

# **RACIAL STRATIFICATION AND MULTIPLE OUTCOMES IN POLICE STOPS AND SEARCHES**

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## **ABSTRACT**

The present study explores ethnic differences in stop-and-search outcomes. It uses data from 53,858 stop-and-search incidents recorded by a United Kingdom police force. Prior studies often focused on single outcomes – notably, arrests – and based on a binary majority-versus-minority categorisation of ethnicity/race. Our analysis departs from this approach by examining multiple outcomes across different ethnic groups. Focusing first on the binary categorisation, we found that stops-and-searches involving minorities were more likely to lead to arrests or to informal advice by officers than Whites, but less likely to receive formal warnings. No differences emerged in terms of encounters that result in “no further action” (NFA). However, there was no consistent pattern across any of the outcomes once the minority group was disaggregated into specific ethnic groups, despite having sufficient statistical power. Furthermore, a multivariate analysis shows that while ethnicity predicts stop-and-search outcomes, its effect is subsidiary to gender, criminal history, whether the encounter happened in a crime hotspot or not, and whether property was found during the encounter. Implications for future research are discussed.

**Key words:** *stratification, stop-and-search, ethnicity, Donald Black, formal warnings, arrests.*

## INTRODUCTION

In England and Wales, police powers to conduct stop-and-search are authorised by a variety of legislations such as the Misuse of Drugs Act 1971, the Police and Criminal Evidence Act 1984, the Criminal Justice and Public Order Act 1994, Terrorism Act 2000, and Counter-Terrorism and Security Act 2015. The use of these powers remains one of the most contentious issues in public discourses about police work. The manner in which the powers are used has been implicated in various incidents involving public disorder, including the Brixton riots of 1981 (Scarman 1981) and, most recently, the London riots of 2011. Much of that contention arises from perceived racial discrimination, a perception that raises questions about social inclusion and the legitimacy of criminal justice institutions (Rocque 2011; Parmar 2011). Loader (2006:211) has put it thus:

Every stop, every search, every arrest, every group of youths moved on, every abuse of due process, every failure to respond to call or complaint, every racist snub, every sexist remark, every homophobic joke, every diagnosis of the crime problem, every depiction of criminals—all these send small, routine, authoritative signals about society's conflicts, cleavages, and hierarchies, about whose claims are considered legitimate within it, about whose status identity is to be affirmed or denied as part of it.

Over the years, various studies have sought to understand the nature of police stops and searches, and to address the question about discrimination or disproportionality in relation to specific ethnic groups. The evidence suggests that minority groups are stopped more often, searched more habitually, and arrested more frequently, than the white majority. Bowling and

Phillips (2007: 936), for example, concluded that “the statistics show that the use of the powers against black people is disproportionate and that this is an indication of unlawful racial discrimination”. However, prior studies of stop-and-search do not always disaggregate ‘minorities’ into specific ethnic groups (e.g. Borooah 2011; Rojek, Rosenfeld and Decker 2012); for example, ‘Blacks’ could be disaggregated into Black Africans, Black Caribbean, and Black British in order to tease out any differences in the experiences of stop-and-search. As Delsol and Shiner (2006: 258) argue, “it is likely that there are specific categories of people in each ethnic group who face particularly disproportionate levels of street intervention by the police” (see also Webster 2004). Thus, in addition to assessing overall disparities between White British and non-White British groups, we compare White British people with different subgroups of non-White Britons.

For various reasons, researchers are also sometimes compelled to focus on a limited set of binary outcomes, such as ‘stop versus no-stop’ or ‘arrest versus no-arrest’ (e.g. Rojek, Rosenfeld and Decker 2012; Gelman, Fagan and Kiss 2007). While such studies have produced interesting results, they do not capture non-arrest disposal outcomes. These include, in the case of England and Wales, cautions, informal advice, formal warnings, fixed penalty notices, and reprimands. These are important to consider because they represent differential assignments of the law, and it would be interesting to explore differences across ethnic groups. Thus, in addition to arrests, our study examines ethnic variations in non-arrests disposals, including decisions to take no further action against the person stopped and searched.

Further, some studies, based on data from the United States, have used multivariate analytical techniques to predict the effects of race on likelihood of stop and search across different ethnic groups by controlling for the age, gender, unemployment, income, characteristics of officers and time of the encounter (e. g. Rojek, Rosenfeld and Decker 2012;

Rosenfeld, Rojek, and Decker 2012; Petrocelli, Piquero, and Smith 2003). Beyond these factors, a stop-and-search encounter may depend on whether or not crime-related paraphernalia have been found during the search, the crime patterns in the area where the stop-and-search is conducted, the number of minority group members who are resident in that area, the suspect's prior criminal record, and the suspect's demeanor. Our study examines the potential influence of some of these factors in the context of England.

Drawing on insights from Black's (1976) theory of the behavior of law, our study seeks to extend earlier studies of stop-and-search in relation to the areas identified above. The paper is based on local stop-and-search records in a large police force in the United Kingdom, which we have called here Goldenshire. Our data consist of 53,858 cases of stop-and-search, which took place between 2006 and 2011. All the original records, on every subject, were first coded into a quantifiable and measurable database. These data were then merged with the calls-for-service database for that period, to account for geographic and temporal crime patterns. The rich nature of the new database provides a unique opportunity to look more closely at the application of stop-and-search, and to contextualise it within a stratification model. As such, whereas previous studies looked at a dichotomous 'minority versus non-minority' grouping variable, the analysis presented here examines fourteen different ethnic groups. Our model also includes a host of control variables, such as whether illegal property was found during the search, the duration of the encounter, and the unique circumstances of the event. We include five possible outcomes of stop-and-search: arrest, a formal warning, informal 'words of advice', a Fixed Penalty Notices, and no further action.

## **DONALD BLACK'S STRATIFICATION MODEL**

The term “ethnic stratification” refers to “a system of stratification in which some relatively fixed group membership (e.g. race, religion, or nationality) is utilized as a major criterion for assigning social positions with their attendant differential rewards” (Noel 1968: 156). There is evidence to show that race is commonly associated with disproportionate distributions of life-chances, including employment opportunities, educational attainment, and access to health, which are conditional on race and ethnicity (see Shavit and Blossfeld 1993; Jha et al 2005; Gorard and Fitz 2000; but see Rothon 2007). In the context of the police use of stop-and-search powers, the salient questions of interest include: Who gets stopped? Who gets arrested? Who receives what sanction? Why are the probabilities of being stopped, searched and arrested greater for certain individuals and social or ethnic groups than for others? And, more importantly, what explains the conditional application of law against certain ethnic groups?

