

Impact case study (REF3)

Institution: University of Bristol		
Unit of Assessment: 20) Social Work and Social Policy		
Title of case study: Multidimensional measures of poverty and deprivation have informed policy makers and policy initiatives globally		
Period when the underpinning research was undertaken: 2000 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
David Gordon	Professor of Social Justice	01/2000 - present
Esther Dermott	Professor of Sociology	01/2000 - present
Shailen Nandy	Research Fellow	12/1999 - 09/2016
Hector Najera	Senior Research Associate	11/2016 - 03/2019
Eldin Fahmy	Senior Lecturer	01/2000 - present
Demi Patsios	Senior Lecturer	01/2000 - present
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Period when the claimed impact occurred: 1 st August 2013 - 2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact

700 million people globally live in extreme poverty. University of Bristol research has developed innovative theoretical and methodological advances to measuring multidimensional poverty and provided independent high quality quantitative and qualitative evidence on the extent and nature of poverty, deprivation and exclusion. Bristol methods and data have informed legislation and regulations to monitor changes in child (and adult) poverty introduced by the UK and Scottish Governments, EU and nine other governments globally. The 'Bristol Approach' for measuring multidimensional child poverty has been adopted by Governments across Africa, Asia, Americas, Europe and Oceania, as well as by the EU and UNICEF. It has changed the way Governments, National Statistical Offices and Non-Governmental Organisations (NGOs) understand and measure deprivation and multidimensional poverty.

2. Underpinning research

University of Bristol (UoB) research has made fundamental contributions to theoretical and methodological developments in poverty research for over 30 years.

In 2003, UoB researchers produced the first ever scientific measurement of the extent and nature of child poverty in developing countries, using multidimensional child poverty indicators consistent with the UN human rights framework [1]. The novel methodology used, later termed the Bristol Approach by UNICEF, entailed the development of policy-relevant, non-monetary indicators of child deprivation of basic needs e.g. shelter, education, health care and nutrition.

From 2010, UoB led the Poverty and Social Exclusion (PSE) programme, the largest ever study of poverty conducted in the UK. Funded by the ESRC [i], this work involved a major collaboration with Heriot-Watt University, the Open University, Queen's University Belfast and the Universities of Glasgow and York. The programme used the consensual approach to measuring poverty to explore the public's perception of necessities and living standards. Two major surveys carried out in 2012-13 developed an innovative combination of methods and questions to more fully operationalise this theoretical approach, including: 1) measuring social exclusion as well as multiple elements of poverty; 2) incorporating the public's views on the 'necessities of life' thus combining qualitative and quantitative evidence; 3) facilitating the measurement of both inter- and intra-household poverty by developing age and gender appropriate poverty indicators; 4) detailing how this approach can be applied in high, middle and low income countries; 5) advancing poverty survey methods development by using cognitive interviewing and survey

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paradata; 6) developing a theory-based analytical protocol which allows the identification of an optimum sub-set of deprivation indicators which are suitable, valid, reliable and additive.

The final findings were published in two major reports [2,3] which exposed not only levels of deprivation but also the multidimensional nature of disadvantage and exclusion and how it has changed over time. The key findings showed strong agreement amongst the UK public about what is needed for a minimally adequate standard of living in the UK today, and revealed that millions are unable to afford to meet basic needs such as for food, housing, social activities and financial security. The data demonstrated both the widespread nature of deprivation in 2012 and its substantial increases since 1999 (our last study). The research also showed how disadvantage varied across key social categories – gender, age, ethnicity, UK region – and the extent of multidimensional poverty for disabled people and children.

Subsequent UoB research built upon the methodological advances made by the PSE study [2,3] to measure the extent and nature of multidimensional adult and child poverty in a range of international contexts including, Argentina, the European Union (EU) [4,5], Hong Kong, Mexico, Uganda and the Pacific Island States (particularly Fiji, Solomon Islands, Tonga and Tuvalu) [6]. Work at the EU level proposed a new analytical framework for developing robust EU material deprivation (MD) indicators [4] and a new measure of child material and social deprivation (MSD) which includes age appropriate, child-specific information available from the thematic deprivation modules included in the 2009 and 2014 waves of the “EU Statistics on Income and Living Conditions” (EU-SILC) [5].

