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Changing Trends in Child Welfare Inequalities in Northern Ireland

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Abstract

Longitudinal research in England and Wales has identified increasing inequality in child welfare interventions, particularly with respect to children in the poorest areas coming into care. Although previous cross-sectional research has shown associations between area level deprivation and child welfare interventions to be weakest in Northern Ireland (NI), it remains unknown if this reflects wider trends over time. This study uses longitudinal administrative data to investigate the relationship between area level deprivation and the (1) referral, (2) investigation, (3) registration and (4) looked after stages of children's contact with child and family social work from 2010 to 2017 (stages 1–3) and 2020 (stage 4). Both relative and absolute measures of inequality (Ratio of Inequality, Slope Index of Inequality and Relative Index of Inequality) were calculated to examine trends. The results highlight a clear and increasing social gradient in child welfare interventions in NI over time, particularly at the higher levels of intervention and those involving children aged 0–4 years. Routine analysis of children's social care caseloads by deprivation is highlighted as a means of focusing attention on poverty and material inequality, prompting practitioners, managers and policy makers to consider the drivers of such inequality and how this might be addressed.

Keywords: child and family social work, child welfare inequalities, deprivation, economic disparities, relative measures of inequality

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Introduction

Both nationally and internationally, it is well understood that physical and mental health outcomes are not evenly distributed across the population, instead presenting at disparate rates across different socio-economic, ethnic and other social groupings (Marmot *et al.*, 2020). The Child Welfare Inequalities Project (CWIP, Bywaters *et al.*, 2020) was one of the very first quantitative studies to apply this understanding to children's social care data, demonstrating that, in the UK, the social gradient apparent in health is also a key determinant of a child's chances of receiving a child welfare intervention. The CWIP found that, in England, around 55 per cent of children on protection plans or who were looked after lived or came from the most deprived 20 per cent of neighbourhoods. Although the relationship between area level deprivation and child welfare interventions was evident across each of the four UK nations [England, Scotland, Wales and Northern Ireland (NI)], the CWIP also found that it varied significantly between countries. Since this seminal work, various studies conducted in the UK, USA, Canada, Demark, New Zealand and Japan have identified strong and consistent links between numerous individual and area level measures of poverty and increased contact with children's social work at different levels of intervention [see Bywaters *et al.* (2022) for a recent review].

The CWIP conceptualised 'intervention rates' as the product of a complex interaction between a range of 'demand' and 'supply' factors: demand factors including the characteristics of the child/family, levels of need and deprivation; supply factors including policy, funding, processes and service provision related factors. Subsequently, a number of UK research studies have significantly contributed to our understanding of children's exposure to child welfare interventions and the various supply and demand factors that drive these. High-demand, high-deprivation local authorities have been shown to experience greater financial pressures than low deprivation local authorities, leading them to screen more cases out, work with families for shorter periods, spend less per child on family support cases and experience greater 'workforce churn' in the form of having higher rates of agency workers, turnover and vacancies (Hood *et al.*, 2016, 2020). The relationship between neighbourhood deprivation and children looked after rates has also been shown to be almost five times stronger in local authorities with low overall deprivation and high-income inequality than in local authorities with high overall deprivation and low-income inequality (Webb *et al.*, 2020). Similarly, Hood and Goldacre (2021) also found that, when similarly deprived neighbourhoods were compared across local authorities, rates of intervention were higher in more affluent local authorities. Social gradients

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were also steepest for younger children, White children, children assessed with concerns about neglect and children on protection plans under the category of neglect.

Large administrative datasets have also been used to examine changing trends in child welfare inequalities over time. These studies are crucial in understanding the extent to which rates of child welfare inequality are rising or falling, as well as the drivers of such changes. For example, Elliott (2020) conducted longitudinal analysis of Welsh children's social care, population and area level deprivation data, to examine changes in the social gradient of children entering care in the 2 years following the death of Peter Connelly in 2007 (a period that saw a rapid increase in the numbers of children entering care). It not only confirmed that the social gradient was present within the overall rates of children entering care during 2008–2014, but that the rapidly increasing entries to care were disproportionately drawn from the poorest neighbourhoods in Wales. The study also found that the increases in entries to care in the poorer neighbourhoods predominantly consisted of younger children and involved a disproportionate increase in the use of Care Orders.

In England, analysis of trends in inequalities in children starting to become looked after (CLA) between 2004 and 2019 not only showed a dramatic rise since 2008, but also a marked widening of inequalities (Bennet *et al.*, 2020). Although local authority unemployment rates were associated with rising CLA rates, inequalities increased independently of this with a widening gap between the most and least deprived areas evident in the oldest age group, those aged sixteen to seventeen years. Specifically, Bennett *et al.* (2020) estimated that an additional 18,567 children started to be looked after between 2007 and 2019 than would have been expected had the rise from 2007 occurred more evenly across LAs. They also found that the trends in inequalities in CLA rates were not simply reflective of broader trends within the child protection system. Although rates of children starting an episode of need and being placed on a child protection plan both showed a clear social gradient, the analysis did not find a greater increase in more deprived areas compared with less deprived areas.