Donald Black's theory of law offers some insight to researchers seeking to address these questions. Black (1976:3) defined law as “governmental social control”, and proposed that law is a “quantitative variable”. He argued that “in criminal matters, an arrest is more law than non-arrest, and so is a search or an interrogation”. According to Black, the quantity of law varies both spatially and temporally. He conjectured that the quantity of law “increases or decreases” according to such factors as social stratification, morphology, culture, organization, and social control, each of which “explains the behavior of law across time and space, in all societies for all time, wherever it is possible to measure law and other aspects of social life” (Black, 1976:6).

Black defined stratification as the vertical aspect of social life, or any uneven distribution of the conditions of existence, such as food, access to land or water, and money' (1976:1). Ultimately, Black conjectured that “people who are better off materially have more law ... whether as individuals, groups, communities, or societies” (p.21). By virtue of their

social and economic resources, such individuals or groups are better able to afford protection by the law, have greater access to law, and are more predisposed to mobilize the law (Avakame, Fyfe and McCoy 1999). Studies testing Black's theoretical arguments have either used race as a proxy for social stratification or they have measured individual incomes. Analyzing nation-wide data in a US victimization survey, Avakame, Fyfe, and McCoy (1999) found that although minorities and poorer victims were more likely to call the police, their calls were less likely to result in the arrest of their assailants. More recently, Xie and Lauritsen (2011) analyzed victim survey data and found that reporting assaults to the police was least likely where assaults involved white offenders and black victims; there was a greater likelihood of reporting in cases involving either white offenders and white victims or black offenders and white victims. The context of the United States is different from the England; it is therefore an open question as to how far some of these findings apply in England.

Black did not limit his theory to explaining the mobilization of law by one citizen against the other. An important part of his theory concerned the quantity of law exerted (proactively) by criminal justice officials against individuals or groups of varying social status. As Black puts it:

Just as stratification varies between one citizen and another, so it does between a citizen and a legal official, such as a policeman, prosecutor, or judge. Law increases with the stratification of this relationship as well...This applies to the relationship between an official and a defendant, victim plaintiff, or witness - whoever has a role in the case... The more stratified the relationship, the more law [the legal official] is likely to apply. Hence as a case moves through the various stages of the legal process - complaint, arrest, prosecution, or law suit - the stratification of the participants may change, and with it the fate of the case (Black 1976: 16).

Thus, we read Black's proposition as a hierarchal system in which certain ethnic groups receive 'more law' than others. There is some evidence to support this approach. While the extent of this imbalance is far from clear, the model is in tune with both classic and recent models of social stratification, but Black and studies that follow his model are conceptually convincing. Black's stratification model is accordingly one of a cylindrical shape, with 'more' attention and 'more' law exerted on certain groups – and this "additional law" is conditional on race. In this paper we will empirically examine Black's proposition about ethnic stratification, as it applies in the specific context of stop-and-search. It suggests that, for example, a stop is more law than no stop, an arrest is more law than a stop ending in no further action from the police.

## **RACE IN POLICE STOPS-AND-SEARCHES AND THEIR OUTCOMES**

Stop-and-search is a common police practice throughout the world, although it may differ in form between one society and another (e.g. Wortley and Owusu-Bempah 2011; Marks 2011). Similarly, the effectiveness of the practice appears to vary between societies. There is consistent evidence from the US, for example, to show that stop-and-frisk is causally associated with reductions in weapons violence and homicide (Koper and Mayo-Wilson 2006; Sherman and Rogan 1995), and other studies report that proactive policing tactics – including stops and vehicle searches – reduce the incidence of robberies and firearm assaults (Kubrin et al 2010; Rosenfeld et al 2014). However, the evidence from England and Wales suggests caution. Miller and his colleagues concluded that 'it is not clear to what extent searches undermine criminal activity through the arrest and conviction of prolific offenders' (Miller, Blind and Quinton 2000: vi), and when Fitzgerald, Stockdale, and Hale (2003) analyzed trends in police-recorded searches and offences over a three-year period they found no sustained effect or strong relationship between the two.



While not directly testing Black's model, the evidence from England and Wales shows that young, inner-city, ethnic-minority males are stopped and searched more often, are ticketed more frequently, and arrested more easily – and for longer periods of time – than their white counterparts (Bowling and Phillips 2007; Brown 1997; Miller 2010; Ryder 2009). Borooah's (2011) analysis of official UK police data for 2007/2008, on police use of stop-and-search in 42 police forces found that the rates of Black and Asian stops, arrests, cautions, and sentences were consistently greater than those for Whites. Among minorities, Blacks were more likely than Asians to be stopped, arrested and cautioned. Figures published by the Home Office show that stop-and-search rates for Blacks are nearly six times those for Whites, and that Asians are nearly twice as likely as Whites to be stopped and searched (Equality and Human Rights Commission 2010).

However, there is evidence to show that such statistics can often be misleading, not least because they take no account of the context within which stops and searches take place. Thus, in their analysis of data from Reading and Slough, Waddington, Stenson, and Don (2004) controlled for contextual variables such as arrest rates and the “available population” to be stopped and searched. The findings showed little evidence racial targeting of minorities. On the contrary, for example, White people tended to be stopped or searched at a higher rate than would be predicted by their presence in the available population, Asian people tended to be under-represented, and a mixed picture emerged for Black people, who in some places were under-represented and in other places over-represented (see, *ibid*: 899 – 900). The findings suggested that any apparent bias might be an unintended consequence of activities routinely pursued by the police and the general population (Waddington, Stenson, and Don 2004). Yet, as Bowling and Phillips (2007, p. 946) argue, the notion of an “available population” is “not a neutral criterion” for comparing the racial distribution of stop-and-search rates; on the contrary,

“the extent to which a social group is ‘available’ to be stopped and searched depends on such structural factors as unemployment, exclusion from school, homelessness, and employment in occupations that involve evening and night work, all of which are known to be associated with ethnic origin”.

Much of the evidence appears to support Black’s conjecture of a stratified application of the law in the US context as well. Kochel, Wilson and Mastrofski (2011) conducted a meta-analytical review of race effects on police arrest decisions and found that, in comparison with the .20 average probability of a White person being arrested, the average probability for a non-White person was .26. Furthermore, using data from police records on traffic stops in St Louis, Rojek, Rosenfeld and Decker (2012) found “considerable support” for predictions based on the theory. They reported that Black motorists were more likely than White motorists to be searched by police. On the other hand, the authors also examined the influence of community racial composition on police searches and found a greater probability that White motorists would be searched by police in predominantly Black communities. Renauer (2012) reported similar findings, namely that, in comparison with Blacks and Hispanics, Whites were at a greater risk of being stopped and searched in Black and Hispanic populated neighbourhoods. Using data from Richmond in the US, Petrocelli, Piquero and Smith (2003) reported that Blacks were stopped and searched at a higher rate, but the searches were less likely to end in an arrest. A similar finding emerged about the association between local crime rates and risks of arrests (see also MVA and Miller 2000). At least some of the debate persists on account of methodological challenges when addressing stop-and-search and the effect of race on this practice more specifically.

