Understanding Society
Working Paper Series
No. 2024 – 10
September 2024

The 2024 Future of Children Challenge:

Research Springboard exploring the topics of children's development, child poverty and childcare

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Non-technical summary

The Understanding Society team designed this Research Springboard to harness collective knowledge and skills from across sectors, cross-fertilise ideas, facilitate social learning, and co-produce child development related research using Understanding Society data. The research springboard consisted of three full-day workshops, spread over three months. The *Future of Children* Challenge document was sent out in invitation to targeted relevant individuals. This challenge document introduced three topic areas of policy relevance that could be examined using Understanding Society data including (1) Child development (2) Child poverty and family resources (3) Childcare & early years provision. Applications were received from 30 relevant professionals and 24 participants eventually took part in the Research Springboard, made up of 14 from academia, 6 from charities/third sector organisations and 4 from government departments.

Day one provided detailed briefings on the three topic areas before participants collectively developed research questions for teams to form around. Four teams emerged - 2 teams of 6, one of 5 and one of 7. The teams were guided and supported over three months, and on the final day a policy panel of experts offered feedback on the research undertaken and what policy conclusions could be drawn from evidence. The high-level findings are as follows:

1. The team that looked at the impact of **parental shared leave policies on mental health outcomes** did so against a backdrop of steadily worsened parental mental health since 2009 - but were not able to demonstrate statistical significance due to low sample sizes. Parental leave policies were, however, associated with some weak improvements in mental health outcomes, particularly amongst mothers and both parents from non-gender-egalitarian households. There was some indication of worsened mental health outcomes amongst fathers in gender-egalitarian households.

2. The team that looked at **disadvantages and children's social-emotional development** found household income and parental education played a weaker role than expected. Instead, what mattered more was being on benefits, occupational social class, child health, and parental distress. They also found that indicators of social-emotional development showed a marked decline for children at age 3 who experience clusters of 3 or more indicators of disadvantage.

3. The team that looked at **housing quality and child outcomes** found that the percentage of children living in overcrowded households remained relatively steady between 2009-2011 and 2021-2023. Children living in households of certain types were strongly associated with overcrowding, including those living in the social rented sector; those from a black ethnic background; households containing 7 or more people; those in London and then the West Midlands; lower income households; households containing 3 or more adults; and lone parent households. In terms of child outcomes, the team found statistically significant associations between overcrowding and child health conditions, long-standing health conditions, and the Strengths and Difficulties Questionnaire scores of 10- to 15-year-olds. These associations remained even after controlling for how other factors in the children's lives might have contributed to these negative outcomes.

4. The team that looked at **parenting behaviour and child outcomes** found that permissive parenting significantly increased and authoritarian parenting style

significantly decreased between 2012 and 2022 – trends that should lead to positive child development outcomes. Looking at the results by parental background, they found by that: mothers were more likely than fathers to adopt authoritative styles; boys were more likely than girls to experience authoritarian parenting styles; higher income groups were more likely to adopt permissive parenting styles; parents from Black and Asian ethnic groups were more likely to adopt authoritarian parenting styles whilst white parents were more likely to adopt uninvolved parenting styles; and older parents were more likely to adopt permissive parenting.

The 2024 Future of Children Challenge: Research Springboard exploring the topics of children's development, child poverty and childcare

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Date: September 2024

Abstract:

Established researchers and analysts were invited to take part in the *future of children challenge* research springboard using Understanding Society data. 24 attended in person for the first of the three contact days to explore three topic areas of interest: (1) Child development (2) Child poverty and family resources (3) Childcare & early years provision. Four teams formed around four research questions, who worked together over the following three months to generate results which were presented on the third and final day to a research and policy panel of experts who offered feedback and suggestions for how to develop further outputs targeted at influencing policy. The high-level findings of the teams were:
(1) The team that looked at the impact of **parental shared leave policies on mental health outcomes** did so against a backdrop of steadily worsened parental mental health since 2009 - but were not able to demonstrate statistical significance due to low sample sizes. Parental leave policies were however associated with some weak improvements in mental health outcomes, particularly amongst mothers and both parents from non-gender-egalitarian households. There was some indication of worsened mental health outcomes amongst fathers in gender-egalitarian households.
(2) The team that looked at **disadvantages and children's social-emotional development** found that household income and parental education were played a weaker role than expected. Instead, what mattered more was being on benefits, occupational social class, child health, and parental distress. They also found that indicators of social-emotional development showed a marked decline for child at age 3 who experience clusters of 3 or more indicators of disadvantage.
(3) The team that looked at **housing quality and child outcomes** found that the percent of children living in overcrowded households remained relatively steady between 2009-2011 and 2021-2023. Children living in households of certain types were strongly associated with overcrowding, including those living in the social rented sector; those from a black ethnic background; households containing 7 or more people; those in London and then the West Midlands; lower income households; households containing 3 or more adults; and lone parent households. In terms of child outcomes, the team found statistically significant associations between overcrowding and child health conditions, long-standing health conditions, and the Strengths and Difficulties Questionnaire scores of 10- to 15-year-olds. These associations remained even after controlling for how other factors in the children's lives might have contributed to these negative outcomes.
(4) The team that looked at **parenting behaviour and child outcomes** found that permissive parenting significantly increased and authoritarian parenting style significantly decreased between 2012 and 2022 – trends understood to lead to positive child development outcomes. Looking at the results by parental background, they found by that: mothers were more likely than fathers to adopt authoritative styles; boys were more likely than girls to experience authoritarian parenting styles; higher income groups were more likely to adopt permissive parenting styles; parents from Black and Asian ethnic groups were more likely to adopt authoritarian parenting styles whilst white parents were more likely to adopt uninvolved parenting styles; and older parents were more likely to adopt permissive parenting.

Keywords: child development, children, childcare, poverty, housing, family, household, overcrowding, parental behaviour, disadvantages, social-emotional development, health, finance, mental health, wellbeing

JEL classification: I1, I10, I12, I14, I15, I18, I24, I28, I31, I32, I38, J12, J13, J18

Acknowledgement: We acknowledge the research and policy presentations as given by: **Sarah Taylor**, Deputy Director of Research, The Children's Commissioner for England; **Alison Garnham**, CEO Child Poverty Action Group; **Ellen Broome**, Managing Director, Coram Family & Childcare; and **Aja Murray**, Reader in Psychology, Department of Psychology, University of Edinburgh, and Topic Champion (children's development) at Understanding Society. We additionally acknowledge: **Aja Murray**; and **Susan Harkness**, Professor of Social Policy, University of Bristol and **Hannah Aldridge**, Senior Policy and Research Officer at Child Poverty Action Group for their involvement the research and policy panel. Understanding Society is an initiative funded by the Economic and Social Research Council and various Government Departments, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and Kantar Public. The research data are distributed by the UK Data Service.

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1. Introduction

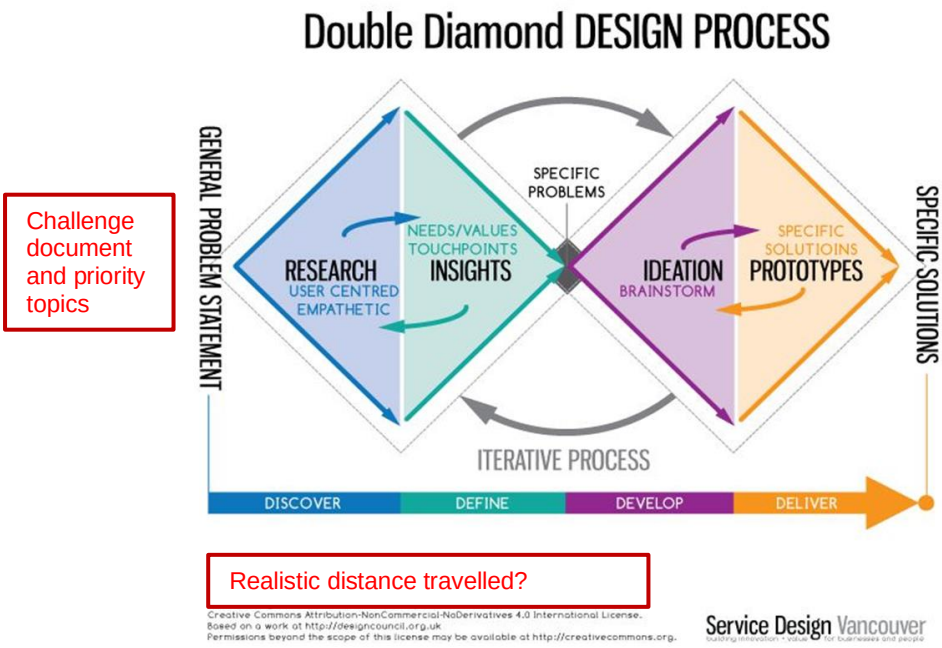
Research springboards

The original idea of running this series of challenge labs was based on offering cross-sectoral data dives that provide shared opportunities for using Understanding Society data and policy learning. The data dives were subsequently rebranded as research springboards after the first event on climate change - to better reflect the nature of distance travelled when working with complex data such as Understanding Society.

Real world problems are typically ill-defined and, and even when they are well-defined, often have open-ended solutions (Sarathy, 2018). Solving real world problems is increasingly based on utilising methods based on 'design engineering' and collaborative learning. In this context we are particularly interested in the role that co-production models can play in strengthening academic-policy engagement. The *Independent Review of the UK's Research, Development and Innovation (RDI) Organisational Landscape* also identified that more should be done to improve the links between universities and other research performing organisations (RPOs) in the RDI landscape but building productive interactions can be difficult to establish for a variety of reasons." (Nurse, 2023).

Co-production in this setting is about bringing people together to collaborate and address complex policy challenges. However, ideally co-production should go beyond design engineering and collaboration to involve 'sharing power' (e.g. improving permeability between organisations, breaking down hierarchies, new modes of governance, etc.); valuing the skills and knowledge of all those involved; and offering value for all concerned (CAPE, 2023). Central to co-production is identifying actors who have 'skin in the game' and a timely focus on opportunities presented by policy windows. The close tie between insights and creativity is a recurring theme in literature, and ideas as a factor are seen to matter as a variable in public policy research (Swinkels, 2020), whilst policy learning is also seen as a component of processes such as ideational theories of policy change (Dunlop and Radaelli, 2022).

