Inequalities in provision for primary children with special educational needs and / or disabilities (SEND) by local area deprivation

Tammy Campbell

Contents

CASEpaper 231
November 2023

Centre for Analysis of Social Exclusion
London School of Economics
Houghton Street
London WC2A 2AE
CASE enquiries – tel: 020 7955 6679

Centre for Analysis of Social Exclusion

The Centre for Analysis of Social Exclusion (CASE) is a multi-disciplinary research centre based at the London School of Economics and Political Science (LSE), within the Suntory and Toyota International Centres for Economics and Related Disciplines (STICERD). Our focus is on exploration of different dimensions of social disadvantage, particularly from longitudinal and neighbourhood perspectives, and examination of the impact of public policy.

In addition to our discussion paper series (CASEpapers), we produce occasional summaries of our research in CASEbriefs, and reports from various conferences and activities in CASEreports. All these publications are available to download free from our website. Limited printed copies are available on request.

For further information on the work of the Centre, please contact the Centre Manager, Marta Wasik, on:

Telephone: UK+20 7955 6679
Fax: UK+20 7955 6951
Email: m.m.wasik@lse.ac.uk
Web site: http://sticerd.lse.ac.uk/case

Editorial note

Dr Tammy Campbell is Visiting Senior Fellow at CASE, and Director for Early Years at the Education Policy Institute. This work was undertaken in her previous role as CASE Assistant Professorial Research Fellow, supported by a British Academy Postdoctoral Fellowship, under grant PF2\180019.

This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. The analysis was carried out in the Secure Research Service, part of the Office for National Statistics. This work uses research datasets which may not exactly reproduce National Statistics aggregates. Thanks to the Department for Education for use of the National Pupil Database, and to LSE IT colleagues for facilitating and supporting access. The National Pupil Database can be accessed by approved researchers: for more information, see: https://www.gov.uk/guidance/apply-for-department-for-education-dfe-personal-data.

Abstract

This paper uses census data from the National Pupil Database for children in state-funded primary education in England. It examines relationships between family low-income (proxied by free school meals [FSM] eligibility), area deprivation level (IDACI), and level / type of provision for special educational needs and / or disabilities (SEND).

At the most basic, superficial level, proportionally more children eligible for FSM and more children living in deprived areas receive SEND provision: both at the school 'support' level and the local authority (LA) Education, Health and Care Plan (EHCP) level. However, intersectional analyses indicate lowered chances of statutory EHCP support and also of diagnoses with specific conditions in areas that are more deprived.

Firstly, FSM-eligible children are less likely to be in receipt of an EHCP in more deprived areas: supporting contentions that there is a 'rationing' of support, and, consequentially, unmet need, in these poorer locations. Additionally, when children with any SEND recorded are considered as a group, higher area deprivation is related to lower chances of being provided with an EHCP – whether the child is FSM-eligible or not. These patterns hold when children's ethnicity, home language, and LA of residence are controlled for.

Secondly, children living in more deprived areas are more likely to be categorised with less specific, more common SEND 'types' – 'Speech, Language and Communication Needs;' 'Moderate Learning Difficulties;' and 'Social, Emotional and Mental Health Difficulties.' Children in more affluent areas have higher chances than those in poorer areas of being diagnosed with less prevalent, more precisely defined conditions, that involve agencies outside of the school in ascription: 'Autistic Spectrum Disorder;' 'Specific Learning Difficulties;' 'Physical Disabilities;' 'Severe Learning Difficulties;' 'Hearing / Visual / Multisensory Impairments'; 'Profound and

Multiple Learning Difficulties.' These patterns hold controlling for children's own FSM-eligibility, ethnicity, home language and LA of residence.

Findings overall support recent statements during a session on SEND by the Education Select Committee that 'a massive rationing process' is taking place, and that there are 'huge high needs deficits.' They indicate that there is unmet need for support and provision among children living in more deprived areas, and suggest that additional resourcing and funding is needed.

Key words: Special Educational Needs and Disabilities, Primary Education, National Pupil Database, Deprivation.

JEL number: I240

Corresponding author:
t.campbell1@lse.ac.uk

1. Introduction

Provision and support for children with special educational needs and / or disabilities (SENDs) is an urgent policy issue in England. At the time of writing this paper – mid-2023 – the Education Select Committee is conducting sessions scrutinising proposed changes to the SEND system, following publication of the Department for Education's 'SEND and alternative provision improvement plan' (HM Government, 2023).

The Committee stresses that there have, 'long been calls to reform the system of SEND services,' and states a particular interest in 'measures to improve accountability' and 'redress for when families are wrongly denied support.' The Committee additionally highlights a need to scrutinise whether newly promised 'funding will be adequate' and notes 'widespread concerns that the process of applying for SEND support from schools and local authorities can be difficult to understand, "adversarial" and is easier to navigate for parents who are better off' (Education Select Committee, 2023).

This paper contributes recent national quantitative evidence to inform these issues, by focussing on the likelihood of children receiving SEND provision according to both their family's circumstances (using Free School Meals [FSM] eligibility to proxy disadvantage) and the deprivation level of the local area in which they live. Concentrating on pupils in the primary years, it explores whether children seem to have unequal chances of receiving support at the statutory level, or of a specific type, depending on their family background and the deprivation of their residential area. It also considers the intersection between these two factors, examining whether the provision recorded

as being received by children in low-income, FSM-eligible families varies according to area deprivation level.

1.1 Definitions and provisions

Within the current system, children can be attributed SEND status at two distinct stages, with different legal standings in terms of whether provision is statutory and in terms of responsibility for funding. 'Support'-level SEND status is allocated by the school, and decisions about differentiated resources and provisions are made within the institution – though external professionals may be involved with assessing or working with a child. For children attributed 'Support'-level SEND, funding for any additional resource must be found within the school's main budget (though there is no compulsion to spend any amount, and indeed it is possible for a child to be recorded at 'Support' level with no distinct supplementary funding assigned to them) (Department for Education, 2022; Long and Danechi, 2022; National Audit Office, 2019; Perera, 2019).

Children with higher levels of need for specialist provision can be allocated an Education, Health and Care Plan (EHCP). This is administered and determined by the Local Authority (LA), and confers funding from the LA, as well as a statutory right to the provisions laid out within the plan (Department for Education, 2022; Long and Danechi, 2022; National Audit Office, 2019).

All children in state-funded primary education in England – the focal group of this paper – are recorded in the National Pupil Database (NPD) census. Their records indicate if they are attributed SEND at

'Support'-level, or in receipt of an EHCP. Additionally, a categorical 'type' of SEND attributed to children at either level is documented.

1.2 Existing evidence

Recent quantitative research and policy attention has emphasised the uncertainty, arbitrariness, and haphazardness of attribution to children of SEND. For example, Hutchinson (2021) proposes a 'lottery,' where the school attended decides children's chances of receiving SEND ascription – at both the 'Support' and EHCP levels. For families, the inconsistent system has been described by the Education Select Committee as fraught with 'confusion…bureaucratic nightmares, buck-passing and a lack of accountability,' and as having 'dashed the hopes of many' (Education Select Committee, 2019). The picture is one of great precariousness and stress, where a similar child with equivalent needs may or not be able to access funding and support, particularly via an EHCP.

Interacting with this is evidence that the apparent 'lottery' experienced may to some extent be driven by underlying systematic disproportionalities – both at the level of the child and the local area – in terms of characteristics associated with a higher chance of SEND provision. For the child and family, these include a tendency of children eligible for FSM to be more likely to be recorded with SEND, disparities according to home language(s), a tendency for boys and children relatively younger within cohort more often to be recorded, and disparities in overall denotation with certain 'type' categories according to demographic characteristics (Campbell, 2021; Department for Education, 2022; Hutchinson, 2021; Kelsair and McNally, 2009; Strand and Lindorf, 2018).

At the area-level, previous research has demonstrated an association between local deprivation and SEND attribution. Examining cohorts in the early noughties, Kelsair and McNally (2009) explored data from the NPD and found that children resident in more deprived areas were more likely to be recorded. However, when considering disadvantaged children eligible for FSM as a distinct group, Kelsair and McNally report an inversion: a higher chance of being receiving statutory LA-level provision for low-income families living in less deprived areas. They also describe, among all children, a higher ratio of LA-level statutory provision to overall levels of SEND attribution in more affluent areas, which, they suggest, may imply a 'quota' or 'rationing' of provision. This indicates that, in the noughties, it may have been 'more advantageous to be a poor child with special educational needs in a more affluent' area (Kelsair and McNally, 2009, p13) – at least in terms of probability of receiving statutory support.

More recent attention to local area deprivation suggests continued relevance to children's chances of receiving SEND provisions. Examining all children attending school in 2016, Strand and Lindorf (2018) showed that higher levels of deprivation (IDACI) were related to higher chances of being attributed most types of SEND (p51) – including when family income (proxied by FSM) is controlled for. This is congruent with wider data beyond the educational which shows an association between greater local area deprivation and increased changes of disability and health conditions (e.g. Knies & Kumari, 2022; Office for National Statistics, 2023).

Hutchinson (2021) focusses on the cohort of children who attended Reception in 2011, and analyses the relationships between various child and area-level factors and being first recorded with SEND in school years 1-4. Hutchinson's analyses of this early-2010s cohort move closer to Kelsair and McNally's interrogation of early noughties cohorts. Hutchinson considers the average IDACI of children's home residences before SEND attribution in combination with the duration of their being recorded as eligible for FSM: and suggests once more interactions between family-level disadvantage and neighbourhood deprivation.

1.3 Research in this paper

This paper returns attention specifically to family disadvantage and local area deprivation and their intersections in order to update the evidence with recent data, for the cohort attending primary school in 2021. It also adds novel analyses by examining the relationships between these factors and SEND 'type' allocation, specifically among those children attributed with SEND: exploring how the 'category' of SEND attributed to a child varies according to FSM eligibility and residential area deprivation.

It is important to return focus here after an age of austerity, where the Education Select Committee (2023; see also Lupton and Obolenskaya, 2020) has emphasised the continued 'strained resources' dogging the system that should provide for children with SENDs. Disparities by economic and social disadvantage are more important than ever. Analysing rising child poverty rates across the 2010s, Vizard et al (2023) characterise a wider context of 'failure to protect vulnerable groups during period of fiscal adjustment,

austerity and welfare reform' (p8), and identify a particular rise in poverty for families where a child/children have a disability. Against this backdrop and at this time where the funding deficit for health and social care for children with disability has been estimated at more than a billion (Disabled Children's Partnership, 2018) it matters particularly if family disadvantage and area deprivation relate to children's chances of SEND provision. This is because it is one component in a weakened network of social and welfare policies and support mechanisms for vulnerable and disadvantaged groups.

By unpicking the intersection between family circumstances and area disadvantage – examining the association of each with recorded SEND provision among primary school children, and whether children from low-income families living in more affluent areas appear to be better served, or not – analyses here speak to the perennial questions of 'fairness' and efficiency within the system that should serve children with SENDs. They also provide key evidence to inform the continued reform of this system so that it might better provide for children with disabilities and / or special educational needs.

2. Data and analysis

The data analysed here are for primary-aged children recorded in the National Pupil Database (NPD), focussing on those present at January 2021. The NPD is a census of all pupils in state-funded education. Deidentified records are provided by the Department for Education and analysed within the ONS's Secure Research Service. Records for children born between September 2009-August 2016 (aged four-11 in January 2021), resident in the 149 large English LAs, are included

(N=4,522,055; children living in City of London and Isles of Scilly are excluded).

2.1 Variables

The NPD contains information on:

- Free School Meals eligibility (FSM; whether a pupil is recorded as eligible at January 2021. This proxies family low-income / disadvantage)
- English as an Additional Language (EAL; whether languages in addition to / other than English are spoken in a child's home)
- Recorded ethnicity of child
- Deprivation-level experienced by children within the pupil's local residential area (IDACI; this is 'the proportion of all children aged 0 to 15 living in income deprived families' – for more information, see McLennan et al, 2019)
- Local Authority in which the child lives (LA)

Records specifically on SEND include:

- SEND level (none; 'Support;' EHCP)
- Primary SEND 'type' (speech, language and communication needs; autistic spectrum disorder; moderate learning difficulties; severe learning difficulties; profound and multiple learning difficulties; specific learning difficulties; social, emotional and mental health difficulties; vision impairment; hearing impairment; multi-sensory impairment; physical disability).

