the red bars. The economy max scenario increases annual household incomes to the extent that most children who leave poverty fall between £20,000 and £30,000 with none moving above £40,000. Scenarios 2 and 3 show more of a spread of incomes for children who have left poverty with some moving to an equivalised household income of more than £40,000. This will be driven by the higher amounts that are required under the Scottish Child Payment due to the take-up constraint. The desirability of such increases is likely to be subjective, and there are policies which could limit increases in income such as a cap in the amount of benefits that can be received, although such policies are themselves often contentious.

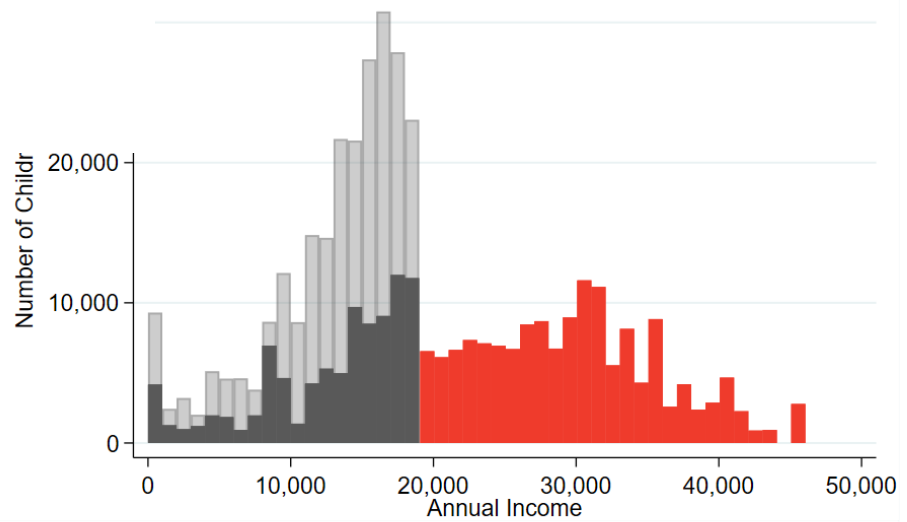
⁷ These children should be picked up in The Child Poverty Scotland Act absolute poverty target that seeks capture rises in absolute living standards, even if this does not result in an increase in living standards relative to the rest of the population. The target rate for this measure is 5%. The other targets include a measure of whether families can afford basic goods and services and whether children are in poverty for a prolonged period of time. We do not include these measures in this report as they are much harder to model and should fall in line with falls in relative poverty.

Figure 3: Incomes of children in poverty before and after policy packages

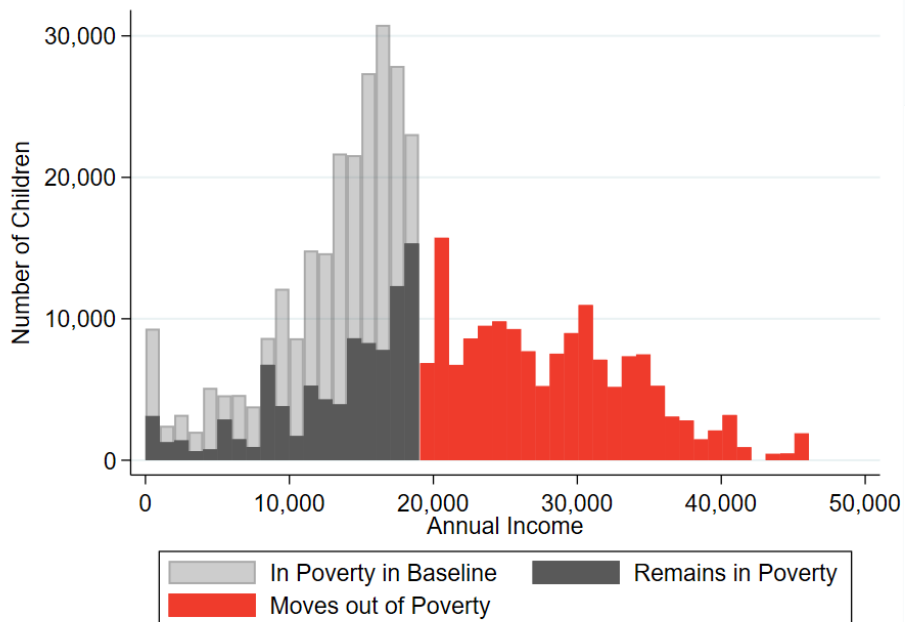
Scenario 1
(economy max)



Scenario 2
(cost effective)



Scenario 3
(lived experience)



Wider impacts on the economy

Our modelling approach allows us to look at the wider economic impact of the policies we have modelled. The redistribution of income that results firstly from implementing the policies and secondly from the income tax revenue required to pay for the policies is significant. We have assumed income tax is the mechanism through which these policies would be funded. Other devolved tax instruments do not currently exist at the scale required to raise the revenue implied by the modelled policy change. If a different instrument was assumed, the distributional impact may be different, but would still be significant.

Firstly, we attempt to isolate the direct impact of implementing the policies which stimulate wider economic activity before we consider the implications of funding the policies. In Scotland, where a balanced budget is required, it is not realistic to consider the increases in income without also considering how the policies will be funded. However, separating out the benefits and costs helps us understand the sequence of changes due to different factors.

Demand driven stimulus

Income is transferred to households as a result of transfers through the social security system and stimulated through higher earnings (net of any transfers back to government due to higher earnings– e.g. tax) due to the childcare and employability policies.

These increases lead to economic expansion driven by increases in consumption, and so in the total demand for goods and services, as shown in Chart 6. The largest increases occur in the ‘cost effective’ scenario which had the largest transfers to households through social security.

Supply driven stimulus

Next, we look at changes in the wider economy driven by the supply side of the economy, which in this case refers to the labour market. Firstly, on the stimulus side, the increases in labour market participation and willingness to supply more hours, linked to the more generous childcare provisions, expands labour supply and puts downward pressure on the price of labour, leading to enhanced competitiveness and growth in net exports.

As Chart 7 shows, on the supply side it is scenarios 1 and 3 (economy max and lived experience) that have the largest stimulus effect, reflecting their more generous childcare offer. However, unlike the demand stimulus, that was driven by a transfer (and subsequent spending) of income to lower income households, the supply stimulus benefits those higher up the income distribution who gain more from the increased competitiveness of firms in Scotland. This does not mean that labour market driven policies do not lead to increased income for lower income households – there is some supply side induced increases in earnings for the lower quintiles in Chart 7 and the increase in earnings for those workers benefitting from the policies is

represented in the demand side Chart 6. However, supply side stimulus flows through the economy in a slightly different way.

Chart 6: Impact on consumption and GDP from demand stimulus – before income tax increase (unfunded)

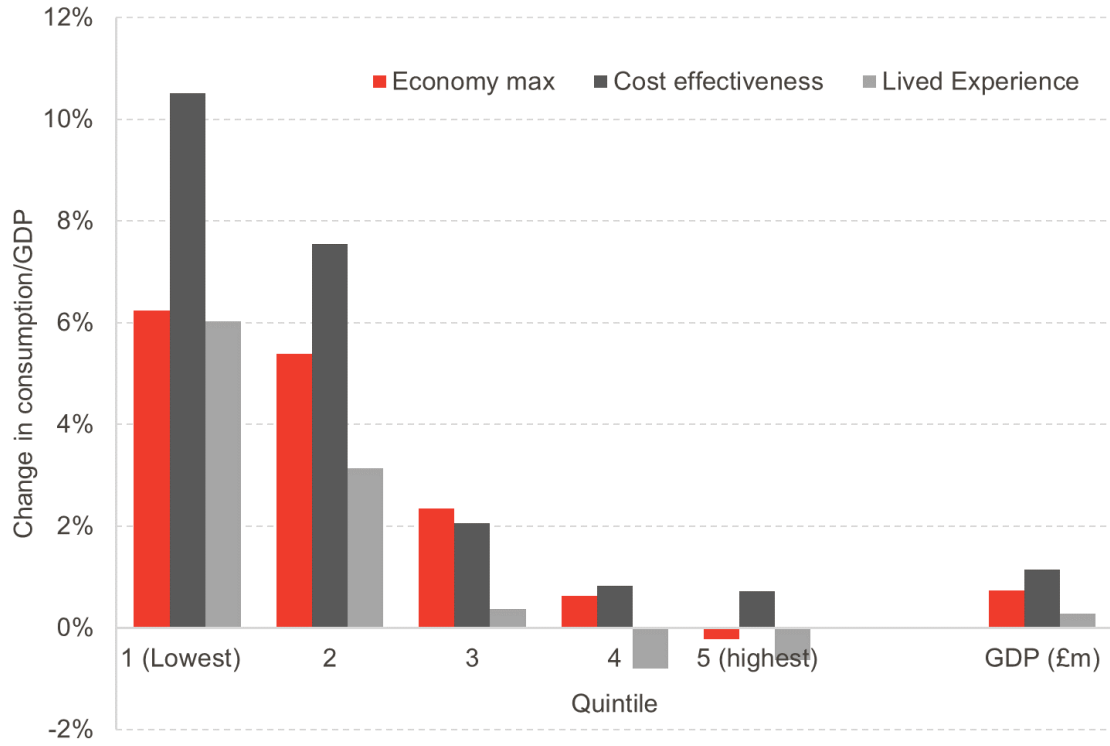
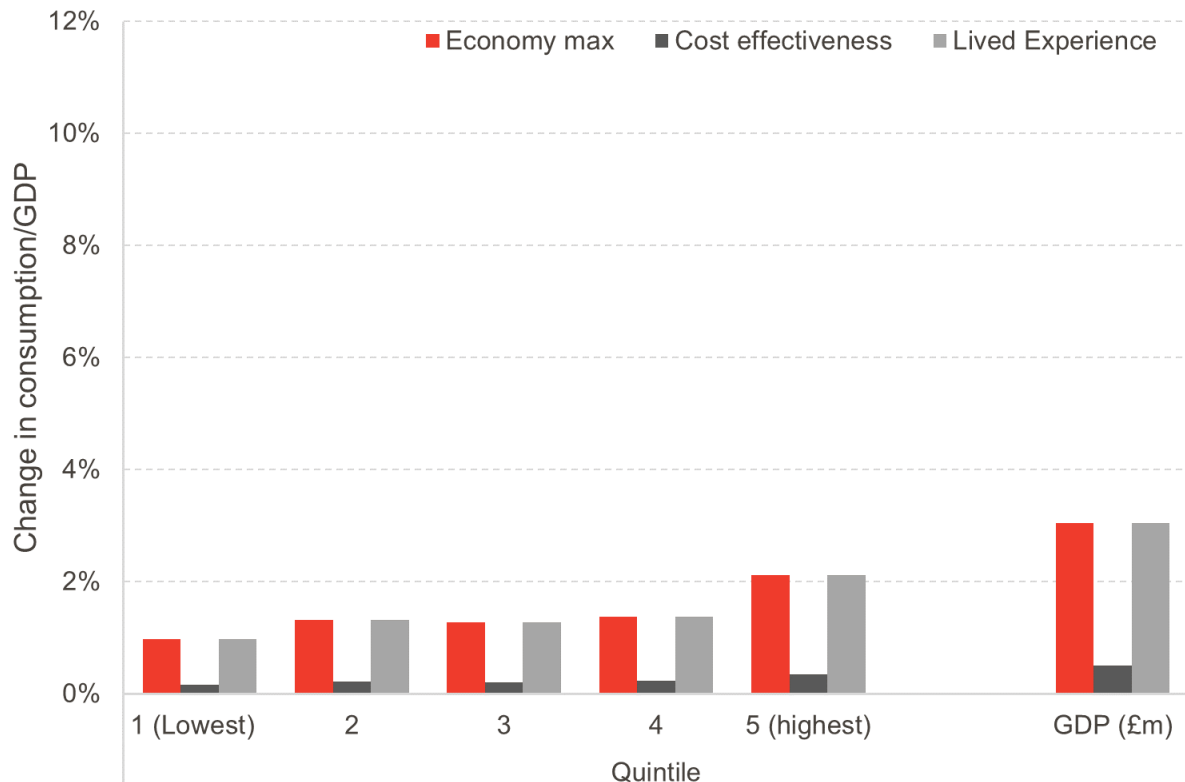


