



Understanding
Society

Research Springboard

BRIEFING NOTE

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**CHILDREN IN OVERCROWDED
HOUSEHOLDS IN THE UK**

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Introduction

The Research Springboard

The Future of Children Research Springboard¹ was designed to harness collective knowledge and skills from across sectors, cross-fertilise ideas, facilitate social learning, and co-produce child development related research using Understanding Society data. The research springboard consisted of three full-day workshops, spread over three months. The Future of Children research springboard introduced three topic areas of policy relevance that could be examined using Understanding Society data including (1) Child development (2) Child poverty and family resources (3) Childcare & early years provision.

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

It is important to acknowledge that research springboards are not a finalised method or singular event but a means to an end; the process is designed to move things forward faster, but not necessarily fully resolve all the issues that emerge in research and problem solving. The analytical outputs are intended to be open-ended, with a focus on future collaboration or impact.

This briefing note was produced by the team looking at housing quality and child outcomes. It represents the views of the authors, not Understanding Society. Any questions about the analysis or findings should be directed to the corresponding author.

¹ Robin Vanner and Raj Patel (2024) The 2024 Future of Children Challenge: research springboard exploring the topics of children's development, child poverty and childcare, Understanding Society Working Paper 2024-10, Colchester: University of Essex <https://www.understandingsociety.ac.uk/wp-content/uploads/working-papers/2024-10.pdf>

Children in overcrowded households in the UK

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Children are known to experience poorer quality housing than adults, including in terms of overcrowding, and this has been linked to poorer child mental health.

In this paper we exploit the best available child measure available in Understanding Society of poor quality housing to explore trends in UK overcrowding, how this varies by tenure, ethnicity and household size, and its associations with child well-being, and child health as reported by parents.

We find a relatively flat trend in children living in overcrowded households over waves 1 to 13 (2009 to 2022) with rates much higher in London and closely associated with household income and tenure.

Overcrowding was statistically significantly associated with poor child mental well-being after controlling for household structure, ethnicity, tenure, equivalised household income, and the age and sex of children.



Background on overcrowding

Overcrowding is a widespread housing problem disproportionately experienced by children. Children are the age group most likely to be overcrowded, with 1 in 6 living in overcrowded conditions or 1.9m in England in 2020/21, based on the English Housing Survey. One source of existing evidence on trends in overcrowding is the census of England and Wales. Analysis by the Office for National Statistics found 724,000 households with dependent children were overcrowded in 2011, and 800,800 in 2021.

Commonly, overcrowded households with children have adults sharing a bedroom with a child, a child sharing a bed with another household member, or regularly sleeping in rooms that are not bedrooms due to lack of space. Living in overcrowded conditions means not having enough space for a family's needs, and so can affect well-being directly or indirectly, for example through making it more difficult to relax or sleep, do homework, or get on with family members. Problems reported by many parents living in overcrowded households include lack of privacy, lack of space for children to play, a feeling of being trapped, and not enough storage space. The reason for overcrowding tends to differ based on tenure, with insufficient supply of housing of the right size being the reason in the social rented sector, and the unaffordability of housing of the right size being the reason in the private rented sector.

Previous research

Households with children are more likely than others to live in a cold home or have damp in their home. Children are at a greater risk of ill health associated with cold or damp homes.² Understanding Society data has been used to show a link between overcrowding housing and lower satisfaction with health and mental health in individuals aged 16 and over.³ One analysis of Understanding Society found that individuals aged 16 and over were 1.9% less likely to experience psychological distress in non-overcrowded households, as measured using the General Health Questionnaire-12, compared to overcrowded households.⁴ This finding for 2021 had narrowed since 2018, driven by an increase in people experiencing psychological distress in non-overcrowded households, perhaps due to the covid-19 pandemic.



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- ² House of Commons Library, 2023. Health inequalities: Cold or damp homes. Available from: <https://commonslibrary.parliament.uk/research-briefings/cbp-9696/>
- ³ Cable, N. and Sacker, A. 2019. Validating overcrowding measures using the UK Household Longitudinal Study. SSM - Population Health, v8. Available from: <https://www.sciencedirect.com/science/article/pii/S2352827318303628>
- ⁴ Health Foundation, 2023. Relationship between overcrowding and mental health. Available from: <https://www.health.org.uk/evidence-hub/housing/housing-stability-and-security/relationship-between-living-in-overcrowded>

Overcrowded families often face other problems with their housing,⁵ and there is also evidence that poor quality housing - when defined by temperature, presence of damp and mould, and mother's perception of housing - is linked to poorer child mental health.⁶ Children aged 0 to 15 living in overcrowded households in England and Wales at the 2011 census were more likely than children living in under-occupied households to report, or be reported, as having 'not good' health.⁷ One literature review on the subject found evidence of the relationship between overcrowding and child mental and physical health, though with limited control in some studies of confounding variables such as deprivation and mental health.⁸

Our analysis builds on the previous research by focusing specifically on overcrowding and measures of child mental wellbeing. Previous research has also called for more consideration of the impact of housing on children's subjective wellbeing.⁹ This analysis is novel in covering the whole of the UK, examining trends over time, and exploring different measures of overcrowding.