Some children are also recorded with a primary 'type' denoted 'other,' or with 'no specialist assessment.' Campbell (2021, p 31-2) reports and discusses in further detail the guidance provided to schools by the DfE on categorisation of children's needs into these 'types.' Further consideration of processes potentially underlying ascription and categorisation accompany findings later in this paper.

Note that because the current paper analyses this data from the NPD, recorded according to the categories defined by and used in the language of the Department for Education, this language is mirrored for clarity and straightforwardness. However, some of the language and categorisations are highly problematic and contentious, for numerous reasons.

In terms of language, for example, the British Association of Teachers of the Deaf have recently published guidance recommending against the term 'hearing impaired' as audist, oppressive, and deficit-based, suggesting instead that the terms 'deaf and/or hard of hearing' should be used (BATOD, 2021). The National Autistic Society similarly advise that, 'many autistic people see their autism as a fundamental part of who they are, so it's important to use positive language' (online) – rendering the language of 'autistic spectrum disorder' as used by the DfE and recorded in the NPD problematic.

As these and other questionable categorisations are those with which schools work and record pupils, they are used throughout this paper, while acknowledging their many issues.

2.2 Methodology

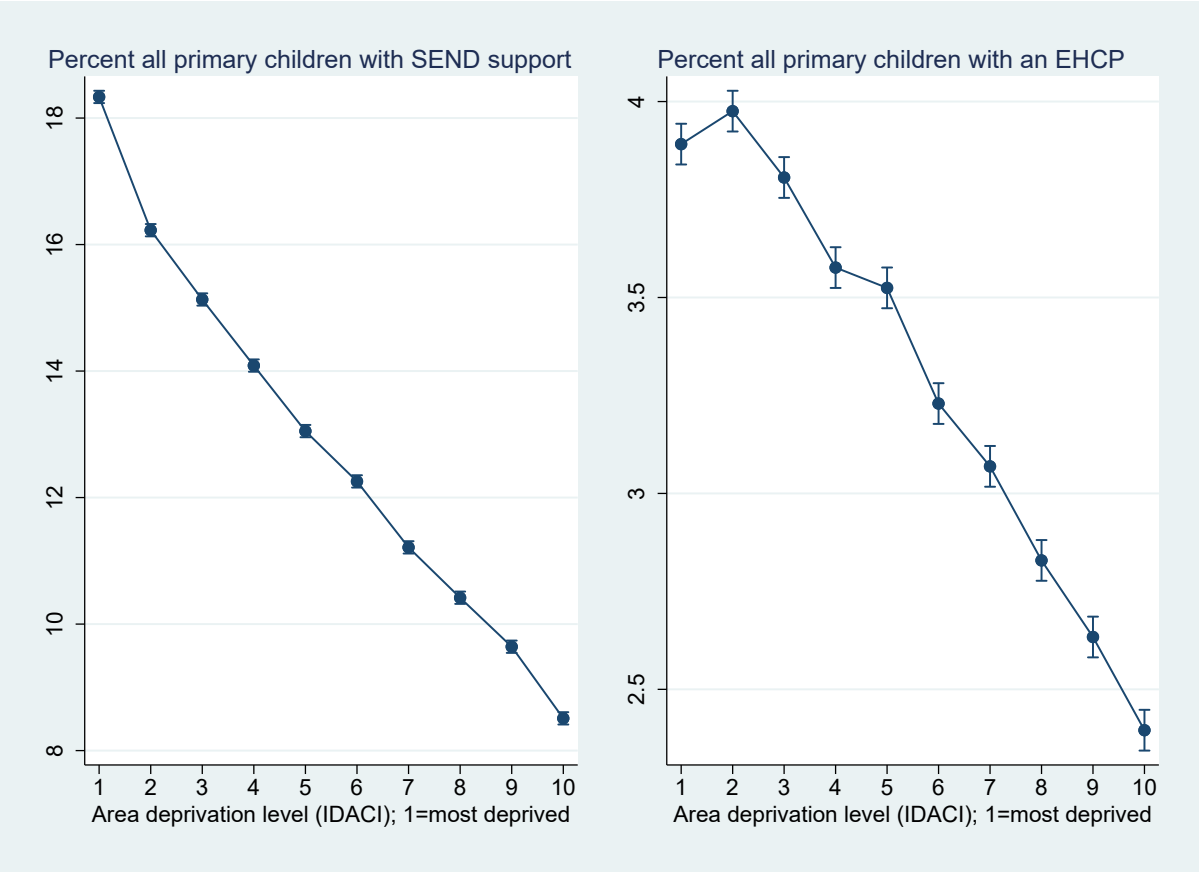
Some analyses are descriptive, cross-tabulating pupil and area characteristics with children's SEND attribution. Linear probability models are also used to explore whether other key factors may account for relationships between family FSM and / or local area deprivation and SEND-level / 'type.' Methods and samples are described throughout the findings section.

3. Findings

16.2% of the 4,522,055 children in primary school at January 2021 are recorded with some level of SEND: 12.9% at 'support'-level, and 3.3% with an EHCP. The 1,025,974 (22.7%) children recorded as FSM-eligible are more likely to be attributed SEND: 21% at the 'support'-level, and 5.3% at the EHCP-level.

Figure 1 shows that, nationally, children living in more deprived local areas are more likely to be recorded as receiving SEND provision – both at the school 'support' level and through a statutory EHCP. IDACI-levels are split into equal deciles here – decile 1 comprises the most deprived areas nationally; decile 10 comprises the least deprived, most affluent areas. Given that there is an incremental correspondence between area deprivation level and proportion children FSM-eligible – with 48.7% recorded as eligible in the most deprived decile, and 5.4% in the least – and as FSM-children are more likely to be attributed SEND, this is as expected.

Figure 1: The more deprived a child's local area of residence, the more likely they are to be recorded with SEND



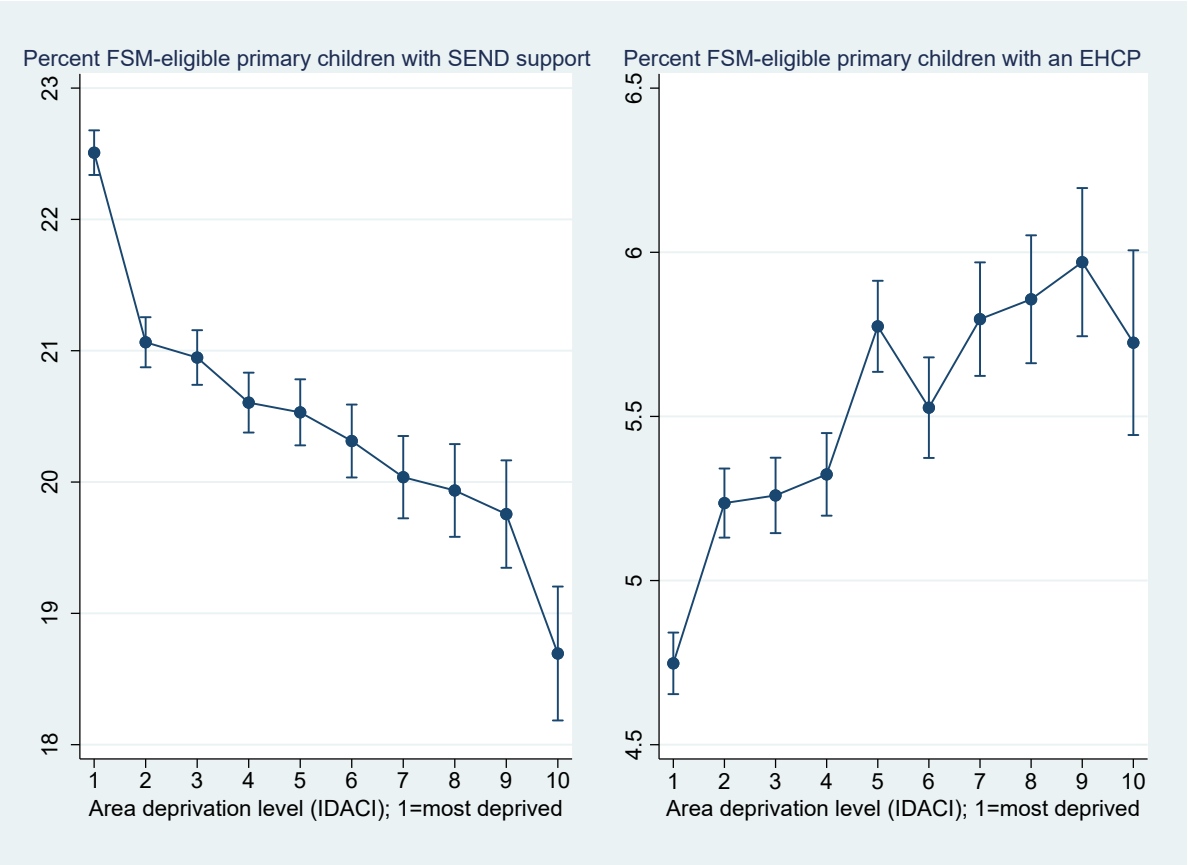
N=4,522,055. Source: National Pupil Database. Equal IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

However, when children who are recorded as eligible for FSM are considered alone, a different pattern emerges. Figure 2 shows that FSM-eligible children remain more likely to be attributed SEND at 'support'-level if they live in a more deprived area – but the inverse is true for receipt of a statutory EHCP. This chimes with Kelsair and McNally's (2009) findings that, as far back as the early noughties, low-income children living in more affluent areas were more likely to receive statutory LA-administered SEND provision. Two decades later, this remains the case.

Given that FSM-eligible children are, at the individual-level, more likely to be allocated an EHCP, and given links between deprivation and disability (Knies & Kumari, 2022; Office for National Statistics, 2023); and as proportionally more FSM-eligible children live in the less affluent areas, this begins to point again towards scarce and inadequate resources in these localities. It suggests a continued 'quota' or 'rationing' which may lead to unmet need for SEND provision among children from disadvantaged families living in deprived areas.

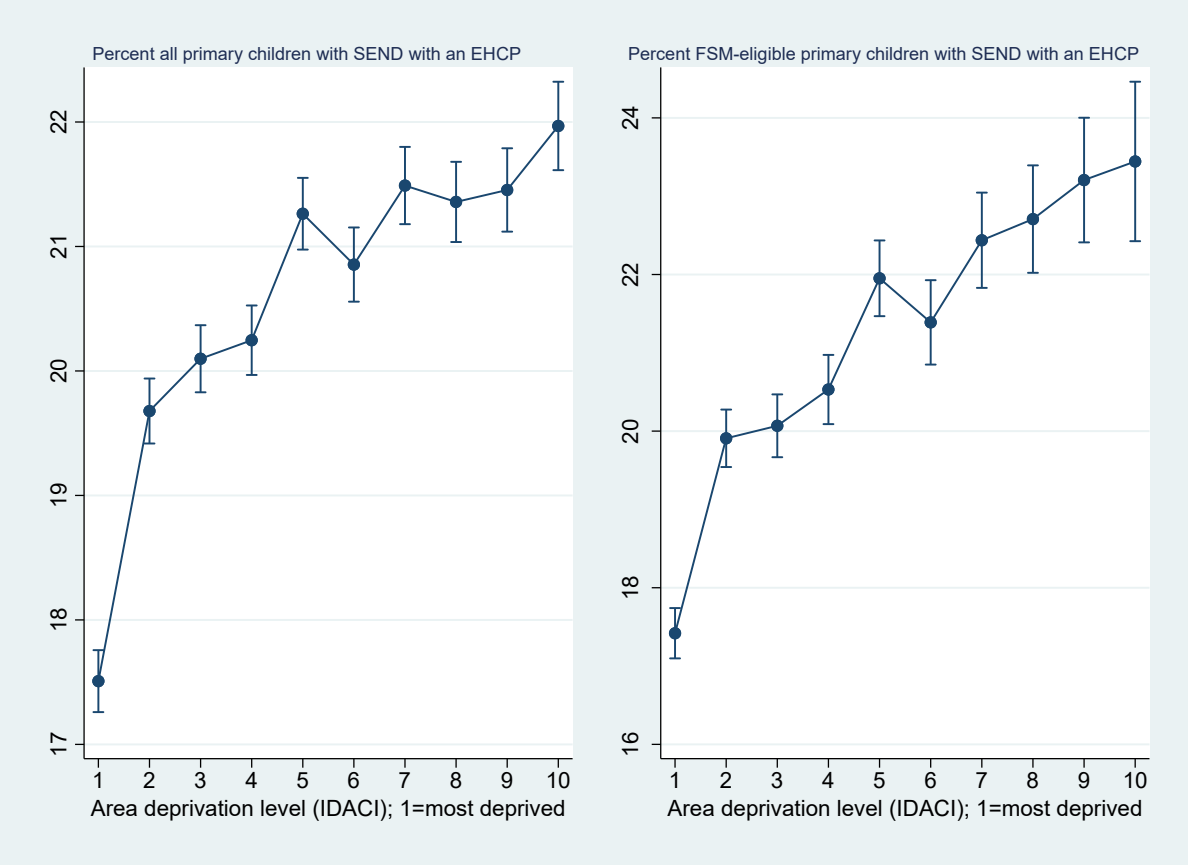
To investigate this more thoroughly, Figure 3 restricts the sample to children with any SEND recorded – either at the 'Support'-level or the EHCP level. Among these children, do chances of receipt of LA-level, statutory EHCP provision continue to vary according to area deprivation level? The first graph (left) shows the pattern for all children, and the second (right) for those who are FSM-eligible. For both groups, there are higher chances of being allocated an EHCP in less deprived areas.