## **METHODOLOGICAL CHALLENGES IN PREVIOUS STUDIES OF STOP-AND-SEARCH**

One shortcoming of studies thus far is that they have tended either to exclude relevant covariates in models of police stops and searches or to employ restrictive measures of minority groups and outcomes. In most cases, models estimating the extent of disproportionality entail misspecification: key variables are often overlooked, particularly criminogenic factors associated with the offender, the stop-and-search event, and the geographic and temporal crime patterns where the encounter occurred (Rosich 2007; Skogan and Frydl 2004). Other variables that might potentially moderate the disproportionality effect include whether the suspect is “known to police” for previous offences, or even if stop-and-search was conducted in a crime hotspot, yet these too are widely disregarded. It is not enough to say that a certain ethnic group receives “more law” than others without fully contextualizing the encounter. Thus, what is required is an improved analysis that can predict the conditions under which stop-and-search is more likely to occur, for whom it occurs, and what elements mitigate the event.

A second shortcoming concerns the focus on arrest as the main outcome. This has the effect of overlooking other outcomes of stop-and-search encounters, such as cautions, reprimands, citations, informal advice, formal warnings and many other “community disposals” (Home Office 2005; Klinger 1996). Likewise, it is often hard to know whether arrest is an indicator of ‘effective’ police work or whether, alternatively, it is an aggressive social control measure. Hence, it is crucial to move beyond arrests and to consider other outcomes if we are to have a better understanding of both the scope and the magnitude of disproportionality and, more generally, of stratification in the application of law.

A further problem involves selection bias. If the data used by most studies so far concern the end-result of the police-public encounter, then they must be treated with some

degree of caution because we see only the outcome (for instance, arrest) but have no way of ascertaining what (apart from positive evidence against the suspect) has led to the decision to arrest. In other words, if the police officer is racist and targets Blacks more than Whites, we would be unable to pick it up in the data, as the database represents only those cases that actually concluded in a stop-and-search or arrest, not these cases that concluded without any police intervention. Similarly, if the area in which the stop-and-search has been conducted is experiencing a wave of crime, it will not be reflected in the arrest records. For this reason, our study does not aim to test why some groups are disproportionately stopped and searched. This question is better addressed with methods to capture the dynamics leading to stop-and-search, or by direct interviews with the police officers who conduct those stops and searches. Instead, and in light of this review, we focus on variations in the ‘quantity of law’ across several event outcomes, and how they are applied across a large number of different racial groups.

Meanwhile, we note that one major reason for the shortcomings discussed above is related to researchers’ limited access to important subject-level police records. Police forces often grant access to filtered records, which comprise quantitative stop-and-search data covering race category, age and gender of the offender, offence type, arrest/no arrest, and so on. Additional (and perhaps more valuable) information about the stop-and-search event is often stored locally, usually in hand-written officers’ reports. Where these local reports are computerized, they are entered as open-text variables which are difficult to convert into quantifiable and research-friendly variables. For example, the initial grounds that led to the stop, or to informal disposals that do not amount to a criminal record, are not registered on national criminal records, but they are stored locally for internal purposes. In this regard, officers’ erroneous suspicions that could not be substantiated by evidence in stop-and-search reports are not recorded on national computers, although they appear in local internal records

as ‘NFA’ (i.e. no further action). As we will soon show, NFAs represent an important outcome of stop-and-search yet they have generally been overlooked in previous stop-and-search studies.

## **DATA AND METHODS**

### **DATA**

In order to test the stratification hypothesis in the context of stop-and-search, we analyzed 53,858 stop-and-search cases that took place in the Goldenshire Constabulary between January 2006 and August 2011. Goldenshire is a predominantly White area. It records around 55,000 crimes each year, representing about 1% of the total recorded crime in England and Wales (Home Office 2012). Thefts of various kinds account for nearly 40% of all crimes in Goldenshire, 15% are violent crimes, about 20% are criminal damage and fewer than 3% are drug offenses. Its overall detection rate for 2013/14 was just around the national average of 26 per cent (HMIC, 2014). Each year, Her Majesty’s Inspectorate of Constabulary assesses the performance of police forces on their *effectiveness*, *efficiency* and *legitimacy*. Goldenshire was rated as “good” – the second highest rating possible – on all three indicators.

Two databases were merged for the purpose of the study. One database consisted of 53,858 individual cases of stop-and-search police records. These reports covered three layers of data: suspects’ characteristics; stop-and-search event characteristics; and officers’ grounds for suspicion and incident outcomes. Although officers complete handwritten reports when they stop and/or search individuals, only a fraction of these cases - those resulting in ‘significant outcomes’ (i.e. arrests and formal warnings) – are logged on to the Police National Computer. Most cases are kept on a local register; these include cases resulting, for example, in informal

words of advice (e.g. “Don’t let me catch you again”), or no further action, or they are cases in which the parents of a young offender are informed of their child’s delinquent behavior. The second database consisted of ward-level crime figures, to account for the overall crime and anti-social behavior patterns for each year of the study in each of Goldenshire cities and towns.

The stop-and-search database included primarily qualitative data requiring to be recoded and reconfigured in order to be assessed quantitatively. Most variables were in open-text form, and a great deal of time was taken in cleaning up the database and creating manageable and measurable variables.

## **DEPENDENT VARIABLES**

The dependent variable in our model has values (or categories) that differentiate five stop-and-search outcomes, ranging from no-further-action (NFA) through advice and formal warning up to arrest. NFA was the most frequent category, with over 63 per cent of stops-and-searches resulting in this outcome.

**Arrests:** Arrest is defined loosely as any outcome which resulted in the suspect being taken into custody following the stop-and-search event. In this sample, 7.4 per cent of the cases resulted in an arrest (n=3,805).

**Community Disposals:** Informal Advice, Penalty Notices for Disorder, and Formal Warnings. As discussed above, most stop-and-search in which some wrongdoing was detected resulted in community disposals – 26.6 per cent to be exact, nearly four times more than arrests. There is a long list of disposals - including formal warnings, informal advice, citations, Fixed Penalty Notices, reprimands, cautions, and the like - that do not result in the offender being taken into custody.

