

Executive Summary for “Ethnic disparities in stop and search decompose into officer bias and over-patrolling”

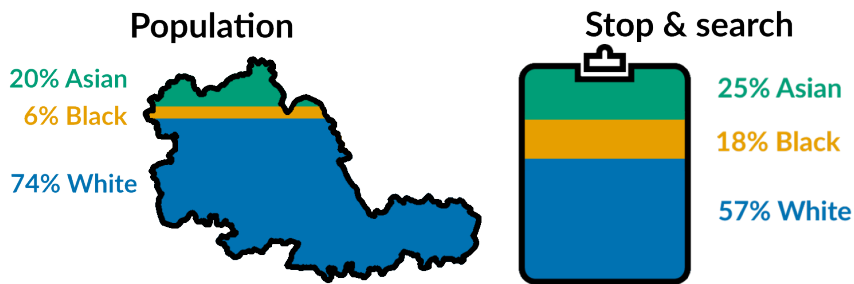
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We investigate ethnic disparities in stops and searches carried out by West Midlands Police. To do so, we compare the ethnic composition of stop and search, the total population of West Midlands and the local population in areas patrolled by police officers.

We generate three key insights:

1. Ethnic disparities in stop and search are the result of officer biases and deployment decisions
2. Black and Asian communities are over-patrolled
3. Police officers are biased: They over-search Black people and under-search White people relative to the areas they patrol

Asian people in West Midlands make up 20% of the population overall, yet they make up 25% of all searches by West Midlands Police. Similarly, Black people make up 6% of the population in West Midlands, yet they make up 18% of all searches.



Which factors account for these disparities? In our research we demonstrate that there are two key factors which interact together in creating these disparities: over-patrolling and officer biases.

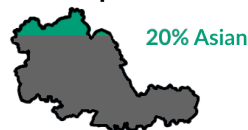
1 Over-patrolling

We calculate over-patrolling by investigating the ethnic composition of the local population in the areas which officers patrol relative to the overall population of West Midlands. (We use records of officers' attendance at crimes and incidents to estimate their personalised local population.)

Step 1: Calculate ethnic composition of patrolling areas



Step 2: Compare with ethnic composition of West Midlands



$$\frac{20\%}{20\%} = 1$$

Officer A is deployed to areas representative of West Midlands overall

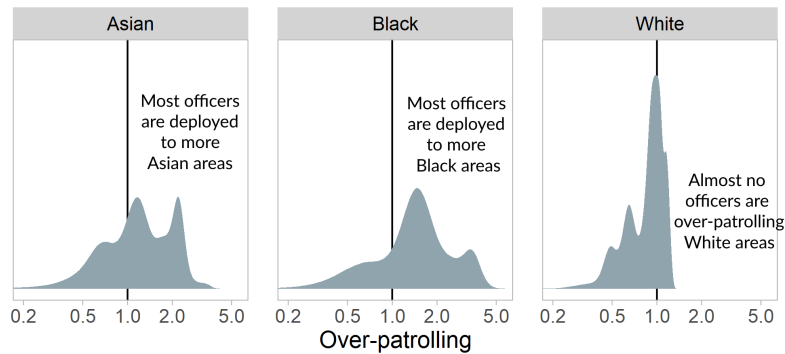
$$\frac{40\%}{20\%} = 2$$

Officer B is deployed to areas which are more Asian than West Midlands overall

$$\frac{10\%}{20\%} = 0.5$$

Officer C is deployed to areas which are less Asian than West Midlands overall

We find that officers patrol areas which are more Asian and Black, indicating that these communities are over-patrolled:



A large number of police officers are deployed to areas which are more Black and Asian than West Midlands overall. The same is not true for White areas—if anything those are under- rather than over-patrolled.

2 Officer bias

We define officer bias as an officer over-searching ethnic minorities over and above the local population. We calculate officer bias in three steps as detailed here:

Step 1: Calculate ethnic composition of searches



Step 2: Calculate ethnic composition of patrolling areas



Step 3: Compare composition of searches to patrol

$$\frac{20\%}{20\%} = 1$$

Officer A searches Asian people at exactly the rate he encounters them on patrol

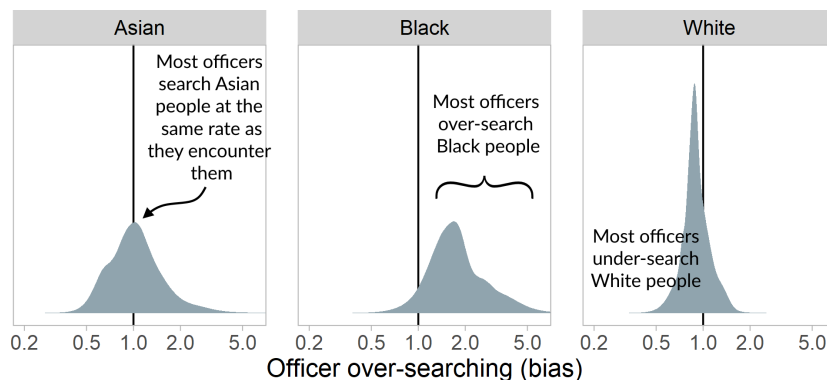
$$\frac{40\%}{20\%} = 2$$

Officer B over-searches Asian people at 2 times the rate he encounters them on patrol

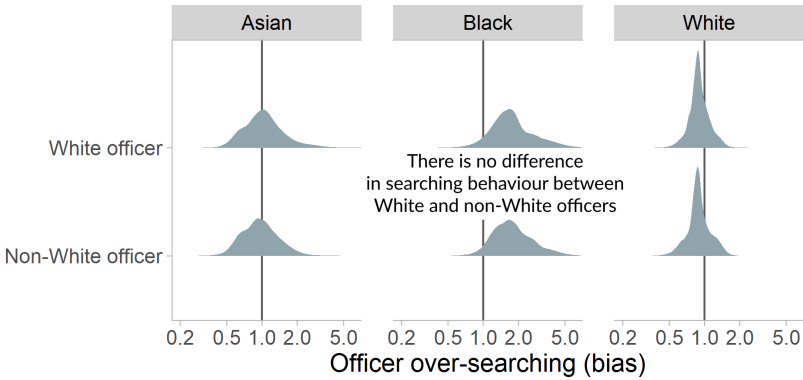
$$\frac{20\%}{40\%} = 0.5$$

Officer C under-searches Asian people at 0.5 times the rate he encounters them on patrol

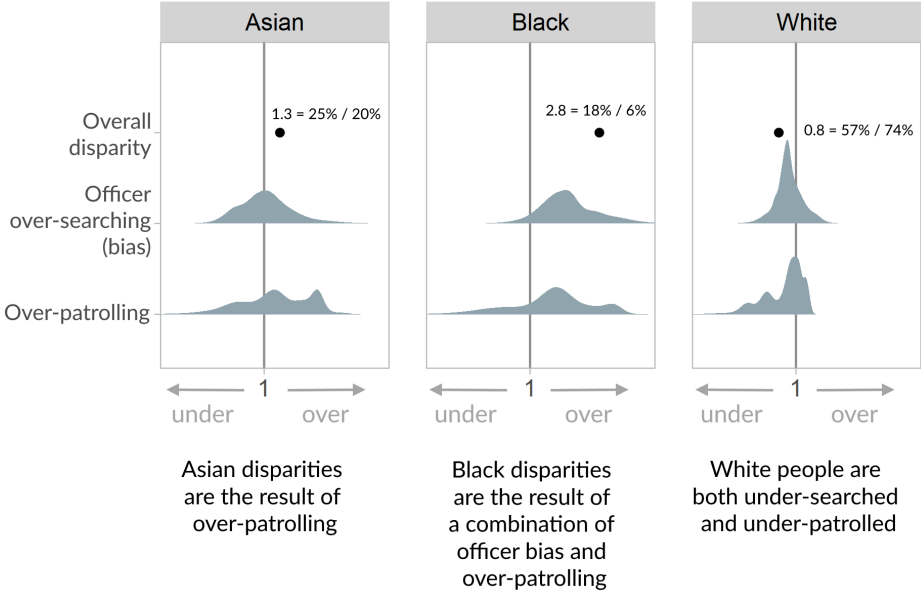
Across all officers in our sample, we find that:



A key question asked of us was whether there are any differences between White and non-White officers. The academic literature on the effects of non-White police officers is mixed. Our findings add to that: We do not find any evidence that non-White police officers behave fundamentally different than their White peers.



3 Summary



Our results are the empirical confirmation of an intuitive observation: Disparities in stop and search exist because police officers are sent into already more ethnically diverse communities, where their biases then create further disparities. In other words, even if we could somehow fix all officer under- and over-searching, Black and Asian people would **still** be searched disproportionately because of over-patrolling. If we want to fix all disparities in stop and search, we need to think about the entire structure of policing, not just searches.