Figure 2: Children recorded with FSM only: The more deprived a child's local area of residence, the more likely they are to be recorded with SEND 'support' – but the less likely they are to be in receipt of an EHCP



N=1,025,974. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children in state primary schools, in Reception–Year 6, aged four–11 at January 2021, who are recorded as FSM eligible.

Figure 3: Children recorded with SEND only: The more deprived a child's local area of residence, the less likely they are to be in receipt of an EHCP, both among all children and those FSM-eligible



Left panel N=731,670; right panel N=269.731. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. Children recorded with any SEND, in state primary schools, in Reception–Year 6, aged four–11 at January 2021 (left panel: all children; right panel: those with FSM).

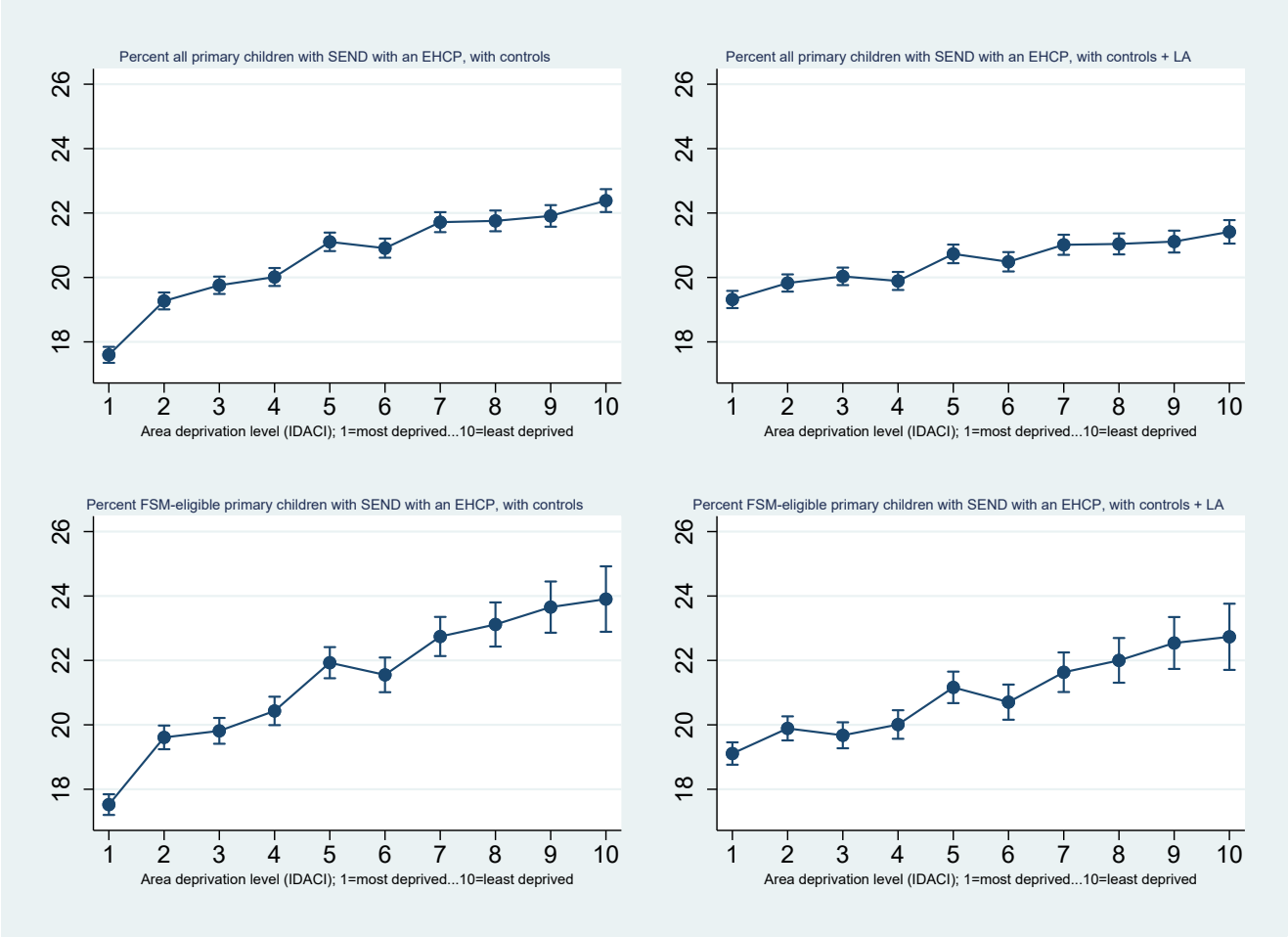
Because other child characteristics covary with SEND attribution and with area deprivation level (Hutchinson, 2021; Strand and Lindorf, 2018), and may therefore explain some of this apparent variation by locality, Figure 4 now shows marginal mean predicted probabilities from four regressions (linear probability models) which begin to account for these covariates.

The first (top left) estimates the probability of being recorded with an EHCP for all children with SEND, according to IDACI decile, now controlling for ethnicity and EAL. The second (top right) adds controls (fixed effects) for LA – so it shows whether, on average, children in a given LA, with the same characteristics according to ethnicity and EAL, remain more likely to be allocated an EHCP if they live in a more affluent area within the authority. There is great variation by LA in the proportion of children with EHCPS (see Annex).

The third (bottom left) estimates the probability of being recorded with an EHCP for all children with SEND who are also FSM-eligible, controlling for ethnicity and EAL; the fourth (bottom right) controls also with LA fixed effects, for this group of FSM-eligible children with SEND.

Figure 4 suggests several things: firstly, that, among children with SEND who are similar according to the controls, the discrepancy in chances of allocation of an EHCP by area deprivation level is more pronounced for those who are FSM-eligible. Secondly, the variation by area remains even when children's recorded ethnicity and home language are accounted for. Thirdly, while controlling for children's LA of residence attenuates the differences by local area deprivation to some degree, differences remain. So, on average, even among children of the same reported ethnicity and similar English language background, living in the same LA, those attributed SEND have higher chances of receiving statutory provision through an EHCP if they live in a more affluent local area: and the gradient is steeper for children eligible for FSM.

Figure 4: Children with SEND: in more deprived residential areas children are less likely to have an EHCP – both among all children (top) and those FSM-eligible (bottom), with controls



Top panels N=731,670; bottom panels N=269.731. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. Children recorded with any SEND, in state primary schools, in Reception–Year 6, aged four–11 at January 2021 (top panels: all children; bottom panels: those with FSM).

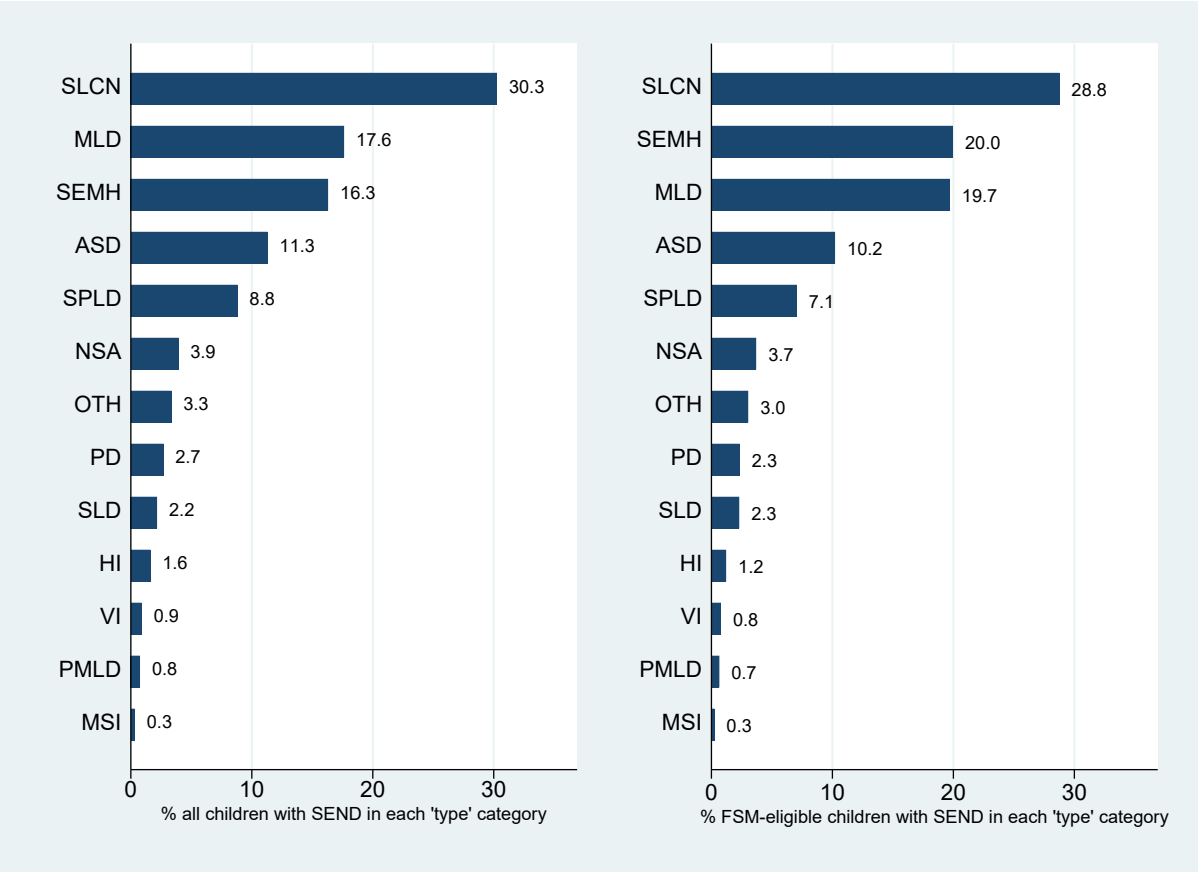
The following analysis moves on to examine the 'type' of SEND recorded among children with SEND reported (at either 'Support' or EHCP level), and how this varies by family-level FSM and area-level deprivation.

Figure 5 looks at all children with either level of SEND recorded. It shows that among these children, those who are FSM-eligible are less likely to be attributed speech, language and communication needs (SLCN), autistic spectrum disorder (ASD), specific learning difficulties (SPLD), physical disability (PD), and hearing impairment (HI). Instead, FSM-eligible children recorded with SEND are more likely to be denoted with social, emotional, and mental health difficulties (SEMH) and moderate learning difficulties (MLD).

Figure 6 looks separately at children recorded with SEND at the 'Support' level (top two panels) and at the statutory, EHCP level (bottom two panels). Pattern in terms of discrepancies between all children and FSM-eligible children are similar at each level.

