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Understanding the barriers and impacts of green choices on people with protected characteristic

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Executive summary

The UK wants to achieve a just net zero transition that results in a more affordable, clean and equitable energy system. The impacts of this transition, whether negative or positive, direct or indirect, will not be the same for everyone.

It is important to understand the potential distributional impacts of any action taken and who can make green choices in this transition. Existing research has assessed these impacts, but may have over-simplified them by categorising groups based only on economic metrics. Analysing impacts across different income levels can be useful, as the cost of the transition is likely to be disproportionally higher for people and households with lower incomes. However, previous analysis has assumed that the impacts, challenges and barriers are the same for all the people within the same income group, without taking any other characteristics into account.

This Energy Demand Research Centre (EDRC) project looked at the changes needed to buildings and transport in a net zero transition, focusing on the impacts on people who may be vulnerable and/ or have protected characteristics under the Public Sector Equality Duty (PSED)[1].

Key findings

1. **People with protected characteristics are more likely to live in flats and to rent.** This presents challenges to making green choices, such as installing heat pumps or electric vehicle charging points.
2. **People with protected characteristics, such as people from ethnic minorities, are more likely to use public transport and have less flexibility in their travel needs** though this is not uniform across all protected characteristics. However, they are more likely to be impacted by cost increases or changes to their transport.
3. **There is a link between protected characteristics and low incomes, presenting a greater risk of inequities in home heating and transport use**. People with disabilities and older people, for example, can have higher energy needs due to requiring medical equipment or increased heating
4. **Non-economic factors may disproportionately affect people with protected characteristics.** Non-economic, practical and/or administrative issues, driven by structural inequalities, may create barriers for people with disabilities or older people, for example, or for those living in flats or dwellings with no off-street parking and those who rent.
5. **Non-economic barriers need further recognition in net zero policy.** Net zero policies need to consider non-economic barriers and go beyond financial incentives. This means policies that are more flexible, agile, targeted and tailored to different people's needs.

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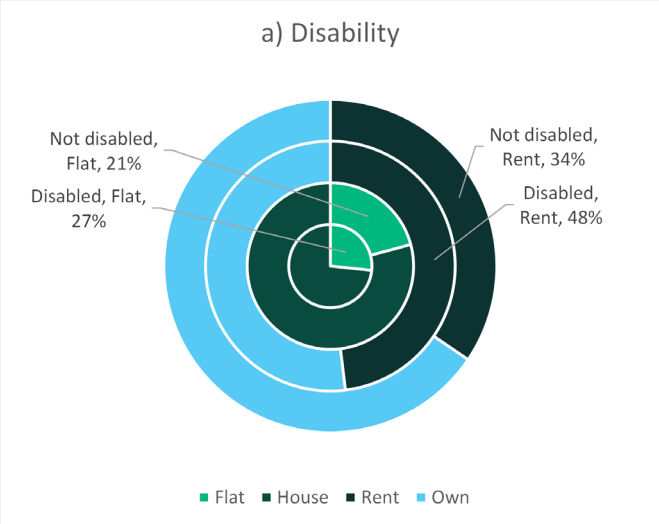
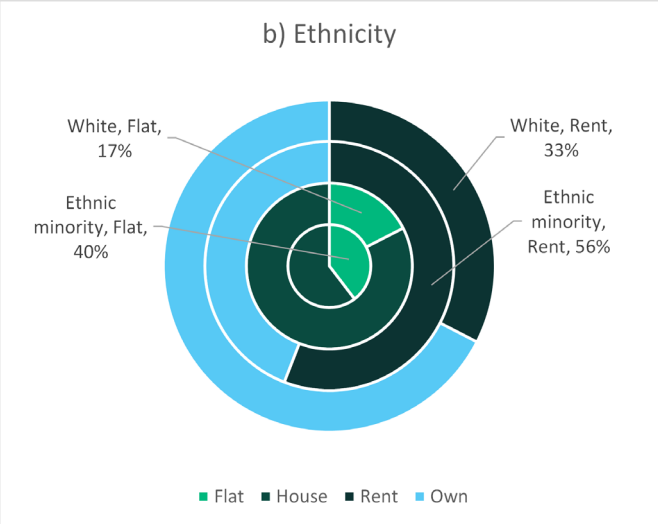
Figure 1: Distribution of people with a) disabilities and b) ethnic minorities living in flats/houses and renting/owning their accommodation, based on Census 2021 data.





Introduction

The analysis focuses on the potential impacts of building and heating changes (energy efficiency and low carbon heat adoption), and surface transport changes (private and public transport, active travel changes), across the PSED protected characteristics definitions: age, disability, gender reassignment, marriage or civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

The impacts and challenges of the low carbon transition on heating, buildings and mobility are likely to be closely linked to the type of accommodation in which people live, and its condition, as well as to the mode of travel people use and the purposes of their travel. Therefore, the first aim is to understand how groups with protected characteristics are distributed across the built environment, and the variation in car mileage, journey type and journey purpose across these groups.