At its simplest Understanding Society's research springboard is an activity where people from different disciplines/backgrounds collaborate to research and generate potential ideas to knotty problems. It is not a finalised method, but the process moves research and policy thinking forward. Understanding Society's own model is adapted from the Design Council's double helix process and includes post-event evaluation to improve the model over time. There are also other co-production approaches and tools available such as Nesta's Collective Intelligence Design Playbook. Understanding Society's model has both an individual dimension that could influence beliefs or behaviours, and a collective dimension that could help construct meaning through social interaction, facilitate creative thinking and avoid group think.



More specifically, the research springboard is designed to:

1. **Identify and bring together users** (new & existing) from a range of disciplines/sectors with an interest in a public policy challenge.
2. **Co-design research** based on Understanding Society, identify how issues are connected, and build on existing Understanding Society findings (e.g. through the publications section).
3. **Facilitate the development of new insights and social learning** through group work, with academic and non-academic researchers working together - within the timeframe of the springboard and beyond if appropriate.
4. **Generate tentative policy ideas** informed by data analysis and dialogue, if feasible (the third stage of ideation in the double helix model).

It is acknowledged that while only the most productive teams are likely to be able to progress to the ideation stage, reflexive policy learning can be built in throughout the process in a number of ways: by inviting experts providing their perspectives on concepts and issues of salience from their vantage point; by different actors discussing and negotiating research questions of most relevance; and by providing teams an opportunity to work in mixed groups across organisational boundaries.

The 2024 future of children research springboard

The future of children research springboard set out to provide a unique collaborative data analysis and problem-solving approach to child development challenges, with researchers

and analysts from different sectors and disciplines working together – in a co-production model - to identify and examine important research and policy questions.

The research springboard workshops took place over three days, spread across nearly three months, with a mix of in-person (day 1) and online activities (days 2 and 3). Participants had a further month to complete their research as required. The first day was hosted in-person at the University of Essex. Day two and three was hosted virtually, using Zoom and the messaging app SLACK for information sharing and collaborative work.

Social learning was a key design feature, with participants working in teams, aligned to one of three topics of policy interest, and undertaking research during and between the workshop sessions. Each team focused on what new evidence is needed that could benefit policy or practice and work out a method to answer research questions of mutual interest. Participants used End User Licence data, with the latest data available from wave 13 (2021/2022).

A further objective of the research springboard was to help build relationships across disciplines, organisations and sectors and promote ongoing collaboration beyond the life of the research springboard. It is important to acknowledge that research springboards are not a finalised method or singular event but a means to an end; the process is designed to move things forward faster but not necessarily fully resolve all the issues that emerge in research and problem solving. The analytical outputs are intended to be open-ended, with a research and policy panel on the final day to draw the focus towards impact and further collaboration on the project.

The future of children 'challenge document' sent to invitees

A challenge document was prepared by Understanding Society ahead of sending out invitations out to perspective participants. The document introduces the research springboard and sets out the major challenges facing children's development in the UK and goes on to frame the issues faced by policymakers in the UK in relation to child development into three topic areas:

1. Child development
2. Child poverty and family resources
3. Childcare & early years provision.

This challenge document is reproduced in full at the end of this document as an Annex.

2. Who took-up the challenge?

Invitations were sent to targeted relevant individuals and organisations. Efforts were made to ensure that those invited would likely meet the high level of analytical background required. Expressions of interest were received from 30 individuals. Of these, 24 confirmed their attendance and took part in the full process.

Those participants that required further knowledge of Understanding Society were offered a place on the 'Introduction to Understanding Society' 2-day training workshop.

The organisations that the participants - and speakers - represented are shown in alphabetical order below (with some organisations sending more than one participant).

List of organisations involved in the Research Springboard

Children's Commissioner for England	The UCL Institute of Education
Department for Work and Pensions	UCL's Centre for Education Policy and Equalising Opportunities (CEPEO)
Girlguiding	Understanding Society - University of Essex
Imperial College London	University of Bristol - School for Policy Studies (*2)
Institute of Public Health and Wellbeing - University of Essex	University of Edinburgh
London School of Economics	University Of Essex
Nesta	University of Manchester
Oxford Poverty and Human Development Initiative, University of Oxford	University of Oxford (*2)
The Children's Society	University of Surrey
The Roger Diamond Foundation	Welsh Government (*2)
The Royal Foundation of The Prince and Princess of Wales	

3. Inputs from participants and speakers

Proposed research ideas from those applying to attend

The expressions of interest submitted by applicants proposed a very large number of research ideas and areas of research interest. These were grouped into nine sub-topics which have the potential for a team to form around - four under the child development topic, 3 under the family resource and child poverty topic, and one under the childcare topic. These have been presented here.

Main topic	Potential teams / sub-topics	Research questions
Child development	1: Parenting styles and home learning environment	• What role does parenting styles have on child development outcomes? • How are parenting styles changing and what impact does this have on child development outcomes?
Child development	2: Predictors of falling behind and longer-term benefits of early interventions	• Beyond family income, what are the predictors of later developmental delay? • How can we detect children at risk of falling behind at an earlier stage (e.g., beyond measures such as FSM)? • Are children from certain demographic groups or geographical areas falling behind? • How do inequalities effect physical growth trajectories of children? • How do different types of early intervention influence long-term outcomes such as: ➢ Employment ➢ Economic status ➢ Physical health ➢ Mental health
Child development	3: New societal shocks, stressors and technology	• How are new societal shocks, stressors and technology affecting the recent generation of children? For example: ➢ Societal isolation ➢ Awareness of environmental crisis ➢ Social media
Child development	4: Children and family mental health	• What impact does gender inequality have on children and young people's mental health? • What role can other trusted adults (not parents) play in child development? • Do parental mental health and socioeconomic status interact to predict child outcomes? • What can Understanding Society data reveal about the early childhood of those teenagers who now report mental health issues or risky behaviours? • What is their propensity of those with mental health problems becoming NEET when entering young adulthood?
Family resource and child poverty	5: Impact of family and housing circumstances on children and young people	• How are family circumstances such as precarious housing, work, etc. impacting on the self-esteem and aspirations of children and young people? • What is the protective role of social housing? • How do non-monetary deprivations vary between children living in different parts of the country, and in different household types?

Family resources and child poverty	6: Changing nature of child poverty	• What is the relationship between children growing up poor on wider outcomes, and how does this relate to *length of spells* of poverty? • What is the relationship between children growing up poor on wider outcomes, and how does this relate to *depth of spells* of poverty? • Are children from certain demographic groups or geographical areas falling behind? • How have child poverty trends changed over time?
Family resources and child poverty	7: Impact of welfare changes on maternal and child outcomes	• What was the impact of expansion of maternity leave (early 2000s) on the length of leave taken, and effects on maternal and child outcomes? • What impact does a squeeze on benefits during pregnancy and babyhood have on maternal and child outcomes?
Childcare	8: Childcare and the wider policy context	• How can Family Hubs and Start for Life Policies be joined up with the Early Years reform? • How does raised state pension age impact within-family resource allocation decisions on childcare?

These research ideas were made available to everyone involved in the springboard on day-one as a starting point for further brainstorming of research ideas.

Expert input during day-one

Day-one was an in-person day at Wivenhoe House on the University of Essex Colchester Campus. Research springboards acknowledge that while only the most productive teams are likely to be able to progress towards useful results, for others, reflexive policy learning can be built-in by inviting experts to provide their perspectives on concepts and issues of salience from their vantage point. Therefore, on the morning of the first day, in addition to detailed briefings on the survey and data from the Understanding Society team, the delegates were given presentations from three policy-engaged experts, each covering one of the three topic areas set out in the challenge document, and one from Aja Murray – Topic Champion for Child Development at Understanding Society. These presentations are summarised here.

Presentation on the challenges facing children today

Sarah Taylor, Deputy Director of Research represented the Children's Commissioner for England (Dame Rachel de Souza). In addition to running surveys, the Commissioner has statutory powers of entry into places where children live away from home and data powers used to gather child-level administrative data from public bodies. The activities of the Commissioner have reported findings in the following areas:

- **Education:** Most children report being happy most of the time. School is found to be an area of low well-being in the annual Good Childhood Report by the Children's Society. Children report being happier with 'school' than with 'school work' – which is a reversal from previous years. The Big Ambition survey found that 75% of children agreed they had great teachers who support them, but only 60% agreed with 'you enjoy school'. This made 'enjoy school' one of the most negatively answered questions out of 20 covering different areas of life. Many schools do a good job at being places where children want to be and feel safe and happy. But the Commissioner thinks there is more to do on this. The Commissioner's current project on 'school as a locus of support' conceptualises the proper role and work of a school under three themes ethos, fun, and help. The Commissioner's report Missing Children, Missing Grades shows descriptively the strong association between school absence and GCSE attainment. But some children do well despite absences. For example, 36% of pupils who were persistently absent (10%+) in Year 10 and year 11 passed at least 5 GCSEs, including English and maths, in 2022.
- **Health:** Children were reported by their parents to be generally in good physical health - in the 2021 census, 97% of children in England aged 0 to 14 were reported to be in good or very good health. The mental health of children is less positive with 6 years of annual **mental health** briefings showing that the 'pressures on children's social and emotional wellbeing' is serious and widespread, now affecting 20% of children aged 7 to 16 years[1]. Most SEN support in schools is for primary school aged children and include learning difficulties, autism spectrum disorder, speech language and communication needs, or social, emotional and mental health needs. Overall, 17% of pupils have either a plan, or support, for SEN. The Commissioner's report on disability in childhood explores those children that have mobility and sensory issues – which includes simple as well as complex conditions more typically seen amongst those in their 80's with multi-morbidity.
- **Childcare:** One striking finding from The Commissioner's Big Ambition consultation in England found that whilst 83% of adults responding on behalf of children agreed to the statement '*their family gets to spend quality time together',* only 53% of adults responding on behalf of babies agreed. The report's policy recommendations set out potential solutions. The presentation raised concern that children of about 3 – those who have perhaps suffered the most due to covid - being absent from the admin data as many do not take up the early years education to which they are entitled.
- **Children's views and voices:** The headline finding and key insight from The Big Ambition was that children have opinions about these issues and want to be heard. Only 22% agreed '*people who run the country listen to our views*'. They expressed a wide range of views on what the government should do to make children's lives better. Children's

[1] As of 2023, according to NHS estimates

views included views on poverty with among the top 100 most mentioned words of significance being '*poor*', '*money*', '*afford*', '*homeless*', '*cheap*' and '*price*'. One 11-year-old said "*abolish the 2 child rule*". So our number one ambition is that "*every child should grow up in a family that has what they need to support them and no child grows up in poverty*".