⁵ ActEarly, 2021. Overcrowding affects children's wellbeing: Finding solutions in Tower Hamlets. Available at: <https://actearly.org.uk/wp-content/uploads/2021/05/final-do-not-edit-Overcrowding-brief-24March-3.pdf>

⁶ Nasim, B. 2022. Does poor quality housing impact on child health? Evidence from the social housing sector in Avon, UK. *Journal of Environmental Psychology*, c82. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0272494422000561>

⁷ Office for National Statistics, 2015. 2011 Census analysis: General Health in Overcrowded and Under-occupied Households in England and Wales. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/articles/generalhealthinovercrowdedandunderoccupiedhouseholdsinenglandandwales/2015-02-19>

⁸ Office of the Deputy Prime Minister, 2004. The Impact of Overcrowding on Health and Education: A review of the Evidence and Literature. Available from: <https://dera.ioe.ac.uk/id/eprint/5073/1/138631.pdf>

⁹ Clair, A. 2019. Housing: an Under-Explored Influence on Children's Well-Being and Becoming. *Child Ind Res*, 12:609-626.

Policy context

Little policy attention has been dedicated to overcrowding per se, as opposed to wider housing-related aims (Annex A). In 2020 the Women and Equalities Select Committee called on the Government to produce a strategy to reduce overcrowding due to its health impacts, which the Government did not accept, referring instead to work already underway to support those in overcrowded conditions.¹⁰ The government cited: local authorities' duties and enforcement powers; its introduction of the Homes Fitness for Human Habitation Act 2018, which covers 'crowding and space' among the problems for which tenants in England can take landlords to court; and the ability of local authorities in England since 2021 to give priority for social housing to people with an urgent housing need whose households are severely overcrowded and this poses a serious health hazard,¹¹ and introducing a national home swap scheme (HomeSwap Direct).

One controversial policy did aim in part to promote the reallocation of the social housing stock to better match households' size and needs. This was the 'removal of the spare room subsidy' change within the benefits system, often referred to as the 'bedroom tax', which took effect in April 2013 in Great Britain, reducing the benefit incomes of households deemed to have one or more spare bedrooms.¹² The policy was not aimed at overcrowded households directly, but intended to make social housing more available to those who needed it. An evaluative study based on Understanding Society data found no increase in residential moves among affected households (with households containing children not disaggregated in the analysis from households without), but found downsizing among movers.¹³

¹⁰ House of Commons Library, 2023. Overcrowded housing (England). Available at: <https://commonslibrary.parliament.uk/research-briefings/sn01013/>

¹¹ Shelter, 2024. Local authority duties on preference in housing allocation. https://england.shelter.org.uk/professional_resources/legal/housing_options/allocation_of_social_housing/local_authority_duties_on_preference_in_housing_allocation#title-2 and Ministry of Housing, Communities and Local Government, 2024. Allocation of accommodation: guidance for local authorities. Available at: <https://www.gov.uk/guidance/allocation-of-accommodation-guidance-for-local-authorities>

¹² Gibbons, S., Sanchez-Vidal, M., and Silva, O. 2020. The bedroom tax. *Regional Science and Urban Economics*. v82. Available at: <https://www.sciencedirect.com/science/article/pii/S0166046218301157>

¹³ Gibbons, S., Sanchez-Vidal, M., and Silva, O. 2020. The bedroom tax. *Regional Science and Urban Economics*. v82. Available at: <https://www.sciencedirect.com/science/article/pii/S0166046218301157>

Definitions of overcrowding and poverty

Overcrowding can be defined in a number of ways. Overcrowded conditions typically include situations where different-sex children aged 10 or over share a bedroom, parents sharing a bedroom with a child, more than two children in a bedroom, and using rooms such as kitchens and living rooms as bedrooms.¹⁴ Five specific measures of overcrowding were reviewed:

1. Household size divided by number of bedrooms
2. UK Government Room (Statutory) Standard (considering bedrooms only)
3. UK Government Room (Statutory) Standard (considering all rooms in the household)
4. Eurostat definition which sets out a minimum number of rooms for the people living in the household.
5. UK Government Bedroom Standard (as set out in Housing (Overcrowding) Bill).

The main measure **adopted for most of this analysis** is the last of these, the UK government's 'bedroom standard' measure (i.e. measure 5 above), which is also used by the Office for National Statistics in census analysis.¹⁵

¹⁴ Shelter, 2006. Chance of a lifetime: The impact of bad housing on children's lives. Available at: https://england.shelter.org.uk/professional_resources/policy_and_research/policy_library/chance_of_a_lifetime_-_the_impact_of_bad_housing_on_childrens_lives

¹⁵ National Housing Federation, 2023. Briefing: Overcrowding in England. Available from: <https://www.housing.org.uk/globalassets/files/resource-files/overcrowding-in-england-april-2023.pdf>

Under this measure, a standard number of bedrooms is allocated to each household in accordance with its age/sex/marital status composition and the relationship of the members to one another. Bedrooms are allocated as follows:

- one bedroom for a couple (no age base).
- one bedroom for a single person aged 16 or more.
- one bedroom for paired adolescents (10 to 15) of the same sex.
- one bedroom for paired children under 10.
- one bedroom for unpaired adolescents and unpaired child of the same sex.
- one bedroom for any remaining unpaired adolescent or child.

Also under this legislation (i.e. The Housing (Overcrowding) Bill), landlords in England who allow tenancies to become overcrowded break the law¹⁶ and if someone lives in overcrowded housing they can get priority on the council housing register or ask for a transfer if they already live in a housing association or council home.