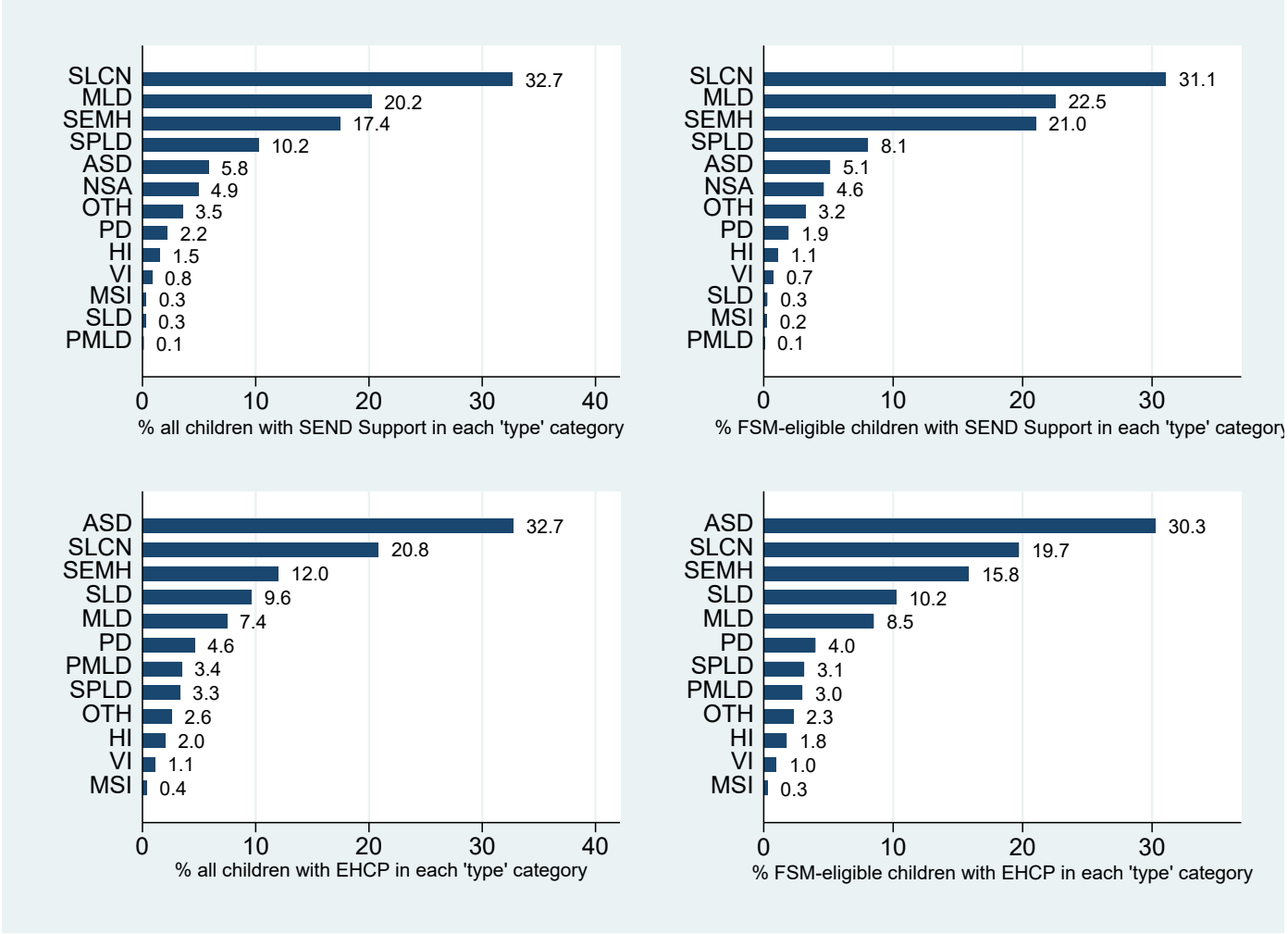
There are several potential explanations for these disproportionalities. It is possible, for example, that proportionally fewer FSM-eligible children with SEND are recorded with ASD because relatively more have difficulties with SEMH: but it is also possible that some children from low-income families are misclassified into the vaguer MLD category rather than receiving diagnosis of and more tailored support for ASD.

Figure 5: 'Type' of SEND recorded – among all children (left) and among FSM-eligible children (right)



Left panel N=731,670; right panel N=269.731. Source: National Pupil Database. Children recorded with any SEND, in state primary schools, in Reception–Year 6, aged four–11 at January 2021 (left panel: all children; right panel: those with FSM).

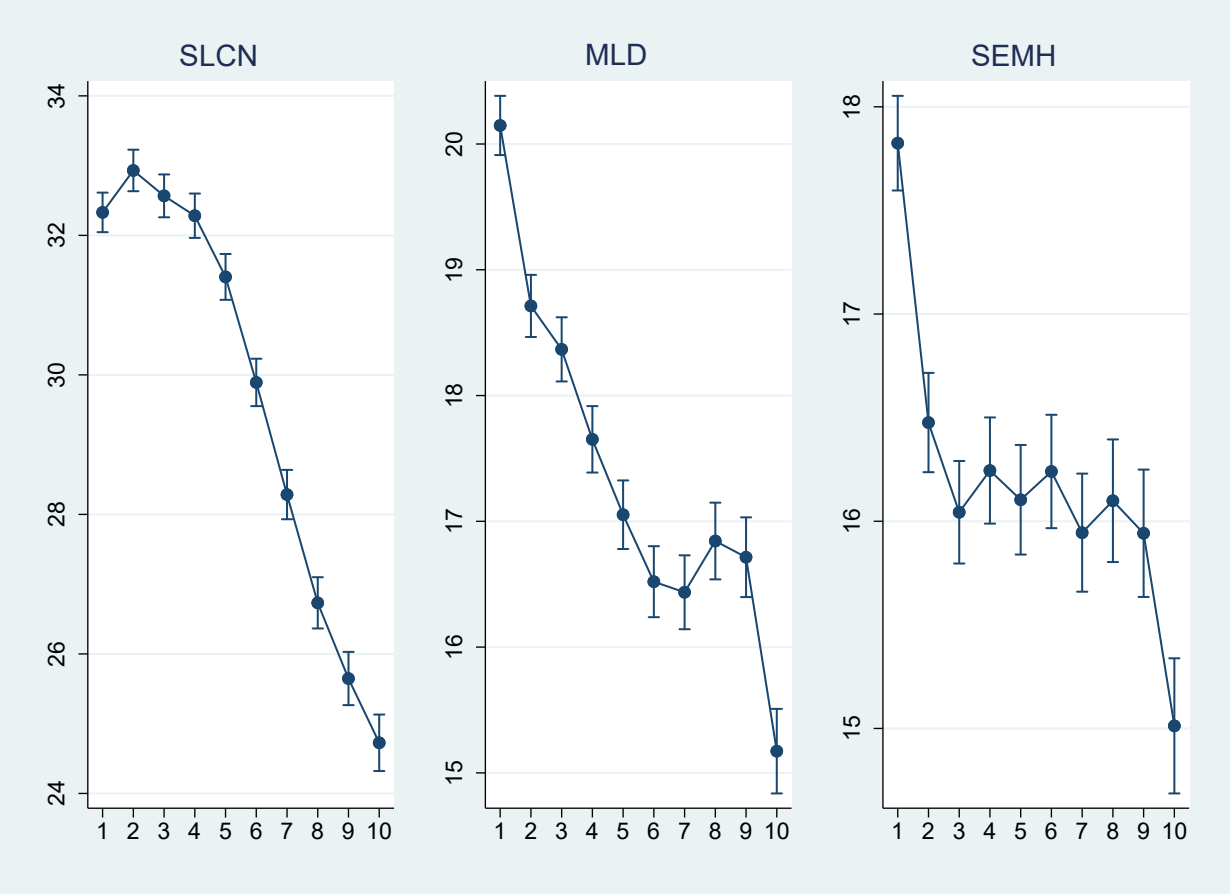
Figure 6: 'Type' of SEND recorded – among all children (left) and among FSM-eligible children (right), at SEND 'support' (top) and EHCP (bottom) levels



Top left panel N=582,755; top right panel N=215,085; bottom left panel N=148,915; bottom right panel N=54,646. Source: National Pupil Database. Children recorded with SEND 'support' / EHCP, in state primary schools, in Reception–Year 6, aged four–11 at January 2021 (left panels: all children; right panel: those with FSM).

Figures 7a/b/c and 8a/b/c now looks at the relationship between area deprivation level and attribution of 'type' for all children with SEND. They show the proportion of children living in each IDACI decile who are attributed each 'type.' Figure 7a indicates that it is children living in more deprived areas who are more likely to be denoted with the three most prevalent 'type' categorisations (speech, language and communication needs (SLCN), moderate learning difficulties (MLD), and social, emotional and mental health difficulties (SEMH).

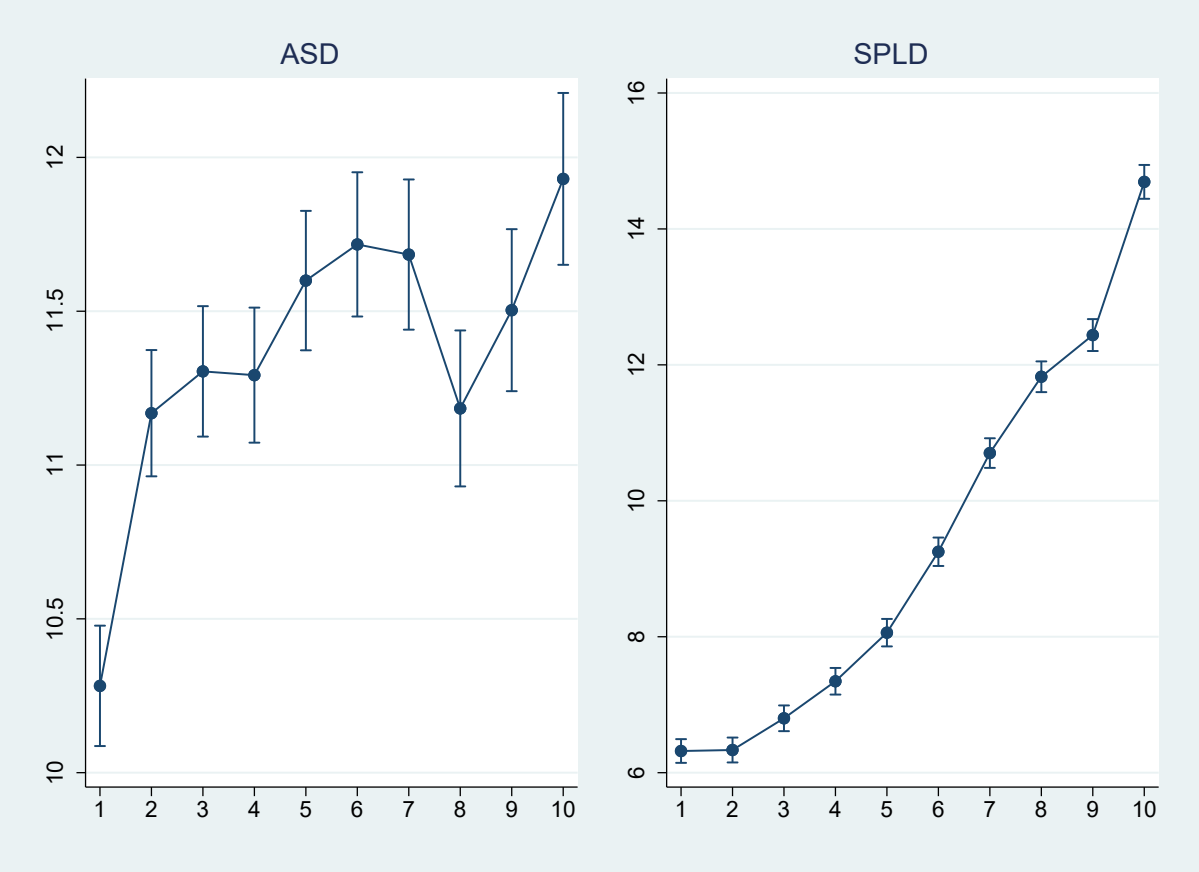
Figure 7a: Proportion children with any SEND recorded with each SEND 'type' – by deprivation level of area of residence



N=731,670. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children with any SEND recorded in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

Examining the next two most commonly recorded SEND 'types,' the pattern reverses (Figure 7b): generally, children with SEND who are attributed autistic spectrum disorder (ASD) and specific learning difficulties (SPLD) are more likely to live in affluent residential areas. For specific learning difficulties, which includes conditions such as dyslexia, dyspraxia, and ADHD – which, like ASD, require diagnosis by professionals outside of the immediate school environment – the gradient is particularly clear. Around 15% of children with SEND living in the least deprived decile are recorded with SPLD compared to about 6% in the most deprived.