Presentation on child poverty and family resources

Alison Garnham, CEO *Child Poverty Action Group*, provided an update on children and poverty in the UK and made the case that child poverty is sensitive to government policy and that social security cuts in particular have been largely responsible for rising levels of child poverty. In making the case, the following issues were explored and evidence presented:

- **Child poverty is rising** and is experienced disproportionately by young children, children in BME families, in larger families and by disabled children. Garnham reported that child poverty has increased by 30% between 2010/11 and 2022/23 – from 3.6 to 4.3 million children. A sharper increase was reported (36%) among children in families with 3 or more children during this period – with 46% of children in these families reported to be in poverty by 2022/23. The number of food parcels given out by the Trussell Trust went from 128k in 2011/12 2,986k by 2022/23, supporting the feeding of one million children.
- **Changes to the benefits system has played a part in this increase**. Overall, the UK spends around £42bn a year less on social security than in 2010. Child benefit has lost 20% of its value since 2010 and as of April 2024 benefits will have risen by inflation in only 5 out of the last 14 years. The number of children in poverty fell 0.4 million over the period that the £20 per a week uplift was in place but fell back equivalently when it was abolished. Furthermore, family size was not factored into the pandemic responses and packages to support cost of living - e.g. £20 payment and energy lump sums.
- **This poverty impacts children's daily lives and education**. It was reported that more than 1 in 5 (approximately 900k children) live in food insecure households. CPAG's Cost of the School Day project report's on those children who arrive at school hungry and so are less able to concentrate, return to cold homes, and often miss out on everyday experiences that make up childhood, like school trips.
- **Many families on benefits experience deep poverty** with the presenter making the case that they would likely remain in poverty even if the benefits cap was removed. CPAG's The cost of a child in 2023 reported that the number of children in deep poverty (i.e. below 50% median household income) increased by 0.6 million from 2010/11 to 2023, by when it stood at 2.9m children. Benefit cap households are particularly likely to be in deep poverty. An average lone parent with 2 children will be £90 a week below the poverty line (CPAG analysis, 2024) but removing the cap would only give them an additional £35 a week – leaving them still £55 a week below the [general] poverty line. This CPAG analysis suggests that removing the benefits cap would just reduce the depth of child poverty but would not change the number of children in poverty. For a family not in work, benefits cover less than half what a family with 2 children needed in 2023.

- **The number of earners in a family is crucial**. 76% of all two parent families where neither parent is working and 70% of lone parents not in work are in poverty - compared to only 7% of families where both parents work full time. 47% of families where one parent works full time, and one parent does not are also in poverty.
- **The cost of keeping a child in school is significant**. CPAG's Understanding the cost of education reported that as a minimum, schools costs families £864.87 a year for primary school children and £1,755.97 for secondary school children. This means that the total cost of meeting a child's minimum educational needs across all 14 years of school (excluding household costs such as laptops) is £18,345.85. CPAG's analysis shows that 900,000 children in poverty in England do not currently qualify for either of the two nationally provided free school meal schemes - universal infant and means-tested.
- **The wider social costs of child poverty are significant and rising**. CPAG's report The cost of child poverty in 2023 reported that in 2008, the social cost of child poverty was estimated to be £25 billion a year. By 2023, this had risen to over £39 billion. The report makes the case that a large investment in reducing child poverty would bring similarly large gains to the economy, whilst also avoiding the damage to children who are harmed directly by poverty.
- **Child poverty have been shown to effect both child and adult outcomes**. Alison Garnham referred to a growing body of research that looks at the causal impact of income on child and adult outcomes. These studies were reported to have found that increased income led to: better birth outcomes; better educational outcomes via early cognitive development, test scores, years of schooling and attendance; and better social, emotional and behavioural development. Fewer studies report on the effect of child poverty on adult outcomes but those that so find a causal link between higher benefits in childhood and employment prospects as an adult. Also, positive impact on adult health outcomes including life expectancy with higher benefits.
- The presentation concluded by making the case that **policies are available to make things better**.

Presentation on childcare and early years provision

Ellen Broome, Managing Director of Coram Family & Childcare explained how her organisation works to make the UK a better place for families now and in the long term by bringing together lessons from their 'on the ground' parent-led programmes and research to campaign for solutions that parents want and need. Coram's activities include:

- Producing an annual Childcare Survey that reports on prices and availability of childcare. This is now in its 23rd year.
- Running the Parent Champions national network, a peer-led outreach programme that shares information about childcare and early years services.
- Delivering the National Association of Family Information Services (NAFIS), the only national membership organisation supporting local authorities to deliver high quality information and advice to families.

The presentation called extensively upon Coram's Childcare Survey to set-out areas that are ripe for reform or warrant further research. The issue and challenges as presented included:

- **Affordability**: Childcare in the UK is very expensive, with the cost increasing a few percent above the base rate of inflation. The average cost of a part time childcare place for a child under two in a nursery in Great Britain is now £157.68 per week (£7,569 per year), a 7.4% increase since 2023. Governmental support available to help with the cost of childcare has included:
    - 15 hours of funded childcare for 3- and 4-year-olds was introduced in 2010, and the 2-year-old offer for disadvantaged children was launched in 2013.
    - In April 2017, Tax Free childcare was introduced which provides parents with a 20% top up.
    - In the summer of 2017, the, Government announced 30 hours free childcare offer for working parents of 3- and 4-year-olds.
    - In March 2023, the Chancellor announced 30 hours of free childcare for every child with working parents aged from nine months to five years.

- **Availability:** Childcare shortages mean the children who stand to gain the most from childcare miss out. Dramatic drops were reported in the availability of childcare across all categories since last year. Only 35% of local authorities have enough childcare for children under two, down from 50% last year, with the largest decrease for disabled children, for whom sufficiency now sits at only 6%, down from 18% last year. There was also a significant reduction in the number of funded early education entitlement places with 43% of local authorities reporting that 'at least some' of their local childcare providers have reduced the number of funded places due to financial pressures. Some are also prioritising places for children whose parents are paying for additional hours on top of funded hours. There is a great deal of uncertainty about how the recent expansion in government funded provision will affect existing entitlements with half of local authorities reporting that they do not know. Of those who answered, most expected the roll out of the new entitlements to have a negative impact on the availability of existing entitlements.

- **Quality:** High-quality childcare was reported to offer long-lasting impacts on children's outcomes, particularly for disadvantaged children, with children attending high-quality childcare typically having better socio-emotional and cognitive outcomes. There are several factors and determinants involved in this outcome, including staff qualifications, staff ratios, and opening hours. Childcare providers have been raising concerns about the struggles they are facing to stay financially sustainable, and concern was reported that childcare providers are now being forced to take steps that will decrease the quality of provision including lower staff ratios, fewer qualified staff etc. Childcare in England was reported in the Childcare Survey to not be of a consistently high enough quality to make a real difference to children's outcomes. This is at odds with the Ofsted system by which quality is assessed, which assessed 96% of settings as good or outstanding.

- **Workforce:** Recruitment, retention and training/qualifications of staff is one of the main issues facing the childcare system. The sector is one of the lowest paid, lowest skilled professions with a significant minority not earning minimum wage. Over the last few years, there has been an increase in the employment of apprentices and the proportion of providers who use temporary staff, perhaps reflecting the pressures around recruitment and retention that the sector is facing. The Early Education and Childcare Coalition's report 'Retention and Return' indicated that 57% of nursery staff and 38% of childminders are considering leaving the sector in the next 12 months. Coram's 2024 Childcare Survey found that 88% of local authorities see the local childcare workforce as a key barrier to the rollout of the childcare expansion.

- **Information and awareness:** Many families miss out on information about how to access early years services and support with childcare costs. Disadvantaged children are significantly less likely to access their funded early education entitlements despite having the most to gain from early education. Lowest uptake is found to be among children with SEND as well as families with English as an additional language. Parents report being confused over the eligibility criteria of the 15 hours offer for 2-year-olds or are put-off by the stigma associated with accessing support aimed at 'disadvantaged' families. Low awareness of childcare support or confusion over eligibility criteria is not limited to low-income or disadvantaged families. Over one million working families are eligible for Tax Free Childcare but the most recent statistics show that only 456,000 families accessed Tax-Free Childcare in the last quarter.

- **Wraparound care** that offers before and after school care for primary school aged children in England during term time: parents' workplace participation is seen to stagnate when their child reaches school age and many report significant challenges finding or sustaining work without adequate wraparound childcare, including during the holidays with Coram's 2023 Holiday Childcare Survey **finding** that only 25% of local authorities in England report having enough afterschool childcare for five- to eleven-year-olds. More recently, Coram's report with Local Government Association found that local authorities are facing significant challenges with increased demand for services and lack of funding. Whilst the government has committed to a welcome investment in wraparound childcare, there are concerns about the long-term

sustainability of the government's wraparound programme, given that much of the funding is dedicated start-up funding and that there is uncertainty regarding the level of funding the programme will receive in the long-term.

Presentation on researching child development using Understanding Society

Aja Murray, Reader in Psychology, Department of Psychology, University of Edinburgh, and Understanding Society Child Topic Champion presented on the multiple considerations needed to decide which research questions to prioritise and how to go about the research. She emphasised for the participants that:

- Understanding Society is well-suited for providing policy-relevant evidence.
- Whilst causal evidence is important for the development of good policy, there remains an important place for descriptive evidence.
- Previous examples using the data may be a good source of inspiration.