These community disposals are made when the severity of the offence (e.g. possession of a small amount of marijuana, dropping litter, being drunk and disorderly in a public place) or the characteristics of the suspect (e.g. being a first-time offender or under-aged) justify a less punitive response. In this study, specific attention is paid to three types of disposal: informal advice (18.2 per cent), Fixed Penalty Notices (0.8 per cent), and formal warnings (7.6 per cent), while disregarding other disposals because they are far less frequent (collectively 4.2 per cent). Focusing on these three community disposals is also justified in view of the widespread attention paid to these outcomes in recent years by most police forces in England and Wales.

It is important to note that formal warnings are registered as criminal records and will show up on the Police National Computer (PNC). These disposals are usually available to first-time offenders for possession of small quantities of marijuana. The legal ground for warnings can be found in Home Office Circulars, and warnings may be cited in court should an offender subsequently be convicted. In this sense, they are *de facto* sentences (Bell 1999). On the other hand, informal words of advice (as well as NFAs) are not recorded on the PNC and would normally show up only in cases in which a more enhanced criminal record search is conducted (e.g. in relation to employment involving minors), when local police records are searched. Similarly, Fixed Penalty Notices are statutory disposals available in England and Wales for a specified range of offences (depending on seriousness, and attracting penalties of £60 or £90; see Ministry of Justice 2013). They do not form part of an individual's criminal record, but in relation to a recordable offence an entry may be made on the PNC which may be disclosed as part of an Enhanced Disclosure.

Collectively, these three important outcomes are seldom accessible to researchers, which explains why previous stop-and-search studies have not taken them into account. In

practice, the decision to administer a formal warning, informal advice, or a penalty notice is case-specific and is less guided by national policy. When we look at the database, we see that there is no substantial mean age difference between those who receive one of these outcomes (22.6, 22.3, and 26.7 years respectively), and there is no gender difference, either. Likewise, while formal warnings are tailored specifically for marijuana possession (94 per cent of all formal warnings), we find a similar number of instances of informal advice given for marijuana possession as well (3,822 and 3,561 respectively). Thus, officers can use their discretion to decide whether advice, a formal warning, or a Fixed Penalty Notice will be most effective.

***No Further Action:*** NFAs are mistaken suspicions that result in no action against the suspect following the stop or the stop-and-search. NFA serves as a direct signal of perceived wrongdoing when in fact there was no evidence to substantiate the perception. In the context of disproportionality, if no racial and ethnic bias existed, then the number of unsubstantiated suspicions would be evenly distributed between the various groups. Similarly, the frequency rate for advice or warnings should be the same for different ethnic groups; in a world free of bias, the decision to dispose of the case in a certain way would disregard the suspect's racial profile. Alternatively, if there were racially- or ethnically-motivated searches, there would be higher rates of NFA or lower rates of informal advice given to members of minority groups.

Two out of three stop-and-search cases end up as NFAs ( $n = 34,077$ ). NFA in the context of police work should not be confused with police inaction following arrest or prosecution. NFAs following arrest are cases in which there was evidence to substantiate guilt but in which, for public policy reasons (e.g. insufficient resources to prosecute every case, or decisions to target certain offences and disregard others), no action is taken beyond processing the suspect through the system. On the other hand, police NFAs are cases in which the officer was unable to pursue the case beyond the initial encounter since no evidence to substantiate



the suspicion was found during the search. Examples from the database include suspects who ‘match description of males stealing bikes’, or ‘seen at location known to be used for drug misuse’, or ‘vehicle stopped by officers: strong smell of drugs, marijuana type smell.’ The majority of NFA cases were of a similar nature. In these incidents, officers were suspicious enough for the case to merit a stop, but the search or questioning – because of faulty intelligence or misread signals - did not result in any positive detection.

## INDEPENDENT VARIABLES

***Ethnicity:*** In England and Wales, 16 ethnic categories are in use by various institutions including the Home Office to classify an individual's racial/ethnic background (see Kautt 2011). In practice, a suspect is often provided with an opportunity to state his or her self-perceived ethnic group membership, and the officer writes down the reply, particularly in the context of stop-and-search. In our dataset, we have found evidence for 14 discrete ethnic groups.

***Incident Characteristics:*** We were able to capture two additional characteristics of the stop-and-search incident. First, the police recorded in every case whether crime-related paraphernalia or stolen goods were seized from persons or premises during the search and subsequently retained. This is one of the most important variables in the database, because most stop-and-search incidents are drug-related. Therefore, discovering cannabis and other kinds of drug during the search is the best indication of a reasonable and justifiable suspicion. The same argument can be made for other offences, such as ‘going equipped’ or carrying offensive weapons. Thus, finding such property is a strong predictor of whether an arrest (or other non-NFA disposal) will be made – and it may be stronger than any other predictor, because once paraphernalia have been discovered they can be used as evidence against the

suspect.

Second, the outcome can be affected by the method according to which the search is executed – namely, whether it is conducted in the course of a vehicle stop or a foot patrol. Police powers are different in these two categories, and more substantive grounds are required for the latter to restrict a person’s movements. A police officer can stop any vehicle in the execution of their duty and ask the driver for their driving documents, pursuant to the Road Traffic Act 1988. This event is not necessarily related to the purpose of stop-and-search, but the conversation may quickly become a stop-and-account, or stop-and-search, depending on responses provided by the driver or passengers. On the other hand, a stop-and-account or stop-and-search ‘on the street’ must be conducted on the basis of reasonable suspicion (which is a somewhat lower standard than a probable cause). Given these differences, we were interested in knowing whether a vehicle search arrives at a different outcome.

***Suspect Known to the Police:*** Does being ‘known to the police’ predict the outcome? McAra and McVie (2005) report two interesting findings that support this hypothesis: First, those with a history of police contact were about three times more likely than those with no previous contact to be warned and charged in a subsequent police encounter. Second, the odds of police contact are almost two times longer for individuals with friends who are ‘known to the police’ than for those who report that their friends have never had any police contact. Taken collectively, it appears that being ‘in the system’ is associated with an increased severity of police response, and we were able to capture this variable using police records.

***Crime Levels in the Area:*** An important predictor of the decision to conduct a stop-and-search is whether or not a crime has recently been reported in the locality. Following break-ins, assaults or intelligence tips, police would often stop and search people, particularly if they seemed ‘out of place’. Therefore, environmental cues alerting the officer that a crime or

antisocial behavior had occurred, such as historical data on local calls to the police in the community where the search was conducted, are likely to be associated with higher rates of stop-and-search. Nevertheless, we might ask whether high-crime areas are more associated with certain outcomes than low-crime areas. Do officers arrest more people in such areas, or - alternatively - are the outcomes of stop-and-search conditional on broader crime patterns? We therefore used calls-for-service data at the ward level where the stop-and-search had taken place, and tested the predictive power of this variable on various stop-and-search outcomes.