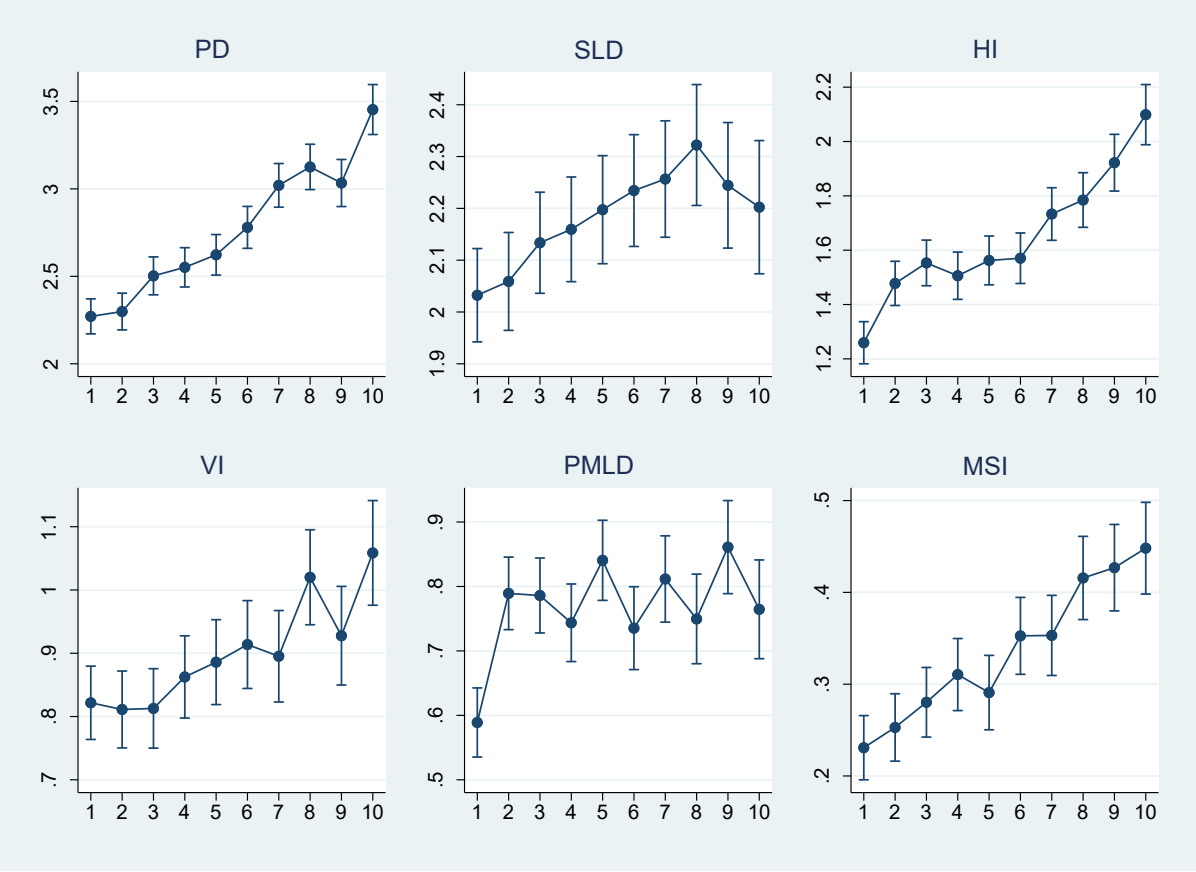
Figure 7b: Proportion children with any SEND recorded with each SEND 'type' – by deprivation level of area of residence



N=731,670. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children with any SEND recorded in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

This pattern is largely mirrored across the less commonly occurring physical and sensory conditions, which, again, are generally attributed to children following involvement of specialist medical and other children's services professionals outside of the school. Children with SEND living in more affluent areas are more likely to have a 'type' recorded as physical disability (PD), hearing impairment (HI), visual impairment (VI), or multi-sensory impairment (MSI). The gradient is less clear for children with profound and multiple learning difficulties (PMLD) and severe learning difficulties (SLD).

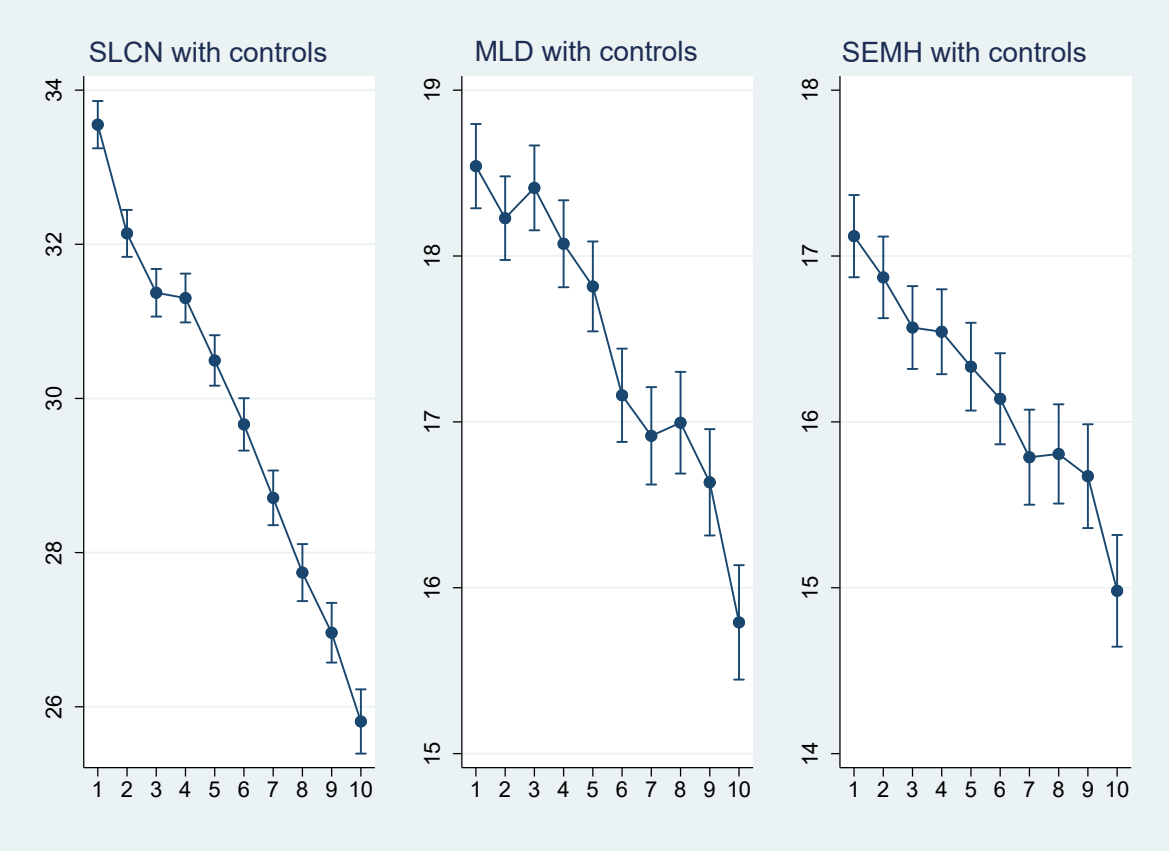
Figure 7c: Proportion children with any SEND recorded with each SEND 'type' – by deprivation level of area of residence



N=731,670. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children with any SEND recorded in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

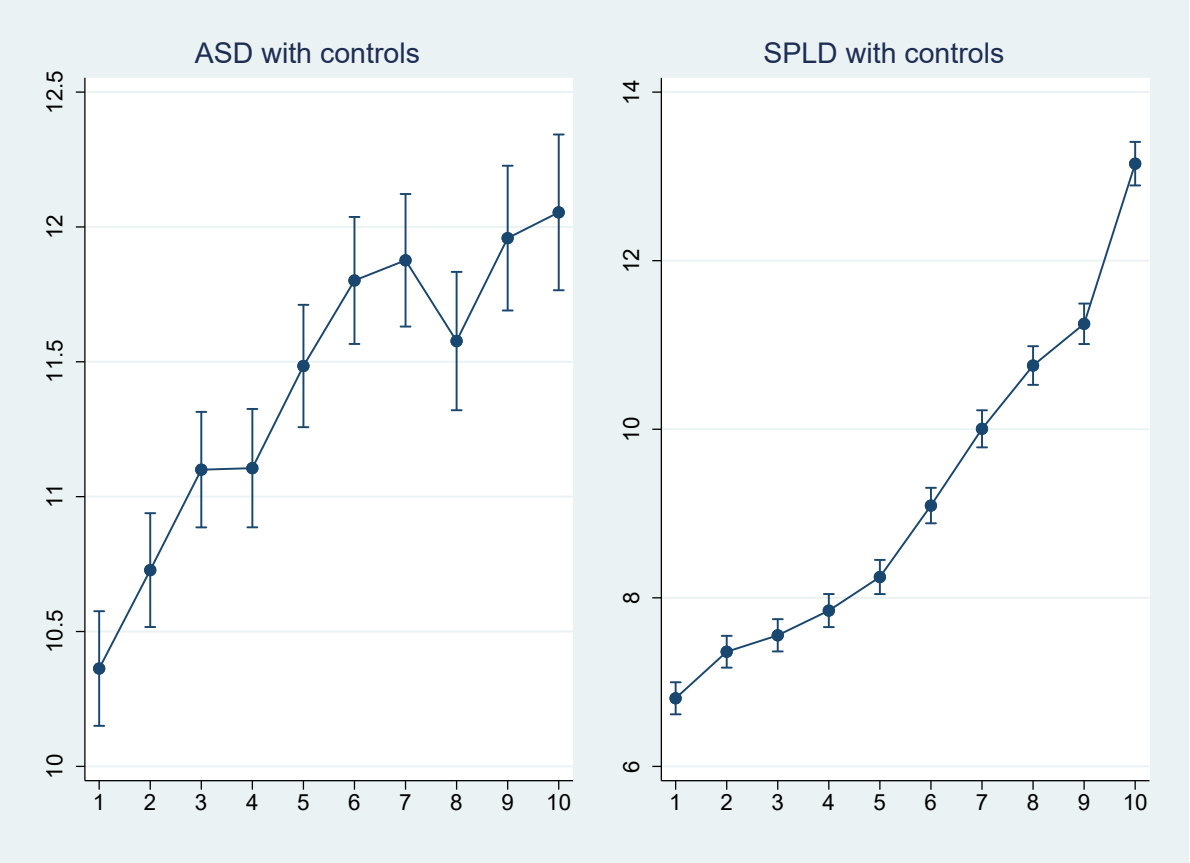
Because these patterns by residential area deprivation level may reflect the characteristics of the children living in different areas, rather being attributable to provisions and access that vary by local area deprivation, Figures 8a/b/c replicate 7a/b/c but add controls for children's own individual recorded FSM eligibility, EAL, ethnicity, and LA fixed effects.

