

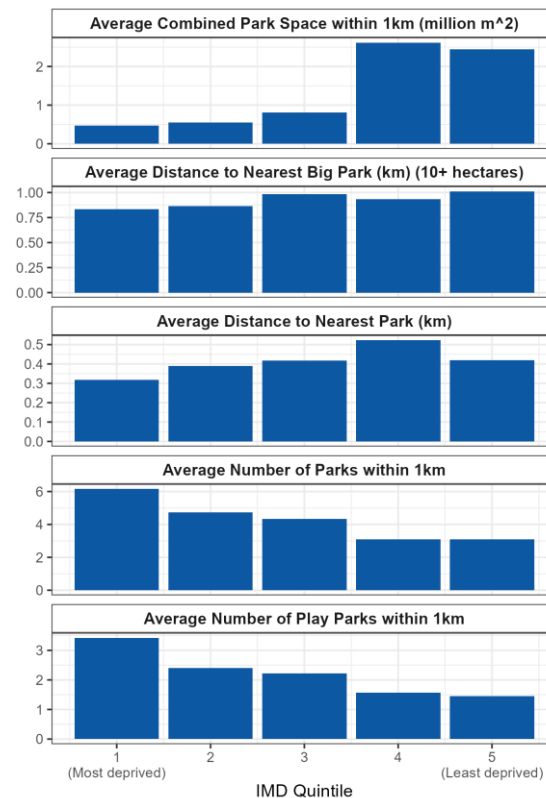
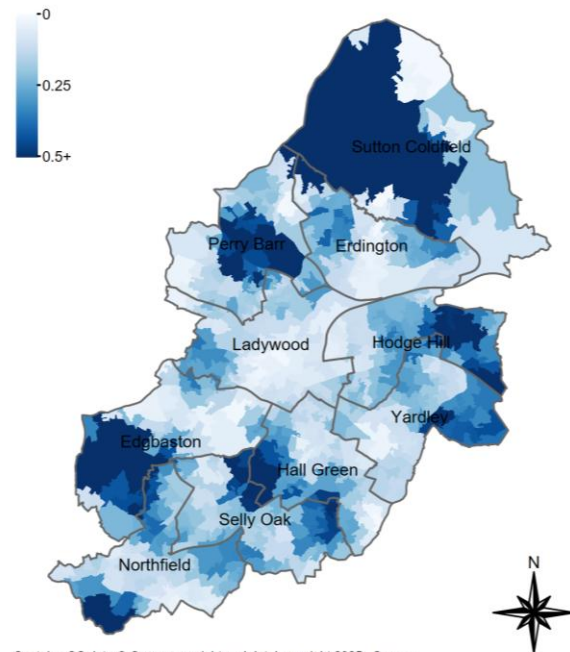
# Inequalities in Access to and Maintenance Budget Allocation for Birmingham Parks

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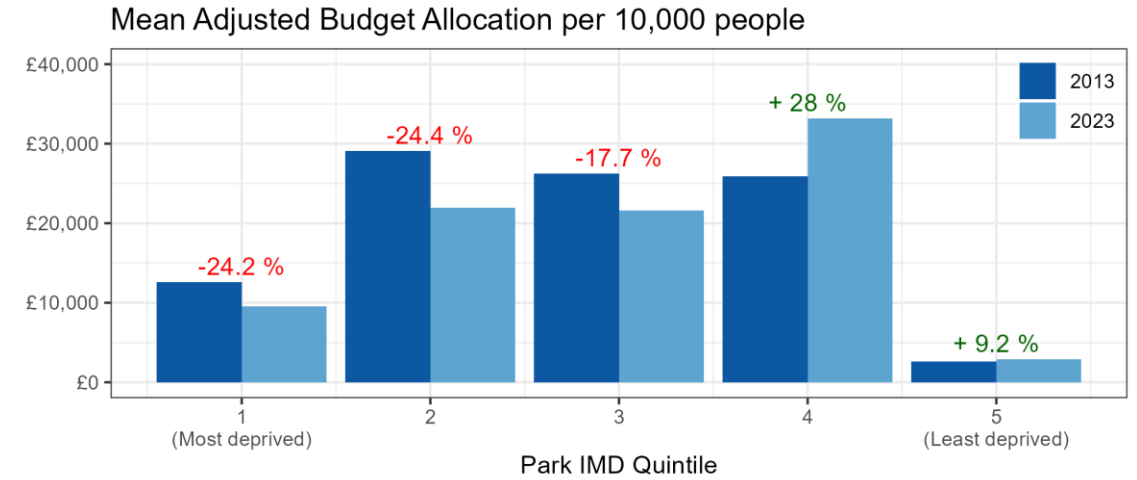
**Introduction:** Access to green space supports wellbeing and reduces risk of mortality and chronic disease, however, park accessibility is often unequal. We assessed spatial socioeconomic inequalities in park accessibility and council grounds-maintenance (GM) budget allocated across Birmingham

**Methods:** We combined the locations of 376 parks managed by Birmingham City Council with 2021 ONS census data to assign resident populations to parks based on a 1 km radius ( $\approx 12$ -minute walk). For large or irregular parks, multiple access points were considered. Accessibility metrics (park count, presence of playgrounds, and combined park space within 1km) were calculated by Index of Multiple Deprivation (IMD). Annual GM budgets for 2013–2023 were inflation-adjusted and analysed per 10,000 people living within 1km. All analysis was completed in R.

Square meters of park per 1000 people (within 1km)



**Park Access:** More deprived neighbourhoods and those with higher proportions of residents from Global Majority backgrounds had, on average, more parks and playgrounds within 1 km. However, the least deprived neighbourhoods had approximately three times more park area accessible within 1 km. This is largely driven by Sutton Park (accounting for 27% of the city's total park space).



**Park Budget:** Citywide inflation-adjusted GM budgets declined 22% between 2013 and 2023. Declines in GM budget per person within 1km of the park were greater for parks serving more deprived areas, while parks in less deprived areas experienced a small increase in budget allocation.

**Further Research:** As well as the geographical distribution of budget allocation, distribution, there are many spending themes including park aesthetics, toilet facilities, and sports facilities to be investigated. There are several additional characteristics that determine the quality of a park including volunteering, crime, and accessibility by public transport. The distribution of these characteristics and their relationship with park funding will also be investigated.

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