Chart 7: Impact on consumption and GDP from supply stimulus – before income tax increase (unfunded)



Demand side contraction

To consider the impact of funding the policies, now we consider the impacts of the funded (or fiscally-neutral) case for each of the three scenarios on the demand side of the economy. The progressive nature of income tax means there is a reduction in income in higher income households which leads to a reduction in consumption by these households. Essentially in these funded scenarios the offsetting reduction in consumption across the higher-income household groups means that the stimulus to consumption is negative overall.

Supply side contraction

Next we look at the potential for pressure on wages as a result of income tax changes as people seek to restore their wages after a reduction in take home pay due to tax rises. This reflects wage bargaining, and is the default assumption in most macro models. In the absence of a wage bargaining assumption, we would be assuming that workers are indifferent to changes in their income due to taxation or are simply unable to seek compensation. Whilst that may be the case for some workers, there is currently not sufficient evidence to relax this assumption entirely, although some may consider it a 'worst case scenario'. Wage bargaining in response to the rise in income tax puts upward pressure on wages and, therefore, prices. This "wage push" effect has an adverse impact on competitiveness and net exports which leads to a contraction in economic activity.

Overall impact

Chart 8 brings all this together, along with two additional factors related to childcare (in addition to having to meet the costs of provision):

- the increased demand for the childcare (education) sector, which through linkages to the wider economy, indirectly increases demand in other sectors.
- increased household disposable income (mainly in higher quintiles) from the increase in 'free' childcare, which allows these households to spend on other goods and services.

As Chart 8 shows, consumption remains higher than would otherwise be the case at the lower end of the distribution, but there is a contraction at the upper end explained by the fact that income tax is a progressive tax. Overall, GDP reduces in each scenario, and in fact reduces the most in the 'economy max' scenario, primarily due to its highest cost.

Table 3 provides additional details, and also shows that the combination of expansionary labour market policies plus the lowest cost social security measure in the lived experience scenario produces the lowest level of potential economic contraction and a predicted small increase in employment overall.

All the scenarios produce a contraction in GDP (2- 3 percent)as a result of meeting the targets. By way of comparison, similar modelling in 2016 looking at the impact of Brexit estimated that the impact was in the region of 2% (with a Norway-style trade

deal) to 5% (under WTO rules without a trade deal)⁸. The deal that eventually transpired would fall towards the upper end of that range.

In the longer term, the transformation of the incomes of those currently in poverty could yield significant gains for productivity, for example from improved education or health outcomes, that are not quantified here.

Chart 8: Impact on consumption and GDP from supply stimulus – after income tax increase (funded/fiscally neutral) and including childcare stimulus

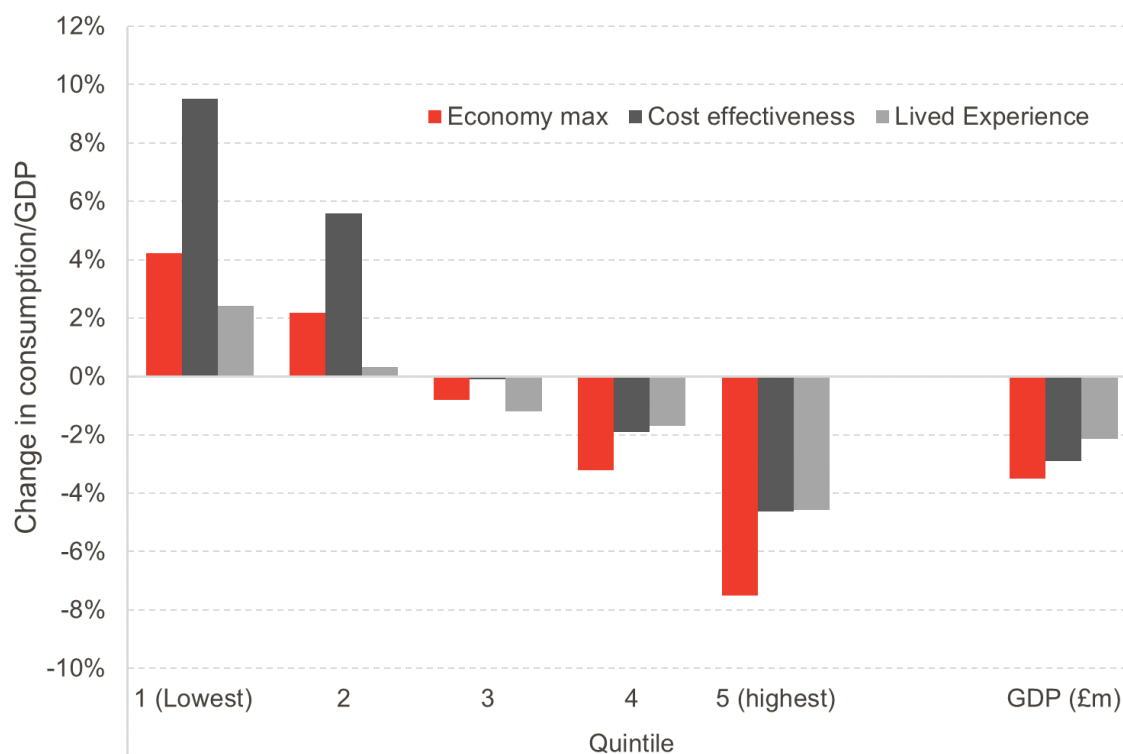


Table 3: additional detail of macroeconomic impact

	Economy max	Cost effectiveness	Lived Experience
<i>GDP (£m)</i>	-3.5%	-2.9%	-2.2%
<i>Consumption</i>	-2.7%	-0.4%	-1.9%
<i>Investment</i>	-0.5%	-0.4%	0.7%
<i>Total Exports</i>	-1.8%	-3.3%	-0.2%
<i>Employment</i>	-0.8%	-1.2%	0.8%

⁸ Roy, Graeme and Lisenkova, Katerina and McGregor, Peter and Figus, Gioele and Swales, John (2016) *Long-term Economic Implications of Brexit: A report for the Scottish Parliament*

8 Conclusions

Our analysis has shown the potential impact of large scale, system wide approaches, to tackle child poverty.

As in our related work report for the Poverty and Inequality Commission, we have shown that the targets can be met with a combination of labour market and social security powers. We acknowledge that the scale at which these have needed to be set in this modelling may be surprising, but this simply reflects the ambition of the targets and the relatively small number of structural policies we have been able to model. With more evidence informing more policy solutions, the eventual plan for meeting the targets could look very different.

To reiterate, we have produced this analysis to help inform understanding of how the targets could be met, but we do not provide an answer on how the targets should be met. The next delivery plan in 2022 provides the opportunity for the Government to set this out, with a spending review process alongside to ensure adequate funding.

Tackling child poverty will have far reaching benefits. The scale of poverty reduction that meeting the targets would realise is likely to lead to significant improvements in other areas including education and physical health as already mentioned, but potentially areas such as justice, child protection and mental health as well.

Given the likely size of investment required, modelling approaches become even more important so that the policy makers can be accountable for how that money is being spent and the impact it is having.

The experiences that were shared with us from those with lived experience of poverty ensured that our work was grounded in reality and provided insight into understanding if and how policy would work in practice and where there were other barriers that constrained the decisions. The Scottish Government already works with a range of lived experience partners and our research serves to underline the importance of extending this to child poverty related work.

Our analysis has also highlighted the importance of modelling the whole policy, including its funding requirement and likely macro- as well as micro-economic consequences. This provides insights on trade-offs that would otherwise be missed, although the severity of the trade-offs is likely to depend on the strength of any wage push effects

We hope that the findings from this report will help better inform the debate on the impact of meeting the targets and aid effective policy development as well as highlighting the important benefits that the modelling approaches that we have developed can bring.

Annexes

Annexes

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Annex A – Policy packages

This annex provides a summary of which policies are assigned to which scenario.

Policy	Assumptions	Scenario 1	Scenario 2	Scenario 3
Work				
Excluded from work policies	Parents where youngest child is under one or parent is severely disabled	x	x	
	Above plus households where child is disabled			x
Universal 30 hours childcare 3 & 4 & deferred 5s	Parent(s) work 20 hours at either existing wage or minimum wage		x	
Universal 30 hours childcare 1 & 2	Parent(s) work 20 hours at either existing wage or minimum wage		x	
Universal 50 hours childcare for children 1 - 4	Parent(s) work 35 hours at either existing wage or minimum wage	x		x
Universal wrap around childcare for primary school aged children	Parent(s) work 35 hours at either existing wage or minimum wage	x		x
Employability	Hours dependent on childcare package in place	x	x	x

Social Security				
Council Tax Reduction	Increase income disregard to 20 hours at minimum wage			x
Child benefit	All children equalised to first child rate then flat rate increase	x		
Scottish Child Payment	Flat rate increase			x
	Flat rate + premiums		x	
Additional Policies				
2 child limit and benefit cap off				x
Housing costs set to zero for parents in poverty				x

Annex B – Cost of work policies

This annex provides a breakdown of the costings used for the work policies. Figures may not sum due to rounding.