¹⁶ Shelter, 2024. Check if your home is overcrowded by law. Available at: https://england.shelter.org.uk/housing_advice/repairs/check_if_your_home_is_overcrowded_by_law



Under the Eurostat definition (i.e. measure 4 above), a person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same gender between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

There is a known association between poverty and overcrowding. UK poverty statistics published by the Department for Work and Pensions include both Before Housing Costs and After Housing Costs measures.¹⁷ Given high housing costs, after housing costs poverty measures are generally higher than before housing costs measures, which may suggest families on low incomes paying to avoid poor quality housing. Some of the material deprivation measures as used by the Department for Work & Pensions are housing-related. These include lacking 'enough bedrooms for every child of 10 or over of a different sex to have their own bedroom' because it cannot be afforded (as opposed to 'have this'/'not needed or wanted'/'not applicable').¹⁸

¹⁷ Department for Work & Pensions, 2024. Households Below Average Income: an analysis of the UK income distribution: FYE 1995 to FYE 2023. Available at <https://www.gov.uk/government/statistics/households-below-average-income-for-financial-years-ending-1995-to-2023/households-below-average-income-an-analysis-of-the-uk-income-distribution-fye-1995-to-fye-2023>

¹⁸ Department for Work & Pensions, 2024. Households below average income series: quality and methodology information report FYE 2023. Available at: <https://www.gov.uk/government/statistics/households-below-average-income-for-financial-years-ending-1995-to-2023/households-below-average-income-series-quality-and-methodology-information-report-fye-2023#combined-low-income-and-child-material-deprivation>

What is known about overcrowded households

The incidence of overcrowding varies by ethnicity. Among all households in 2018–2021, analysis by the government of the English Housing Survey finds 3.1% were overcrowded, but this was 14% or higher for households where the household reference person (usually an adult) was Arab, Bangladeshi, black African and Pakistani.¹⁹ The government’s analysis includes an age breakdown of this ethnic disparity, with overcrowding peaking at age 35 to 44 among all households, but does not break down the data by the age of any children in the household.

Some housing tenures are more affected by overcrowding than others. Of all households in England containing dependent children in 2022–23 (6.3m), 50% were bought with a mortgage, 20% were social renters (8% local authority, 12% housing association), 22% were private renters, and the remaining 8% owned outright.²⁰ A disproportionate percentage of overcrowded families in England were social renters in 2020–21: 48%, compared to 20% of owner occupiers, and 33% of private renters.²¹

¹⁹ Department for Levelling Up, Housing and Communities, Overcrowded households. 2023. Available at: <https://www.ethnicity-facts-figures.service.gov.uk/housing/housing-conditions/overcrowded-households/latest/>

²⁰ Department for Levelling Up, Housing and Communities, 2023. English Housing Survey 2022 to 2023: headline report. Available at: <https://www.gov.uk/government/collections/english-housing-survey-2022-to-2023-headline-report>

²¹ National Housing Federation, 2023. Briefing: Overcrowding in England. Available from: <https://www.housing.org.uk/globalassets/files/resource-files/overcrowding-in-england-april-2023.pdf>

Data and method

Research questions:

1. How many and which children live in poor quality housing, defined as overcrowded accommodation?
 - How many are overcrowded, using different definitions?
 - Where in the UK do they live?
 - In what housing tenure do they live?
 - How many children and adults do they live with?
 - What ethnic groups are they members of?
2. Trends: how has the number of children who live in overcrowded housing changed over time?
3. Outcomes: How is overcrowding for children associated with health and wellbeing? Measured using:
 - Overall well-being (self-reported for children aged 10+, reported by parent/carer for children aged under 10)
 - Strengths and Difficulties Questionnaire scores (self-report by 10 to 15 year olds, cause for concern scores versus borderline/normal scores)
 - Parent worries about child's health as reported by parent at age 3, 5 and 8
 - Diagnosed health conditions that are expected to last for more than three months,
 - Child health conditions as reported by parents on a scale from excellent to poor

Data

This analysis is based on waves 1 to 13 (2009 to 2022) of Understanding Society, the UK Household Longitudinal Study. In cross-sectional analysis the weight used was `w_hhdenus_xw` in Wave 1, `w_hhdenub_xw` in Waves 2-6 and `w_hhdenui_xw` in Waves 7-13.

The Strengths and Difficulties Questionnaire covers emotional symptoms, conduct problems, hyperactivity/ inattention, peer relationship problems and prosocial behaviour. There is some evidence that observed changes in SDQ scores over time can be attributed to “true” changes in child behaviours and emotions.²² A score of 0 to 13 is considered to indicate “normal” behavioural and emotional health, a score of 14 to 16 is considered borderline cause for concern and a score of 17 to 40 is considered a cause for concern.²³

Limitations

Limitations in the variables available in Understanding Society mean this analysis excludes aspects of housing quality and suitability such as damp (households containing children under 16 were asked if they had a damp-free home in the BHPS, but not UKHLS), and the Decent Homes Standards, namely state of repair, modern facilities, hazards, and thermal comfort. Affordability is also excluded from this analysis, though could be explored in future research using available variables including income. Due to the data source, this analysis focuses on children in households, and so does not explore overcrowding in other accommodation such as hostels, hotels and traveller sites.