Figure 8a: Predicted probability of children with any SEND being recorded with each SEND 'type' – by deprivation level of area of residence. With controls for individual FSM eligibility, ethnicity, EAL, and LA fixed effects



N=731,670. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children with any SEND recorded in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

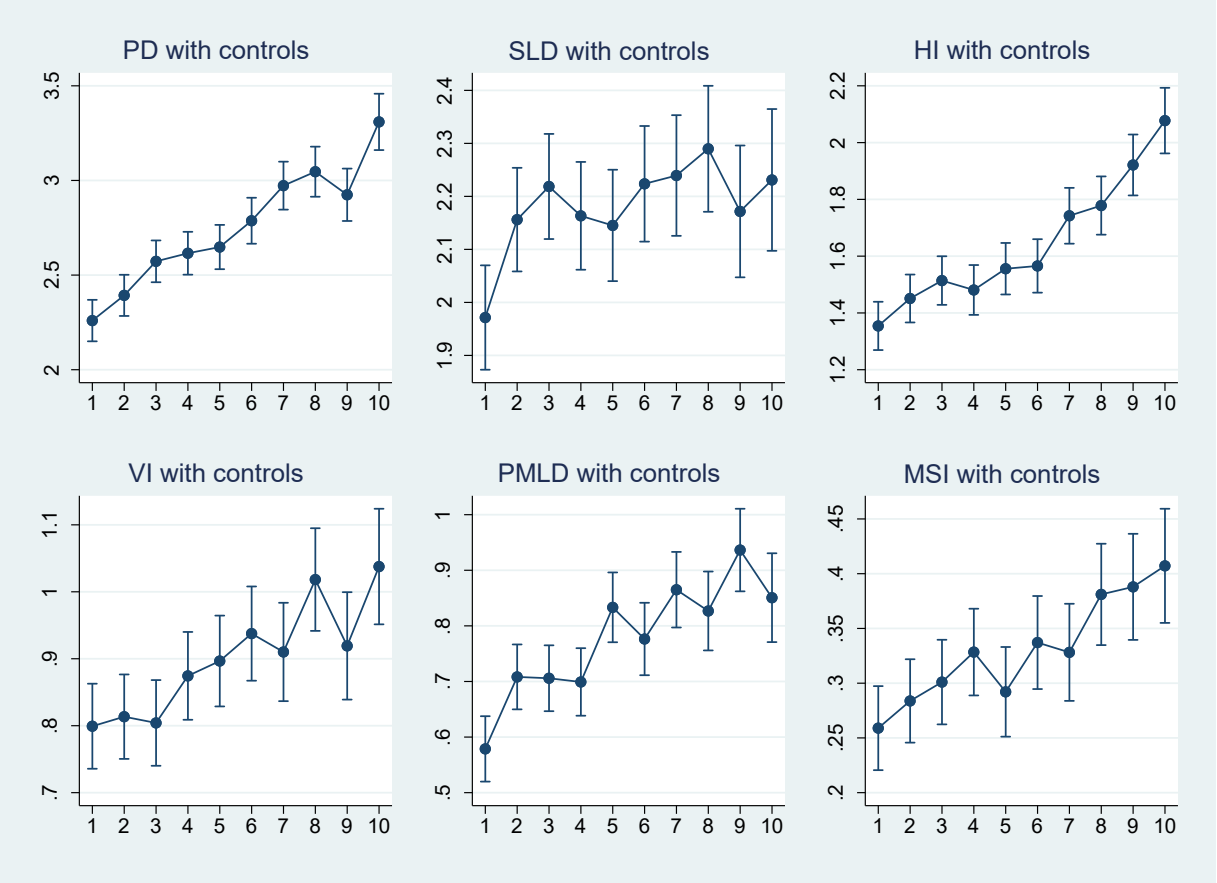
Figure 8b: Predicted probability of children with any SEND being recorded with each SEND 'type' – by deprivation level of area of residence. With controls for individual FSM eligibility, ethnicity, EAL, and LA fixed effects



N=731,670. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children with any SEND recorded in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

Patterns remain: children with SEND recorded are more likely to be attributed SLCN, MLD, or SEMH in more deprived areas, and they are more likely to be diagnosed with ASD, SPLD, PD, HI, VI, MSI, PMLD and SLD in more affluent areas.

Figure 8c: Predicted probability of children with any SEND being recorded with each SEND 'type' – by deprivation level of area of residence. With controls for individual FSM eligibility, ethnicity, EAL, and LA fixed effects



N=731,670. Source: National Pupil Database. IDACI deciles where 1=most deprived areas and 10=least deprived areas. All children with any SEND recorded in state primary schools, in Reception–Year 6, aged four–11 at January 2021.

As noted above, the reasons for these stark inequalities cannot be determined by the data here, which is an empirical descriptive quantification of recorded disparities. However, alongside findings that FSM-eligible children and all children with SEND are more likely to be allocated an EHCP in less deprived areas, they may point once more to a situation where children's chances of being diagnosed with – and receiving support for – specific conditions are greater if their local area is more affluent. Correspondingly, less specific and concrete attributions of SEND type are conferred in deprived areas:

which may relate to lower chances of receiving tailored, appropriate support.

In order slightly further to begin to test this hypothesis – that children attributed SEND are less likely to receive concrete diagnoses in deprived areas – longitudinal analyses of the cohort of children born between September 2008 and August 2009 – who entered Reception in 2013 and completed year 6 in 2020 – are presented below.

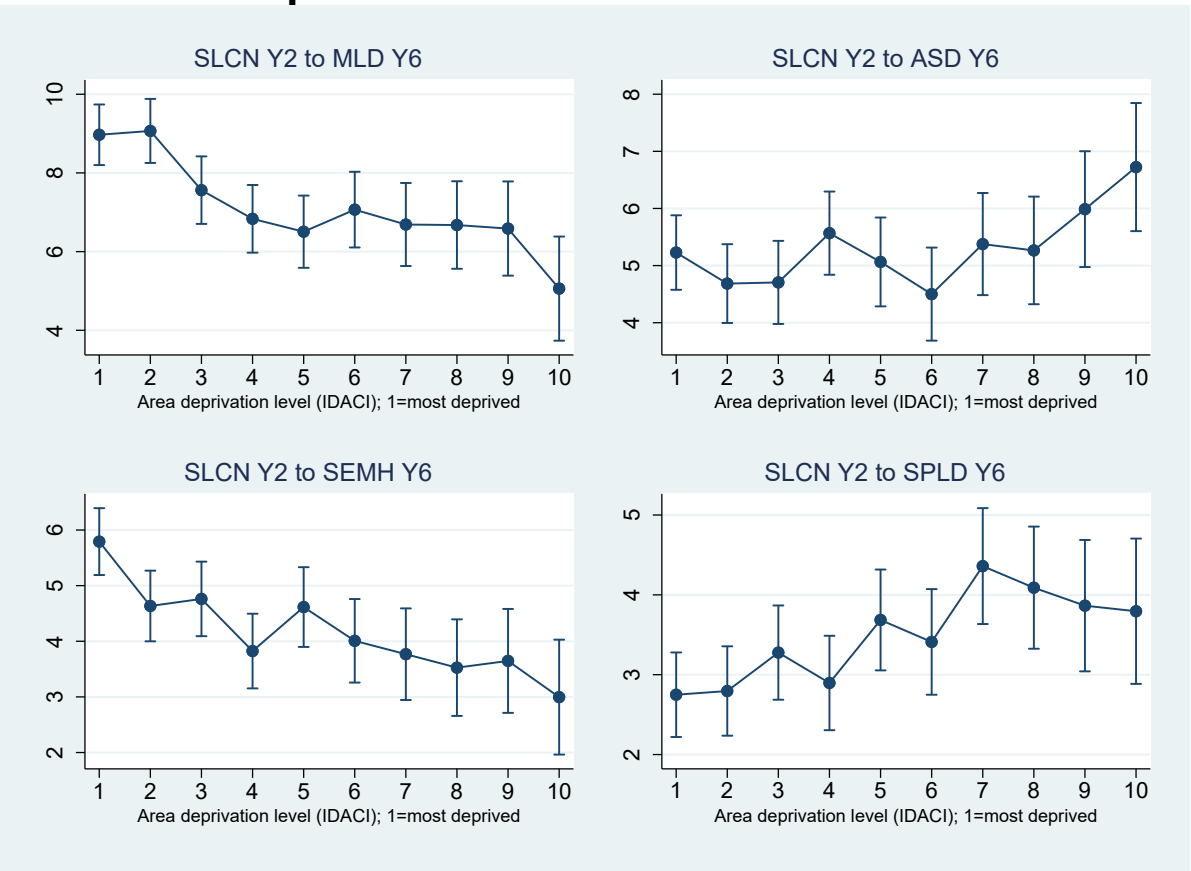
Analyses here focus on changes between Year 2 (the point at which proportions of children recorded with SEND 'support' are highest [Campbell, 2021]) and Year 6. They are for the group of children attributed speech, language and communication needs (SLCN) in Year 2 – the most commonly denoted 'type.'

42% of the 29,403 children recorded with SLCN in Year 2 continue to be recorded with this 'type' in Year 6. The most common transitions among all children still attributed SEND but of a different 'type' in Year 6 are to ASD (7.8%), MLD (11.15%) SEMH (6.6%) and SPLD (5%). Among children recorded with SLCN in Year 2 who are reported as FSM-eligible at some point between Year 1 and Year 6 (N=12,892), slightly fewer transition to ASD (7.1%) and SPLD (4.6%), but more to MLD (13.1%) and SEMH (9%).

Figures 9 to 12 show the association between the deprivation level of the child's area of residence at Year 2 and their probability of each transition. Figure 9 shows the raw relationships; Figure 10 reports estimated marginal means from linear regressions controlling for children's own FSM eligibility; Figure 11 reports

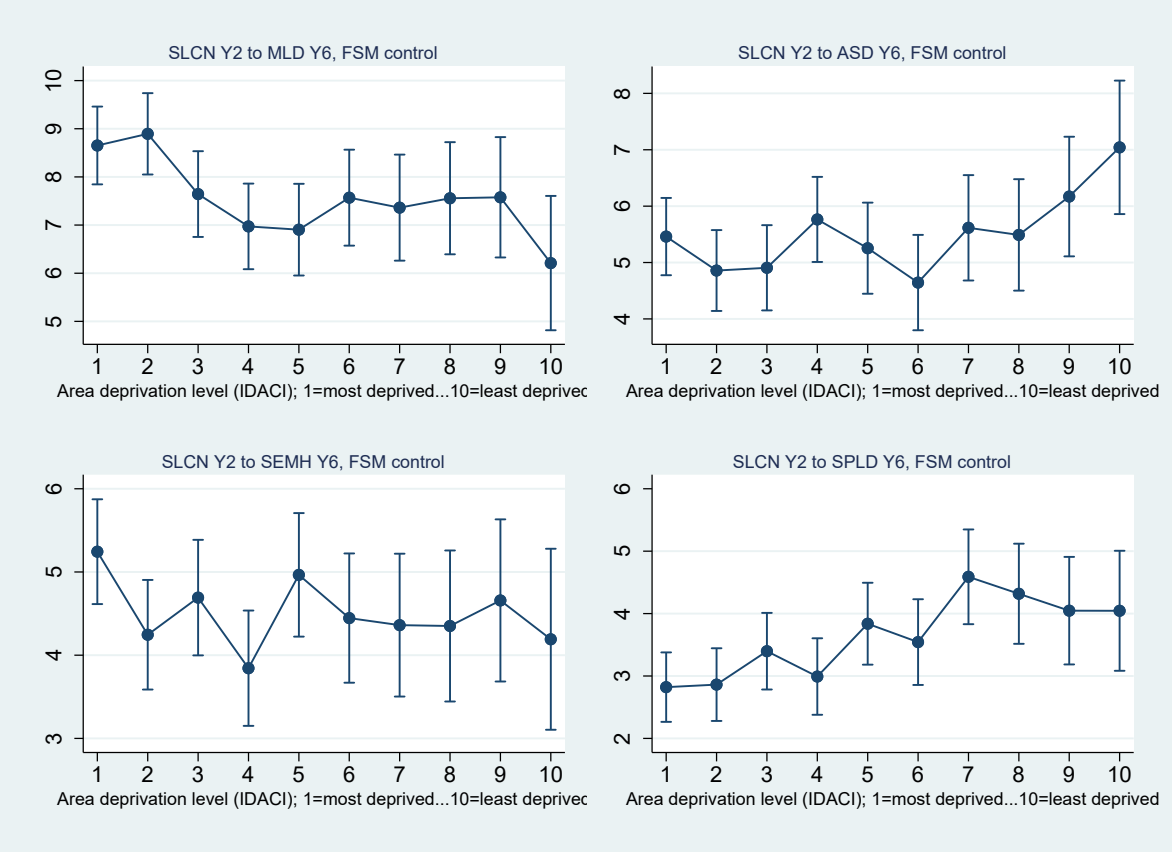
estimated marginal means from regressions controlling additionally for ethnicity and EAL; and Figure 12 from regressions adding LA fixed effects.