She explored the various issues, questions and challenges that the research springboard teams will likely face including:

1. **Choice of research questions to answer:**

There are a range of inspirations that teams might develop their research questions from. These can include research questions that have been identified in collaboration with the groups affected, though, for example, consultation/co-design or priority setting exercises.

In addition, policymakers publish their research interests via Areas of Research Interest and calls for evidence. Examples from two relevant government departments:

- Department for Education:
  - *How can we improve the education experiences and outcomes for children and young people with SEND (Special Educational Needs and Disabilities) or in AP (Alternative Provision)?*
  - *How do we best identify needs and level of need, what are the benefits of early intervention, and what are appropriate outcomes to measure for this group?*
- Ministry of Justice:
  - *What works and for whom to prevent and divert children and young people from offending?*
  - *How effective are community resolutions including Out of Court Disposals?'*

Examples of urgent and emerging social challenges and the research question that they pose might include:

- COVID-19 pandemic

- *What is the long-term impact on child development & how can this be mitigated?*
- *What are the impacts of further shifts towards the use of digital communications?*
- *How can we leverage the benefits of digital whilst protecting children from its harms?*

- Cost of living and the resulting child poverty crisis
  - *How can we mitigate the harms on children?*

2. The type of evidence the research springboard should be aiming for include:

- Describing a problem or opportunity.
- Causal evidence & mechanisms: For example, the Department for Education: *'We welcome analysis that goes beyond describing problems and starts to establish causality or explain mechanisms for change'.* A an example of a tool available to support causal analysis is the DIGICAT tool that allows the user to upload data and generate propensity scores to balance your sample across treatment groups.
- Heterogeneous effects and appreciating that a policy or intervention might have different impacts for different groups within a population because the effectiveness can differ based on characteristics such as age, gender, socioeconomic status etc.

3. Possible types of analyses:

- Describing a problem: Prevalence, associations (correlations, regression)
- Causal evidence: Counterfactual analyses (e.g., propensity matching), quasi-experimental, leveraging longitudinal data
- Mechanisms: (Causal) mediation
- Heterogeneous effects: including mapping of Causal trees/forests, moderated analyses, sub-group analysis

4. Formation of teams and the research process

Formation of teams

An important part of a research springboard is to provide individuals an opportunity to work in mixed teams across organisational boundaries so different actors can discuss and negotiate research questions of most relevance.

Therefore, once the delegates had been briefed, and before teams were formed, participants were taken through a brainstorming process to identify possible research questions which were additional to, or re-crafted from, those sent in advance. The process took place using post-it-notes and flip charts based around the 9 sub-topic ideas as formed from the research questions shared within the expressions of interests. The outcomes from this brainstorming process have been written up in table form below.

Child development research ideas

		Research ideas sent in advance	**Research ideas developed during day-one**
Sub-topic		Interests/Research Questions expressed in advance via application forms	Research Questions developed during day-one (Flip charts)
1	Parenting behaviour	What role does **parenting styles** have on child development outcomes?	What is the impact of different parenting styles on child outcomes **in the context of family income** and level of deprivation?
			Do parenting styles mediate the relationship between poverty/deprivation and socio-emotional development?
			Are there subgroups that are **particularly affected by parenting styles**?
		How are **parenting styles changing** and what impact does this have on child development outcomes?	What programmes or **interventions** change parenting behaviour and therefore child outcomes?
		What role can other **trusted adults** (not parents) play in child development?	What is the impact of **physical punishment** on child developmental outcomes?
2	Child cognitive	Beyond family income, what are the predictors of later **developmental delay**?	What non-income **indicators** predict children at risk of falling behind before they start school?

	development & education	How can we **detect children at risk of falling behind** at an earlier stage (e.g., beyond measures such as FSM - free-school-meals)?	What non-income measures of circumstance predict cognitive and **socio-emotional gaps** at ages 3 and 5?
		Are children from **certain demographic groups** or geographical areas falling behind?	Are the predictors of physical health/mental health/educational outcomes the same?
		How do different types of **early intervention** influence long-term outcomes such as: Employment; Economic status; Physical health; Mental health	Are there key **point/periods of intervention** for reducing child outcome inequalities?
			What does **school readiness** mean and how could we inform the measurement of this?
			What are the effects of **free school meals** on child development outcomes?
			Do free school meals have a longer-term impact on educational outcomes?
			What impact has the **Covid-19 pandemic** had on child development/school readiness? For different groups, SES/gender - especially on early years?
3	Predictors of child physical & mental health	How do inequalities effect **physical growth trajectories** of children?	Are there **'early warning' predictors** for mental health? Does **machine learning** have a role to play?
		What can Understanding Society data reveal about the early childhood of those **teenagers who now report mental health issues** or risky behaviours?	Can a **combined set of indicators** be generated to predict/mitigate mental health issues?
		What is their propensity of those with mental health problems **becoming NEET** when entering young adulthood?	What are the causes of **poor mental health and attachment** after the early years? What can be done?
		Do **parental mental health** and socioeconomic status interact to predict child outcomes?	What are the drivers of **childhood eating habits/obesity**?
		What impact does **gender inequality** have on children and young people's mental health?	What are the impacts from **school absenteeism** on young adult outcomes?

		How are new **societal shocks, stressors and technology** affecting the recent generation of children? For example: societal isolation; awareness of environmental crisis; social media.	What are the causes of **poor mental health and attachment** after the early years? What can be done?
			When does **having a sibling** have a protective impact?
4	Child poverty: Lived experience	What is the relationship between children growing up poor on wider outcomes, and how does this relate to **length of spells of poverty**?	How has **non-monetary poverty changed** over time? Does this differ by demographics/location?
			What is the **lived experience of poverty;** are monetary poor families worse across the full range of indicators?
			What are the different **perspectives of children's lived experiences of poverty?**: income; material deprivation; cost of living as a crises event
5	Family background & child poverty	What is the **protective role of social housing**?	How do child-level deprivation vary **by gender within household**?
		How do **non-monetary deprivations vary** between children living in different parts of the country, and in different household types?	Through what **mechanisms did COVID exacerbate inequalities** for children? What role did parents working outside the house have?
		How are family circumstances (such as precarious housing, work, etc) impacting on the **self-esteem and aspirations of children** and young people?	What is the incidence, prevalence & persistence of **poor-quality housing** (mould, damp, insecure, overcrowding etc)?
			What is the incidence, prevalence & persistence of **fuel poverty?** How does this link to poor housing?
			How does family complexity change the impact of the **two-child benefit cap**? (e.g. half/step siblings)

Family resources and child poverty research ideas

		Research ideas sent in advance	Research ideas developed during day-one
Sub-topic		Interests/Research Questions expressed in advance via application forms	Research Questions developed during day-one (Flip charts)
7	Prenatal factors	What **impact does a squeeze on benefits** have during pregnancy and babyhood have on maternal and child outcomes?	Are there child outcome benefits to be gained from **joining up antenatal care with postnatal care**?
		What was the impact of **expansion of maternity leave (early 2000s)** on the length of leave taken, and effects on maternal and child outcomes?	
8	Benefits & child poverty	How can Family Hubs and Start for Life **Policies** be joined up with the Early Years reform?	How has the **2-child benefit cap** impacted child development outcomes?
		How does **raised state pension ag**e impact within-family resource allocation decisions on childcare?	

Childcare research ideas

		Research ideas sent in advance	Research ideas developed during day-one
Sub-topic		**Interests/Research Questions expressed in advance via application forms**	Interests/Research Questions expressed in advance via application forms
9	Childcare	Does formal childcare **support child development**? How does this differ for different family make-ups/social-economic circumstances?	
		How do levels of childcare use **vary by UK nation**?	
		How do **different childcare settings** impact on child development outcomes? (formal/informal/home-educated)	
		Who **uses** childcare?	
		How do **parent's perceptions** of childcare impact on parent's use of childcare?	

The teams that formed around these sub-topics went on to agree the research questions that they wanted to pursue. The outcome is shown in the Table below.

The teams that formed

Team	Area of research	Size of team
1	Parental shared leave policies and mental health outcomes	5
2	Disadvantages and children's social-emotional development	7
3	Housing quality and child outcomes	6
4	Parenting behaviour and child outcomes	6

Note: These were initial areas for research investigation subject to refinement by the teams

The research process as presented in day two

After the teams had formed on day-one, further explorations occurred within each team to refine the research questions, agree data and methodologies, and identify outstanding issues. Each team provided a presentation update as part of day-two. Summary notes from these presentations are provided below.

Team 1 - Day-two update: Parental shared leave policies and mental health outcomes

Research questions	(1) Is the introduction of the 2015 parental shared leave in the UK associated with improvement in the mental health of parents? (2) Does the effect vary by the gender norms in the family (equalitarian yes/no)?
Data issues	Use wave 1 to 10 to capture pre covid years. GHQ-12 for outcomes. (1) Lack of birth date of child availability means need to use parents' outcomes. (2) Possible issue with sample size due to low uptake. (3) Issue with families with more than one child (i.e. what about first and second child families?) - Suggested that use all families and use this as a control variable. (4) Issue with weights to be resolved once results are available.
Analytical approach	- Heterogeneity analysis: geography, gender, socioeconomic status. - Linear model (OLS) and interrupted time series analysis. - In the future, we will consider regression discontinuity design.

Team 2 - Day -two update: Disadvantages and children's social-emotional development

Research questions	1. What indicators of disadvantage relate to children's social emotional outcomes? 2. How do these relationships change when children experience multiple indicators of disadvantage? 3. How do these relationships change in light of protective factors, including early childhood education and care and the home learning environment?
Data issues	Outcome variable: SDQ at age 5. Issues and challenges: (1) Many measures as indicators of disadvantage. (2) How close to ACE's. (2) Might use latent class analysis. (3) Advise using individual components of SDQs as ADHD is quite distances from others conduct issues. (4) Possible protective variables: home learning environment, time spent with parents, do parents eat/read with children? - issue of rotating modules and no longer asked questions. (5) Looking at age 8 as well as age 5 would risk reducing sample size.
Analytical approach	1. Bivariate analysis of each indicator separately. 2. Regression: the difference between subject and objective indicators. 3. Regression: impact of multiple indicators (zero, one, two, three+).