²² What Works for Children’s Social Care, 2022. Evaluation of Creative Life Story Work. Available at: https://whatworks-csc.org.uk/wp-content/uploads/CLSW-RCT-Final-Report-19-Dec_acc.pdf

²³ Department for Education [DfE]. (2022) Children looked after in England including adoption: 2020 to 2021. <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2020-to-2021>

Method

The data were analysed using Stata to produce descriptive statistics and regression analysis. Household incomes have been adjusted for inflation using the Consumer Prices Index, and household incomes have been equivalised using the OECD equivalisation scale. Households are defined as containing children if in the household there is at least one individual aged under 18. Ethnic group definitions follow the Census 2011 categories.²⁴

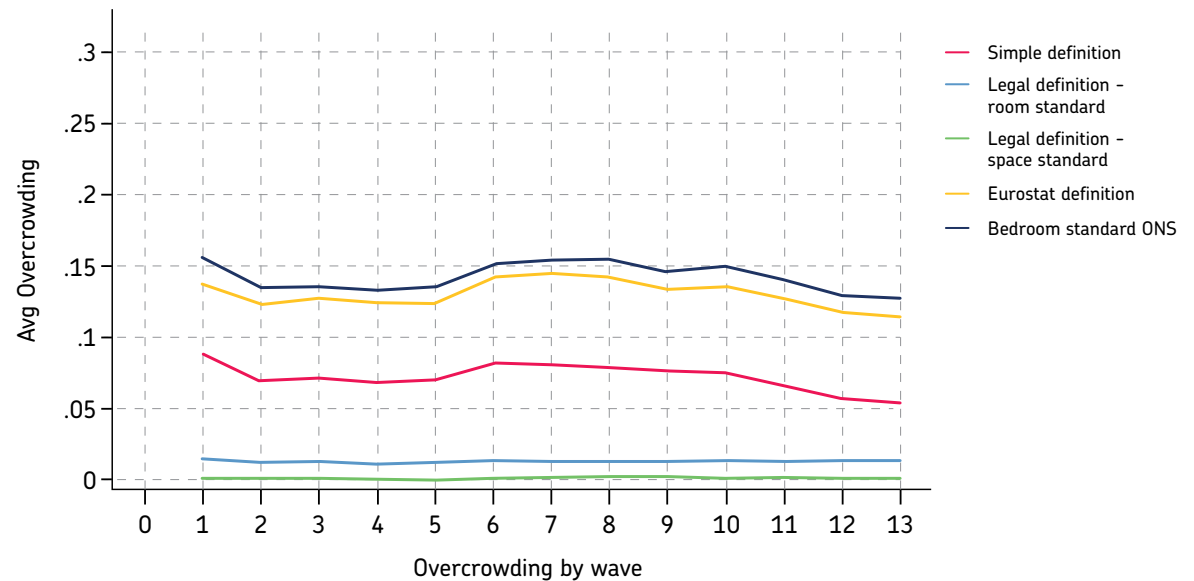
²⁴ Understanding Society, 2023. UK Household Longitudinal Study: User Guide to ethnicity and immigration research. Available at: <https://www.understandingsociety.ac.uk/wp-content/uploads/documentation/user-guides/6614-user-guide-ethnicity-immigration-research.pdf>

Findings

By measure of overcrowding

The trend in overcrowding among households containing children varies depending on the definition adopted. Using the main measure used in this analysis – the UK government’s bedroom standard, this analysis finds a persistently high rate of overcrowding over time, on a relatively flat, slightly downward trend, from 15.6% of children in wave 1 to 12.7% in wave 13 (Figure 1). The alternative Eurostat measure is slightly lower and mirrors this trend. The other three measures are lower throughout, and also show a relatively flat trend.

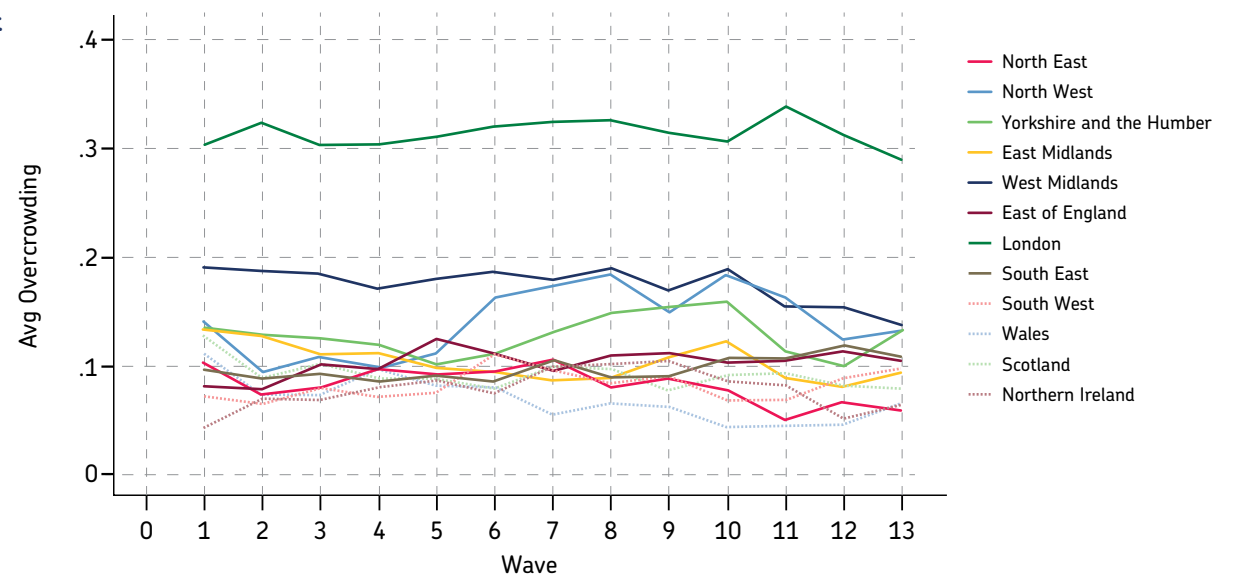
Figure 1: Percent of households containing children that were overcrowded by measure of overcrowding and wave (2009 to 2022)