## **ANALYTICAL STRATEGY**

In order to estimate the extent to which ethnicity and stop-and-search outcomes are independent of each other, we first performed chi-square statistics. We repeated this procedure four times, for each of the four outcomes (NFA, arrests, formal warnings, informal advice). As our tables are larger than a 2x2 cross-tabulation, we used the Pearson adjusted standardized residuals in order to show how ‘off’ the expected and observed values for each cell are, under the assumption of normality. The values of the residuals inform us the extent to which each cell drives the lack-of-fit (Agresti 2002:81). Under the null hypothesis that the ethnicity and stop-and-search outcome variables are independent, the Pearson adjusted residuals will have a standard normal distribution ( $M=0$ ;  $SD=1$ ). Therefore, Pearson adjusted residuals different from  $\pm 1.96$  indicate that the observed cases in that cell are significantly different (larger or smaller) than what would be expected under the null hypothesis, at .05 significance level. Thus, the adjusted residuals can be useful in interpreting significant chi-square statistic by indicating which cells have larger or smaller counts than expected (for further details and equations, see Agresti 2007, 2013).

Second, in order to illustrate the differences between the broad range of ethnic

backgrounds and the stop-and-search outcomes, we used percent differences between the majority group – British Whites – and each minority groups. Percent differences illustrate the absolute value of the difference between the groups over the mean, in percent terms. As some groups get ‘more law’ than others according to Black’s theory, the order of the groups was not hypothesized ex ante; we therefore divided the difference between two numbers by the average of the two numbers (if the ordered mattered, we would have computed percent changes). Mathematically, percent differences are computed in the following way:

$$\% \text{ difference} = \left[ \frac{(X_{\text{Minority group}} - X_{\text{majority group}})}{\{(X_{\text{Minority group}} + X_{\text{majority group}}) \frac{1}{2}\}} \right] \times 100$$

Third, using the variables listed above, we employed a series of binary logistic regression models, with each stop-and-search outcome as a dependent variable. Procedurally, we nominated the British Whites group as the reference category (given its size relative to all other categories), in order to compute the predictive value of each ethnic group, when controlling for all other variables.

## FINDINGS

### *Characteristics of the Stop-and-Search Encounter*

Over the six-year period, there have been 53,858 recorded stops and searches. Table 1 presents the characteristics of the suspects and the stop-and-search events captured in the police records. Out of these, 91% of the suspects were men, with a mean age of 23.0 ( $SD=9.5$ ). Female suspects were slightly younger ( $M=22.8$ ;  $SD=9.9$ ). Around 85 per cent of suspects viewed themselves as of either British or Other White backgrounds. Caribbean, African, Black and Mixed ethnic background with a ‘black’ component comprised 4.3 per cent of the entire population with

Pakistanis being 3.3 per cent and unstated backgrounds comprising 2.8 per cent of the entire sample. Two-thirds of the sample have had a criminal background. These offenders were usually 175 cm tall, skinny built (63%).

The data further show that stops and searches occurred more frequently during the spring and early summer months, but less often in September and December; they were also more likely to take place at weekends, and peaked between 9 p.m. and midnight. Some hours (i.e. 2 p.m. to 4 p.m.) experienced no stops-and-searches at all. According to Tyler (2011: 257), “every encounter that the public have with the police, the courts and the law should be treated as a socializing experience that builds or undermines legitimacy. Each contact is a ‘teachable moment’ in which people learn about the law and legal authorities.” Our data show that the stop-and-search encounter is brief, with 44 per cent lasting not more than five minutes, and three-quarters last no more than ten minutes.

**Table 1: Suspects and Stop-and-search Event Characteristics**

	Percent (%)
<b>Suspect Characteristics</b>	
Mean Age (S.D.) – Females	22.8 (9.9)
Mean Age (S.D.) – Males	23.0 (9.5)
British-White	84%
British Nationality	82%
Criminal records	65%
Mean Height	175 cm
Skinny built	63.0

Overweight	5.0
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### **Events' Characteristics**

Vehicle Searches	22.0
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Vehicles Searched more than once in six years	27.0
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Suspicion of drugs	48.0
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'Property' found in search	14.6
----------------------------	------

Overall arrest rate	7.1
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Arrest rate for white British	6.8
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### **Disposals**

Advice	18.2
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Formal warning	7.6
----------------	-----

Fixed Penalty	0.8
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Other	4.2
-------	-----

No Further Action	66.0
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### **Arrest**

Drugs	47
-------	----

Stolen Property	24
-----------------	----

### **Community disposals**

Drugs	81.0
-------	------

Stolen property	7.0
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Table 2 presents findings about the reported legal justification for stopping people and searching them. The Code of Practice for conducting stops-and-searches in England and Wales requires officers to have ‘reasonable suspicion’ regarding the person they intend to stop (Police and Criminal Evidence Act 1984 (Code A)). However, the Code forbids them to base their suspicion on the personal characteristics of the suspect. On the contrary, ‘reasonable suspicion’ should normally be linked to intelligence or information describing an article being carried, a suspected offender, or a person seen carrying a type of article known to have been stolen. The most widely-cited justification for stops/searches was suspicion of drugs: 45.8 per cent ( $n = 24,646$ ). The records showed the most frequently suspected drug was cannabis. Officers either directly witnessed the use of drugs, smelled or observed illegal paraphernalia associated with drug use, or deduced from the behavior of the suspects that they were using drugs. The next most common justification that officers gave for conducting stops and searches was ‘going equipped’ (24.2 per cent,  $n = 13,007$ ). This phrase refers to suspects who were seen or caught with tools used for burglary or robbery, such as box-cutters, gloves or metal rods used to break into motor vehicles. Suspicion of stolen property accounted for 17 per cent ( $n = 9,176$ ) of the justifications for stops-and-searches, while terrorism was the least likely justification for stops-and-searches (0.04 per cent,  $n = 21$ ).

In Table 2, we also present the ‘hit rate’ or success rate in finding items associated with unlawful behavior. The data show that most of the arrests made during stops-and-searches related to drugs. Specifically, 47.1 per cent of all arrests made from stop-and-search encounters were for drug possession. The data further reveal that one in four arrests (24.2 per cent) was for stolen property. Although terrorism accounted for 0.04 per cent of the reasons for stops-and-searches, it accounted for 0.1 per cent of the arrest data. For non-arrest disposals, 8 out of 10 were for suspected drug offences; 6.8 per cent for stolen property, and 6.3 per cent for ‘going

equipped’.