In further analysis of 2015–2020 data, Bennet *et al.* (2022) found that, after controlling for employment rates, local authorities that saw a greater rise in child poverty experienced greater increases in the rate of children entering care. A 1 per cent increase in child poverty was associated with five additional children entering care per 100,000 and it was estimated that, overall, 8.1 per cent [95% CI 5.0%–11.3%] of care entries were linked to rising child poverty, equivalent to 10,356 additional young people. These same local authorities also experienced greater increases in rates of children becoming subject to a child protection plan and beginning an episode of need. Spending reductions were also to be found to be associated with rising rates of sixteen- to seventeen-year-olds entering care (Bennet *et al.* 2021) with every £10 per child decrease in

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prevention spending, resulting in an additional 1.9 per 100,000 children aged sixteen to seventee years entering care the following year.

The findings discussed above highlight the important contribution analysis of administrative data can make to better understanding who is subject to welfare interventions and the potential mechanisms by which certain groups are differentially affected. Trend analysis, in particular, provides an effective means of examining the stability of child welfare inequalities and the extent to which growing disparities can be understood within the context of policy and practice developments, as well as the wider economic environment. To date, longitudinal analysis of child welfare inequalities has been relatively limited and there has been no study of trends within NI.

NI context

Despite sharing similar legislative, policy and assessment frameworks with England and Wales, NI's children's social care system has tended to exhibit differing patterns of intervention use. Comparisons of official statistics across the UK over the past two decades (Bunting *et al.*, 2018; McGhee *et al.*; 2018; DoH, 2022a) show that NI consistently has the highest referral rate of any UK nation, higher child protection registration rates than in England and Wales and rates of looked after children similar to England but lower than in Wales. As in other nations, both child protection registration rates and looked after children rates have been increasing.

As in other UK jurisdictions, the backdrop to children's social care provision in NI over the past decade has been one of economic recession and associated cuts to public spending and social security, coupled with increasing workforce instability. Whilst the NI Executive implemented various strategies to mitigate against the worst impacts of the tax and social security reforms implemented by the UK Conservative government between 2010 and 2017, the resulting reduction in income experienced by families, particularly those with children at the lower ends of the income distribution (Reed and Portes, 2019). On-going concerns about the recruitment and retention of social workers and high levels of turnover and reliance on agency staff have also been significant issues for many years (NI Social Care Council, 2017; DoH, 2022b). These pressures, together with post-pandemic increases in both numbers of referrals and numbers of children coming into care, prompted the Department of Health to commission a 'once in a generation' Independent Review of Children's Social Care Services in NI in February 2022.

Of course, the policy and practice picture in NI is by no means wholly negative and there have been a number of significant positive developments over the past decade. Chief amongst these has been the substantial investment provided through the Early Intervention Transformation Programme (EITP), a Delivering Social Change/Atlantic Philanthropies Signature

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Programme involving £30 million over a six-year period to improve outcomes for children and young people. A key element of this work involved establishing family support hubs and Early Intervention Support Services within each of the five Health and Social Care Trusts (HSCTs) to work with families at an early stage before there is a need for statutory involvement (Lynn & Corbijn van Willensvaard, 2018).

Despite having much higher overall levels of deprivation, cross-sectional analysis has found child welfare interventions in NI to have the weakest association with area level deprivation of all UK nations (Bywaters *et al.*, 2020). At the time, it was hypothesised that the provision of integrated family support services may have help to mitigate the relationship between deprivation and child welfare intervention rates. However, it remains unknown if this is reflective of wider trends over time, or if the growing inequalities evident in England and Wales are reflected within this jurisdiction as well.

Methods

The present study examines how the relationship between area level indicators of deprivation and child welfare interventions across NI has changed over time. Specifically, it extends the current evidence base to look at four stages of children's contact with child and family social work in NI during each of the years from 2010 to 2017 (stages 1–3) and 2010–2020 (stage 4):

1. children referred to children's social care;
2. children involved in a child protection investigation;
3. children placed on the child protection register; and
4. children who have been looked after.

These represent the key stages of children's and families' involvement with the child protection system and reflect the journey from the lowest to the highest level of intervention (see Supplementary Material for more detailed information on the different levels of intervention).

Data sources

The secondary data used were Social Care Services Data (SOSCARE) obtained through an application process to the Honest Broker Service (HBS) in NI.

The SOSCARE data obtained from the HBS included all entries made onto the SOSCARE system between 2010 and 2020 in relation to children in need referrals, child investigations, child protection registrations and children in care. The data were provided as separate Stata datasets

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for each of the above social care interventions and a unique SOSCARE ID number was used to identify cases that related to individual children. A further 'client' dataset also provided data on area level deprivation decile (linked through the family of origin postcode) for each SOSCARE ID.