3. References to the research

- 1) **Gordon D, Nandy S**, Pantazis C, Townsend P, Pemberton SA. (2003). [*Child poverty in the developing world*](#). Policy Press. ISBN: 978-1861345592
- 2) **Dermott E & Main G.** (Eds) (Contributors: **Dermott E, Fahmy E, Gordon D, Patsios D, Pomati M.**) (2017). *Poverty and social exclusion in the UK: Volume 1 – The nature and extent of the problem*. Bristol, Policy Press. ISBN: 978-1447332176
- 3) **Bramley G & Bailey N.** (Eds) (Contributors: **Fahmy E, Patsios D.**) (2017). *Poverty and social exclusion in the UK: Volume 2 - The dimensions of disadvantage*. Bristol, Policy Press. ISBN: 978-1447334279
- 4) Guio A-C, **Gordon D**, Marlier E, **Fahmy E, Nandy S, Pomati M.** (2016). Improving the measurement of material deprivation at EU level. *Journal of European Social Policy*, 26 (3), 219-33. DOI:[10.1177/0958928716642947](https://doi.org/10.1177/0958928716642947)
- 5) Guio A-C, **Gordon D**, Marlier E, **Najera H, Pomati M.** (2018). Towards an EU measure of child deprivation, *Child Indicators Research*, 11, 835-860. DOI:[10.1007/s12187-017-9491-6](https://doi.org/10.1007/s12187-017-9491-6)
- 6) Chzhen Y, **Gordon D**, Handa S. (2018). Measuring Multidimensional Child Poverty in the Era of the Sustainable Development Goals. *Child Indicators Research*, 11, 707- 709. DOI:[10.1007/s12187-017-9490-7](https://doi.org/10.1007/s12187-017-9490-7)

Research Grants

- i. **Gordon D** (PI) (with Universities of Glasgow, Heriot-Watt, Open, Queen’s Belfast, York, National Centre for Social Research and Northern Ireland Statistics & Research Agency). Poverty and Social Exclusion in the UK, ESRC, 2010-2014, GBP3,798,315

4. Details of the impact

More than 10% of the global population live in extreme poverty, including one in five children. Multidimensional measures of poverty, pioneered by UoB led research [1-6], have been adopted by governments and international agencies around the world. This work has shaped global understanding and measurement of poverty by policy makers by informing the design and implementation of policies to address inequality. These impacts have occurred at the national level in multiple countries as well as internationally in two key areas (i) Informed policy for the measurement of deprivation and (ii) Implementing measures of child poverty.

Informed policy for the measurement of deprivation – UK, EU and international

UoB methods and data [2,3], were used by the UK Government [Ai], and the Governments of Guernsey, Northern Ireland, Scotland [Aii] and Wales, to implement legislation and regulations to monitor changes in child (and adult) poverty using multidimensional measures. The **UK** strategy consultation [Ai] includes multidimensional measures in its targets and draws substantially on data from the UK Government's Family Resources Survey (FRS). The FRS deprivation module and its components are informed by PSE project work on consensual necessities [2,3].

In **Scotland**, the Child Poverty (Scotland) Act 2017 [Aii] was passed unanimously by the Scottish Parliament. It included the target, derived from UoB research [2], that by 2030 less than 5% of children should be living in households experiencing low income and material deprivation, with interim targets for 2023. The Act led to a Delivery Plan on which the Scottish Government provides an annual report. As of 2019-20 [Aiii], low income and material deprivation measures remain stable, while trends in absolute poverty and relative poverty are improving. The Report also shows that many policy actions (56 of 58 in the Delivery Plan) have been taken to address the drivers of material deprivation in employment, cost of living and social security.