**Table 2: ‘Authority’ for Stop-and-search, Success Hit Rate in Finding Paraphernalia Associated with Illegal Behavior and Event Outcome**

Grounds for Search	Incident Count (out of 53,858)	‘Property’* Found in Search	Proportion of Cases resulting in arrest	Proportion of cases resulting in non- arrest disposals
Drugs	24,646	20.41%	47.1%	80.5%
Firearms	399	18.80%	1.0%	0.8%
Terrorism	21	16.67%	0.1%	--
Other	1564	12.28%	0.8%	2.7%
Stolen Property	9,176	11.26%	24.2%	6.8%
Fireworks	399	9.28%	--	0.1%
Offensive Weapons	3,463	8.23%	7.3%	1.7%
Criminal Damage	1,291	6.89%	1.1%	1.0%
Going Equipped	13,007	5.98%	18.5%	6.3%
Violence	191	4.19%	0.1%	0.1%

\* objects found not necessarily associated with the recorded reason for suspicion

### ***Cross-tabulating Ethnicity and Stop-and-Search Outcomes***

In order to illustrate the value of introducing a multitude of ethnic groups rather than a binary compartmentalization of people into majority and minority groups, we must first present the common practice of the categorization. These findings are presented in Table 3 below, for each of the four common outcomes. Looking at arrests first, we see that White British are arrested significantly less, compared to minority offenders ( $\chi^2 = 17.039; p \leq .001$ ), with 6.8% of British Whites and 7.8% minorities having been arrested following a stop-and-search



encounter, respectively. British Whites were also more likely to be formally warned than minority suspects – 7.8% versus 5.6% ( $\chi^2 = 74.292; p \leq .001$ ). However, they were less likely to be informally advised ( $\chi^2 = 48.678; p \leq .001$ ), or 15.8% versus 18.4%. Interestingly, no significant differences emerged between minority and majority groups in terms of NFAs ( $\chi^2 = .328; p \geq .05$ ).

**Table 3: Stop and Search Outcomes \* Ethnicity (Binary) Crosstabulation**

	White British	All Others	Adjusted Standardized Residuals (Minorities)	Chi Square
N	39,893	13,965		
Arrests	2,713 6.8%	1,095 7.8%	4.1	17.039***
Advices	6,320 15.8%	2,568 18.4%	7.0	48.678***
Formal Warnings	3,129 7.8%	788 5.6%	-8.6	74.292***
NFA	25,213 63.2%	8,864 63.5%	-0.6	0.328
* p<.05; ** p<.01; *** p<.001				

A substantially more complicated story unfolds when cross-tabulating each of the four stop-and-search outcomes with 14 ethnic minorities. These four models are presented in Table 4 below. The chi-square statistics under each model were statistically significant at least at the .05 level. More importantly, however, the Pearson adjusted residuals illustrate that the neatness of Donald Black’s stratification model is lost, when the model is complicated by a larger number of ethnic groups. For instance, once mixed ethnicities are considered – e.g., “White and Black African”, “White and Black Caribbean”, “White and Asian”, etc. – it becomes increasingly difficult to decipher any patterns and concentrations associated with ethnicity.

**Table 4: Comparing Four Stop and Search Outcomes \* Ethnicity (Multiple Groups) Crosstabulation**

		<b>Model I: Arrests</b>	<b>Model II: Advices</b>	<b>Model III: Warnings</b>	<b>Model IV: NFA</b>
White British	%	6.8%	<b>15.8%</b>	<b>7.8%</b>	63.2%
	Adjusted Residual	-.9	<b>-3.3</b>	<b>2.9</b>	-.6
Chinese	%	<b>12.2%</b>	<b>21.5%</b>	5.0%	<b>56.6%</b>
	Adjusted Residual	<b>3.5</b>	<b>2.5</b>	-1.7	<b>-2.3</b>
Any other Black background	%	7.7%	18.3%	5.8%	64.0%
	Adjusted Residual	.8	1.4	-1.5	.3
Asian Bangladeshis	%	8.2%	<b>11.2%</b>	11.2%	64.3%
	Adjusted Residual	.7	<b>-1.9</b>	1.9	.3
Asian Indian	%	7.7%	15.0%	8.4%	64.7%
	Adjusted Residual	.6	-.5	.4	.5
Asian Pakistani	%	<b>4.0%</b>	<b>22.3%</b>	7.9%	61.4%
	Adjusted Residual	<b>-4.8</b>	<b>7.3</b>	.4	-1.7
Black African	%	<b>9.6%</b>	<b>12.4%</b>	<b>4.1%</b>	<b>67.5%</b>
	Adjusted Residual	<b>2.5</b>	<b>-2.3</b>	<b>-3.0</b>	<b>2.0</b>
Black Caribbean	%	<b>9.4%</b>	13.7%	7.0%	65.4%
	Adjusted Residual	<b>2.7</b>	-1.7	-.7	1.2
Travellers	%	<b>9.5%</b>	16.5%	<b>4.2%</b>	61.7%
	Adjusted Residual	<b>2.0</b>	.2	<b>-2.5</b>	-.6
White and Asian	%	4.8%	11.1%	4.0%	<b>72.2%</b>
	Adjusted Residual	-.9	-1.5	-1.6	<b>2.1</b>
White and Black African	%	11.1%	12.8%	10.0%	60.0%
	Adjusted Residual	2.3	-1.2	1.2	-.9
White and Black Caribbean	%	8.8%	13.9%	7.9%	63.9%
	Adjusted Residual	1.7	-1.3	.2	.3
White Irish	%	5.3%	15.2%	<b>4.9%</b>	67.3%
	Adjusted Residual	-1.4	-.5	<b>-2.3</b>	1.8
Any other Asian background	%	6.0%	<b>20.1%</b>	6.9%	63.9%
	Adjusted Residual	-.9	<b>2.9</b>	-.8	.4
<b>Chi Square</b>		<b>64.969***</b>	<b>85.959***</b>	<b>35.765***</b>	<b>22.854*</b>