Measures

Children's social care intervention

The four levels of children's social care intervention measured in this study were defined as follows:

1. Referrals—The number of children referred at least once in an individual year ($N = 228{,}779$).
2. Investigations—The number of children subject to a child protection investigation at least once in an individual year ($N = 32{,}091$).
3. Registrations—The number of children placed on the child protection register (equivalent to those placed on a child protection plan) at least once in an individual year ($N = 15{,}849$).
4. Looked after—The number of children looked after at any time during an individual year (excluding those in respite care and those looked after under a supervision order) ($N = 37{,}216$).

Area level deprivation

Area level deprivation was measured using the NI Multiple Deprivation Measure (NIMDM; NISRA, 2010, 2017). This is an area-based measure that assesses seven different domains of deprivation; health; income; employment; education skills and training; proximity to services; living environment and crime and disorder. The key geography for the NIMDM is Super Output Area (SOA)—NI is divided into 890 SOAs with an average population of around 2,100 people. NIMDM scores are ranked from 1 to 890, with 1 being the most deprived and 890 the least deprived and then divided into deprivation deciles (one being the most deprived and ten being the least deprived).

Area level deprivation decile was linked to the SOSCARE data through the family of origin postcode for each SOSCARE ID. Although this address is updated to reflect the most recent known address, previous addresses and the timing of any address change are not recorded. As such, it was not possible to link the address to the specific deprivation measure that best matched the timeframe for when it was last updated on the SOSCARE system. In the absence of these specifics, the NIMDM 2010, rather than NIMDM 2017 was used for all addresses, as it covered the majority of the time period selected for analysis.

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Child demographics

Child demographics included gender (male/female) and child age (0–4, 5–9, 10–14, 15–19 years). Age groups were based on the five-year age bands used by the NI Statistics and Research Agency to produce population estimates by NIMDM decile, age and gender (NISRA, 2020). Whilst other demographic variables such as ethnicity and disability status were available within the data, as there are no equivalent population estimates by NIMDM decile with which to calculate rates, they were not used within the present analysis.

Statistical analysis

The SOSCARE data were accessed remotely on a secure online platform and analysed using Stata 16 and Microsoft Excel. As data for each child welfare intervention were provided in separate datasets, these were merged, duplicates were removed and the data were cleaned to conduct the analysis. The referral data module contained the link with deprivation deciles and subsequent merges with child protection investigation, registration and looked after children modules were used to assign deprivation to these data modules also (see Supplementary Material for further details). Cross-tabulations of year and deprivation decile were used to produce frequencies of each child who experienced each of the four levels of intervention within each of the study years. These frequencies were then used to calculate various measures of absolute and relative inequality:

- The Ratio of Inequality (RI)—a relative measure of inequality based on the number in decile 1 divided by the number in decile 10.
- The Slope Index of Inequality (SII)—an absolute inequality measure that represents the absolute difference between the top and bottom decile whilst accounting for the variation in the entire distribution using regression modelling. The calculation requires ranking the data according to deprivation decile and cumulative population proportion and fitting a regression line to these ranked values (Low and Low, 2004). This study used MDM deciles as the indicator of deprivation and the child population aged 0–19 years in each decile for each year.
- The Relative Index of Inequality (RII)—a relative measure of inequality that is based on the SII. The RII is calculated by dividing the SII by the mean level of the intervention in the population (e.g. average number of referrals across all deciles). It is presented as the percentage by which the most deprived decile is higher than the NI average for that intervention.

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Each of the measures listed above has different strengths and weaknesses. The RI is based on crude ratio that only takes account of the highest and lowest deciles and does not consider variation in the other deciles. Whilst the RI is easy to explain and understand, as it is unweighted, it does not take into consideration the size of the population of each group. The SII and the RII are also frequently used to quantify absolute and relative inequality. They are based on data about the whole population, rather than just the extremes, and so take into account inequalities across the scale (Scottish Government, 2022). As the SII is an absolute measure, it is sensitive to changes in the mean level or frequency of the outcome being studied.

From the point of view of monitoring health inequalities and evaluating policy interventions, estimating both relative and absolute differences is recommended as relative differences may increase whilst absolute differences decrease if the frequency of the health problem declines (Regidor, 2004). The statistics for each of these measures were plotted on graphs and are discussed in the findings.

Data quality

Comparisons of the overall number of referrals in the HBS data with official statistics show broad similarity during 2010–2015 with differences mainly in the ±5 percent range and HBS figures tending to be lower (see Supplementary Table S1). After 2014–2015 variation became considerably more significant. Similar patterns were apparent in the HSCT level data during 2010–2015, although variation tended to be greater, usually in the ±10 per cent range. As with the NI-wide data, variation between HSCT level data and official statsitics after 2015 became much more significant.

SOSCARE data are the raw data that form the basis of annual official departmental returns provided in the form of aggregated tables by each HSCT. Consultation with Departmental statisticians and those responsible for statistical returns indicated that, whilst the HBS data accurately record a request for services, changes in counting rules and varying HSCT interpretations of what constitutes a referral at different points in time, would inevitably lead to some level of discrepancy between the HBS data and official statisitcs (see Supplementary Material for more detail). The more significant variations observed from 2015 onward were primarily attributed to the migration of SOSCARE data to a new community information system, PARIS, in three HSCTS. Although this process started in 2012, PARIS migration involved different elements of children's social care at different time points across HSCTs, with full

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conversion only occurring in some HSCTS in 2020/21. (see Supplementary Table S2).