Overcrowding by region or nation

This analysis finds a notable, persistent concentration of overcrowding in London, which is an outlier region with overcrowding much higher than all other regions and nations, with around 29% of children in London living in overcrowded households in the latest wave (Figure 2). Therefore, children in London in the latest wave analysed were more likely to be living in an overcrowded household than other children. Despite high housing costs in the South East of England, it is notable that the region or nation with the second highest overcrowding rate in most waves was the West Midlands, with the North West also high. This suggests the need for specific policy focus on housing in these regions.

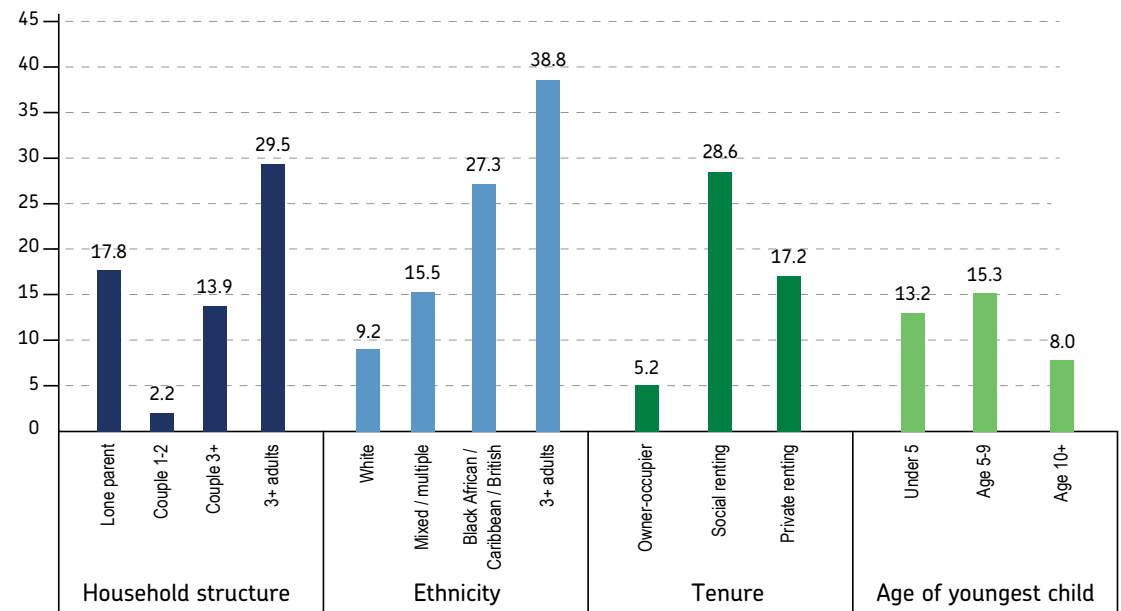
Figure 2: Percent of households containing dependent children that were overcrowded by region or nation and wave (2009 to 2022)



Overcrowding by type of household

The risk of overcrowding is notably high at nearly 30% for children living in households containing three or more adults (Figure 3). These may be households containing grown-up children, multi-generational households containing grandparents or other older relatives, a combination, or other circumstances. The elevated risk of overcrowding for children in lone parent families, relative to other family types, is also notable. There are also very significant differences in risk by ethnicity, with nearly four in ten Black children overcrowded, compared to only one in ten White children. Overcrowding is much more prevalent in social housing than private rented accommodation or home ownership.

Figure 3: Percentage of children under 18 living in overcrowded households, wave 13 (2022)



Note: Cross-sectional individual weights applied (w_hdenui_xw).

Regression analysis

Table 1 provides regression coefficients for overcrowding among children under 18, relative to a reference household – *A couple with 1-2 children*. This shows that each of these characteristics remains highly significant in explaining overcrowding, even when controlling for all the others in a regression. The greater risks attached to living in a household with more than three adults, and to children with Black or Asian ethnicity, stand out as particularly strong.