People with protected characteristics are more likely to live in flats and to rent

Census 2021 data[2] show that, people with protected characteristics tend to live in flats and in rented accommodation more than the average. Households with a disabled person are more likely to live in flat (27%) and to rent (48%) than households with no disabilities (where 21% live in flats and 34% rent). Similarly, people from ethnic minority groups are more likely to live in a flat (40%) and to rent (56%) than those considered White: English, Welsh, Scottish, Northern Irish or British (where 17% live in flats and 33% rent). Other people with protected characteristics, such as sex and sexual orientation, and gender reassignment, have similar trends.

This can cause barriers to installing energy efficiency measures and changing heating systems.

For example, heat pumps that require external units can be challenging to install in flats due to lack of suitable outdoor space. Flats are also less likely to have off-street parking and/or a suitable way to install an EV charging point. Renting provides additional barriers as people who rent have less choice to make changes to their homes and there is little incentive for landlords to provide solutions that require capital investment.

People with protected characteristics, such as those from ethnic minorities, use more public transport and have less flexibility in their travel needs

DfT National Travel Survey 2023 data[3] show that people from ethnic minority groups travel more for commuting (26%) and less for leisure activities (e.g. entertainment, sport or holidays, 19%), than people from white groups (16% commuting, 29% leisure). Similarly, people from ethnic minorities rely more on public transport, 25%, and 69% of trips involved car, van or motorcycles, whereas this is 13% public transport and 82% car, van, motorcycle, for people from white groups. These travel trends, also supported by recent research[4], suggest that people from ethnic minorities are less likely to work from home and have less flexibility in their travel needs, which can mean higher impacts from any cost increases to or changes in their transport.

Other groups, such as young people and older people, also rely on public transport. However, this is not uniform across all groups. For example, people with a mobility difficulty have a higher dependence on car-based travel (85% of trips), than without difficulty (79%). This, linked to other potential structural challenges, for example the higher likelihood of people with disabilities living in flats, highlights a potential challenge of changing to EVs, where upfront costs are higher, less suitable models may be available, and charging point accessibility remains a challenge

There is a link between protected characteristics and low incomes, presenting a greater risk of inequities in home heating and transport use

People with protected characteristics are likely to have lower incomes. ONS data from the financial year ending 2022 show that the mean disposable income (take home pay after taxes and pension contributions), of all UK households was £40,981, whereas it is lower for households with a disabled person (£32,232), older people (over 65 years, £29,115), lone parents (£25,234), people who rent (£37,232) and people who rent from social housing (£24,216). Low incomes can mean that people have to live in low quality, insecure, often rented, housing, which can have negative impacts such as overcrowding and low energy efficiency, as well as significant health and wellbeing impacts from living in cold and damp conditions[5].

Some people have inherently greater energy needs. For example, people with disabilities and older people tend to spend longer at home and they may need warmer temperatures to manage pain and health conditions[6]. Similarly, certain disabilities may require medical equipment to be constantly in operation, increasing energy costs. Some people with disabilities and pre-existing health conditions are significantly more likely to experience inequities in home heating and transport use[7]. For example, the Energy Saving Trust[8] estimates that 3.6 million of the 14.6 million disabled people in the UK are in fuel poverty. Similarly, households with dependent children (16%), and lone parents (29%) are particularly at risk of fuel poverty[9].

Conclusions: Policy responses need to consider who can make green choices and how to overcome barriers

Overall, people from protected characteristics face more inequities in housing and transport, including experiences of fuel and transport poverty.

Transitions to more efficient buildings and mobility, with cheaper heating and transport options, could be designed to be of greater benefit people from these groups, bringing multiple potential co-benefits[10].

Current policy interventions overlook the significant specific challenges that people from protected characteristics have, in terms of their specific social and geographical contexts[11] and energy needs. There are also important differences within and between people within the different protected characteristics groups, including intersectionality of characteristics, which are often ignored in policy responses. The intersectional nature of people's lived experiences mean the ways they engage with the transition will be different, and tailored support will be required.

To truly achieve a more just and equitable transition for all, consideration is needed for these underlying assumptions, so that we can develop greater understanding on the nuances and complexities of who 'all' really is.

Recommendations

1. **Policy response should go beyond financial incentives, and should take into account non-economic barriers.** Lower incomes, and poverty more generally, are a huge challenge that needs to be tackled as part of the just transition to net zero. However, the challenges go beyond purely economic factors. For example, there are also non-financial, practical and/or administrative barriers in place for disabled or older people, some types of dwellings, and renters.

2. **Policy responses need to be more flexible, agile, regionally sensitive, targeted and tailored to needs.** To maximise uptake and potential outcomes, policies should be more aware of personal motivations, geographical context, disruption and other constraints, and move away from the 'one-size-fits-all' approach and be able to adjust to diverse needs, especially for people with protected characteristics, and those vulnerable to fuel and transport poverty.

3. **More policy integration is required: health, welfare, work, transport and the energy transition.** Holistic thinking and better data sharing and integration would allow for a better understanding of the implications, challenges and potential co-benefits of the low carbon transition. This could involve, for example, integrating housing and renters' protection policies with low carbon heat and energy efficiency considerations.

4. **Tackling these challenges in a more holistic way has the potential to bring significant cost savings and co-benefits.** Developing better understanding of non-economic barriers, and the differences and nuances for groups with protected characteristics, will be key in ensuring a more just and equitable transition for all.

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