In linking the data, not all SOSCARE cases could be matched with an NI MDM deprivation decile, gender or age categories. 'Missing' data were minimal data in relation to deprivation, ranging from 2 to 3 per cent across all levels of intervention, and negligible in relation to gender for referrals, investigation and registrations. However, missing data were more significant in relation to the gender of looked after children (17 per cent) and ranged from 5 to 10 per cent in relation to age across intervention levels with looked after children, again, having the the highest level of missing data (see Supplemenarty Table S1). This was primarily due to demographic data being contained within different data modules and the relevant data for some looked after children likely predating 2010 (see Supplemenarty Material for further details). Nonetheless, the available data on gender indicated that 50–52 per cent of the sample were recorded as male which, although slightly higher than in the general population, is representtive of trends in official statistics showing slightly elevated levels of male children in contact with children's social care than females in NI.

Study time period

In establishing suitable cut-off points for the availability and reliability of NI-wide data, we examined data trends and consulted with key stakeholders to identify when certain migration processes began. We interpreted HBS rates that were more than 20 per cent lower than official statistics as indicative of when migration started, as opposed to typical variation between HBS and official data. As such, the time frame for this analysis was set as the calendar years 2010–2017, although it should be noted that the SHSCT data for 2017–2018 is 43 per cent lower than offical reports, indicating the beginning of a transition to PARIS during that year.

As HSCTs migrating to the PARIS system tended to keep looked after children records on the SOSCARE database for longer than other children's social care data, it was possible to examine numbers of children looked after in within individual years care until the end of the calendar year 2020. This covered the start of the global pandemic and national lockdown in NI starting in March 2020. The data appeared unaffected by this with official statistics following historical trends and showing only slight increases in the numbers of admission to care and rates of looked after children during 2020. However, it should be borne in mind that, after 2018, the BHSCT had completely migrated to PARIS, so the 2018–2020 figures primarily reflect trends in four out of five NI HSCTs.

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Ethics

Ethical approval for the study was provided by the School of Social Sciences Education and Social Work research ethics committees at Queen's University Belfast, in 2021. The data were accessed securely via the Health Data Research UK Secure e-Research Platform and all guidance and processes were followed to ensure there were no data security breaches when handling the data and when presenting outputs. All outputs were approved by the HBS before being made publicly available.

Results

For comparative purposes, the primary results comparing trends in inequality across each of the four levels of children's social care interventions are based on the 2010–2017 data and are presented in the main body of the paper using the Relative Ratio (Figure 3), SII (Figure 2) and RII (Figure 4). Trends for looked after children during 2010–2020 are presented sepatately in the main body of this article using the same measures of inequality. To provide additional context, results are also discussed in relation to the overall trends evident in the official statistical returns (Figure 1).

Results disaggregated by gender and age group within each level of intervention are based on the SII and RII (Supplementary Figures S1–S16) and are available in the Supplementary Material.

Referrals

Official statistics on the total numbers of referrals per year show a pattern of increasing referrals in NI until 2014, followed by a decrease until 2016 and an increase in 2017 (Figure 1). As the data in this study were based on the number of children rather than the number of referrals and, as children can be referred multiple times in a given year, numbers were lower than the Department of Health referral data. The study data showed an upward trend until 2013 and remained fairly stable until 2017, without the sharp decrease observed in the official statistics. As noted earlier, the decreases apparent in the official statistics were likely due to changes in the recording practice at that time. Comparison with the HBS data would suggest that, regardless of how HSCTs defined referrals for the purpose of official statistical returns, this had little impact in the numbers of children coming into contact with children's social care.

In terms of inequality over time, the SII showed that the difference in the numbers of children referred between the top and bottom deciles followed the same patterns as referrals more generally, increasing steeply in