Table 1: Regression coefficients for overcrowding among children under 18 (waves 1-13)

| | Coefficient | Standard error |
|-------------------------------------|-------------|----------------|
| Reference: Couple with 1-2 children | | |
| Lone parent | 0.024** | 0.004 |
| Couple with 3+ children | 0.112** | 0.004 |
| 3+ adults | 0.274** | 0.006 |
| 2 adults not a couple | 0.204** | 0.010 |
| | | |
| Reference: White | | |
| Mixed/multiple | 0.062** | 0.006 |
| Asian/Asian British | 0.167** | 0.006 |
| Black African / Caribbean / British | 0.203** | 0.009 |
| Other ethnic group | 0.150** | 0.019 |
| | | |
| Reference: Owner occupier | | |
| Social renting | 0.169** | 0.005 |
| Private renting | 0.071** | 0.004 |
| | | |
| Reference: Child age 0-4 | | |
| Age 5-9 | -0.050** | 0.003 |
| Age 10+ | -0.089** | 0.003 |
| Number of households | 153,672 | |

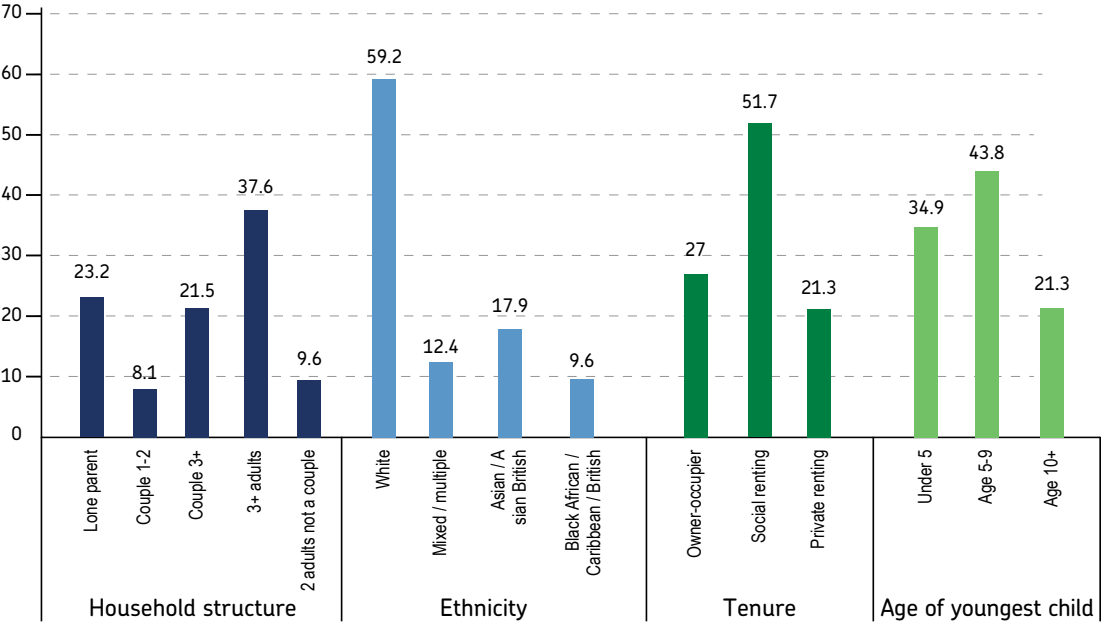
Note: N=153,672. R squared 0.217.

Regressions also control for equivalised household income and for wave. Standard errors are clustered at individual level. **p<0.01.

Breakdown of children who were overcrowded by different characteristics

Figure 4 presents the data in a different way, showing the composition of children who live in overcrowded households by their characteristics, it is therefore a snapshot of overcrowding. Therefore, despite their lower risk of overcrowding, the majority of children in overcrowded households are White, because of their greater share in the population overall. Half of overcrowding is in social housing, but we see that over one-quarter of overcrowding is in owner-occupied accommodation. Overcrowding is most common for children aged 5 to 9, which is likely to reflect their greater likelihood of having more siblings at home.

Figure 4: Percentage breakdown of children under 18 living in overcrowded households, wave 13 (2022)



Note: Individual enumerated person weights applied (w_psnenui_xw).

Overcrowding by household size

Table 2 shows the composition of overcrowded and non-overcrowded households by household size. Most overcrowded households have between 4 and 6 members, but nearly one in five have two or three members, pointing to families sharing one-bedroom accommodation. A further one in five have seven household members or more.

Table 2: Overcrowded households containing dependent children by household size, wave 13 (2022)

| Household size | Overcrowded | Not overcrowded |
|----------------|--------------|-----------------|
| 1 | | |
| 2 | 2.30% | 4.20% |
| 3 | 16.60% | 24.00% |
| 4 | 22.00% | 46.20% |
| 5 | 21.70% | 18.10% |
| 6 | 18.20% | 6.10% |
| 7 | 7.60% | 1.00% |
| 8 | 7.10% | 0.50% |
| 9 | 2.60% | 0% |
| 10 | 1.20% | |
| 11 | 0.30% | |
| 12 | | 0.005 |
| 13 | 0.50% | 0.004 |
| Total | 100% | 100% |
| N | 2,080 | 13,601 |