Childcare provision – 30 hours term time (1140 per year)

To estimate the cost of additional childcare provision, we have based our analysis on figures provided by the Scottish Government on the current childcare system¹, which allocates funding to local authorities to provide 1140 hours (or 30 hours per week during term-time) free childcare for 3 – 5 years olds, plus the same provision for some eligible two-year-olds. These are shown in table B1.

Table B1 – Current agreed funding for ELC (£) 2021-22

Specific Revenue Grant	545,956,000
ELC expansion funding in General Revenue Grant (GRG)	20,700,000
GRG pre-expansion funding	453,929,000
Total ELC	1,020,585,000

Source: Scottish Government

Table B2 shows how many children currently use funded ELC in Scotland. 3- and 4-year olds currently receive 1140 hours of free provision. We wish to extrapolate these costs to additionally include all 1- and 2- year olds.

Table B2 – Numbers of children accessing childcare in Scotland

	ELC census numbers	Proportion of total	Assumed ELC cost (£)
Children receiving funded ELC	91,000	100%	1,020,585,000
...of which 3 – 5 years olds	85,000	93%	953,729,000
... of which 2 year olds	6,000	7%	66,856,000

Source: ELC census² & FAI calculations

¹ Any changes to funding would require agreement, and potentially negotiation, with Local Authorities so these numbers are only indicative.

² https://www.improvementservice.org.uk/_data/assets/pdf_file/0022/27850/ELC-Delivery-Progress-Report-Oct-2021.pdf

We also want to ensure we include the amounts spent on 5- year olds who defer school by a year³, as they will also be in scope for our policy. At present, only those born in January and February are eligible for free ELC provision. In 2023 that policy will change so that all eligible children will automatically be entitled to ELC.

Table B3 – Deferrals

	Latest deferral statistics	Estimates based on mid-year population estimates	Assumed ELC cost (£)
Total 5- year olds		58,000	
Total deferred 5-year olds	15%	9,000	
Estimate of those born in January & February		10,000	
Total deferred born in January - February	44%	4,000	47,419,000

Source: Scottish Government, NRS and FAI calculations

We use the figures above to estimate the proportion of the current spend that goes to 3- and 4-year olds. This is shown in Table B4

Table B4 shows how this figure is the basis of the cost of for 1140 hours for 1- and 2-year olds⁴, with an additional 10% allocated to 1-year olds due to an assumption around higher supervision ratios⁵.

Eligible deferred 5-year olds are part of the total for our analysis so are added on at this stage.

Finally, we deduct from this total the amount currently being funded by the Scottish Government to produce a figure of additional spend required to fulfil this policy.

³ Under the Education (Scotland) Act 1980 (the 1980 Act), all children who are still four when they are due to start their first year of school (P1) can be deferred and start the following year.

⁴ Equal sized age groups are assumed

⁵ Assumption evidenced by analysis available here:
<https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2021/08/financial-sustainability-health-check-childcare-sector-analysis-evidence/documents/financial-sustainability-health-check-childcare-sector-scotland-analysis-evidence/financial-sustainability-health-check-childcare-sector-scotland-analysis-evidence/govscot%3Adocument/financial-sustainability-health-check-childcare-sector-scotland-analysis-evidence.pdf>

Table B4 – Results of expanded 1140 analysis

		£ 2021-22 prices
Spend on 3- & 4-year olds	= Total ELC – eligible 2 year olds – deferred 5 year olds	906,309,000
Estimated spend on 1&2 year olds	= 3&4 year old + ((0.5 * 3&4 year old) * 0.10)	951,625,000
Estimated spend on 1 – 5 year olds	= Total ELC – eligible 2 year old + 1&2 year old	1,905,354,000
Total additional spend	= Estimated spend on 1 – 5 year olds minus total from table B1	884,769,000

Childcare provision - 50 hours term time (1900 hours per year) + primary school wrap around

To cost 50 hours of childcare we prorate the estimated spend on 1 – 5 year olds calculated above to derive an estimate for increased provision.

Table B5 – Pro rating of cost based on 1900 hours

		£ 2021-22 prices
Estimated spend on 1 – 5 year olds (1900 hour)	= Estimated spend on 1 – 5 year olds (1140 hours) / 1140 * 1900	3,176,728,000

To estimate the cost of funded after-school care provision, we use figures from Coram Family and Childcare which provides estimates of the cost of childcare based on surveys to local authorities across the UK⁶.

6

https://www.familyandchildcaretrust.org/sites/default/files/Resource%20Library/Childcare%20Survey%202021_Coram%20Family%20and%20Childcare.pdf

We use figures from the previous section to estimate the provision required for all primary aged children assuming take-up is the same as the take up for funded ELC for 3 – 4-year olds.

Table B6 – Calculating cost of out of school care provision

		(£)
Weekly cost of after school care		63.00 per child
Number who will claim free after school care (deferred 5-year-olds removed)	Total 5 – 11 children – deferred 5s * take-up rate	298,000
Assumed cost of after school care provision	Number who will claim * weekly cost * 38 (term time only)	711,443,000

Combining the 50 hours childcare for 1 – 5 plus after school care costs gives us a final cost for this policy.

Table B7 - Calculating final cost of 1900 hours plus wrap around care

	(£)
Estimated spend on 1 – 5-year-olds (1900 hour) + Assumed cost of after school care provision	3,888,171,000
Subtract amount currently spent	2,867,586,000

Expanded employability programme

We assume that all people who remain out of work, and who are not excluded from the work analysis could refer themselves to an employability scheme along the same lines of Fair Start Scotland.

In order to estimate a cost, we look at how much the scheme currently spends per successful sustained job outcome, and then multiply this figure by the number we

assume will be moved into work as a result of the policy in our model. We use the figure that refers to Outcome 3, which is a job that lasts longer than a year.

This is calculated by dividing the total cost of the programme between 2018 and 2021 (including forecasted costs) by the number of job outcomes achieved up to the end of June 2021. We have been advised by the Scottish Government that these figures are overestimates as some participants may still achieve job outcomes after this date.

Table B8 – Estimated cost of modelled expansion of Fair Start Scotland

	Eligible population after childcare expansion	% of being successful in achieving a job	Cost per job outcome that lasts longer than one year	Estimated cost
Economy max	110,525	8%	£24,265	= £215m
Cost effective	50,512	8%	£24,265	= £98m
Lived experience	110,525	8%	£24,265	= £215m

Source: Derived from Economic Evaluation of Fair Start

Annex C – More detail on macro and micro simulations

Microsimulation

To measure the impact of welfare policies we used the IPPR Tax-Benefit Model. It takes the latest Family Resources Survey (FRS) and updates it to our chosen policy year (i.e. 2030/31). It then applies expected tax and benefit rules to each member of the sample to produce a base forecast of the income of every member of the sample. The model also allows for the application of alternative policy scenarios to each sample member thus enabling the comparison of the effects of policy change on every member of the sample. It enables the user to assess the distributional effects of the policy change (who gained and lost) as well as add up across the sample to estimate aggregate costs and changes in poverty.

We tested ways to reduce child poverty in Scotland and to achieve poverty targets of 10% by 2030/31. In doing so we created 3 packages underpinned by different employment and social security assumptions. Packages represented different priorities, each presenting a different approach to achieving the 10% target. The three packages were cost effectiveness, economy max and lived experience. To inform our packages, we acknowledged previous research on the drivers of child poverty, the advantages, and disadvantages of different modes of social security and held focus groups to gain insight from people with lived experience. We found that the cost of childcare presented a significant barrier to employment for parents and that expanding childcare to increase household income by higher earnings was crucial in reducing child poverty. Therefore, all packages included an expansion of childcare on the assumption that variations of provision would increase the employment rate and the total of hours worked for parents.

To model the effects of changes to employment we created modified FRS data tables with higher employment rates and increased hours of work for certain groups. We then used the Tax-Benefit Model to model estimate the fiscal and poverty effects of these changes to employment. In combination with childcare expansion, increases to social security were used to boost household income to reach the 10% target. For all simulations, we used the last three years of FRS data, pooled together and updated to 2030/31. The assumptions of each policy package are outlined in the following sections.

Cost Effectiveness

For the cost effectiveness package, we provided 30 hours of childcare for children aged 1-4. This allowed for parents working part-time with a youngest child aged 1 to 4 to increase their hours of work to 20 hours per week and for the employment rate for mothers and fathers in couples and lone parents with a youngest child aged 1 to 4 to increase to match that of similar parents with a youngest child aged 5 to 11. Parents who moved into work were assumed to work 20 hours per week at the

minimum wage. In addition, 8% of those who remained out of work were assumed to enter work through increased employability measures at a cost of £98 million. These labour market changes created £6 million in fiscal savings through higher tax receipts and lower benefit payments and reduced child poverty to 24%.

To reach the target in the cost effectiveness package using social security, we tested increasing the main amount of Scottish Child Payment or a range of premiums targeted at specific groups. The premiums we tested were additional payments for: every child under a certain age (1, 3, or 5), families with a child under a certain age (1, 3 or 5), lone parent families, families with a disabled person, families with at least three children and families with mothers below a certain age. At each stage of iteration, testing increased the main amount of Scottish Child Payment or each of the premiums. To arrive at the most cost-effective social security offer, we chose the option with the lowest cost per child lifted out of poverty and increased this until its cost effectiveness fell. This process was then repeated until the 10% child poverty target was reached. The final package identified through the above process involved setting the main Scottish Child Payment set at £120, a large families payment at £40, the payment for lone parents to £70, the payment for young children aged <1 year to £80 and the payment for disabled persons to £60. The total cost of these social security changes was £3.1 billion.

Economy Max

For the economy max package, we provided 50 hours childcare for children aged 1 to 4 and wrap-around childcare for children aged 5 to 11. This allowed for parents working part-time with a youngest child aged 1 to 11 to increase their hours to 35 hours per week and for the employment rate for mothers and fathers in couples and lone parents with a youngest child aged 1 to 4 and those with a youngest child aged 5 to 11 to increase and match that of similar parents with a youngest child aged 12+. Parents who move into work are assumed to work 35 hours per week at the minimum wage. In addition, 8% of those who remained out of work were assumed to enter work through increased employability measures at a cost of £215 million. These labour market changes created £592 million in fiscal savings through higher tax receipts and lower benefit payments and reduced child poverty to 22%.