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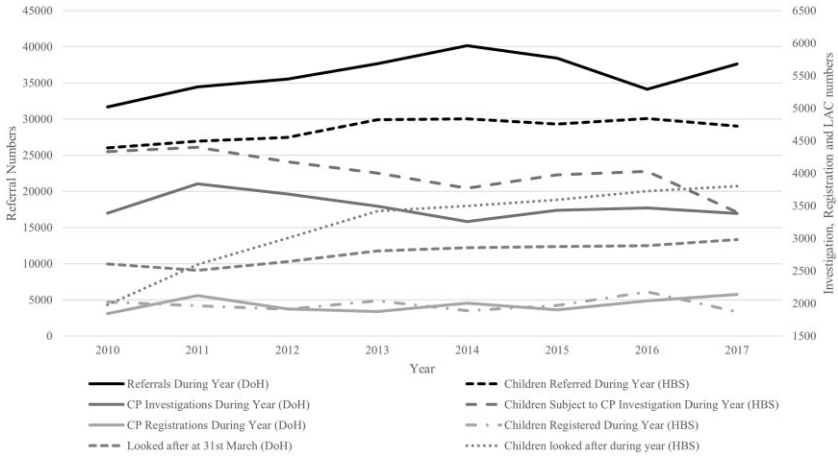
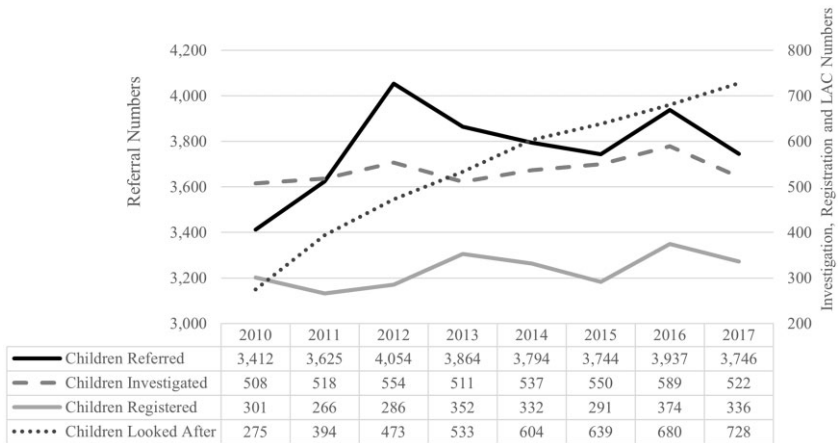


Figure 1: Northern Ireland children's social care trends comparisons between official statistics and HBs data (2010–2017).



	2010	2011	2012	2013	2014	2015	2016	2017
Children Referred	3,412	3,625	4,054	3,864	3,794	3,744	3,937	3,746
Children Investigated	508	518	554	511	537	550	589	522
Children Registered	301	266	286	352	332	291	374	336
Children Looked After	275	394	473	533	604	639	680	728

Figure 2: Slope index of inequality (2010–2017).

2010 to 2012, dropping steadily until 2015, before increase in 2016 and a decreasing again in 2017 (Figure 2). The SII in 2010 was 3,412 compared to 3,746 in 2017.

The RI showed a clear pattern of sustained inequality that remained relatively stable over time with children referred being four to five times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived throughout the 2010–2017 time period (Figure 3). The RII showed relative stability and a slight downward

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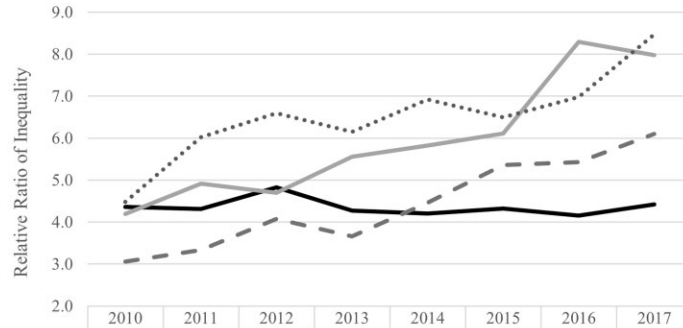
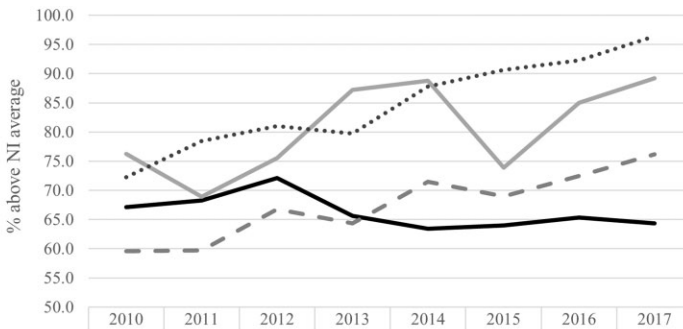


	2010	2011	2012	2013	2014	2015	2016	2017
Children Referred	4.4	4.3	4.8	4.3	4.2	4.3	4.2	4.4
Children Investigated	3.1	3.3	4.1	3.7	4.5	5.4	5.4	6.1
Children Registered	4.2	4.9	4.7	5.6	5.8	6.1	8.3	8.0
Children Looked After	4.5	6.0	6.6	6.2	6.9	6.5	7.0	8.5

Figure 3: The relative ratio of inequality (2010–2017).



	2010	2011	2012	2013	2014	2015	2016	2017
Children Referred	67.1	68.3	72.1	65.6	63.4	64.0	65.3	64.4
Children Investigated	59.5	59.7	66.7	64.3	71.5	68.9	72.4	76.2
Children Registered	76.3	68.9	75.5	87.2	88.8	73.9	85.0	89.2
Children Looked After	72.3	78.5	81.0	79.8	87.8	90.7	92.3	96.4

Figure 4: The relative index of inequality (2010–2017).

trend with numbers of children referred from the most deprived areas being 67 per cent high than the NI average in 2010, compared with 64 per cent in 2017 (Figure 4).