\* p&lt;.05; \*\* p&lt;.01; \*\*\* p&lt;.001

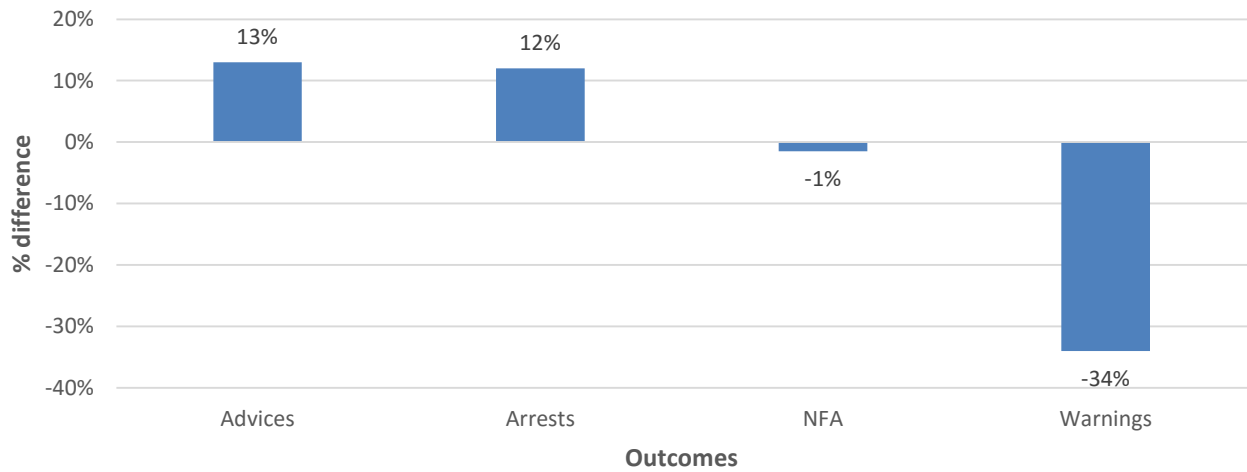
For instance, according to Black's theory, we would have expected that *any* dark-skinned suspects would be arrested more than the mean. However, while Black Africans (9.6%) and

Black Caribbean (9.4%) are arrested significantly more than the mean, White-and-Black Africans, White-and Black Caribbean or any-other-black-background are not. Similarly, the basic stratification model would say that *any* Asian suspect would receive ‘more’ law than British Whites, but the ethnicity variable for Asian people is widely heterogeneous: Asian Pakistanis were arrested significantly less than British Whites (4.0%), while Chinese offenders are arrested significantly more (12.2%), and when all other Asian minority groups do not seem to be arrested any more or any less than the mean.

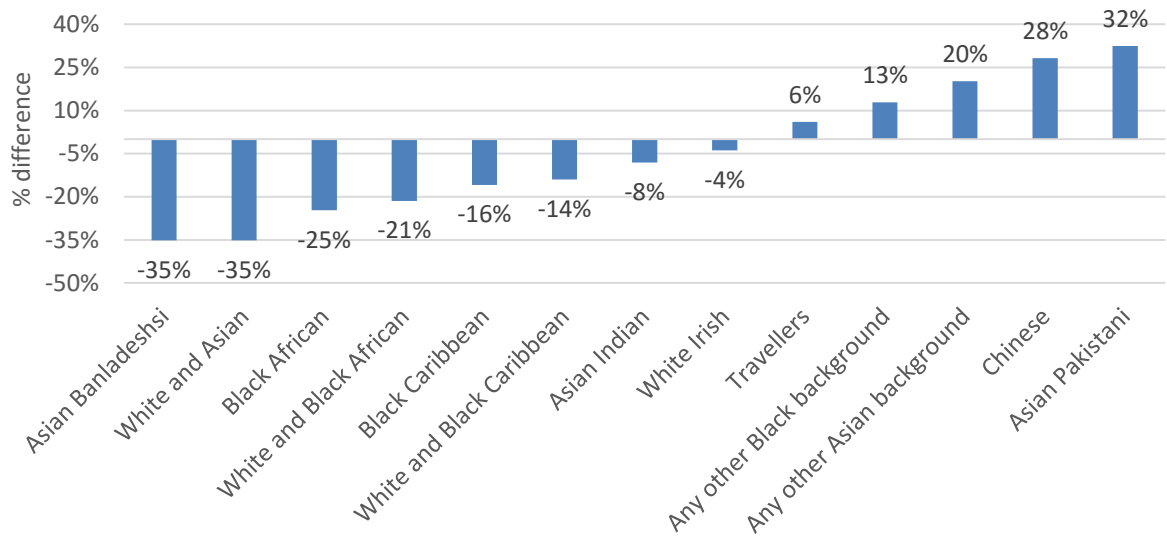
When taking into account non-arrest outcomes, the relationship between ethnicity and stop-and-search outcomes becomes even more complex, and making sense of the stratification model is puzzling. For instance, formal warnings for cannabis – which are part of the criminal record – were applied significantly more on African Blacks (4.1%), but they are also more likely to be NFA’ed (67.5%). African Blacks were less likely to be informally advised (12.4%) – however so were British Whites less likely to be informally advised compared to the mean (15.8%); as both minority and majority groups are informally advised in similar rates, it negates Black’s prediction that African Blacks would receive more law than British Whites. In similar ways, Travelers are more likely to be arrested (9.5%), less likely to be warned (4.3%), but not significantly more likely to be NFAed or informally advised.

These patterns are visually depicted in Figures 1 through 5 below. We first show percent differences comparisons between British Whites and ‘all minority groups’, for all four stop-and-search outcomes (Fig. 1). We then compare these differences across the 13 minority groups with British Whites, again for each outcome (Fig. 2-5).

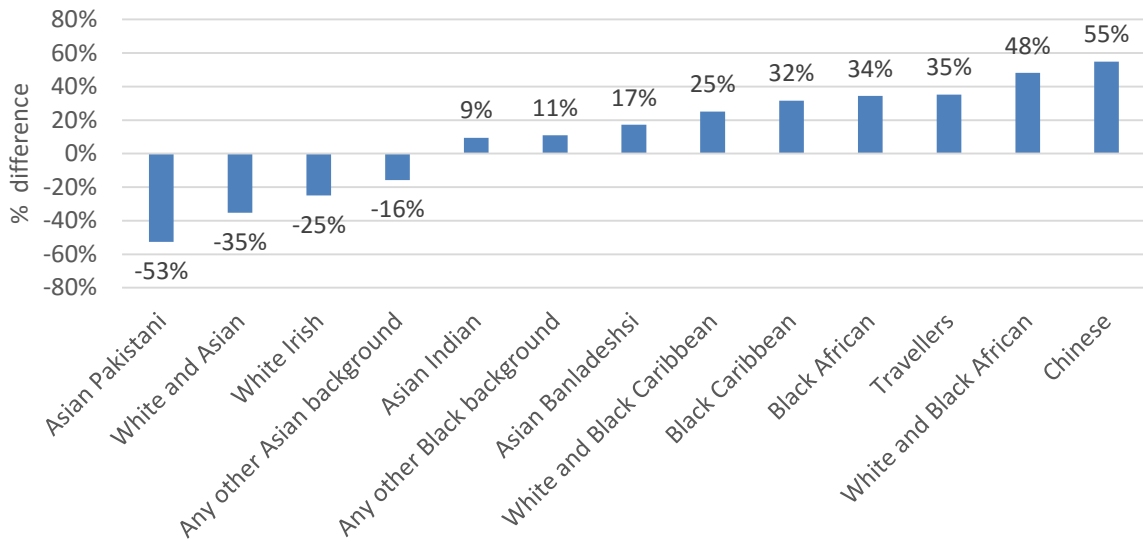
**Fig. 1: Crosstabulating Ethnicity (All Minorities vs. British Whites) and Outcomes**