To reach the child poverty target in the economy max package, changes to social security were made using Child Benefit. Child Benefit was identified due to its universality and administrative simplicity meaning it was less likely to interfere with work incentives. The target was reached with an increase in Child Benefit of £111 per week. The total cost of the social security changes was £3.8 billion

Lived Experience

For the lived experience package, we provide 50 hours childcare for children aged 1 to 4 and wrap-around childcare for children 5 to 11. This allowed parents working part-time with a youngest child 1 to 11 to increase their hours to 35 hours/week and the employment rate for mothers and fathers in couples and lone parents with a

youngest child aged 1 to 4 and those with a youngest child aged 5 to 11 to increase and match that of similar parents with a youngest child aged 12+. Parents who move into work are assumed to work 35 hours per week at the minimum wage. In addition, 8% of those who remained out of work were assumed to enter work through increased employability measures at a cost of £215 million. Based on feedback from our focus group, parents with a disabled child were excluded from increased hours or entering work. These labour market changes created £592 million in fiscal savings through higher tax receipts and lower benefit payments and reduced child poverty to 22%.

To reach the target in the lived experience package we acknowledged the views of focus group participants who suggested that Council Tax was a particular barrier and that the social security system was often complex. In response, we increased the earnings disregard in Council Tax Reduction so that individuals could earn 20hrs at the minimum wage without Council Tax Support being withdrawn. Increases to the council tax earnings disregard cost £0.7 billion and had no effect on child poverty. To minimise complexity, all further changes were made to the main rate of the Scottish Child Payment, increasing it until the 10% child poverty target was reached. The target was reached with an increase in the Scottish Child Payment of £140 per week. The total cost of the Scottish Child Payment increase was £2.1 billion, and the total cost of social security changes (including the Council Tax Support) was £2.8 billion

Costings

We calculated the costs of each policy package. In doing so we took the total savings due to increased taxes and reduced benefits associated with labour market changes. We then subtracted the cost of social security changes, childcare and the employment programme. The amount funding required for the cost effectiveness, economy max and lived experience packages was £4.2, £6.6 and £5.7 billion respectively. We modelled an increase in income tax to pay for each package, we did so by applying a flat rate increase to each income tax band. Results showed that an increase of 6% was needed to fund the cost effectiveness package, with increases of 8% and 9% needed for the lived experience and economy max package.

Macrosimulation

The summary microsimulation results reported in Table C1 show that to achieve the Scottish child poverty targets under each of the three scenarios requires significant increases in government spending. Of course, where fiscal neutrality is imposed, substantial changes in income tax rates are also required. The scale of these changes is such that we would expect some impact on the macroeconomy. For example, these interventions imply substantial changes in gross and net income across all household types, which we would expect to alter consumption. Significant changes in tax rates could also impact wage bargaining behaviour. Throughout we focus on the long-run results of the policy actions, so that capital stocks have fully adjusted over this interval.

Table C1 – Summary of Microsimulation results, £m

Costs	Labour and Social Security (net) (1)	Labour and Social Security (Scottish and UK Government) (2) = (1) + (3)	Change in transfers to UK Government(3)	Employment Programme (4)	Childcare (5)	Total Cost to Scottish Government (6)=(1)+(4)+(5)
Economy Max	1926	3132	1206	215	3431	5572
Cost Effective	2961	3106	145	98	1058	4117
Lived Experience	638	1729	1091	215	3431	4284

Macroeconomic impacts of meeting the Scottish Child Poverty targets

To facilitate understanding of the overall macroeconomic effects of the three policies, it is helpful to decompose these into demand-side and supply-side impacts. The main demand-side effects are the consequence of changes in household consumption linked to disposable income and the knock-on effect this has on the wider economy. For each of the three policy scenarios we look at two cases: “unfunded” or “policy only” impacts, which we contrast with the fiscally neutral case, in which the Scottish Government has to fund the policy interventions by raising income tax rates. Given the currently devolved powers of the Scottish Government, and in the absence of a sovereign wealth fund, the unfunded case is unrealistic, but the results provide a useful benchmark. To focus on the demand side impacts we assume that nominal wages are fixed; this ensures that there is no induced supply side response to the demand stimulus. Traditionally, this assumption has been motivated in terms of a national bargaining model in which wage bargains are struck at the national level and the wage is effectively given to the region.

There are two supply-side impacts that may be associated with the three policy scenarios. The first is the effect of bargainers’ responses to any rise in income tax, and the second is the increase in labour supply due to the additional childcare payments that enable parents to participate in the workforce and/ or increase their hours of work. We consider the demand and supply side impacts of the three policy packages in turn.

Demand-side impacts

We first isolate the demand-side impacts of the three policies by fixing the nominal wage in the macro model, removing any potential supply-side effects. As outlined above the demand side impacts are largely dependent on the method of financing. Our modelling considers two alternatives:

- Unfunded interventions by the Scottish Government. This case is purely hypothetical since it would only apply if, for example, the UK Government was prepared to fund the Scottish-specific change or if the Scottish Government was in possession of a Sovereign Wealth Fund.
- Interventions that are funded by the Scottish Government through a rise in income tax rates to produce a “balanced budget” increase in the Scottish Child Payment, for example. This case is fiscally neutral since income tax rates are increased sufficiently to fund the increase in the Scottish Child Payment. This is the default, more realistic, case for the Scottish Government.

We first consider the externally financed/ unfunded (by the Scottish Government) case. The external funding in this case is the injection of new spending from the substantial increase in (net) transfers from the Scottish Government to households. From the first data column of Table 1 these transfers amount to £1.9 billion, £2.9 billion and £638 million for the Economy Max, Cost Effectiveness and Lived Experience policy packages respectively. The first three columns of Table C2 summarise the long-run impacts of the externally funded impact of these three cases.

Table C2. The long-run demand impacts of meeting child poverty targets under the three policy packages

	Unfunded			Funded		
	Economy max	Cost effectiveness	Lived Experience	Economy max	Cost effectiveness	Lived Experience
<i>GDP (£m)</i>	0.74%	1.15%	0.28%	-0.60%	-0.02%	-0.56%
<i>Consumption</i>	1.84%	2.83%	0.65%	-1.61%	-0.18%	-1.46%
<i>Investment</i>	0.87%	1.33%	0.35%	-0.57%	0.09%	-0.56%
<i>Total Exports</i>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>Total Imports</i>	1.04%	1.58%	0.35%	-0.92%	-0.12%	-0.83%
<i>Nominal Gross Wage</i>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>Real take home wage</i>	0.00%	0.00%	0.00%	-5.18%	-4.53%	-3.09%
<i>CPI</i>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>Real cost of capital</i>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>Unemployment Rate (pp difference)</i>	-0.60%	-0.94%	-0.21%	0.58%	0.10%	0.51%
<i>Employment</i>	0.64%	1.00%	0.22%	-0.62%	-0.10%	-0.54%
<i>Total HH Tax</i>	0.71%	1.10%	0.25%	13.90%	12.71%	8.12%
<i>Income Tax</i>	0.64%	1.00%	0.22%	28.48%	25.49%	16.86%
<i>Transfers to HH from Gov</i>	24.90%	38.29%	8.25%	24.90%	38.29%	8.25%

<i>Real Scottish Government Consumption</i>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>HG1 (Lowest) Consumption</i>	6.23%	10.51%	6.03%	4.95%	10.25%	2.65%
<i>HG2 Consumption</i>	5.39%	7.54%	3.13%	3.09%	6.18%	0.57%
<i>HG3 Consumption</i>	2.35%	2.06%	0.37%	-0.22%	0.04%	-1.18%
<i>HG4 Consumption</i>	0.63%	0.83%	-0.81%	-2.83%	-2.19%	-1.93%
<i>HG5 (Highest) Consumption</i>	-0.22%	0.72%	-0.63%	-5.31%	-4.37%	-3.30%

The results from the microsimulation imply significant increases in aggregate transfers to households from the Scottish Government of 24.90%, 38.39% and 8.25%, respectively for the economy max, lived experience and cost effectiveness scenarios.

As would be expected the increase in household transfers in the unfunded case results in an economic expansion across all three simulations, with GDP increasing by 0.74%, 1.15% and 0.28%. Employment also increases across all scenarios and the unemployment rate falls. The greatest stimulus occurs in the Cost Effectiveness case, and the smallest stimulus occurs in the Lived Experience case. The ranking across scenarios reflects the pattern of transfers to households and the associated increases in aggregate consumption (1.84%, 2.83%, 0.65%). In all cases there is a significant distributional effect in favour of lower income households, as there is a significant increase of consumption in the lower households but a reduction in higher income households associated with changes in social security payments.

Next, we consider the macroeconomic impacts of the funded or fiscally-neutral case for each of the three scenarios (the last three columns of Table C2), maintaining our assumption of a fixed nominal wage (which precludes any induced supply side reaction). We assume that the Scottish Government funds the policies fully through an increase in income tax, which tends to reduce household disposable income, especially of higher income households. While the consumption of lower income households continues to be stimulated this is more than offset by the reduction in the consumption of higher income households so that aggregate consumption actually falls as a consequence of the fiscally neutral expenditure changes (by 1.61%, 0.18% and 1.46% respectively). Other funding methods were considered (such as reducing government expenditure elsewhere) but these can be problematic in combatting poverty; the progressive nature of income tax and its devolved status makes it an appropriate funding mechanism in this case.

Unlike the unfunded case, we find across all three scenarios an economic contraction. For the unfunded Economy Max case there is an increase in GDP of 0.74% but in the funded case GDP falls by 0.60%. Essentially in these funded scenarios the increase

in lower-income households' groups incomes is being funded by a tax rise that generates a more than offsetting reduction in consumption across the higher-income household groups and aggregate consumption falls.

Supply-side impacts

Next, we consider two possible supply side impacts. First, under wage bargaining workers seek to maintain the real value of their take home wage, which falls in response to the increase in income tax rates. This puts upward pressure on wages - and, therefore, prices. This "wage push" effect has an adverse impact on competitiveness and net exports. Second is the increases in labour market participation and willingness to supply hours linked to the more generous childcare provisions. This expansion in effective labour supply puts downward pressure on wage bargaining behaviour (at any given unemployment rate), stimulating competitiveness and net exports.

The impact of wage bargaining

Under a conventional bargaining model, workers bargain over real take home pay. From the last three columns of Table C2 we find that in the fiscally neutral case there is a significant reduction in the real take home wage (of between 3.09% and 5.18%) across all three scenarios. Under conventional bargaining workers would try to restore their take home pay leading to a wage push effect increasing prices across Scotland. Table C3 reports the results of the three policies under a conventional bargaining model.