Both the SII and RII for males and females were very similar to the trends evident in the NI-wide data discussed above (Supplementary Figures S1 and S2), with slightly higher levels of inequality amongst females than males. The SII data for the different age groups showed that the increase observed in the NI wide data between 2010 and 2020 primarily occurred in the 0–4 and 15–19 age groups. Whilst the SII declined for fifteen- to nineteen-year-olds after this point, it increased

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across all age groups with the zero- to four-year-old group being consistently higher than any other group (Supplementary Figure S3). Equally, the RII followed a similar pattern to the NI wide data, declining slightly after 2012 across all age groups, with the exception of the 0–4 group, which continued to increase after 2014 (Supplementary Figure S4).

Child protection investigations

Official statistics on the number of child protection investigations during the year followed very similar patterns to the HBS data, remaining relatively stable over time with a slight downward trend (Figure 1). HBS data on investigations were consistently higher than official statistics as they were based on the number of children and each investigation can potentially include multiple children within the same family.

In terms of inequality over time, the SII showed that the difference in the numbers of children referred between the top and bottom deciles followed the same patterns as referrals more generally, increasing steeply in 2010–2012, dropping steadily until 2015, before increasing in 2016 and decreasing again in 2017 (Figure 2). The SII in 2010 was 508 compared to 522 in 2017.

The RI, however, showed a steeply rising pattern of inequality (Figure 3). Children investigated during 2010 were three times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived, by 2017 this had risen to 5. The RII showed the same pattern with numbers of children investigated from the most deprived areas being 59 per cent higher than the NI average, compared with 76 per cent in 2017 (Figure 4).

Both the SII and RII for males and females were very similar to the trends evident in the NI-wide data (Supplementary Figures S5–S6). Whilst females had a higher SII for child protection investigations, the trend for both groups remained generally stable until 2016, after which it decreased. As with the NI-wide data, the RII showed rising inequality for both males and females, with the gradient becoming steeper for females after 2016.

Whilst there was a stable trend in the SII for child protection investigations across all age bands (Supplementary Figure S7), children aged zero to four years began with the highest level of inequality and this increased slowly over the seven years. Conversely, children aged fifteen to nineteen years began with the lowest level of inequality and this decreased slowly over time. The RII (Supplementary Figure S8) showed a similar steeper social gradient for children aged zero to four years and, although inequality increased across all age groups over time, this was at a much slower rate.

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Child protection registrations

Official statistics on the number of child protection registrations during the year followed very similar patterns to the HBS data, remaining relatively stable over time with a slight downward trend (Figure 1).

In terms of inequality over time, the SII showed that the difference in the numbers of children subject to registration between the top and bottom deciles tended to fluctuate, with a slight upward trend (Figure 2) The SII in 2010 was 301 compared to 336 in 2017.

The RI, however, showed a steeply rising pattern of inequality (Figure 3). Children registered during 2010 were 4.5 times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived, by 2017 this had risen to 8. The RII showed more fluctuation than the RI but an overall upward trend with the numbers of children registered from the most deprived areas in 2010 being 76 per cent higher than the NI average, compared with 89 per cent in 2017 (Figure 4).

When comparing males and females, overall inequality as measured by the SII increased but, as with the NI-wide data, the pattern is varied and there was very little difference between the two groups (Supplementary Figure S9). The RII showed slightly more evidence that inequality was higher for females and had significantly increased more since 2015 (Supplementary Figure S10).

The SII for child protection registrations indicated that inequality remained stable over time for all age groups except for children aged zero to four years, for whom it steadily increased (Supplementary Figure S11). Whilst the trend for the RII was more varied, it also showed an increasing trend of inequality for children aged zero to four years and a stable or decreasing trend for the other age groups (Supplementary Figure S12).

Children looked after

Official statistics on looked after children 2010–2017 showed an upward trend over time (Figure 1). This upward trend was much more marked in the HBS data as it was based on the numbers of children looked after during any given year rather than a snapshot at a given time point. As the number of children looked after for long time periods spans many years, the HBS measures reflect a cumulative increase in the numbers of care-experienced children.

In terms of inequality over time, the SII showed that the difference between the top and bottom deciles in numbers of children looked after during the year increased steeply during 2010–2017 (Figure 2). The SII in 2010 was 275 and 728 in 2017 (Figure 2).

The RI also showed a steeply rising pattern of inequality (Figure 3). Children looked after during 2010 were 4.5 times more likely to come

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from the 10 per cent most deprived areas compared to the 10 per cent least deprived, by 2017 this had risen to 8.5. The RII showed the same upward trend with numbers of children looked after from the most deprived areas in 2010 being 72 per cent higher than the NI average, compared to 96 per cent in 2017.

The SII, RR and RII for 2010–2020 also showed the same rising pattern of inequality (Figures 5 and 6). In 2010 the SII was 275, in 2020 it had risen to 792 after 2017. Children looked after during 2020 were nine times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived. The RII showed the same upward trend after 2017 with numbers of children looked after from the most deprived areas in 2020 being 100 per cent higher than the NI average.