Figure 9: Proportion children with SLCN recorded at Year 2 who have with each other SEND 'type' recorded at Year 6– by deprivation level of area of residence



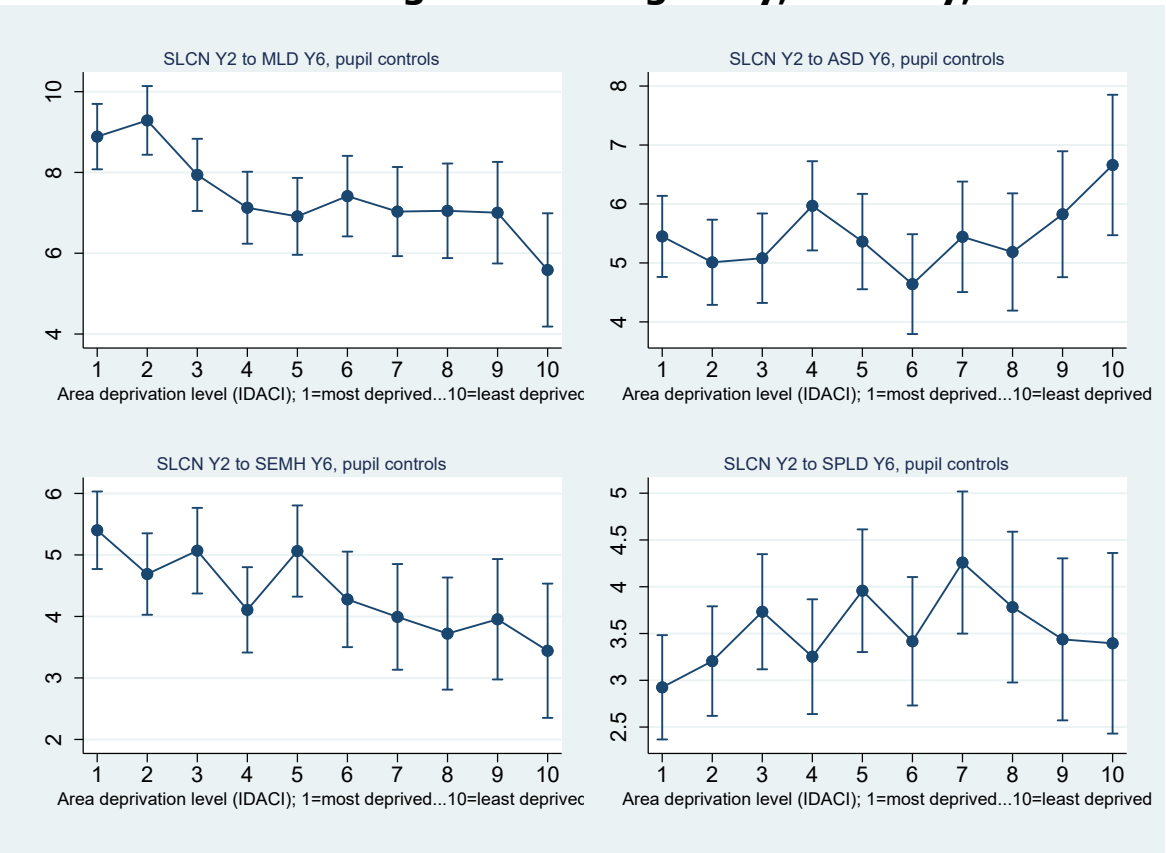
N=29.325. Source: National Pupil Database. IDACI deciles from area of residence at Year 2, where 1=most deprived areas and 10=least deprived areas. Children with SLCN recorded in Year 2, in state primary schools, at January 2016, who are in Year 6 in 2020.

Figure 10: Predicted probability of having each other SEND 'type' recorded at Year 6 – by deprivation level of area of residence – among children with SLCN recorded at Year 2. Controlling for individual FSM eligibility



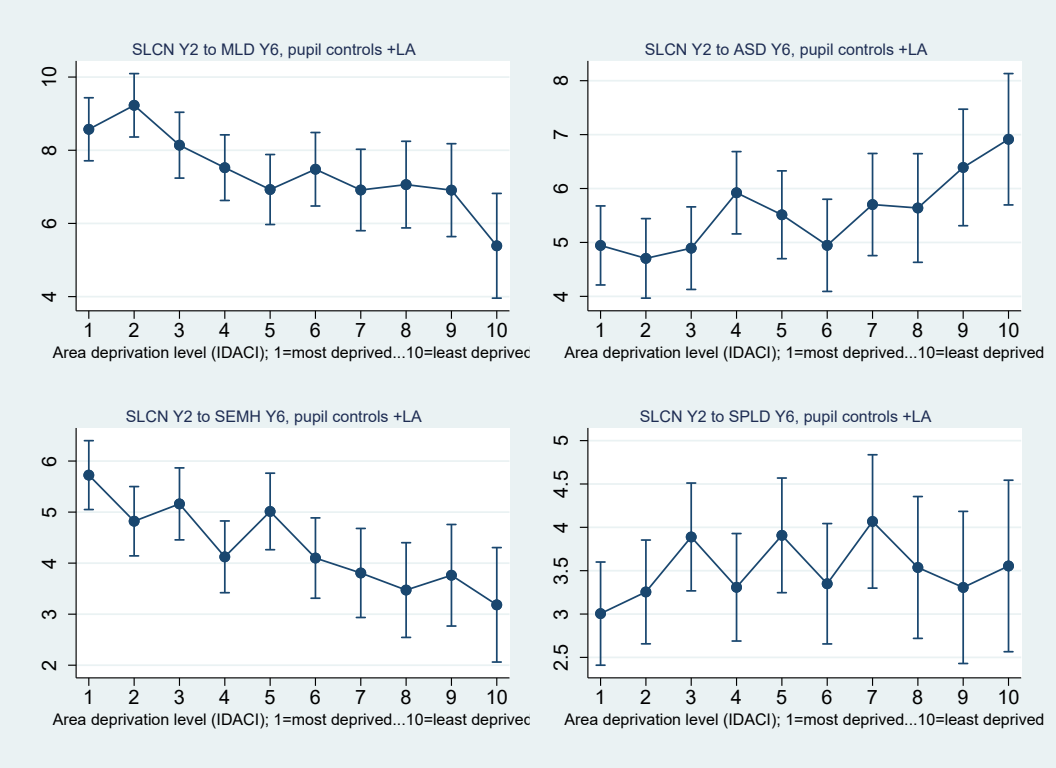
N=28,225. Source: National Pupil Database. IDACI deciles from area of residence at Year 2, where 1=most deprived areas and 10=least deprived areas. Children with SLCN recorded in Year 2, in state primary schools, at January 2016, who are in Year 6 in 2020.

Figure 11: Predicted probability of having each other SEND 'type' recorded at Year 6 – by deprivation level of area of residence – among children with SLCN recorded at Year 2. Controlling for FSM eligibility, ethncity, and EAL



N=28,225. Source: National Pupil Database. IDACI deciles from area of residence at Year 2, where 1=most deprived areas and 10=least deprived areas. Children with SLCN recorded in Year 2, in state primary schools, at January 2016, who are in Year 6 in 2020.

Figure 12: Predicted probability of having each other SEND 'type' recorded at Year 6 – by deprivation level of area of residence – among children with SLCN recorded at Year 2. Controlling for FSM eligibility, ethncity, EAL, and LA fixed effects



N=28,225. Source: National Pupil Database. IDACI deciles from area of residence at Year 2, where 1=most deprived areas and 10=least deprived areas. Children with SLCN recorded in Year 2, in state primary schools, at January 2016, who are in Year 6 in 2020.

According to all specifications, children living in more deprived areas who are attributed SLCN in Year 2 are more likely to transition to be recorded with MLD or SEMH needs in Year 6. Children in more affluent areas are more likely to transition to be diagnosed with ASD – controlling for FSM, ethnicity, EAL, and the LA in which the child lives. There is a raw association between area deprivation and transitioning to a diagnosis of SPLD, that holds controlling for children's own FSM eligibility – but it is attenuated by controls for ethnicity, EAL, and LA.

Overall, then, this suggests that, based on these initial analyses, children living in more deprived areas who are attributed SEND in

early primary school, and denoted with SLCN, are less likely to go on to receive a diagnosis of ASD by the end of primary school – and more likely to be recorded with MLD or SEMH. Again, there are various feasible interpretations of these trends: but one is in line with the possibility that in more deprived areas scarcity of resources leads to a lessened chance of diagnosis of and provision for children's specific SENDs.

4. Discussion

This paper provides new descriptive empirical evidence on the relationships between family-level disadvantage (low income, proxied by FSM), area-level deprivation (IDACI), and children's chances of being attributed different levels and types of support for special educational needs and / or disabilities (SEND). In a context where previous research has suggested that it may be 'more advantageous to be a poor child with special educational needs in a more affluent area' (Kelsair and McNally, 2009), and where the National Audit Office has identified 'substantial unexplained local variation' in SEND provision, called for the Department for Education (DfE) to 'investigate the reasons for local variations,' and stated that 'funding has not kept pace with the rise in the number of pupils' (NAO, 2019), findings here support the possibility that children's chances of receiving suitable support and resources depend on the affluence of the area in which they live.

Analyses indicate that all primary-aged FSM-eligible children from low-income families are less likely to be allocated statutory funded support through an Education Health and Care Plan, administered by

the local authority (LA), if they live in a more deprived area. Among children with SEND recorded, both those who are FSM-eligible and those who are not are more likely to receive an EHCP in affluent areas: and the disparity is more pronounced for FSM-eligible children.

Among primary children with SEND, there are differences in 'type' attributed according to FSM-eligibility and area deprivation level. Children living in more deprived areas are more likely to be recorded with speech, language and communication needs (SLCN), moderate learning difficulties (MLD), and social, emotional and mental health difficulties (SEMH) – the most prevalent 'types,' and those with the least precise definitions, according to the DfE's guidance (Campbell, 2021).

In contrast, children living in more affluent areas are more likely to be diagnosed by professionals and services external to the school with autistic spectrum disorder (ASD), specific learning difficulties (SPLD), and rarer physical and sensory conditions. These patterns hold when children's own FSM eligibility, ethnicity, and family language are accounted for, and when children living in the same LA are compared.

Considering the group of children who are attributed SLCN needs, the most prevalent 'type' in Year 2, children in affluent areas are more likely to go on to be diagnosed with ASD by Year 6 – and less likely to transition to a type recorded as MLD or SEMH. This matters because:

> Diagnostic labels may…undermin[e] equity (e.g. schools or LAs may require certain specific diagnosis to access resources that

> might be equally suitable for other pupils with SEND). For example, recent research demonstrated that pupils with SLCN received less support than pupils designated as having ASD (Cullen et al, 2020, p20)

There are numerous reasons why area deprivation may be related to level of SEND support allocated, and type of diagnosis attributed. In terms of 'type,' one explanation may be that children in families living in deprived and challenging circumstances might as a direct result be more likely to develop social, emotional and mental health difficulties (Parsons and Platt, 2013). This would feed into overall disproportionalities. However, it is possible also that unmet need in these areas for support for children with specific conditions may also result in poor mental health, as described by Schools Minister Clair Cortinho at a recent session of the Education Select Committee:

> I represent a seat that has had a high increase in need—and one of the things that you see in the areas where you often get high deficits is that some of the system has broken down. You do not get the early identification, which is very important. For lots of children, if you do not get in early and support them at that time, their needs can escalate. What starts off as maybe a struggle with reading—maybe dyslexia, for example—can escalate into quite severe mental health problems at times if you do not get the system right. (Education Select Committee, 2023)

Additionally, as both diagnoses with specific conditions and provision of EHCPs are present at relatively lower rates in more deprived areas,

this suggests a 'a massive rationing process,' as described by MP Ian Mearns to the Education Select Committee (2023). Again, this indicates that funding and resources are not sufficient to provide within the current education system for children with disabilities in areas of higher need: due at least in part to 'huge high needs deficits' in these areas (Ian Mearns, Education Select Committee 2023).

Alongside these funding deficits, the processes involved for parents/carers in accessing tailored support for their child are often resource-heavy, stressful, and adversarial – requiring parents/carers to actively access and fight for provision (Cullen and Lindsay 2019). Marsh (2022) shows that 'appeal and hearing rates [for an EHCP] in areas with lower socio-economic status (SES) are significantly smaller than in the least deprived areas.' Marsh suggests reasons for higher SEND tribunal appeal rates in less deprived localities which 'may include local factors such as the availability of legal advice, well organised parental support groups and how positively the LA engages with the parents and makes use of mediation' (Marsh, 2022).