Table C3. The long-run impacts of meeting child poverty targets under three scenarios with wage push

	Conventional Bargaining		
	Economy max	Lived Experience	Cost effectiveness
<i>GDP (£m)</i>	-2.81%	-1.62%	-2.20%
<i>Consumption</i>	-2.74%	-2.01%	-1.30%
<i>Investment</i>	-2.63%	-1.56%	-1.94%
<i>Total Exports</i>	-2.63%	-1.27%	-2.59%
<i>Total Imports</i>	-1.35%	-1.04%	-0.54%
<i>Nominal Gross Wage</i>	3.05%	1.46%	3.00%
<i>Real take home wage</i>	-4.29%	-2.65%	-3.64%
<i>CPI</i>	0.96%	0.46%	0.94%
<i>Real cost of capital</i>	0.76%	0.36%	0.74%
<i>Unemployment Rate (pp difference)</i>	2.84%	1.61%	2.33%

<i>Employment</i>	-3.02%	-1.71%	-2.48%
<i>Total HH Tax</i>	17.22%	9.71%	15.97%
<i>Income Tax</i>	35.17%	20.07%	32.07%
<i>Transfers to HH from Gov</i>	24.90%	8.25%	38.29%
<i>Real Scottish Government Consumption</i>	0.00%	0.00%	0.00%
<i>HG1 (Lowest) Consumption</i>	4.19%	2.29%	9.45%
<i>HG2 Consumption</i>	2.09%	0.10%	5.17%
<i>HG3 Consumption</i>	-1.15%	-1.63%	-0.87%
<i>HG4 Consumption</i>	-3.82%	-2.42%	-3.16%
<i>HG5 (Highest) Consumption</i>	-6.82%	-4.04%	-5.86%

As workers seek to maintain their wages there is upward pressure on nominal wages across the three scenarios, which ultimately increase by 3.05%, 1.46% and 3.00%. This also pushes prices up across the economy (with CPI increases of 0.96%, 0.46% and 0.94%) which adversely impacts competitiveness, reflected in a reduction in exports. Indeed, in all three cases this adverse impact is such as to reinforce the adverse impacts of the contraction in aggregate demand (as seen in the last three columns of Table C2); economic activity and employment now contract more substantially as a consequence of the policy packages, although the extent varies across different scenarios.

In Table C2 the Cost Effectiveness case has the largest positive impacts as under this policy households see the highest level of transfers from Government. Under the conventional bargaining assumption, the Economy Max scenario has the largest negative impacts (first column of Table C3). This is driven by the fact that in this Scenario the Scottish Government faces the biggest funding requirement. Accordingly, this case requires the greatest increase in income tax rates and so has the biggest additional adverse supply impact (as well as the biggest net contraction in demand, as can be seen from the final three columns of Table C2).

We also find a reduction in aggregate consumption and investment across the three policies, furthering the contraction. Even though workers bargain for higher wages, they do not succeed in restoring their real take home pay, which now falls by 4.29%, 2.65% and 3.64%. This reflects the fact that the contraction in activity increases the unemployment rate and so reduces workers' bargaining power.

Again, we find that for all policies, quintiles 1 and 2 continue to benefit from increased consumption but these are being offset by the higher quintiles' reduction in consumption and the reduction in net exports. The stimulus to the consumption of these quintiles is also reduced compared to Table C2 as, while they benefit greatly

from the child poverty policies, they experience some of the negative impact of the overall reduction in economic activity.

The stimulus to labour supply as a consequence of enhanced childcare provision

Table C4 reports the results for the second potential supply impact – an increase in effective labour supply associated with the enhanced childcare provision. Numerical columns 1-3 isolate the impact of the labour supply shock while the results in columns 4-6 combine this effect with the conventional bargaining model used to generate the results in Table C3.

Table C4. Long-run impacts of meeting child poverty targets under three scenarios with wage push and labour supply increases

	Labour supply only			Conventional Bargaining including labour supply		
	Economy max	Lived Experience	Cost effectiveness	Economy max	Lived Experience	Cost effectiveness
<i>GDP (£m)</i>	3.05%	3.05%	0.50%	-0.05%	1.25%	-1.74%
<i>Consumption</i>	1.55%	1.55%	0.25%	-1.33%	-0.55%	-1.07%
<i>Investment</i>	2.85%	2.85%	0.46%	-0.05%	1.13%	-1.51%
<i>Total Exports</i>	3.64%	3.64%	0.59%	0.66%	2.16%	-2.04%
<i>Total Imports</i>	0.58%	0.58%	0.09%	-0.81%	-0.48%	-0.45%
<i>Nominal Gross Wage</i>	-3.98%	-3.98%	-0.67%	-0.74%	-2.40%	2.36%
<i>Real take home wage</i>	-1.33%	-1.33%	-0.22%	-5.40%	-3.84%	-3.83%
<i>CPI</i>	-1.28%	-1.28%	-0.21%	-0.24%	-0.77%	0.74%
<i>Real cost of capital</i>	-1.02%	-1.02%	-0.17%	-0.19%	-0.61%	0.59%
<i>Unemployment Rate (pp difference)</i>	0.75%	0.75%	0.12%	3.80%	2.49%	2.47%
<i>Employment</i>	3.37%	3.37%	0.55%	-0.02%	1.44%	-1.98%
<i>Total HH Tax</i>	-4.39%	-4.39%	-0.73%	13.09%	5.49%	15.28%
<i>Income Tax</i>	-8.87%	-8.87%	-1.47%	26.84%	11.54%	30.67%
<i>Transfers to HH from Gov</i>	0.00%	0.00%	0.00%	24.90%	8.25%	38.29%
<i>Real Scottish Government Consumption</i>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>HG1 (Lowest) Consumption</i>	0.98%	0.98%	0.16%	5.14%	3.26%	9.62%

<i>HG2 Consumption</i>	1.32%	1.32%	0.22%	3.34%	1.37%	5.38%
<i>HG3 Consumption</i>	1.27%	1.27%	0.21%	0.01%	-0.43%	-0.68%
<i>HG4 Consumption</i>	1.38%	1.38%	0.23%	-2.59%	-1.12%	-2.96%
<i>HG5 (Highest) Consumption</i>	2.12%	2.12%	0.35%	-4.94%	-2.06%	-5.54%

When introduced in isolation the increase in labour supply, which is identical for the first two policy scenarios, has a substantial positive impact on GDP and employment. The increased labour supply leads to a reduction in wages and prices positively impacting competitiveness and increasing exports across all three scenarios. The increase in economic activity increases consumption across all five quintiles as well as increasing investment.

We find that the macroeconomic impacts of the labour supply stimulus under Economy Max and Lived Experience are much greater than the Cost Effectiveness case. This is driven by the much larger increase in childcare provision in these cases, resulting in a correspondingly greater stimulus to labour market participation. From the micro simulation model, the increase in labour supply is over 4.2% for these two policies whereas in the cost-effectiveness scenario the increase is only 0.67%.

In the final three columns of Table C4 we report the impacts of the labour supply increase combined with the income transfers to households, assuming conventional bargaining. Unlike previous results, where the scale of the impacts was the only difference, the choice of scenario now has a qualitatively different impact on the macroeconomy. For the Lived Experience policy package there is a positive impact on GDP and employment of 1.25% and 1.44%, but these are still negatively impacted under both the Cost Effectiveness and Economy Max scenarios.

For the Lived Experience policy package, the positive effects of the strong labour supply increase are able to more than offset the negative effects resulting from the net contraction in demand and adverse supply impact of the increase in tax (through wage bargaining). However, for the Economy Max scenario the strong labour supply increase is insufficient to offset the negative net demand and supply shocks, but they are much reduced with GDP only reducing by 0.05% and employment 0.02% (as compared to falls of 2.81% and 3.02%) in the absence of the labour supply boost. The stimulus to labour supply in the Cost-Effectiveness scenario is much smaller, so it is less effective in mitigating the adverse effects reported in the final column of Table D4, so that this case now exhibits the most adverse overall impact.

Incorporating the costs of enhanced childcare provision

Finally, in addition to funding the cost of the transfers, the Scottish Government also needs to cover the increase in childcare costs. Again, we assume this is achieved through further increases in income tax rates, Table C5 presents the results of the

conventional bargaining scenarios with labour supply changes, incorporating the income-tax-financing of the additional costs of the employment programme (Table 1, column 4) and childcare (Table 1, column 5).

Table C5. The long-run impacts of meeting child poverty targets under three scenarios with wage push and labour supply increases including childcare and employment programme

	Economy max	Lived Experience	Cost effectiveness
<i>GDP (£m)</i>	-3.51%	-2.15%	-2.91%
<i>Consumption</i>	-2.72%	-1.87%	-0.37%
<i>Investment</i>	-0.53%	0.74%	-0.36%
<i>Total Exports</i>	-1.79%	-0.21%	-3.32%
<i>Total Imports</i>	1.01%	1.39%	1.38%
<i>Nominal Gross Wage</i>	5.71%	3.86%	4.83%
<i>Real take home wage</i>	-6.10%	-4.55%	-2.88%
<i>CPI</i>	1.79%	1.21%	1.51%
<i>Real cost of capital</i>	1.41%	0.96%	1.20%
<i>Unemployment Rate (pp difference)</i>	4.47%	3.06%	1.77%
<i>Employment</i>	-0.75%	0.80%	-1.23%
<i>Total HH Tax</i>	31.61%	23.80%	19.95%
<i>Income Tax</i>	61.80%	46.05%	38.44%
<i>Transfers to HH from Gov</i>	24.90%	8.25%	38.29%
<i>Real Scottish Government Consumption</i>	0.00%	0.00%	0.00%
<i>HG1 (Lowest) Consumption</i>	4.22%	2.41%	9.52%
<i>HG2 Consumption</i>	2.19%	0.31%	5.58%
<i>HG3 Consumption</i>	-0.81%	-1.19%	-0.09%
<i>HG4 Consumption</i>	-3.21%	-1.70%	-1.91%
<i>HG5 (Highest) Consumption</i>	-7.50%	-4.57%	-4.62%

The cost of the childcare provision ranges from £1.1 billion in the Cost Effectiveness policy to over £3.4 billion for the other two policies, while the costs of the Employment Programme are much less at just under £100 million and just over £200 million respectively. In all three scenarios the inclusion of childcare and employment programme costs negatively impacts GDP with reductions of 3.51%, 2.15% and

2.91%. However, the adverse impact on employment is much less marked, so that it continues to increase overall (by 0.80%) in the Lived Experience Scenario and falls by 0.75% and 1.23% in the other two scenarios despite the much larger falls in GDP.

There are several competing forces occurring with the inclusion of the expenditure on childcare provisions and employment programme. The first is the need to fund the costs by raising income tax, putting upward pressure on wages and prices with an adverse impact on the macroeconomy (much as in Table C4). However, both expenditures also constitute a stimulus to demand. So the increase in childcare provision stimulates the demand for the childcare (education) sector, which through linkages to the wider economy, indirectly increases the demand in other sectors, impacting the economy in a positive manner. The very labour-intensive nature of this sector accounts for the smaller employment impacts than would otherwise be expected. A second positive impact occurs through increased household disposable income (mainly in higher quintiles) from the increase in 'free' childcare allowing these households to spend on other goods and services⁷⁸.

⁷ We use results from the micro simulation relating to savings on childcare per household quintile. The assumption is that households spend these savings from childcare on other goods and services based on the household consumption pattern of the base Scottish IO table.