	4. Descriptive analysis: The most common combinations of indicators (descriptive analysis).

Team 3 – Day-two update: Housing quality and child outcomes

Research questions	1. How many children live in poor quality housing, defined as overcrowded accommodation? 2. How does this change over time, vary by region & housing tenure? 3. How does this impact these children's health and wellbeing? (i.e. SDQs)
Data issues	(1) Challenge of developing an indicator of housing quality - Which variables to use and how can they be combined (damp, moving, noise, lack of heating, overcrowding, access to garden, state of repairs, etc). Home disadvantage as distinct from economic disadvantage. Combine conditions of living with conditions of home? Issue of incompatibility with BHPS's more specific variables. (2) Challenge of creating a combined outcome vibrable from the child and youth file. (3) May need to look at youth outcomes alone as SDQ is not self-reported for children (under 10) so might not be compatible. (4) Overcrowding emerges over time as children age. (5) Damp housing only asked of pensioners so doesn't cover families with children (although all households covered from W14). (6) There might be differentiation by component of SDQ and gender. (7) Might use quintiles of deprivation / ethnic background as confounder variables. (8) Housing tenure particular issue with weighting (9) Analysis does not capture children accommodated in hotels, hostels, traveller sites, etc. (10) Possible different levels of weights for the different domains of the SDQ. Also difference by gender.
Analytical approach	Analysis of trends
Emerging findings	Incidence of overcrowding is increase over time, from about 6% in 2009 to up to 15% by 2023 and appears to have a negative impact on SDQs.

Team 4 - Day-two update: Parenting behaviour and child outcomes

Research questions	Has the adoption of different parenting styles changed over time, and does this vary by ethnic group, income group, and mother age at birth of first child?
Data issues	- Parenting Variables: Parenting styles - (authoritarian/harsh, permissive, authoritative/positive plus possibly uninvolved). - Grouping Variables: Income group - (poor, low, middle, upper), Ethnic group, Age of mother at birth of first child. - Control Variables: Gender of parent and child, Parent mental health and other long-term health conditions, Parent single in household. (1) Follow up question: How do sibling gender and age dynamics affect parenting style? (2) Need to look at outcomes from youth file as parenting style captured at age 10. (3) Look at trends, not causes. Might look at how these trends map against changes in gender attitudes. (4) Also, could include strength of identification of parent's ethnic group, religiosity and different dimensions of ethnic identity.
Analytical approach	- Repeat measures cross-sectional design. - Wave 3 to wave 13, considering each wave individually. - At each wave, all parents that complete parenting style questions (child at age 10) will be included.

The Research and Policy Panel on day-three

On the third and final contact day, the teams presented their results to research and policy panel of experts who offered feedback and suggestions for how to develop further outputs targeted at influencing policy. The teams then had several weeks to finalise their analysis incorporating this feedback before they submitted summary output reports. Edited versions of these are provided the Sections below.

5. Outputs from the research teams

Team one: Parental shared leave policies and parents' mental health outcomes

Final Research Questions:

1. Is the introduction of the 2015 parental shared leave in the UK associated with improvement in the mental health of parents?
2. Does the effect vary by the gender norms in the household (e.g., gender-egalitarian)?

Sample of interest:

Mothers and fathers from families with at least one child of maximum 12 months. The final sample consists of 12,686 mothers and 9,909 fathers across waves 1-10.

Summary of research approach:

The team hypothesised that the introduction of the 2015 parental shared leave in the UK would be associated with an improvement in the mental health of both parents, and that this effect would vary across sub-groups (i.e., parents with different gender norms).

Parents' mental health outcomes were captured by the 12-item General Health Questionnaire (GHQ), which was collected in all waves, where higher scores indicate worse mental health. Gender norms were reflected by three gender egalitarian items (e.g., 'family suffers if mother works full-time') collected in waves 2, 4, and 10.

The interrupted time series design was adopted to capture the changes in parental mental health before and after 2015 (wave 6). We used a population-level longitudinal design. All the analyses were based on unweighted data.

Summary of findings:

A general trend was identified that the mental health of mothers and fathers of newborns has steadily worsened since 2009.

In response to the research questions specifically, the data does not support a statistically significant changes in parents' mental health outcomes due to the implementation of shared parental leave. Reasons for this null finding might include lack of take-up, small sample size, lack of rigorous quasi-experimental set-up, selection, etc.

Based on the non-significant findings and the graphical results, some weak improvements of mental health outcomes might be inferred over the period of interest looking at the change of population average, particularly for mothers and for both mothers and fathers who are in non-gender-egalitarian households. Fathers in gender-egalitarian households might

experience worsened mental health conditions. However, more rigorous analysis is needed to substantiate any claims. Shared parental leaves may have the potential to possibly shift gender norms and caregiving cultures in UK families, but more evidence is needed.

Further analysis that would strengthen these research findings:

In developing this analysis further, the team intends to incorporate sample weights to better represent the population. Their analysis could be further strengthened by use of a Regression Discontinuity Design. This requires specific knowledge of the timing of the intervention and measurement of outcomes directly before and after. Therefore, the team would need to access the restricted-use data. In addition, the analysis so far only explores parental mental wellbeing as outcomes of interest, and the team could further explore the impacts on children.

Specific implications of the findings for policy and practice:

It would be important that social policies are evaluated in terms of their impact on the lives of the end beneficiaries (i.e. parents, children). One important outcome is the mental health of both parents and children. The team's preliminary analyses do not allow one to draw any conclusions regarding the impact of the 2015 shared parental leave policy on parental mental health. However, it is important to notice that the trend of parental mental health was slightly disrupted in the year before/around the implementation of the 2015 shared parental leave policy. Moreover, the team's research identified a variable that may be important to take into account in the context of this policy: non-egalitarian households. Family culture on gender norms might play a role in the potential implication of shared parental leave on parents' mental health.

Furthermore, to understand the impact of social policies such as shared parental leave, it would be important that their evaluation is designed within the policy implementation from the start. For instance, if in the first year of the policy, parents eligible to benefit from the policy would have been randomly selected, that would have allowed for an experimental design to compare those exposed and unexposed to the policy.

Additional planned activities:

The team hopes to apply to have access to data with more information (e.g. birth months) to allow us to conduct further causal analysis which can lead to a full research paper for peer-reviewed publication.

Potential collaborations coming from the research springboard:

The team are planning to take the conversations forward and potentially collaborate for a future research project on the topic of the 2015 shared parental leave policy in the UK.

Team two: Multiple Disadvantages and Socio-Emotional Development

The major contribution of this team's research was to:

- Provide a systematic overview of how disadvantage can be conceptualised and measured in various ways.
- Theoretically and empirically consider how multiple indicators of disadvantage influence socio-emotional outcomes in early childhood.

Research Questions:

a) What indicators of disadvantage relate to children's social emotional outcomes?
b) How do these relationships change when children experience multiple indicators of disadvantage?

Sample of interest:

The sample of interest for this project were children aged 5 in the UK. From the initial pool of children whose parents responded to questions at ages 3, and 5, the analysis removed households which possessed outlying data on the household income distribution measure and listwise deleted sample members with missing responses on relevant variables, leaving a final analytical sample of N = 3,061 unweighted, N = 3,307 weighted.

Summary of research approach:

- *Socio-Emotional Development (Dependent) Variables* - This study focused on socio-emotional outcomes as captured by the Strengths and Difficulties Questionnaire (SDQ) - a brief child behavioural screening questionnaire asked in Understanding Society of caregivers of children aged 5 and 8, measuring five subtypes of children's behaviour, from 25 questions covering: *emotional symptoms, conduct problems, hyperactivity, peer relationship problems, and prosocial behaviour*. Values of positive items were reverse coded and added to the negative items to generate measures for 5 subscales.

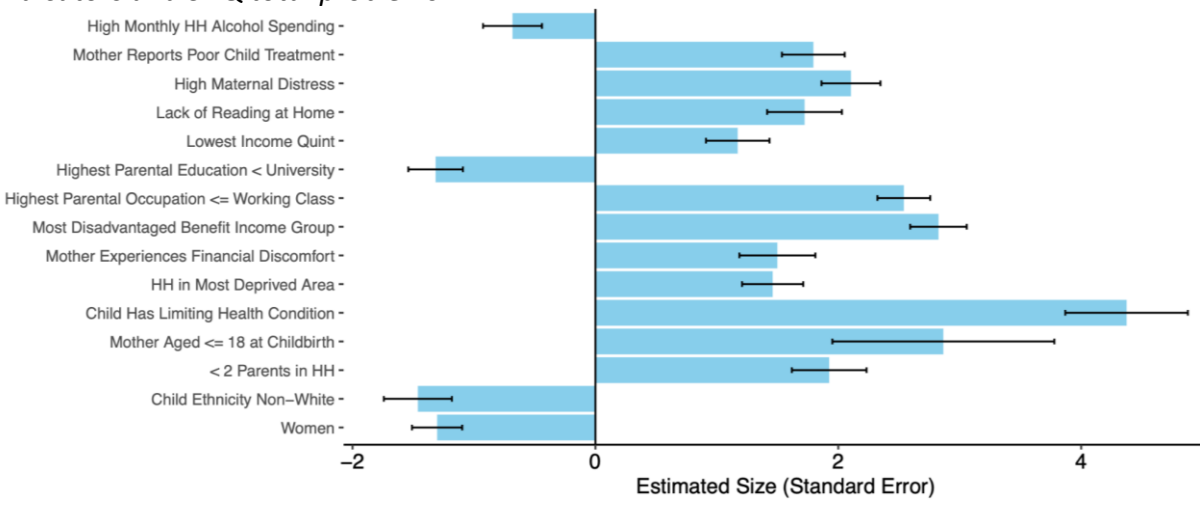
- *Indicators of disadvantage (Explanatory) Variables* - Based on the literature and availability in Understanding Society, the team listed all possible indicators of disadvantage that covered both economic and social factors at both the individual and area level. Before a final selection of explanatory variables was made, the team considered the collinearity of disadvantage indicators by conducting a correlation analysis of a large list of proposed indicators of disadvantage based on data availability and review of the literature. The team used this correlation analysis, to eliminate highly correlated variables (i.e., pairs with a correlation of $r > \pm 0.5$) with less of an evidentiary or theoretical connection to children's social emotional development. For example, the SF-12 – Mental Component Summary and the General Health Questionnaire can both be used to capture psychological distress and are highly correlated with each other. The team adopted the GHQ measure as this is more commonly used in the literature, facilitating cross-study comparison. After pruning the indicators with this correlation analysis, the team re-coded the indicators such that higher values mean higher disadvantage.