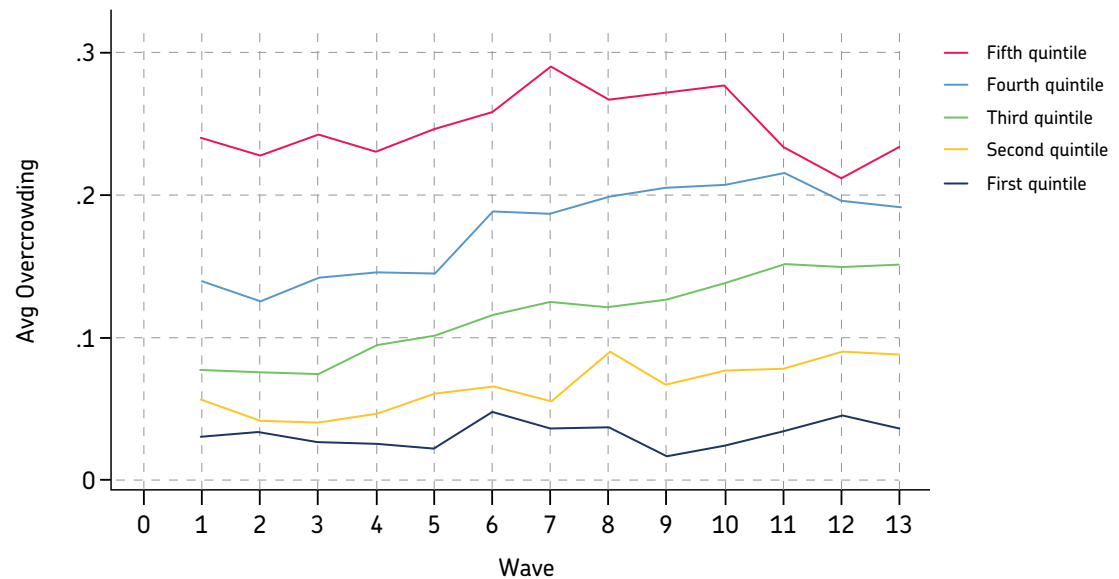
Note: Cross-sectional household weights applied (w_hhdenui_xw).

Trends in overcrowding by income quintile

Figure 5 shows trends over time in the likelihood of overcrowding by income for households containing dependent children. Income is equivalised for household size using the modified OECD equivalence scale. Figure 5 shows that the risk of overcrowding rises as equivalised household income falls, with the highest risk in the fifth (lowest) quintile. But it also shows a shift over time, with overcrowding becoming steadily more prevalent in the third and fourth quintile in particular.

Figure 5: Percent of households containing dependent children that were overcrowded by household income quintile by wave (2009 to 2022)

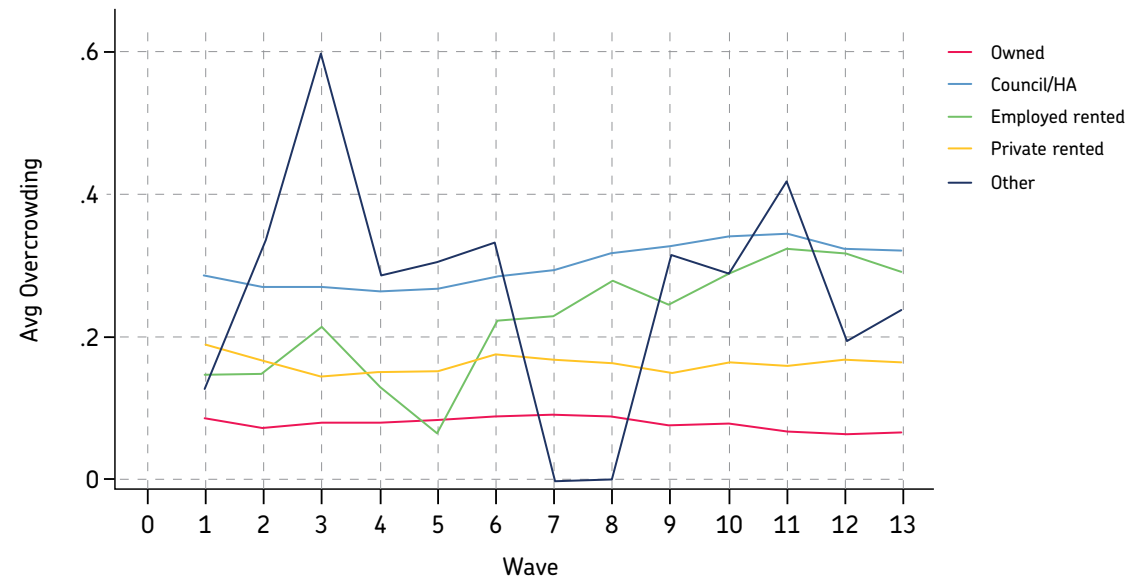
Note: Income equivalised for household size using the modified OECD scale.



Trends in overcrowding by housing tenure

Figure 6 shows more steady trends over time in the likelihood of overcrowding by tenure for households containing dependent children. Trends have been steady, with the exception of two much smaller categories, but we do see a slow rise in the risk of overcrowding in the social rented sector.

Figure 6: Percent of households containing dependent children that were overcrowded by tenure by wave (2009 to 2022)



Overcrowding and child outcomes

There was a statistically significant ($p < 0.01$) association between overcrowding and nearly all of the child outcomes examined, as shown in Table 3. Children living in overcrowded homes were significantly more likely to have health conditions or special educational needs or disabilities, and they scored significantly worse on nearly all sub-scales of the Strengths and Difficulties Questionnaire as well as on the total score. When we control for a series of covariates including income, tenure, household size and structure and ethnicity, these relationships largely disappear, or (like the SDQ total score and pro-social sub-scale) become barely significant. However, significant relationships between overcrowding and peer relationships, and between overcrowding and SEND, remain even when multiple confounding factors are controlled for.