What is worrying about this is that it once more indicates under-appeals and consequential unmet need in more deprived areas, rather than any reverse of this. This is because appealing for necessary provision for their child's SEND is a system fraught with 'confusion…bureaucratic nightmares, buck-passing and a lack of accountability,' with which parents and carers with capacity engage through necessity rather than active desire (Education Select Committee, 2019).

Perera (2019) describes how the 'high needs block' of funding provided to LAs to serve children with SEND is adjusted according factors including FSM and IDACI, and other proxy measures of health and disability. However, findings here, along with other evidence, suggest that, in its current incarnation, this does not provide an adequately weighted or resourced counterbalance to the prevalence of higher levels of SENDs in more deprived areas – and that this results in 'rationing' of support. The fact that 'half of the high needs block is allocated according to historic spending patterns' (Perera, 2019; see also Lamb, 2019, for detail and proposals regarding funding for children with SEND) may only compound and continue a cycle of under-resourcing in areas where there is more poverty – as well as failing to adequately fund areas that become more deprived.

Revision of the funding formula and its implementation in order to better serve areas of high need is therefore one lever which may improve the inequalities in provision according to area deprivation indicated in this paper:

> The factors and weightings in the formula should be amended to develop a more forward-looking approach that is less reliant on historical factors, and takes greater account of projected trends and requirements for financial flexibility (House of Commons Education Committee 2019b, para. 115).

Importantly, however, this revision should be premised on adding more resources into the system, given 'huge high needs deficits' (Education Select Committee, 2023) – rather than simply reweighting away from more affluent areas.

This could begin to improve the current situation where, 'it is clear that many children's needs are not being met:' essential because 'access to the right support is crucial to the happiness and life chances of…pupils with SEND in England' (National Audit Office, 2019). Better, more sufficient resourcing could contribute to meeting the Department for Education's (2023) stated – and as yet, unmet – aims for system reform, including that, when needed, 'Children and young people can access additional support through a fair and consistent process.'

References

BATOD (2021). Moving towards using positive language around Deafness / Hard of Hearing. https://www.batod.org.uk/wp-content/uploads/2021/11/DToD-BATOD-Publication-Moving-towards-using-positive-language-around-Deafness-Hard-of-Hearing-Nov-2021.pdf

Campbell, T. (2021). Special Educational Needs and Disabilities within the English primary school system: What can disproportionalities by season of birth contribute to understanding processes behind attributions and (lack of) provisions? London: Centre for Analysis of Social Exclusion. https://sticerd.lse.ac.uk/case/_new/publications/abstract/?index=8089

Castro-Kemp, S., Palikara, O. & Grande, C. (2019) Status Quo and Inequalities of the Statutory Provision for Young Children in England, 40 Years on From Warnock. Frontiers in Education, Sec.

Special Educational Needs(4). https://doi.org/10.3389/feduc.2019.00076

Cullen, M.A., Lindsay, G., Hastings, R., Denne, L. Beqiraq, L., Elahi, F., Gemegah, E., Hayden, N., Kander, I., Lykomitrou F., Zander, J. (2020). Special Educational Needs in Mainstream Schools: Evidence Review. London: Education Endowment Foundation. https://educationendowmentfoundation.org.uk/public/files/Publications/Send/EEF_SEND_Evidence_Review.pdf

Department for Education (2023). Special Educational Needs and Disabilities (SEND) and Alternative Provision (AP) Improvement Plan Right Support, Right Place, Right Time. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1139561/SEND_and_alternative_provision_improvement_plan.pdf

Department for Education (2022). Special educational needs and disability: an analysis and summary of data sources. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1082518/Special_educational_needs_publication_June_2022.pdf

Disabled Children's Partnership (2018). SECRET LIFE OF US CAMPAIGN: The case for a Disabled Children's Fund. https://disabledchildrenspartnership.org.uk/wp-content/uploads/2018/07/Case-for-a-Disabled-Childrens-Fund.pdf

Education Select Committee (2019). Special educational needs and disabilities: First Report of Session 2019. https://publications.parliament.uk/pa/cm201919/cmselect/cmeduc/20/20.pdf

Education Select Committee (2023). 28 March 2023 - Special Educational Needs and Disabilities (SEND) - Oral evidence. https://committees.parliament.uk/event/17875/formal-meeting-oral-evidence-session/

House of Commons Education Committee (2019b). A ten-year plan for school and college funding. https://publications.parliament.uk/pa/cm201719/cmselect/cmeduc/969/96909.htm

Hutchinson, J. (2021). Identifying pupils with special educational needs and disabilities. London: Education Policy Institute. https://epi.org.uk/publications-and-research/identifying-send/

HM Government (2023). Special Educational Needs and Disabilities (SEND) and Alternative Provision (AP) Improvement Plan. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1139562/SEND_and_alternative_provision_improvement_plan_print_ready.pdf

Kelsair, F. & McNally, S (2009). Special Educational Needs in England: Final Report for the National Equality Panel. London: London School of Economics. https://www.researchgate.net/publication/242211473_Special_Educ

ational Needs in England Final Report for the National Equality Panel

Knies, G. & Kumari, M. (2022) Multimorbidity is associated with the income, education, employment and health domains of area-level deprivation in adult residents in the UK. Scientific Reports: https://doi.org/10.1038/s41598-022-11310-9

Lamb, B. (2019). Statutory Assessment for Special Educational Needs and the Warnock Report; the First 40 Years. Frontiers in Education, Sec. Special Educational Needs(4). https://doi.org/10.3389/feduc.2019.00051

Long, R. and Danechi, S. (2022). Special Educational Needs: Support in England. London: House of Commons Library. https://researchbriefings.files.parliament.uk/documents/SN07020/SN07020.pdf

Marsh, A. J. (2022). Special educational needs and disability tribunals in England 1994-2019. Research Paper in Education, 37(6). https://doi.org/10.1080/02671522.2020.1864770

McLennan, D., Nobel, S., Noble, M, Plunkett, E, Wright, G & Gutacker, N. (2019) 'The English Indices of Deprivation 2019: Technical report.' Ministry of Housing, Communities and Local Government. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833951/IoD2019_Technical_Report.pdf

National Audit Office (2019). Support for pupils with special educational needs and disabilities in England. https://www.nao.org.uk/wp-content/uploads/2019/09/Support-for-pupils-with-special-education-needs.pdf

National Autistic Society (online, nd). How to talk and write about autism. https://www.autism.org.uk/what-we-do/help-and-support/how-to-talk-about-autism

Office for National Statistics (2023). Disability by age, sex and deprivation, England and Wales: Census 2021. https://www.ons.gov.uk/releases/disabilitybyagesexanddeprivationenglandandwalescensus2021

Parsons, S. & Platt, L. (2013) Disability among young children: Prevalence, heterogeneity and socio-economic disadvantage. London: Centre for Longitudinal Studies. https://cls.ucl.ac.uk/wp-content/uploads/2017/04/CLS-WP-2013-11-Disability-among-young-children-S-Parsons-L-Platt.pdf

Perera, N. (2019) High Needs Funding: An overview of the key issues. London: Education Policy Institute. https://epi.org.uk/wp-content/uploads/2019/04/EPI_High-Needs-Funding_2019.pdf

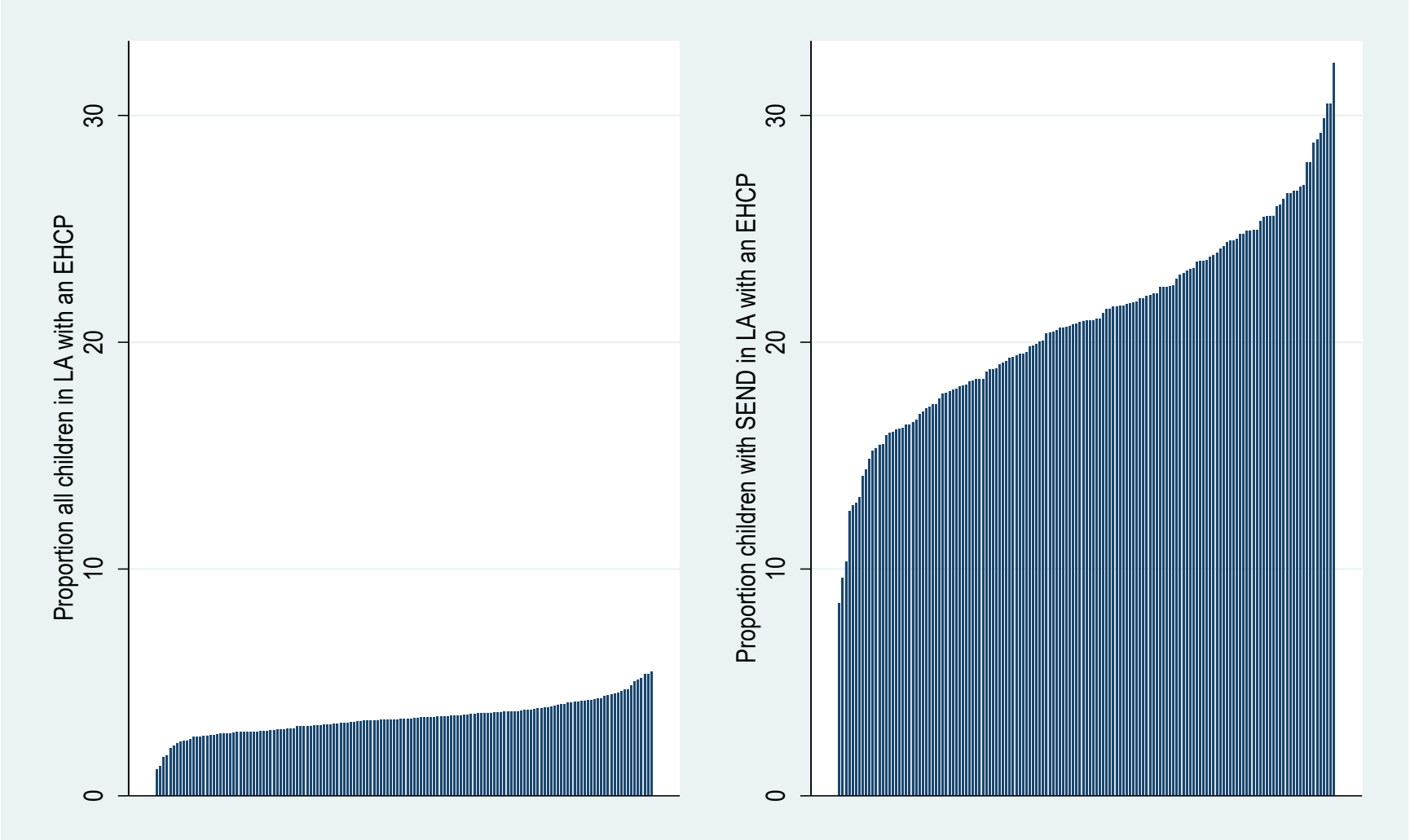
Shaw, B., Bernardes, E., Trethewey, A. & Menzies, L. Special educational needs and their links to poverty. Joseph Rowntree Foundation:

https://www.jrf.org.uk/file/48923/download?token=3DkPP-d0&filetype=full-report

Strand, S. & Lindorf, A. (2018). Ethnic disproportionality in the identification of Special Educational Needs (SEN) in England: Extent, causes and consequences. University of Oxford. https://www.education.ox.ac.uk/research/the-unequal-representation-of-ethnic-minorities-in-special-education-in-england-extent-causes-and-consequences/

Vizard, P., Obolenskaya, P. & Treebhoohun, K. (2023). Going backwards The slowdown, stalling and reversal of progress in reducing child poverty in Britain during the second decade of the 21st century, and the groups of children that were affected. LSE: Centre for Analysis of Social Exclusion. https://sticerd.lse.ac.uk/CASE/_NEW/PUBLICATIONS/abstract/?index=9937

Annex: Proportion primary-aged children in each LA with an EHCP, at January 2021: all children (left) and children with any SEND (right)



N LAs in each panel=149. Source: National Pupil Database. Each bar is an LA.