The **EU** adopted UoB methodologies [4, 5], to develop new official measures of Material and Social Deprivation (2017) (13-item material deprivation indicator [4]) [Bi, Bii p94], and the EU's first ever measure of Child Deprivation (2018) (17-item material deprivation indicator [5]) [Biii p8]. During 2019-20 these measures were approved by 40 EU legislatures, the UN Economic Commission for Europe (UNECE) and the Conference of European Statisticians (which sets international statistical standards) and are legally binding. Resultant changes included changes to the content of the EU Statistics on Income and Living Conditions (EU-SILC) survey itself, and changes in the measurement of material and social deprivation by the European Statistics Office (EUROSTAT) and the national statistics offices (NSOs) in have been implemented in 31 European countries (28 EU members as well as Iceland, Serbia and Switzerland) [Bii, Biii]. In 2020, the EU reported *"a fall of around 3 million between 2017 and 2018 in the EU population at risk of poverty or social exclusion. Underlying the fall in the overall figure were continued strong reductions in the population experiencing severe material deprivation (down around 3.4 million) and in the number of people living in (quasi-)jobless households (down 3 million), but in contrast 2018 saw a rise of 0.7 million in the population at risk of poverty"* [Bii p11], and *"significant reductions in the severe material deprivation rate in 14 Member States and in the material and social deprivation rate in 11 Member States"* [Bii p15].

Questions and methods based on the PSE methodology [2,3], have been adopted by a further nine governments to improve their measurement of poverty (**Argentina, Fiji, Mexico, New Zealand, the Solomon Islands, South Korea, Tonga, Tuvalu and Uganda**) and discussions are ongoing in in a further five (Canada, Hong Kong, Iran, Japan and South Africa).

The **Kingdom of Tonga** was the first small island state in the South Pacific to adopt an official multidimensional poverty measure. A joint study between Tonga Statistics Department and UoB [Ji] developed methodology to improve the reliability of estimates for small areas such as constituencies, villages or blocks and applied these to identify disparities in multidimensional poverty between Tongatapu and the other islands, and between areas of Tongatapu [Jii]. A review of progress in implementing the Sustainable Development Goals (SDGs) highlighted the recent development of a *"robust multidimensional poverty measure which is scientifically valid, reliable, additive and contextually appropriate"* to inform policy changes and interventions [Jv]. On 12th February 2018, Tropical Cyclone Gita hit Tongatapu and 'Eua islands causing damage estimated at 38% of national GDP. Data from the joint study [Jii] were quoted in the Post Disaster Rapid Assessment (March 2018) to highlight the poverty profile of different regions and the need for a new Poverty Registry and poverty-targeted social assistance. This underpinned the Disaster Recovery Framework (Oct 2018) which prioritised *"pro-poor and pro-vulnerable"* strategies for recovery [Jiii p.23]. In 2020, following the dual shocks of COVID-19 and Tropical Cyclone Harold, the World Bank initiated a USD30 million programme to *"maintain livelihoods of the most vulnerable"* [Jiv, p17]. Cash transfers were shown to be effective following TC Gita and will be distributed using the identification of vulnerable households and areas [Jiv, pp33,49].

In **Mexico**, the multidimensional poverty measure based on UoB work has been used by El Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL) (an autonomous constitutional organisation coordinated by the Ministry of Social Development), as a tool to independently evaluate the effectiveness of all Mexican social policies [Ci, Cii]. In particular, the social deprivation index [Ci, p39] and social poverty index [Cii, p36] are both constructed from six indicators and satisfy statistical properties of validity, reliability, and additivity. Their work has influenced the adoption of specific anti-poverty policies by the Mexican Government, including the extension of social security and health coverage to all citizens, via changes in the eligibility criteria for Seguro Popular (health insurance system) implemented between 2013 and 2018 [Ciii]. From 2008 to 2016, lack of access to health services decreased by 22.9% driven by the increased enrollment in Seguro Popular [Ciii, p19].

A modified version of the EU measure [Bi], has been incorporated as a hardship target measure in the **New Zealand** Child Poverty Reduction Act 2018 [Di]. Similarly, the **Japanese** government measured child poverty (for the first time) in 2020 using a modified version of the EU measure [Bi] that included the percentage of households with energy bill arrears, which could not afford food or clothes, or had no one to offer advice or to borrow money in an emergency [Dii].