⁸ Within the model the childcare costs are assumed to be a cost to the Scottish Government, funded by income tax. The same amount is introduced as a demand shock to the education sector (which includes childcare) instead of a direct government transfer.

Annex D – More detail on lived experience programme of work

Overview

Poverty Alliance have led on the involvement of 'lived experience' within this work. This project has provided an opportunity to apply an innovative methodology in micro and macro modelling, an area that the voices of people experiencing poverty have traditionally been excluded from. We believe the approach taken within this project is one of the first of its kind in the UK and provides key opportunities for learning and innovation in both social and economic policy and in the application of participation. This project has created an opportunity for new forms of knowledge creation and thinking around tackling child poverty.

To facilitate the incorporation of 'lived experience' within this project, research tools of questionnaires and an extended online focus group were used to draw out and understand the perceptions and potential behavioral responses to different modelling areas such as social security and labour market interventions. Alongside this, these tools also gathered wider data on the experiences of child poverty and the impacts of the Covid -19 pandemic in Scotland. In doing so, this study has yielded a rich data source for exploring and contributing to the wider Macro (larger societal scale) and Micro modelling (household level) within the project.

The focus on working with people with lived experience within this project builds upon the increased focus on participation within policy making in Scotland, which can be demonstrated within the work of the Poverty and Inequality Commission as well as examples such as the Lived experience panels in the development of devolved social security within Scotland. This work adds to this evidence base in illustrating the involvement of lived experience of people living in poverty into modelling processes.

Methodology

A core focus within the lived experience strand has been focusing on the experience of low-income families, with a particular aim of focusing on the experiences of the six priority family groups identified in the Scottish Government's Tackling Child Poverty Delivery Plan 2018-22: lone parents, families with a disabled parent or child, larger families, minority ethnic families, families where the youngest child is aged less than one, and families where the mother is aged less than 25. The vast majority of our sample were recruited from this cohort, however families outwith this cohort were also included; recognising the variety of family structures and types that are affected by poverty within Scotland.

Reflecting the wider context of the pandemic and the intensification of poverty that many households have faced in Scotland since March 2020, our approach to recruitment, within this survey was carefully considered in terms of the challenges

and barriers households may face in engaging in the research tools utilized within this project.

Following our experience within the Poverty Alliance of conducting research during the COVID 19 pandemic, we have found postal methods a flexible and inclusive method of participation especially for households with caring responsibilities or facing other barriers such as low confidence. This method provided families with an approach that allows flexibility in engagement at a time that suits them, as well as recognizing their own individual circumstances and needs. This also removes barriers related to digital exclusion that many families may face with, for example, an online survey.

The postal questionnaire recruitment utilized both a purposeful and snowball sampling through targeting across the family support organizations within the Poverty Alliance membership base and through wider social media promotion of this work. By working with trusted intermediaries within this work we were able to promote the research to those who may be less familiar or less confident in participation in research, thereby bringing diversity and depth of experience of voices to the work. Recognizing the principles of remuneration and good practice in working with those with lived experience we provided a thank you voucher of £15 on return of completed questionnaire.

The questionnaire employed in this project employed a semi-structured approach to serve the purposes of focusing in on the specific aims of this research, and crucially to provide flexibility for participants to highlight their own concerns and specific issues that may not have been considered for the modelling work. We considered this to be particularly important given both the complexity of modelling solutions and the diversity of circumstances within low-income households. Within the design of the questionnaire, an approach of 'vignettes' of family situations were used to explore participants views and reflections. Vignettes are hypothetical short stories which can be useful for exploring sensitive and complex areas and prompt wider reflection. These explored issues such as

- Appropriate working hours in differing household, circumstances.
- Potential interventions such as incentives to work / changes to household circumstances.
- Wider micro and macro impacts on households and
- Recent pandemic impacts on households.

Of 130 surveys distributed we received 35 returns. The breakdown of the demographic information from households indicated were 15 lone parent households of which 3 of those households indicated they had three or more children and 3 households also indicated they were mothers under 25. 5 households indicated that they were minority ethnic household. 7 households indicated that either a parent or child was disabled in the household. One household indicated that they were a household providing kinship care and a second household indicated they had a child

under one, 1 household, described them self as a household with 3 or more children. Other demographic responses were not given.

This was then followed by a semi- structured online focus discussion in which survey participants and others identified through promotion were brought together to have for a discussion on the vignettes and related policy choices and issues. Within the 8 focus group participants, there was 7 lone parents households of which 4 also identified as having either parent or child with a disability within the household and one coupled household.

Within this session 8 participants engaged in facilitated discussion to provide more detailed inputs and reflections. Recognizing the challenges of online engagement and some of the barriers households may face in engaging digitally, we issued packs ahead of participation to support participants in the engagement. This included using pictorial show cards of key issues such as childcare, housing costs. Using these cards as part of the discussion allowed us to draw out consensus around different vignettes. Participants were provided with a £40 supermarket voucher for taking part.

Tackling Poverty and the COVID -19 pandemic

Across both the questionnaire and the lived experience discussion, a clear theme emerged around the complexity, impacts and pressures that the COVID- 19 pandemic faced by families across the study. The public health measures introduced in response to the pandemic had brought significant and large-scale system change and disruption, across Scotland and the rest of the UK, with key services such as health care, transport and education being significantly impacted, along with sizeable labour market disruption.

The contractions and ripples across society from the pandemic have been felt acutely by many but have had disproportionate impacts on the lowest income households. This was borne out in this study. Reflecting the changes COVID had brought to their lives, participants highlighted the complex number of social and economic changes the pandemic had brought and the implications for their daily lives.

Evidence within both the focus group and the survey indicated increasing precarity in families' lives, for both households in employment and those who were not in paid work. Fluctuations in income was discussed consistently across the study as bringing stress and anxiety to households and creating pressure points within managing expected and unexpected household costs. Across all family types within this study, families were finding it increasing difficult to manage and accommodate household daily costs such as fuel costs within the home (both gas and electricity) and food costs, in particular the costs of healthier foods. Transport costs were also cited as a key pressure on budgets.

"In my circumstances, sometimes I worry about having enough to cover my bills and food with me having four children two which are classed as disabled

and need extra things. Making sure our bills are covered and making sure they have what they need at home and school”

(Household with three children)

Alongside the challenges of daily living costs, significant amounts of household costs and budgets were also allocated for housing and childcare (for those accessing this). These were core costs and had implications for the wider wellbeing and choices and decision-making processes and experiences within households. Increases or changes in these costs had a significant impact on household budgets and represented a major barrier in terms of the potential alleviation of poverty for many within this study.

“As second lockdown was lifted... Greedy private landlords wanted to increase rent of our 2bed flat from £600 - £800 a month. They bullied us out had to take loan to move home”

(Single parent with one child)

Although many measures were adopted during the pandemic to support households within vulnerable circumstances - such as a ban on evictions and, pre-action measures for rent arrears during period of lockdown -, across Scotland there has been significant pressure on access to and the affordability of housing.

The role of social security within society was recognized as being more even critical to families during this time of crisis. Several research participants had been affected directly by job losses or reductions in hours during the pandemic which had pulled them deeper into poverty.

“My husband lost his job , before pandemic he had only small job when the pandemic started he was asked to leave, we lost all of our income have 3 kids...At the moment the main problem of employability is the pandemic which doesn't help people to find a job. All the rules about isolation and vaccine doesn't help at all”

(Coupled Household with three children)

Social security measures such as the Universal Credit uplift had been cited as crucial in terms of supporting families with their daily costs, however the recent removal of the £20 uplift was perceived to have significant impacts for household budgets.

“Before the pandemic it was really hard to pay for heating and electricity. During the pandemic, the price of food went up and its still up, it hasn't went down. I'm going to really struggle when I lose the £80 extra Universal Credit money. I lose mine from my next payment on 1st September. They're taking it away just when the weather starts to get colder and when I'll need to put the

heating on for the children. They're not giving people time to change their budget; they're taking it away all at once. A lot of people don't know they're getting extra and are going to be shocked when it goes".

(Single parent with one child)

Other households within the study also reported a lack of social security support during the pandemic, for example due to being in receipt of legacy benefits and therefore not benefitting from the uplift. Discussion also highlighted the lack of support for specific challenges homeowners faced although none within this focus group discussion had accessed support such as assistance with mortgage payments.

The inadequacy of social security income had additional impacts, and families discussed the implications for physical and social wellbeing and the wider inequalities that low-income households faced following the pandemic. This impacted on the experiences and opportunities that were provided to children and young people within households with wider implications for areas such as educational attainment.

"Lack of quality family time like fun days out as most things cost way too much a trip to the cinema is no less than £30.00 that's my gas and electric for the week so can't justify that cost. I think that in this day and age foodbanks are so heavily relied on. I work and by time I've paid rent and everything else I'm left with pennies"

(Single parent with one child)

"What concerns me is that good things and experiences go by children in poverty they grown they temper their expectations and horizon to fit the straightened circumstances they see and experiences every day. When there is not fat to cut from the household budget their opportunities narrow which only widen the attainment gap".

(Single parent with one child)

Thinking about Support: Views from the Focus Group

In the focus group discussion, parents and caregivers discussed the challenges and issues that moving into or sustaining employment, education and training presented to different household types. A complex mix of issues was presented including access to childcare, living costs, specific needs within the household circumstances needing to be considered within policy interventions and levels of social security.

Across the focus group reflecting on their lived experience participants advocated, there was a clear message on the need for government policies and interventions to be flexible and to be tailored to individual family circumstances and reflect the

complexities of different household circumstances and family lives. Navigating changes in circumstances and transitions within the household posed clear points that could lead to drops in income or additional pressures, unexpected expenses, or a combination of those issues.

The role of caring

Reflecting on a vignette focused on the needs of a household where one child had a long-term disability and required specialist education provision, several research participants spoke about the complexity of being a lone parent and providing care for a child or children with a disability or long-term health conditions.

Families discussed that caring was a complex and challenging role within the household particularly for single parent families and for those with limited family support. Households required secure income to help support children or young people's needs. Examples included specialist food to meet dietary requirements, costs for parent / caregivers to attend extra-curricular to support their needs, specialist clothing as well requiring private transport example due to challenging behavior or another factor.

“Food as well is the same as challenging behaviours, there’s certain foods that children can eat who have got challenging behaviours as well. So that’s extra costs as well. So you’re looking at transport as well as... And if the mum doesn’t have a car, which means she has to call a taxi mostly when there’s that challenging time and wintertime is the worst as well”

*Evelyn * single parent and student*

Participants also highlighted the relationship between receiving support and diagnosis and that to gain access to financial support required evidence and this often required a prolonged period of assessment before becoming eligible for financial support. In the interim household could be facing the impacts of supporting the condition within the household but be financially unable to do.