- *Analytical Strategies:*
  1. *Correlation analysis* - Bivariate analysis comparing correlation of disadvantage indicators on total SDQ.
  2. *Regression analysis* - Regression analysis on individual, economic, and social indicators of disadvantage.
  3. *Cluster analysis* - Regression on variable counting the number of disadvantage indicators experienced.

Summary of findings:

1. *Correlation analysis* – The Figure below shows the results of correlation analysis and indicates that there are multiple indicators of disadvantage that significantly impact children's SDQ at age 5. The largest bivariate impacts appear to be from *child's limited health* and *being in the most disadvantaged benefit receipt group*. Most indicators of disadvantage have significantly positive relationships with children's negative socio-emotional development – apart from *parental education* and *monthly household alcohol spending.* It is thought that h*ousehold alcohol spending* could be constrained by how much money the household has.

   Summary of bivariate analysis: coefficients for the associations between different indicators and SDQ total problems



   Notes: All estimates are weighted with survey provided design weights. Estimates are derived with linear bivariate regressions of total SDQ against dichotomous predictors

2. *Regression analysis* - The second part of the analysis regresses 5-year-old's total SDQ against the potential indicators of disadvantage. The first model includes demographic variables, showing only *maternal age at child's birth* as ineffectual when accounting for the other demographic variables which included the: children's *health limiting conditions*, the *number of parents in the household*, and whether the household was in an *area with high deprivation*. In the second model, we see the effect of areas of deprivation and health limiting conditions remain significant when accounting for socio-economic related factors, of which all have significant positive effects on SDQ score except for parental education. The third model contains all possible indicators of

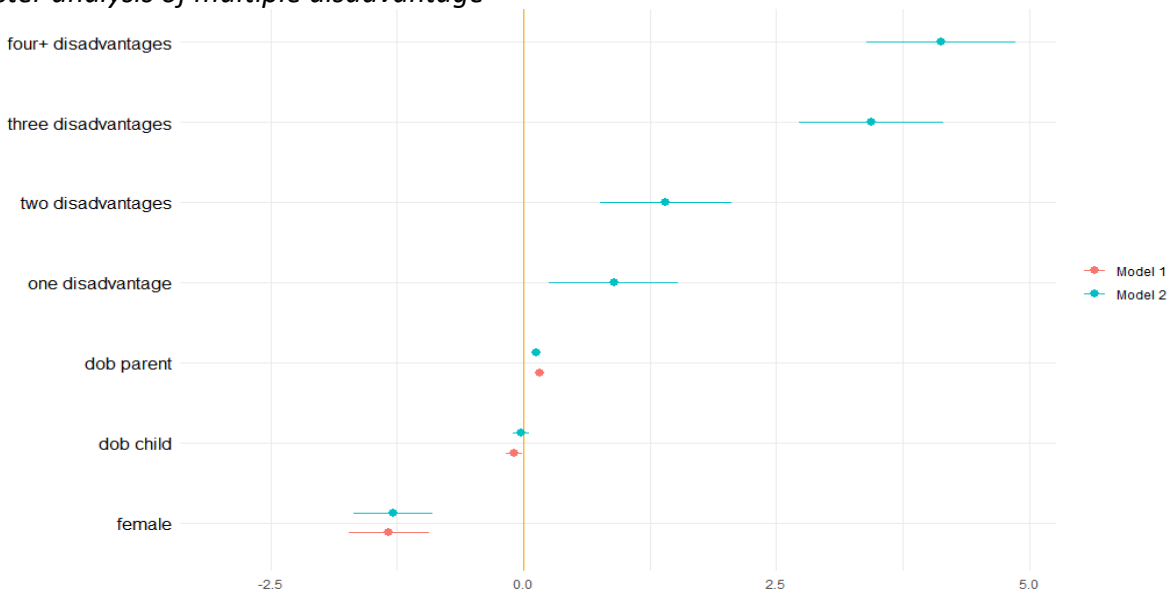
disadvantage, demographic, economic, and social. Of the team's potential indicators of social disadvantage, only *high monthly spending on alcohol* was found to be insignificant.

3. *Cluster analysis* - The third part of the analysis considers descriptive clusters of disadvantages (Table below). With this study's definition of disadvantage, only 14% of the sample experienced no disadvantages at all, with 30% and 27% of the sample experienced one or two disadvantages respectively and 16% and 13% three and four disadvantages respectively. The Figure below shows that, whilst the impact of experiencing up to two disadvantages negatively impacts socio-emotional development, this negative association greatly increases for those reporting more than two disadvantages.

The distribution of disadvantage clusters

No disadvantages	1	2	3	4+
14% (N = 441)	30% (N = 950)	27% (N = 864)	16% (N = 559)	13% (N = 491)

Cluster analysis of multiple disadvantage



4. *Revisiting research questions:*
   a) *What indicators of disadvantage relate to children's social emotional outcomes?*
   - A range of social, emotional, and demographic disadvantages are negatively associated to children's socioemotional development. These associations persist even after accounting for classically used indicators of disadvantage, such as benefit receipt.

   b) *How do these relationships change when children experience multiple indicators of disadvantage?*
   - The negative impact of disadvantages on socio-emotional development at age 5 increases with the number of disadvantages a child experiences at age 3. The negative association of multiple disadvantages notably increases for children with three or more indicators of disadvantage.

Further analysis that would strengthen these research findings:

- A more sophisticated means of accounting for missing data
- Latent class analysis to formalise clusters of disadvantage and empirically investigate most common clusters
- Intersection analysis / analysis of marginal effects to consider how different indicators of disadvantage add together to impact SDQ
- Looking at the moderating effect of formal childcare and other protective factors.

Specific implications of the findings for policy and practice:

Revisiting research questions:

a) What indicators of disadvantage relate to children's social emotional outcomes?

- Against expectations, household income and parental education played a weaker role than expected.
- What mattered more was being on benefits, occupational class, child health, and parental distress.
- After controlling for demographic and economic factors, social indicators of disadvantage still had an impact.

b) How do these relationships change when children experience multiple indicators of disadvantage?

- Effect of economic factors remained stable.
- Social factors also had strong and important associations.
- Additive impact of experiencing multiple indicators of disadvantage, with the negative association of multiple disadvantages notably increases for children with three or more indicators of disadvantage.

Additional planned activities:

- A couple of the individual team members will present these findings in their own research groups, seeking peer review and feedback from, for example, the University of Bristol Poverty and Social Justice Research Cluster meeting in the next academic year.
- The team intends to produce a working paper that more fully captures the literature review work that the team did during their work together, as well as further analysis needed to more fully evidence their narrative.
- University of Bristol members intend to produce a Policy Note in collaboration with PolicyBristol regarding adopting a more systematic and multidimensional definition of disadvantage.

Potential collaborations coming from the research springboard:

The springboard has sparked a collaboration between the core team members, and they aim to continue working on this project over the next few months.

Team three: Children in overcrowded households

Research Questions:

1. How many and which children live in poor quality housing, defined as overcrowded accommodation?
    a. How many are overcrowded, using different definitions?
    b. Where in the UK do they live?
    c. In what housing tenure do they live?
    d. How has the number of children who live in overcrowded housing changed over time?
2. Outcomes: How is overcrowding for children associated with health and wellbeing?
    a. Child health conditions
    b. Strengths and Difficulties Questionnaire scores (10 to 15 self-reporting)
    c. Parent worries about child's health as reported by parent at age 3, 5 and 8

Sample of interest:

- All available waves. Most recent wave (13) for some analysis.
- Children, and households containing children (with households not containing children used for comparison).

Research approach:

Use of weights: hhdenui_xw

The measurement of overcrowding as used in the analysis is the 'bedroom standard' commonly used UK government's and the ONS in their census analysis. This standard states that a household is overcrowded if it does not have *a minimum number of rooms equal to: 1 room for married or cohabiting adult couple, 1 room for any remaining adult aged 21 years or over, 1 room for pair of children aged 10-20 years of the same sex, 1 room for pair of children under 10 regardless of sex, 1 room for one person aged 10-20 and one person under 10 of the same sex (if odd number), 1 room for any remaining person under 21.*

The other definitions considered but not used include a:

1. Simple definition - household size divided by number of bedrooms.
2. Legal definition, room standard - fewer rooms than are considered necessary based on household size and age.
3. Legal definition, space standard - based on the floor space of each room in the property whereby: Overcrowding is occurring if *two people of the opposite sex sleep in the same room. There is an exception for cohabiting, married or civil partnered couples. The number of people of the same sex sharing the same room is not limited. Children under the age of ten are completely ignored. All living rooms and bedrooms are included.*
4. Eurostat definition – setting minimum number of rooms for households equal to: *1 room for the household; 1 room per couple in the household; 1 room for each single person aged 18 or more; 1 room per pair of single people of the same gender*

between 12 and 17 years of age; 1 room for each single person between 12 and 17 years of age and not included in the previous category; 1 room per pair of children under 12 years of age.

Summary of findings:

The percent of children living in overcrowded households remained relatively steady between 2009-2011 and 2021-2023 (waves 1 to 13). Levels and trends in overcrowding depend on the measure used. The most-used measure tended to be higher than others.