Table 3: **Association between overcrowding and child outcomes, waves 1-13**

Note Table shows raw and adjusted regression coefficients.
 Adjusted coefficients are from models controlling for household structure, ethnicity, tenure, equivalised income, child age, number of children in the household, child sex and wave.
 Health measures are captured at ages 3, 5 and 8 and SDQ scores at age 10 to 15.
 Long-standing health conditions and SEND (Special Educational Needs and/or Disabilities) are binary variables.
 Child health is measured on a five-point scale from excellent (1) to poor (5).
 'Parent worried about child health' is a four-point scale where high is scaled here to be more worried.
 SDQ scales are measured 1-10 (1-40 for total difficulties) where higher numbers indicate more problems,
 In the 'prosocial' scale high numbers are positive. + p-values < 0.10, * p-values < 0.05; ** p-values < 0.01. Standard errors are clustered at household level. No weights were applied in these regressions.

| | Unadjusted coefficient | Standard error | Coefficient with controls | Standard error | N |
|-----------------------------------|------------------------|----------------|---------------------------|----------------|--------|
| Long-standing health conditions | 0.011 | 0.009 | 0.012 | 0.010 | 18,248 |
| Child health conditions | 0.158** | 0.021 | 0.003 | 0.025 | 18,265 |
| Parent worried about child health | 0.139** | 0.035 | 0.032 | 0.040 | 5,706 |
| SDQ total difficulties | 1.066** | 0.191 | 0.378+ | 0.215 | 12,175 |
| SDQ emotional symptoms | 0.238** | 0.063 | 0.091 | 0.073 | 12,283 |
| SDQ conduct problems | 0.179** | 0.052 | 0.007 | 0.059 | 12,317 |
| SDQ hyperactivity | 0.125 | 0.079 | 0.059 | 0.088 | 12,273 |
| SDQ peer relationship problems | 0.528** | 0.055 | 0.201** | 0.063 | 12,300 |
| SDQ prosocial | -0.345** | 0.059 | -0.110+ | 0.066 | 12,328 |
| SEND | -0.056** | 0.196 | 0.052* | 0.022 | 4,718 |
| Controls? | No | | Yes | | |

Discussion

This research gives rise to a number of implications for future policy and research, in particular, the need for policy action to address the persistently high rate of overcrowding and mitigate its effects on children and families. The differences in the rate of overcrowding as measured through different definitions is difficult to interpret and suggests a need for qualitative research to validate and explore the experience and significance of different types of overcrowding to children and families. It is unclear which measures of overcrowding matter most to children.

The findings should be shared with housing authorities and housing associations, given the higher prevalence and risk of overcrowding in the social rented sector, and with local policy makers such as the Greater London Authority, as well as the West Midlands Combined Authority, given the perhaps unexpected finding for this region in the regional breakdown. The findings suggest attention should be paid to the housing needs of lone parent families as a particularly at-risk group who may be less visible than larger families in decision making on overcrowding. The findings on tenure may imply that private renting families, relative to social renting families, are spending more of their income on housing to avoid overcrowding, with implications for poverty measured after housing costs. Financial decision making such as this is an area of interest for further study.

The findings on child outcomes suggest public services for children and families such as schools and primary care should seek to identify and

support children in overcrowded conditions, given their higher risk of physical health problems and social, emotional or behavioural problems. This is true even though most of the associations identified seem to be explained by other correlated factors, rather than by overcrowding itself.

Damp has previously only been asked as a question within Understanding Society to pensioners but will be asked for all households in wave 14. Future research could usefully replicate some of the analysis in this note to extend it to the association between reported damp and overcrowding. Also, a possible useful derived variable for overcrowding for within Understanding Society could be based on the legal definition of overcrowding as set out in the legislation and used in this note.

A number of existing policy measures might have been expected to influence the rate. However, given the large number of socio-economic factors which may affect the number and characteristics of overcrowded households, it is difficult to evaluate the effectiveness of these policies against a counterfactual in terms of the level of overcrowding that would have occurred without these policies. More targeted future policy on overcrowding could make it easier to evaluate impact and disentangle the impact of policy levers from other trends or influences on families. It might be expected that overcrowding has an independent effect on child outcomes, but this remains to be determined.

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Appendix 1:

Timeline of policy background

- 1980** Right to buy introduced
- 1988** Housing associations became main providers of new social housing
- 1996** Buy to let schemes introduced by mortgage lenders
- 1996** Local reference rate introduced as cap on housing benefit awards
- 2000** Government target to ensure that all social housing meets set standards of decency by 2010, mainly through stock transfers to Housing Associations
- 2000** Mortgage interest relief abolished
- 2008** Local Housing Allowance (LHA) introduced for new claims at median of local rents
- 2011** LHA reduced to 30th percentile of local rents and caps introduced
- 2012** Universal credit introduced replacing housing benefits for working age adults
- 2013** Benefit cap and removal of the spare room subsidy (bedroom tax) introduced. Discretionary housing payments introduced to support transition
- 2016** LHA rates frozen, waiting period for Support for mortgage interest increased to 9 months and benefit cap reduced
- 2017** Two child limit introduced for children born after April 2017
- 2018** Support for mortgage interest becomes an interest bearing loan
- 2020** LHA rates raised to the 30th percentile and then frozen
- 2020** Temporary uplift of £20 to Universal Credit – ended in October 2021
- 2022** One off cost of living payments announced to support families with the rapid increase of inflation. Payments continued through to 2024
- 2023** Benefit cap increased in line with September 2022 CPI, waiting period for Support for mortgage interest reduced to three months
- 2024** LHA rates raised to the 30th percentile

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