Implementing multidimensional measures of child poverty – UN

UoB's original measurement of child poverty in developing countries using multidimensional indicators [1] changed the way UNICEF and its partners understood and measured poverty. The research informed the UN General Assembly definition of Child Poverty (2006), and UNICEF used the Bristol Approach for its first ever Global Study of Child Poverty and Disparities (2008). In 2015 UNICEF established the Global Coalition to End Child Poverty, which successfully advocated for multidimensional child poverty to be included in the Sustainable Development Goals (SDGs) – the first ever international targets to reduce child poverty. The goal specifically aims to reduce poverty *'in all its dimensions'* placing a requirement on countries to measure multidimensional poverty. The Bristol Approach is recommended as a *'key methodology used most often outside high-income countries'* by the Coalition [E, p61-62]. UNICEF's 'policy tool', Multidimensional Overlapping Deprivation Analysis (MODA), was developed in 2012 *"building on the Bristol Approach and MPI"* [E; 1] (the MPI (Multidimensional Poverty Index) was developed at the University of Oxford and the UN). Since 2014, MODA has been implemented in over 50 countries [F]. Examples of implementation and subsequent policy delivery for 22 countries are given in [E], including the following:

In **China**, UNICEF worked with national and provincial governments to build the Bristol Approach into the Ten Year National Rural Poverty Reduction Strategy (2011-2020) and Child Poverty Alleviation Plan (2013-2016) in the province of Hubei. In 2017, UNICEF China reported that *"Big strides forward were made in aligning China's data with international recommendations and the SDGs, ... definitions, questionnaires and survey tools and analytical methods, including the multi-overlapping deprivation analysis (known as MODA) will be made consistent with international standards."* [Gi]. In 2019, UNICEF China used international and local data to increase *"the knowledge on the different pathways to reduce child poverty of the Leading Group Office of Poverty Alleviation and Development (LGOP) of the State Council and the International Poverty Reduction Center of China"* and *"to inform China's first-ever Social Assistance Act"* [Gii].

In the **Lao PDR**, MODA analysis focused on the specific deprivations of infants in areas such as health, nutrition, childcare, housing, violence, water and sanitation, and was used to inform the National Development Plan and new Lao PDR-UNICEF Country Programme [Hi, p37]. UNICEF's Country Programme for 2017-21, prioritised *"provinces and districts with challenging child development indicators"* and focused on *"seven selected provinces where children experience high level of overlapping deprivation and inequities"* [Hii, p3]. In 2018, data revealed progress in access to water, sanitation coverage, and early childhood education [Hiii, p2] but noted a need for better targeting to reach the most disadvantaged children in remote and rural area and highlighted MODA analysis as *"a guide for improved targeting and programme coverage"* [Hiii, p13].

In 2014, the UNICEF Regional Office for **West and Central Africa** produced MODA for 19 countries which assisted Country Offices to explore the profile of multiply-deprived children, locate them both geographically and socially, examine how different deprivations overlap and which may need to be addressed simultaneously [li p24]. For example, in West and Central Africa, UNICEF supports the adoption of Immunisation Plus which uses routine immunisation as an entry point to address multiple child deprivations and harness available resources, expertise and experience across various sectors and programmes. They forecast that by 2021, 80% (15.4 million) of children 0-11 months will be protected against vaccine preventable diseases annually [lii].

UNICEF's **Eastern and Southern Africa** Regional Office has conducted MODA analysis for 15 countries as well as provided technical support to Botswana, Madagascar, Namibia and Tanzania with combined analyses of MODA and monetary poverty [liii, p20]. In 2020, analysis by South Africa, adapted the UoB [1] and UNICEF methodology to provide a baseline for monitor progress in achieving SDG targets. This showed that 62% of children aged 0–17 years are multidimensionally poor and recommended that more frequent surveys are conducted with a focus on the multidimensional measures most relevant to South Africa [liv].

5. Sources to corroborate the impact

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 ii) Scottish Parliament (2017). [Child Poverty \(Scotland\) Act 2017](#)
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