When exploring the trend between males and females, the SII was similar for both males and females in 2010 (Supplementary Figure S13), rising steeply for both over time. The RII for males and females was also relatively similar in 2010 (Supplementary Figure S14) and whilst both increased steadily over time, inequality was consistently higher for females than males.

Whilst the SII increased for children across all age bands, there was a more significant rise in inequality for children aged zero to four years (Supplementary Figure S15). When using the RII (Supplementary Figure S16), inequality for children aged zero to four years also significantly increased.

Discussion

Across both absolute and relative measures of inequality, there is a clear and increasing social gradient in child welfare interventions in NI over

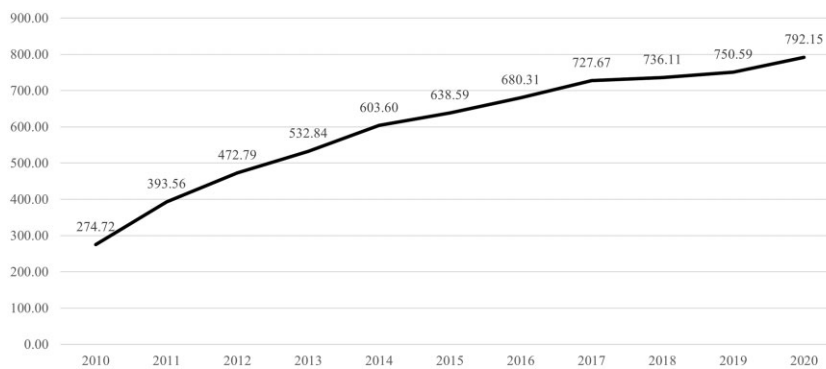

Figure 5: Looked after children slope index of inequality (2010–2020).

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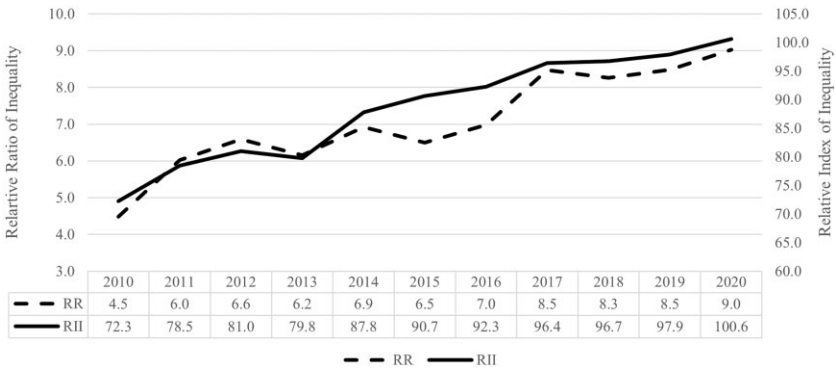

Figure 6: Looked after children relative ratio and relative index of inequality (2010–2020).

time, particularly at the higher levels of intervention. Children referred to children's social care during 2010–2017 were between four and five times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived. Despite fairly stable levels of referral inequality, an increasing social gradient was evident in relation to children investigated, children placed on the child protection register and children being looked after:

- **Investigations:** Based on the RI, children subject to child protection investigations in 2010 were three times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived. By 2017 there were five times more likely to come from the 10 per cent most deprived areas. Based on the RII, the numbers of children investigated from the most deprived areas were 59 per cent higher than the NI average in 2010, compared with 76 per cent in 2017.
- **Registrations:** Based on the RI, children subject to child protection registration in 2010 were 4.5 times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived. By 2017 there were eight times more likely to come from the 10 per cent most deprived areas. Whilst the RII showed more fluctuation, there was an overall upward trend with the numbers of children registered from the most deprived areas in 2010 being 76 per cent higher than the NI average, compared with 89 per cent in 2017.
- **Looked after:** Based on the RI, children looked after during 2010 were four times more likely to come from the 10 per cent most deprived areas compared to the 10 per cent least deprived. By 2017 there were 8.5 times more likely to come from the 10 per cent most deprived areas. Based on the RII, numbers in care from the

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> deprived areas in 2010 were 72 per cent higher than the NI average, compared to 96 per cent in 2017. These trends continued in 2017–2020 across four of NI HSCTs for which data were available: children looked after in 2020 were nine times more likely to come from the 10 per cent most deprived areas and numbers in care were 100 per cent higher than the NI average.

Although based on somewhat different measures, these findings mirror research in England and Wales that identified increasing inequality in child welfare interventions, particularly with respect to children in the poorest areas coming into care (Elliott, 2020; Bennet *et al.*, 2020). Like Bennet *et al.* (2020), we found that this widening inequality was not simply a function of wider system trends; although numbers of children referred to children's social care showed a clear pattern of inequality, this had not changed over time but instead showed a slight decrease. However, unlike Bennet *et al.* (2020), we did see widening inequality in relation to children placed on the child protection plans as well as those subject to investigation, although the social gradient in registrations, as measured by the RI and RII, showed significant fluctuation.