Alongside this came the challenges of maintaining employment or accessing this when being the sole or main caregiver within the household. Household across this study were also juggling a range of appointments within their family life for example, with education professionals, health professionals and many others. Upholding employment was perceived to be very difficult or in some cases impossible particularly where there was difficulties in educational settings for children or young people or extensive caring requirements. This resulted in employment being lost or inaccessible. Across the discussion a clear tension emerged around the desire to be in employment versus the reality of achieving this when navigating complex barriers.

“You know, that’s where the difficulty comes in because one, you’ve had to stop working to take care of your child needs and you haven’t been given that benefit as yet. Something needs to be, in my opinion, put in place to help

parents through that period of applying for these benefits and actually getting them because that's where the difficulty lies. Yeah, a lot of people say, "Well, if you have a child that has X, Y, Z, you're entitled to this, or you should be getting this." But what happens when that waiting period is over two years and you're having to have this struggle and not be able to work because with my daughter's condition, I—it got to the point where she needed full time caring and I wasn't able to go back to work"

Clara * single parent and carer of children

"I've got two boys who have got additional needs and for seven years I was getting phone calls from the school to come and get them all the time, so I could never have a job. I would wish, I wish to have a job, but I couldn't because obviously I was getting phone calls to pick them up all the time. So there should be a, like a, I don't know, like some kind of extra benefit that way for like, if I can't work, getting ??"

Patricia* single parent and carer for children

Across the discussion of caring, was the lack of recognition within systems and across society given to the complexity of lives that parents and caregivers were often facing such as attending different appointments for support services and navigating diagnoses.

Improving employability

A Second vignette presented in the focus group was utilized to elucidate views around a parent/caregiver of a young child on Universal Credit looking to move into work and undertaking employability activities of volunteering and updating their cv.

Discussion around this vignette prompted reflections on the experience of costs in particular childcare for families both in terms of provision and the costs and affordability of this for low-income families. The issues of cost of childcare was outlined to be a significant challenge impacting on the viability and sustainability of employment after engaging with employability activities. The potential for income earned from engaging in labor market need to be carefully weighed and considered within household budgets for other key expenses such as housing costs and childcare.

See the nursery, if we send her to the nursery, it's about forty pounds a day. We can't send her to the nursery. At the moment, we can't afford. I'm trying to saving up money because in the future, you know, you don't know what's going to happen.

Lila* Coupled household in employment

Yeah, so, for instance, like my daughter was only in playgroup from the hours of twelve until two, two days a week. So if I was to get even just a part time

job three, three days a week for say six hours a day, I would need a childminder, so that would—it would've worked out about a hundred and eighty to two hundred pound a week just for wraparound care around nursery and also extra days or if I had to stay late then that's extra money. I had to provide all snacks and food for meals and things, so that would've also been an extra cost to me

Lucy *single parent and student

Gaining employment whilst on social security often meant gaining additional costs such as council tax and transport costs and loss of other entitlements in social security which resulted in drops and fluctuations in income.

*So basically I was left with completely nothing and I went again back for the advice to ask what I needed to do and they told me, "You are actually earning nothing here. You're using all your money to pay for your housing." And I'm like, "But I went into work to improve my circumstances, so what am I supposed to do?" I didn't understand the system. And I was just advised to say, "Okay, now you are at uni, so just focus on uni, finish your uni and don't even bother to try and find work." But I was like, "I still want to work." So I continued to work until I finished my contract with *** and I never renewed it because I was just merely taking everything into nursery and housing, which I'm still covering up for my housing costs with just kind of like paying instalments, so...*

Evelyn * single parent and student

"I got a job, and I couldn't keep up that job because if I did, my other benefits were going to be stopped. My Universal Credit was going to be stopped and whatever they were going to give me was not going to be sufficient for myself and my teenagers"

Aliyah* single parent

Considering place

A third vignette was used to consider factors such as place and the working hours based on a coupled household with one family member in full time work and one seeking part time work.

The experience of rurality was seen as a core variable that affected the viability of different interventions and support targeting families. Rurality was viewed as an exacerbating factor in experiences of poverty, with higher costs of living and variables such as distance from employment, higher costs on transport and

increased difficulties if there was reliance on public transport as well as distance from accessing in person employment support i.e., support from Job Centre Plus.

“And try and find a sixteen hour job when you’re in a rural area,So you’re having to travel to get a job, so you’re going to be more in childcare then to wrap around the, although it’s a sixteen hour job, it could end up being thirty hours a week you’re away by the time you have maybe an hour’s travel there, an hour’s travel back. It’s a whole extra expense that way as well”

Kay single parent and volunteer and carer for children*

“definitely help with transport costs because when you do live in a rural area, it’s such a pain in the neck to get anywhere, let alone going to, like trying to find work in your local area. You could be going over to the next town or the next village, if you don’t have... If you don’t have access to a car, if you don’t drive, that’s—I can hear myself in someone’s thing. Yeah, so if you don’t have access to like a car or if you don’t have a driving licence or anything like that, like that can really, really impact the work that you can find from a rural area”.

Patricia single parent and carer for children*

These factors were seen as again intersecting with wider issues such as costs of housing as well as affordability of childcare. Households in rural areas were perceived to be at greater risk of being affected by conditionality.

“Yeah, with the transport costs, even for just going to the Job Centre to get information on anything there’s a whole big cost of the transport, especially if you’re in a rural area, your Job Centres tend to be in bigger towns. So you’ve got a long journey there, and then a long journey back that’s costing you money and then you’ve got to think, they’re making your appointments at ten to three and your kids are out of school at three o’clock and you’ve to get there and back and they won’t change your appointment and then you don’t make the appointment, then you get sanctioned, so you lose money for trying to look after your own kids”

Kay single parent and volunteer and carer for children*

A fourth vignette was used to explore working hours in a coupled household with children on UC with one parent working part time, the other having lost their employment during the pandemic.

When discussing this vignette families within the focus group spoke of the risks and loss of wages due to unemployment or fluctuations for example due insecure or precarious hours. Instability of income was seen as key issue in the sustainability of

work for low-income families and a core risk factor for deepening or exacerbation of poverty. Alongside the insecurity of hours, childcare was also identified as a core issue in terms of affordability and accessibility within the experiences of this family. Whilst there was further discussion again within this vignette on the issue of affordability and access to childcare, a wider issue emerged on the payment of childcare and interactions with the benefit system. Childcare provision require payment of provision on an upfront basis, however Universal Credit was paid in arrears so this created a shortage in income for households who had to pay for costs upfront before receiving additional earned income through employment.

“And with them both going to work, if they’ve got to put the child in extra hours at nursery, they’re going to need to find the childcare costs upfront, which is a big problem for most people returning to work. It’s fine when your childminder wants paid a month in advance and Universal Credit pay it in arrears, so you’re having to fork all that money out before you’ve got any wages or anything coming in, so something’s got to give. You’ve got to, you can’t do it. That’s what’s putting a lot of people off going back to work because you have to pay the childcare first, before they’ve even got any wages or anything”

Kay* single parent and volunteer and carer for children

The need for targeted employability support was also seen as vital in due to wider changes in the labor market during the pandemic and many families having to work in different or new sectors and a core message for the need for employability support to reflect this.

Across all vignettes, narratives and discourses around different government policies and interventions were discussed. Participants discussed the recognition of the discourse around importance of engaging in the labor market. This contrasted with the participants stigmas experienced by households who weren’t in paid work and the lack of recognition of unpaid caring and volunteering.

The rise of new claimants accessing universal credit due to the impacts of the pandemic was identified as an opportunity for wider understanding of experiences and narratives of social security in the public and in the media.

“I was one of those people who come into the Universal Credit system for the first time in the benefit system this year,then just looking at that and the perfect storm of these fuel bills going up, it’s just like oh my gosh, this feels like the—and going into winter, just feel, when you need more public transport, your kids don’t want to walk anywhere, you can cajole them in the summer to go somewhere, but you suddenly, it’s—there’s some terrifying costs that you don’t, that are unexpected—you just think, ‘I can’t see where that’s going to come from.’ You know?”

Elaine * single parent, recently unemployed and carer for children

Alongside the stigma focus group participants reported, this intertwined with ideas around work expectations. Barriers that households faced moving into or accessing employment were not always readily understood or experienced within policy interventions. Participants asserted there was the need for policies and interventions to be tailored to individual circumstances and that components of support such as training and employability support and financial support during transitions to employment needed to be developed to avoid fluctuating incomes.

“—concurring with that opinion that it’s a bit of a catch twenty-two that you’re in, that you... you actually want to work, but you find that you’re in a situation where you can’t, you know?.....—I think it’s also it’s a perception problem that people think that you’re not working, you’re like, “Well, I would really like to work, but the situation is at a certain time that, and it’s not always static, it’s quite fluid, but you’d like to be able to move on, I suppose, and get opportunities and support, so that you could balance, even for yourself, not just for finances, for other reasons as well.”

Elaine * single parent, recently unemployed and carer for children.

Survey Analysis

Alongside the focus group discussion evidence was also gathered from lived experience through the survey. Within the returned surveys, vignettes and open-ended questions were used to reflect and elucidate on different family circumstances and the implications for different types of interventions and levers within household’s experience. Vignettes situated primarily around four household types:

- Families where both parents live together and only one parent is working, there are at least 2 children in the households and the youngest child is 5.
- A single parent with a child or children who is not in employment
- Families where there is a parent who has a disability or long-term health condition and there is at least one parent in the household not in employment (This includes single parent households where parents are living separately).
- Families where both parents are working part time (This includes single parent households where parents are living separately).

Thinking about Poverty

Survey participants were asked to respond to an open-ended question exploring the experiences low-income families had faced prior to and during the pandemic.

Respondents discussed a range of impacts that they were currently facing:

- Rising living costs, in particular pressures of rising food prices were a key concern with fuel costs also mentioned frequently.
- Impacts on mental health and wellbeing in managing daily lives

- Challenges of accessing healthcare appointments due to the impacts of the pandemic.

Also discussed within was wider experiences of lone parenthood and issues of separation. There was discussion on how separation was supported and considered within the provision of social security as well as issues with the child maintenance system (CMS) in terms of supporting families with their income. Alongside these survey participants raised the problems in the design of the social security system for those who have experienced gender-based violence and the inadequacies of the social security system and child maintenance system to support households effectively facing those circumstances.

Considering Interventions: Supporting Families

Participants were asked to comment on the 4 small vignettes and asked on their perceptions on effective policy interventions for each family type drawing from two types of solutions: Solution A: More support for families to take part in employment and Solution B: Social security to top up the amount of money people have coming into the household without the need for employment. The results and reflections of the survey respondents have been discussed below.