In terms of which children were living in overcrowded households:

- Tenure was strongly associated with overcrowding, with children living in the social rented sector substantially more likely to be overcrowded than children in owner occupied homes. Households containing children in the private rented sector were in an intermediate position between these.
- The ethnic group of children was strongly associated with overcrowding, with children from a black ethnic background most likely to be experiencing overcrowding (35%) and children from a white ethic background least likely (8%).
- The number of people in the household was strongly associated with overcrowding, with the risk of overcrowding low for households of up to 4 people and rose above 50% for households containing 7 or more people.
- London was a consistently found (between measures) and persistently (over time) found to be a high outlier in the risk of overcrowding, with around 30% of London households with children experiencing overcrowding. The West Midlands was the second worst affected, followed by other English regions, Scotland, Wales and Northern Ireland.
- Income, as measured by household income quintile, had a consistent (between measures) and persistent (over time) strong association with the risk of overcrowding.
- The risk of overcrowding varied by household makeup. In order of decreasing risk of the household experiencing overcrowding:
    - Households containing 3 or more adults – such as grown-up children, grandparents or others.
    - Lone parent households.
    - Households made up of couples with 3 or more children.
    - Households made up of couples with 1 or 2 children.

In terms of child outcomes:

- Children living in overcrowded homes were more likely to have parents who reported that they were worried about their child's health at age 3, 5 or 8.
- This analysis finds a statistically significant ($p<0.01$) association between overcrowding and child outcomes including reported child health conditions, long-standing health conditions, parents being worried about their child's health, and the Strengths and Difficulties Questionnaire scores of 10 to 15-year-olds. This association

remained even after controlling for other key variables (household structure, ethnicity, tenure, equivalised income, age, and sex ‘).

Further analysis that would strengthen these research findings:

- Exploration and validation are needed of the different measures through qualitative research.
- Better incorporation into measures of housing quality is needed, including being able to keep homes containing children warm in winter; presence of mould and damp; suitability of accommodation; and the legal definition of overcrowding.

A key question for future research arising from this analysis is:

Is it possible to identify an independent effect of overcrowding, or are there just too many confounding factors?

Implications of the findings for policy and practice:

The findings imply the need for a targeted policy focus on overcrowding, given the range of policy aims and instruments which may have affected the trends observed, and lack of progress in reducing the problem over time.

The findings are of particular relevance to:

- **Housing authorities and housing associations**, given the higher prevalence and risk of overcrowding in the social rented sector.
- **Local policy makers**, particularly the Greater London Authority, but also the West Midlands Combined Authority, given the unexpected regional breakdown found by the team.
- **Lone parent families**, who may not be less visible than larger families in decision making on overcrowding.
- **Those who deliver public services for children and families**, such as schools and primary care services, to support them in their efforts to identify and support children at higher risk of physical health, social, emotional and behavioural problems.

Additional planned activities:

The team report that they would like to publish a dedicated Working Paper based on their work during the research Springboard.

Potential collaborations coming from the research springboard:

The team plans to include findings from the project in a forthcoming report on housing to be published by the Children's Commissioner's office. This may take the form of a figure/annex/citation.

Team four: Parenting behaviour and child outcomes

Research Question:

Have parenting styles changed over time between 2012 and 2022, in the UK, and does this differ between groups?

Sample of interest:

- All parents of children aged 10, any time between 2012 and 2022. The sample was limited to first child only, to avoid issues with independence.
- This included waves 4 to 13.
- There were no exclusionary criteria based on household type or demographics, but certain demographic characteristics were controlled for/explored within analyses.
- The final total pooled sample size was 7,106, although each analysis contained a differing and more limited number of participants due to missingness.

Research approach:

- The variables of interest were:
    - Parenting styles: Authoritative, uninvolved, authoritarian, permissive.
- Control/moderator variables:
    - Ethnic group
    - Country
    - Birth sex of child
    - Parent age-group
    - Mother or father parenting style
    - Child disability
    - Child neurodiversity
    - Marriage status (1-parent or 2-parent household)
    - Socioeconomic status
    - Employment status
    - Parent mental health diagnosis - yes/no
    - Long-term health condition - yes/no
    - Political orientation

- The study design was a repeat-measures cross-sectional design, where different individuals completed the same parenting style questionnaire in different waves of the study, and differences between waves was analysed.
- The weight adopted was the main survey adult cross-sectional weight, pooled across waves and rescaled to account for sample size differences between waves.
- All model assumptions were checked within R, including linearity (when appropriate), normality of residuals, and equality of error variance. Independence

was maintained via either exclusion (first child) or modelling of independence within models (random family effect for mothers/fathers).

Summary of findings:

- **Trends - B**etween 2012 and 2022, permissive parenting significantly increased and the proportion of parents adopting an authoritarian parenting style significantly decreased.
- **Rate of change -** Parenting style was not found to be changing at significantly different rates based on parental background.
- **The background of parents** was found to be important in the parenting styles adopted:
    - **Gender of parent -** Mothers were more likely to adopt authoritative styles, while fathers were more likely to be permissive or uninvolved.
    - **Income -** In general, individuals from higher income groups were more likely to adopt permissive parenting styles whilst those from lower income groups were more likely to adopt uninvolved parenting styles.
    - **Ethnic background** - Individuals from Black and Asian ethnic groups were more likely to report authoritarian parenting styles, relative to those from White or Mixed and Multiple ethnic groups. Individuals from White ethnic groups were more likely to report uninvolved parenting styles, compared to those from Black ethnic groups.
    - **Disability -** Parents with reported mental health problems were more likely to adopt uninvolved parenting styles, and less likely to adopt an authoritative style.
    - **Employment status -** Unemployed parents were more likely to adopt an uninvolved parenting style, and less likely to adopt an authoritative style.
    - **Sex of child -** Children assigned male at birth were more likely to have a parent adopting an authoritarian parenting style, relative to children assigned female.
    - **Age of parents -** In general, parents from older age-groups were more likely to adopt permissive parenting and less likely to adopt authoritarian parenting styles.

Further analysis that would strengthen the research findings:

Further analyses that include siblings, and account for this independence within analyses, would strengthen inferences and allow direct consideration of further family-level effects. This may also allow for a longitudinal approach, analysing changes in parenting styles over time within individuals, which may strengthen inferences regarding family-level and society-level effects.

Implications of the findings for policy or practice:

The overall increase in permissive parenting, and decrease in authoritarian parenting, has positive implications for child development, as research has shown more positive child development outcomes for permissive, relative to authoritarian, styles. Differences in parenting styles between groups may also highlight group norms and allow more specific targeting of certain interventions and policy directives towards families and children most in need.

Additional planned outputs and activities:

Extending the work on the research springboard, some from the team are planning to publish research for the Welsh Government which will explore changes in parenting styles over time in Wales as well as the UK. In addition to the work undertaken for this research springboard, their research will:

- Explore the relationships between four parenting styles (authoritarian/harsh, uninvolved, permissive, authoritative/positive).
- Look at the outcomes among 11-12 years olds' in terms of self-reported externalising problems, prosocial behaviour, and conflict with their parents.
- Report the changes in the proportion of parents who report using physical punishment between 2012 and 2022, and differences between groups at the child, parent, and circumstantial level.
- Seek to understand the relationships between the level of parent-reported physical punishment (regularity of grabbing, smacking, slapping, and physical punishment as a form of discipline) and 11–12-year olds' self-reported externalising problems, prosocial behaviour, and conflict with their parents.

6. Annex A – The Challenge Document as sent to invitees

The Future of Children Challenge:

Research Springboard exploring the topics of children's development, child poverty and childcare

Workshops Dates: Thursday 18th April (in person, Wivenhoe House, University of Essex, Colchester), Thursday 9th May (online) and Thursday 6th June (online), zoom links to follow

INTRODUCTION

Be part of this **multi-disciplinary research springboard intended to respond to the challenge of ensuring all children have a stimulating and secure environment to grow up in with improved personal, social, wellbeing and educational outcomes. Focusing on child development, family resources & child poverty, and the outcomes from childcare,** this will be Understanding Society's third three-day research springboard. The research springboard starts with a societal challenge and aims to harness collective knowledge and quantitative research skills from across sectors, cross-fertilise research ideas and facilitate policy learning. It will facilitate the co-design and co-production of research using Understanding Society's rich longitudinal data. The previous springboard workshops were on climate change and the health challenges facing the UK. We expect to bring together *quantitative researchers and analysts from across academia, government departments, key agencies with responsibilities for children and education, health organisations, charities and NGOs, and think tanks*.

CHALLENGE TOPICS

Childhood and adolescence are arguably the most critical phases of life - for children, siblings, parents, local communities and the future economy. Good parenting, public investment in children's development and supporting families to navigate change, albeit expensive, brings short and long-term personal, social and economic benefits. Overall, younger children are healthier than 20 years ago and more children are receiving a better start in life. On the narrow focus of education attainment, international PISA scores show an overall improvement for 15-year-olds in the UK, but it has one of the lowest levels of student life satisfaction.

Worryingly, recent years have seen the formation of dark clouds. Austerity following the financial crises saw significant reductions in public investment with greater responsibilities falling onto parents. The closure of schools and early childcare settings during the pandemic resulted in a loss of developmental progress and education for many children, particularly

the youngest children. This has exacerbated the pressures on children's social and emotional wellbeing – pressures that were already present before the pandemic.

Meanwhile, stagnant living standards for many families, accompanied by a cost-of-living crisis and rising housing costs has weakened family resilience and resources. The rising cost of childcare has added pressures on parents at a time many families need to maintain two incomes to make ends meet.

Inequalities in children's lives begin at home, and according to a recent Institute of Fiscal Studies review, a **notable hallmark of British families is their greater fragility and complexity** as compared with others in Western European countries.
Children's development is a devolved area of policy, and approaches different significantly between home nations. There have been various direct and indirect policy developments, both short-term in response to the pandemic, and others with a longer-term horizon. These, for example, include a £25 child benefit uplift in Scotland, a Well-being of Future Generations Act in Wales, and a mission to raise standards in reading, writing and maths for primary school children and to provide renters with a secure path to ownership in England's Levelling Up Strategy.