This study also found that, although trends in inequality between males and females tended be similar, levels of inequality tended to be slightly higher for females across all levels of intervention. Similar to Elliott's Welsh study (2020), we also found that widening inequality amongst looked after children was largely driven by increasing numbers of children in care aged 0–4 years from the most deprived 10 per cent areas. As with Hood and Goldacre (2021), this trend was not just apparent for looked after children, but across all levels of intervention, including referrals.

Various analyses of English child protection data (Bennet *et al.*, 2020, 2021, 2022) have shown that increasing child welfare intervention, particularly with regard to children becoming looked after, is influenced by changes in local unemployment rates, child poverty rates and reductions in public spending. Whilst we were unable to include these wider economic factors in the current analyses, families in Northern Ireland have experienced similar financial pressures that likely play a key role in the increasing inequality apparent over this time period. Whilst the development of integrated family support services will likely have contributed, at least partially, to the relative stability in the overall numbers of child protection investigations and registrations and reducing referrals rates evident since their nation-wide implementation in 2015, they have been insufficient to stem the tide of rising inequality. As has been noted elsewhere in the UK, efforts to reduce statutory assessments and investigations through the provision of early help and support, when introduced in the context of a risk averse and investigation orientated system, may

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actually increase the levels of involvement in statutory social work, particularly for younger children from poorer communities (Bilson and Martin, 2017).

In order to 're-balance an overwhelming focus on the safety of children and child protection to a children's and families service' the Independent Review of Children's Services in NI (Jones, 2023) has recommended the establishment of a new regional Arms-Length Body of the Department of Health with sole responsibility for children's services, to replace the current model of delivery. It also recommended that the statutory service structures should be re-arranged to have more of a community focus and presence as well as a greater skill mix, including family support workers, and that Sure Start, along with other family support services, should be expanded, including for children aged 4–10 years. The report also noted the relationship between poverty and deprivation and recommended that action should be taken to tackle, the increasing prevalence and intensity of child poverty through welfare benefits changes, namely removing the two-child benefit cap and introducing a £20 child payment as an addition to a range of social security entitlement.

Limitations

The present study has a number of limitations. First, as noted in the methodology, the migration of data to other platforms significantly affected the availability of data for some HSCTs at different time points. Whilst examination of data trends and consultation with those responsible for statistical returns enabled the identification of broad cut-off points for the availability and reliability of NI-wide data, by necessity this involved a degree of imprecision. For example, referrals in the SHSCT were 43 per cent lower in 2017/18 than official reports, indicating the beginning of a transition to PARIS during that year. Equally, as the BHSCT fully migrated to PARIS at the end of 2017–2018, looked after children data from 2018 onward are primarily based on data from four out of five HSCTs.

Secondly, as the linkage with deprivation is based on the last known address for the family origin, and as previous addresses and the timing of any address change were not recorded, it only captures deprivation at one time point and does account for changes over time. Thirdly, as deprivation is an area level measure, it can only provide information on the levels of deprivation within the neighbourhood in which the family resides and not the individual economic circumstances of the family itself.

Whilst these limitations should be borne in mind, the results show clear patterns of inequality across multiple levels of the children's social

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care data, patterns that mirror those found elsewhere within the UK. Whilst future analysis would be strengthened by the inclusion of more recent data and individual measures of deprivation, this study provides unique insights into trends in inequality in children's social care in NI during 2010–2020.

Conclusion

In an environment of economic austerity and reduced social security and public services spending, these data show a clear pattern of increasing levels of child welfare inequality over time. Now more than ever, we are intervening in the lives of children and families living in the most deprived areas of Northern Ireland at disproportionate rates. Helpfully, the Independent Review of Children's Services in NI has recognised the role of poverty in increasing levels of need and intervention within the lives of children and their families and has made a series of recommendation to address this which are currently being consulted on by the Department of Health. Whilst these are extremely positive developments, when and how these recommendations will be implemented remains uncertain, particularly in light of the continuing suspension of the NI Assembly.

Nonetheless, the results point to the utility of routine analysis of caseloads and outcomes by area level deprivation, an action that can be taken forward by team leaders and senior managers in the short term, as both the SOSCARE and Paris data systems have the facility to produce this kind of information. Routine analysis at a team, service or HSCT level can provide a useful way to better understand caseload distribution, monitor changes over time and, importantly, start conversations about why such variation might exist and what can be done to address this. Such routine analysis can also inform team discussions and supervision, prompting individual practitioners to consider anti-oppressive practice and the role that poverty and material inequality plays in the lives of the families they work with, how this is taken into account of in assessment and planning processes and the potential influence it might have on decision making. Equally, inclusion of deprivation in the annual children's social care statistics produced by the Department of Health would be of benefit in monitoring NI-wide changes over time, ensuring that a strong focus on deprivation-related inequality is maintained in future policy, service and practice developments.

Acknowledgements

It is with great sorrow that we dedicate this article to our colleague, friend & Director of ADRC NI, Prof Dermot O'Reilly, who sadly died

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in October 2023 following a short illness. It was an honour & a privilege to work alongside you, rest in peace.

Supplementary material

Supplementary material is available at *British Journal of Social Work Journal* online.

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