In scenario A: Family A: Blair and Jodie live together with their two children aged 5 and 7. Blair works part time.

24 survey respondents opted for Solution A 'More support for families to take part in employment'. 7 survey respondents opted for response B. 'Social security (benefits) to top up the amount of money people have coming into the household without the need for employment'

Analysis of survey participant rationale and experiences of opting for Solution A, indicated participants believed that there was a need for the household to increase their hours to full time employment to help increase overall household income levels and affordability of household costs. Respondents highlighted investment in support for employment, would in turn result in wider benefits in the potential for the family to improve household circumstances.

Household demographics also influenced respondent answers with several participants citing the children within the vignette were school aged, as a result childcare was perceived to be less of a challenge to the household in terms of hours required across the day and the implication households could be gaining more income without potentially being financially disadvantaged by childcare cost.

On the rationale for Solution B, respondents indicated that there were hidden risks and barriers the households could face: for example, not having extended family support network and facing issues with childcare. Respondents cited reasons why part time work may be the only option for the households such as health condition or illness or difficulties in accessing additional hours of employment. Alongside this, the

potential risk of financial precariousness to the household using Solution A with respondents indicating gaining additional hours may result in losses of other benefits.

In Scenario B: Donald is a single parent and has two children aged 9 and 11. Donald is not currently in employment.

15 survey respondents opted for Solution A *'More support for families to take part in employment'*. and 15 for B *'Social security (benefits) to top up the amount of money people have coming into the household without the need for employment'* with one respondent opting for both actions.

Survey participants opting for solution A indicated that the children being school aged provided the household with more stability and reduced childcare costs in comparison to households with younger children. Respondents perceived it was potentially more realistic for this household to move into work. Obtaining employment was also cited this household as offering potential for increased income within the households, indicating children within the household benefit from this.

Respondents cited that for this household; part time work would be more sustainable in order to meet caring responsibilities and support with accessing childcare would be required to sustain work. It was suggested that that similar to issues raised within the lived experience focus group discussion, this household would likely be affected by barriers to accessing and sustaining employment facing in terms of flexible working patterns and childcare costs.

Participants who suggested solution B outlined that single parent households faced additional costs and hidden challenges when accessing the labour market. Respondents indicated that this household could be navigating issues such as the affordability of transport, childcare provision and caring levels within the household as a lone parent.

Several points were made around caring responsibilities and the viability of solution B being a more effective measure and one that should be considered on temporary or interim basis to allow household support and stability. Solution A was suggested as an approach the household could adopt when children within the household were older.

In Scenario C: John and Lucy have two children together but have split up and now live separately. Both John and Lucy share the caring of their children and both work part time.

15 Survey responses opted for Solution A *'More support for families to take part in employment'* and 12 for B *'Social security (benefits) to top up the amount of money people have coming into the household without the need for employment'* with two respondents opting for both solutions and one being unsure.

Survey participant opting for Solution A as a response within this vignette focused on the dual households sharing the care of children and that when not providing caring, the two households within this study may be able to upskill or access additional hours of employment and in doing so gain potential additional financial benefit. Participants also however again highlighted additional childcare costs could pose challenges.

The responses for situation B indicated that there were concerns about the wider experiences, the family in this vignette may face when balancing the experience of co-parenting children. Responses focused on the logistics families would face in daily lives when splitting residency of care across two households and that part time work was adequate in terms of work expectations on the household. It was also cited that separation could pose emotional challenges for children and that being able to spend time equally with parents/caregivers was positive for children's development.

Family D: Tony and Fay live together. Faye works part time and Tony has a health condition; they have one child aged 10.

5 survey respondents indicated for Solution A '*More support for families to take part in employment*' and 22 for B with B '*Social security (benefits) to top up the amount of money people have coming into the household without the need for employment*' 3 indicating A and B as potential solutions and one indicating they were unsure.

Respondents opting for Solution A centred their decision making around the personal benefits that paid employment could offer the household in terms of additional income alongside broader entitlements but also additional income offering other aspects on life such as positive impacts on wellbeing.

Respondents opting for Solution B recognised the complexity of fluctuating conditions that the household may be experiencing and the impacts of both physical and mental health conditions as a barrier to accessing and sustaining work in terms. This was cited despite this health condition being undefined in this vignette. Participants also discussed the importance of the duality of caring that may need to be considered within this vignette such as caring for the partner as well as the child within the household and the importance of recognising the role of unpaid care.

Sustaining Employment

A further section with vignettes asked participants to choose from one single policy intervention that would be of most benefit to the household in terms of assisting and sustaining employment and were asked to select from four options: support with housing costs, support with childcare costs, support with transport costs and support with employment.

Family A: Blair and Jodie live together with their two children aged 5 and 7. Blair works part time.	Support with childcare costs
Family B: Donald is a single parent and has two children aged 9 and 11. Donald is not currently in employment.	Support with employment
Family C: John and Lucy have two children together but have split up and now live separately. Both John and Lucy share the caring of their children and both work part time.	Support with childcare costs
Family D: Tony and Fay live together. Faye works part time and Tony has a health condition they have one child aged 10.	Support with housing costs

For vignettes where the household were in employment, the key interventions suggested by survey respondents as a solution was support with childcare costs and housing costs. For families who were not currently in employment the key solution was support with employment. Survey participants raised that the importance of household having stability within their daily lives and the additional benefits this could bring to households living on a low income

Large scale costs within households such as childcare and housing were seen as critical to budgets and similar to previous vignettes respondents raised issues on the split of resident care following for lone parent households required additional support in terms of housing.

“The children are likely to suffer in both households so support with housing costs would have the biggest impact on their child poverty levels”

In addition to the issues around provision and affordability of childcare, the structure of childcare costs was also discussed with respondents citing the issues with childcare payment scheduling and the barriers this presented.

“Childcare needs paid upfront with some suppliers asking for annual membership out of school clubs Universal Credit pays in arrears”

(Survey Response)

Participants highlighted in the case of vignette of family D , when living with a health condition there are often additional costs such as heating that home due to the likelihood of spending more time within the home spaces. The sustainability of employment in relation to doing a multiple caring role was discussed for example the likely requirements of leave from employment.

“Will Faye be discriminated against when she needs to leave work to attend to Tony if unwell and to help with child”

(Survey Response)

Considering in Work Poverty

In the following vignette, survey participants were asked to comment on what would be the most effective support model for a household experiencing in work poverty choosing between two intervention options.

A: Support to help them increase hours or pay so that they are not in poverty, for example through training.

B Increasing the amount of social security available i.e. through support with housing costs, childcare costs etc.

Hamish and Isabelle have two children aged 5 and 7 who are both at school. They are on Universal credit and Hamish is currently working part time doing deliveries for a local supermarket. Despite this they are in poverty.

Responses within this were divided equally across the two options (15 opting for each response).

For policy intervention A ‘Support to help increase hours or pay so that they are not in poverty, for example through training’ survey participants discussed that work provided benefits to household in terms of satisfaction and wellbeing and that support to improve on their work situation was preferable.

Respondent also discussed that progression routes into employment needed to be carefully considered to avoid facing reductions within household income: for example training was cited as one potential route for improving household employability, however if by doing so resulted in adverse impacts on housing costs would be ineffective for the family overall financial position. Similarly, the Universal credit taper rate was also cited as potentially problematic within this scenario in the risks of potential loss of income for additional hours worked due to taper rates within the Universal Credit system.

In scenario B, respondents focused on the risk of precarity the household may face in making current changes around their current situation. This focused on potential cliff edges of financial drops as well as practical or logistical barriers that the family may encounter in doing so. Participants discussed issues such as the age of the

children and childcare in terms of affordability and accessibility. Alongside respondents discussed the upheaval and stress that would likely result in the household and the need to reduce this within both parents and caregivers and the children themselves. The behaviour and attitude of employers in the experience of the family were also important in terms of factors such as work life balance and pay scales / levels of employment the household could access.

Until jobs are fairly paid it is unfair expect the only way out of poverty to be working longer and longer hours. There needs to be more intervention and increase wages /regulate housing etc rather than treating poverty as individual problem solely

(Survey Response)

Schools are open 32 weeks in year children of a young age are susceptible to illness and not every employer pays for parental leave. This is often forgotten in pushing parents into work. If a school or childcare refuses a contagious child, then there is no pay – example chicken pox then secondary ear infection.

(Survey Response)

The recognition of the additional role of unpaid work of caring and raising children and the lack of acknowledgment of this within policy interventions was also discussed, similar to evidence raised within the focus group and other vignettes in the survey.

Work Expectations

Within the survey, a question was posed around exploring family vignettes and expectations of employment and work preparation activity. Participants were asked to comment on the following different scenarios in terms of the activity the household were engaging within.

In the first scenario: Lisa is on Universal Credit with her youngest child aged 2 and is currently taking part in activities to help her prepare for work in the future such as developing her cv and taking part in volunteering.

The majority of the respondents (22) felt that this was a reasonable expectation on this household and outlined that due to the age of the child and also the challenges of childcare due to being a lone parent and the impacts that this would have on the child. Support with childcare was felt to be a prerequisite that would be needed prior to any other work-related activity being achievable.

In the second scenario John and Mary are on Universal Credit and their youngest child is aged 3. John is working 30 hours a week doing deliveries whilst Mary is looking to get a part time job at 16 hours.

This was again cited by (21) respondents to be reasonable expectations however alongside this participant's discussed other factors that required to be considered contextually. This included the recognition that obtaining specific hours contracted hours of work was often difficult in practice and that for any changes within the household there would be a requirement for support with childcare for this household structure.

In scenario three, Jack and Yasmin are on Universal Credit. They have two children aged 5 and 11. Yasmin is working 25 hours per week in an office. Jack is currently looking for work

It was considered a reasonable expectation by (22) respondents that this household should be looking for more hours in work with either Jack obtaining work or Yasmin obtaining more hours based on both children being of school age. Respondents discussed the need to consider wider structural issues faced in employment such as terms and conditions to help make this more manageable for the household in terms of flexible working opportunities. It was considered unreasonable by (5) participants who perceived that the family would be unable to consider more work expectations without access to childcare support.

In Scenario four, Sam and Ellis are on Universal credit. They have two children aged 13 and 15. Sam is in full time employment working 35 hours a week in construction, Ellis is unable to work due to health condition.

Within this scenario, (21) participants perceived this was a reasonable work expectation although commentary within responses focused on also the need for the acknowledgment of the additional caring responsibilities that Sam may have within the household. The work expectations in this scenario were considered unreasonable by (5) participants. Within this vignette responses focused on the risk of work conditionality on wellbeing for those with health conditions and the potential impacts of unsustainable or inappropriate employment as well as the wider caring requirements that may be present within the household.

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