The British Academy's Childhood Policy Programme, Reframing Childhood, explores the case of rebalancing perspectives on children's development between 'being and becoming' in policymaking. It argues that policy implicitly has focused on acting to improve future outcomes for children in becoming adults to the detriment of the state of being a child. 'Good childhood' depends on many factors: parenting and family stability, the home environment, nutrition and physical activity, early years education and access to good schools, friendships and social networks, predictable work for parents or guardians, and other components. Evidence suggests that parental education is a core determinant, and while wealthy parents have always used their resources to 'favour' their children, in a society facing stubborn levels of persistent child poverty and deep-seated inequality, it is vital that more children to experience a good childhood. Foundations - the What Works Centre for Children & Families - is one of the organisations that has been developing the evidence base focused on supporting vulnerable children and families.

Research and policy in this area can still be challenging, even where data is available, as outcomes may only be observed over years or decades – which is where Understanding Society's longitudinal data can play a vital function.

The Future of Children Research Springboard will focus on three broad topic areas for investigation, covering childhood and adolescence (0 to under 16 years). We have broadly scoped out each of the topics and also connected questions to government Areas of Research Interest where appropriate, but specific research questions to examine during the research springboard will be shaped by participant interests and group discussions.

TOPIC 1: CHILDREN'S DEVELOPMENT

Many different factors influence early child development – from a child's temperament and care/parenting styles to stressors experienced by the family and the contribution of early years provision and education. In England, a new foundation stage framework was introduced in 2021/22, consisting of 17 early learning goals (ELGs) across 7 areas of learning. Whilst this makes it difficult to directly compare progress on child development with previous years, it is known that children's skills develop highly unequally in the early years, with differences strongly related to family background.

After the age of five, children are exposed to a more complex landscape of social influences, often at an earlier age and via technology than previous generations. One in ten children in the UK are affected by a mental health problem, which has been increasing over the over the last 20 years, much of which will have its roots in earlier in their childhood. But, there is inefficient evidence for the early identification of those children with mild to moderate mental health issues.

The most recent Good Childhood Report by the Children's Society, which annually tracks children's wellbeing using a range of survey information, including Understanding Society, identified that children were on average most happy with their family, their health and their home, but a larger proportion were unhappy about school, life as a whole, friends and appearance. This suggests that the home environment offers most children a safer place to develop but this will not be the case for all.

The Family Review carried out by the Children's Commissioner for England identified the protective effects of the family, recognising that all families experience struggles at some stage and pointing to the critical importance of good parenting.

Understanding Society's longitudinal data can say much about how children are developing in the 21st Century. Possible areas of investigation could include:

- What role does parenting styles have on child development outcomes?
- What is the impact on child development of significant family challenges, such as parental separation, precarious housing or children being relied upon to provide care?
- What can Understanding Society data reveal about the early childhood of those teenagers who now report mental health issues or risky behaviours? Might this inform the identification of the precursors of mental health issues in present younger children?

TOPIC 2: CHILD POVERTY AND FAMILY RESOURCES

Poverty in the UK looks quite different from previous generations in terms of its causes, who it impacts on and how it works. The welfare state has protected most families from absolute poverty for some time, leading to relative poverty – measured as equivalised household income of 60% or less of median income – as a key indicator to understand change (or lack of it) over time.

After falling consistently from 1998 to around 2010, child poverty begun to rise again and so by 2021/22 there were 4.2m children in poverty in the UK, or 29% of all children. Food insecurity is associated with a range of poor outcomes while severe child material deprivation has risen over the last decade. But financial resources are by no means a perfect measure of poverty with a wide range of other factors impacting on the families level of resilience and therefore the children's experience.

Policy successes in increasing levels of employment means that now 70% of children in poverty have a parent in work. But levels of financial resilience is low among many in the UK with new research from the Money and Pensions Service (MaPS) published since the pandemic in 2022 suggesting that nine million people across the UK have no savings and another five million have less than £100. In this context, the cap on benefits for a third or subsequent child born after April 2017 has come under renewed focus by child poverty campaigners, with estimates by End Child Poverty suggesting that removing this cap would lift 250,000 children out of poverty at a cost of £1.3bn. Child poverty also impact educational outcomes, with a significant gap of nearly 20 percentage points between children on free school meals and their peers, according to NESTA.

There has now been a housing crisis in the UK for some years, leading to fewer families than in previous decades owning the home that they live in, and a cohort of families with little apparent prospects of buying a property. In England, while the West Midlands and North East now have the highest rate of child poverty across the regions, many of the worst affected local authorities continue to be in London, driven by the very high cost of housing. Increasing housing costs, poor wages and relative declines in the spending power of benefits have all contributed. The challenge for new families isn't simply due to limited house building but the changing balance of tenures and affordability. While affordability of housing can highly variable across the country, there is growing concern about the impact of rising rents on families. Rents routinely exceed housing benefit levels, most particularly in areas with high housing demand in southern England. The introduction of no-fault evictions in 1998 added to the potential for precarious housing among those in the private rented sector, something that impacts families more particularly. Possible areas of investigation within this theme could include:

- What might Understanding Society's longitudinal data reveal about the lives of children from larger families in receipt of benefits impacted by the two-child cap and might it be possible to evaluate the impact of this policy on the fertility rate of those influenced by the policy?
- What was the situation for those families who were particularly venerable before the cost-of-living crises, what might this mean for them now, and can policy makers learn anything from those families who have achieved good child development outcomes on apparently insufficient financial resources?
- How effective are the child maintenance arrangements and wider welfare system at ensuring parents have the financial support they need to achieve the best outcomes for them and their children?
- What part is lack of affordable or precarious **housing playing in family instability or poverty among UK families with children?**

TOPIC 3: CHILDCARE AND EARLY YEARS PROVISION

Overall, during their most recent term-time week in 2022, almost three in five (58%) children in England aged 0 to 14 had used some form of childcare, both formal (such as nurseries, childminders, breakfast clubs, and after-school clubs) or informal (such as grandparents, friends or relatives, and older siblings). A growing feature is the roll that grandparents are now playing in childcare, perhaps taking early retirement or returning as carers during their retirement years.

While childcare reforms are creating a new branch of the welfare state, according to a 2023 public perceptions survey by the Centre for Early Childhood, which measures the public's understanding of the role of key actors in the ecosystem around children and families, there is still relatively low recognition of the importance of early childhood compared with other life stages. Additionally, there is greater awareness of some types of provision (e.g. early years learning) compared to other services available (e.g. health visitors). Whilst there is no compulsion on parents to take-up early years provision (as it is non-compulsory), take up is generally very high but there are sharp differences in non-take-up by income group, English as an Alternative Language (EAL) and ethnicity. However, since the pandemic take-up has been falling.

However, access to affordable childcare remains a major issue, particularly for those on lower incomes or larger families. The UK has higher childcare costs than most comparable economies. A phased expansion of subsidised childcare is being planned in England, Scotland and Wales. As part of March 2023 budget, working parents in England will be able to access 30 hours of subsidised childcare per week, for 38 weeks of the year, from when their child is 9 months old to when they start school. However, according to the IFS, the new entitlements continue the trend towards prioritising childcare support towards parents who work, rather than universal services or targeted early education for low-income families – with the poorest third of families expected to see almost no direct benefit from the new entitlements. Concerns also remain both about which providers will offer additional childcare and the impact on quality of care. Possible areas of investigation within this topic could include:

- What are the child development impacts of children being put into childcare at a younger age or for more hours? What are the mediating factors that mitigate any negative outcomes?
- Could this additional benefit paradoxically widen inequalities in children's development?
- How does subsidised childcare interact with flexible working, and with great diversity between employers and industries that offer flexible working, what are the likely distributional effects across groups, communities and industries?

WHAT IS A RESEARCH SPRINGBOARD?

Research springboards bring together about 30 to 35 researchers and analysts from different sectors and disciplines in a **co-production process** to investigate policy and research questions using Understanding Society data in a supportive and creative learning environment. We have borrowed ideas from data dives, hackathons, and sandpits and customised it for the research springboard!

The co-production workshop will benefit researchers and analysts from academia, government departments, charities, children's services and education bodies, health organisations, What Works Centres, Applied Research Collaborations and think tanks. It will include presentations from experts who will provide a perspective on the nature of policy problems we face. The workshop will take place over three days, spread across 3 months, with a mix of in-person (day 1) and online activities (days 2 and 3). You will work in teams that emerge from one of the three topic challenge areas that most interests you. You will be supported to undertake research activities during and between the workshop sessions to generate policy facing research outputs. Participants will use End User Licence data (which can be analysed in STATA, R, SPSS and SAS), with the latest data available from wave 13 (2021/2022). During the research springboard you will:

- **Discuss knowledge gaps and collectively identify new research questions** that need to be answered to move policy and science forward.
- **Gain skills in the use of Understanding Society** to explore child poverty & development issues and seek to infer their social determinants and causes.
- **Undertake practical data management and analysis**, and share thinking on the best analytical approach to answer a specific research question.
- **Build relationships and connections** with people from other disciplines and organisations to strengthen the research-policy interface.
- **Share lessons and early-stage findings** and discuss their implications for policy, practice or future research.

UNDERSTANDING SOCIETY DATA AND VOICES OF CHILDREN – A NOTE

Understanding Society contains wide-ranging measures on pregnancy, children's development, parenting styles, use of childcare, family economic circumstances, intensions to return to work after having children, welfare, technology use, children and adult mental health and wellbeing, housing and the environment. It's data on pregnancy and early childhood has been brought into a single file – the pregnancy and early childhood (*PEACH*) file. This cross wave file links with data on the wider household and so provides contextual insight into the development, wellbeing and health of children and its siblings in their household setting. The data is collected from the biological mother, parent or guardian.

Understanding Society then begins gathering data directly from children at age 10 to 15 through a self-completion survey, with participants aged 16 and over joining the adult panel. Participants aged 16 to 21 are also asked additional questions to collection information on life and career aspirations and the transition from education to the world of work. **All of the analysis within the research springboard will be based on the use of End User License Data (EUL).** The ethic boost and Index of Multiple Deprivation data is available within the EUL downloads but access to some linked data, including the National Pupil Database and the family matrix cannot be used within the research springboard.