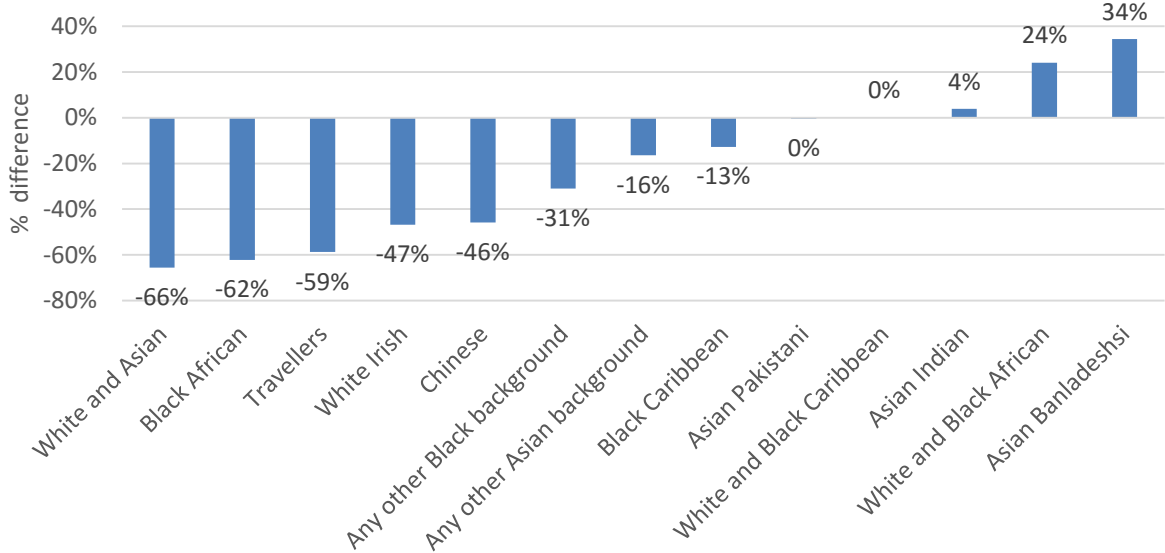
**Fig. 2: Comparing Multiple Ethnicities vs. British Whites - Advices**

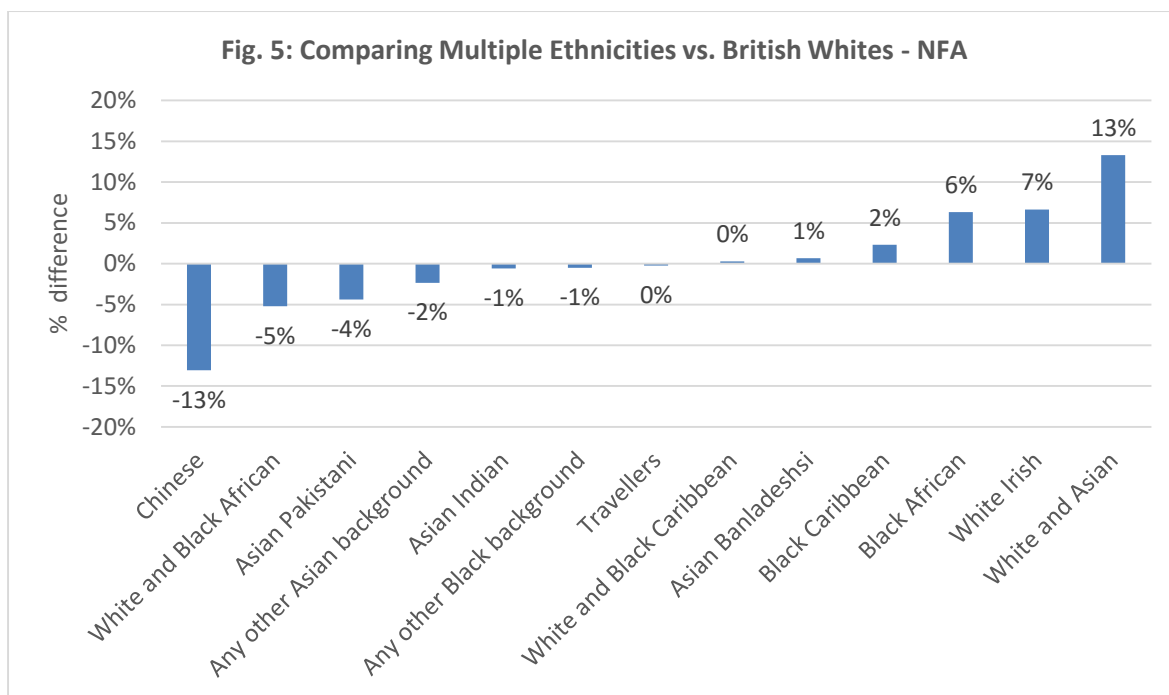


**Fig. 3: Comparing Multiple Ethnicities vs. British Whites - Arrests**



**Fig. 4: Comparing Multiple Ethnicities vs. British Whites - Warnings**





Overall, there is a 12% difference between British Whites and minorities in terms of stop and searches that ended up with an advice, a 13% difference in terms of arrests, a substantial difference in terms of formal warnings (-34%), but a negligible difference in terms of NFAs (-1%). These differences mirror the patterns presented in Table 5 above. In line with our previous analyses, cross-tabulating a wider range of ethnicities (Figures 2-5), show that a disproportionality claim is crude. In an informal advice is considered ‘less law’ (Fig. 2), then it is unclear why five ethnic groups out of the 14 – including Asian Pakistanis and some dark-skinned offenders – would be treated less harshly than British Whites. Virtually all ethnicities are less likely to be warned than Whites (Fig. 4). Similarly, there is a 53% difference between Asian Pakistanis and British Whites, where the *latter* are more likely to be arrested (Fig. 3). It is unclear why Chinese are substantially more likely to be arrested compared with Whites (55%), or why there would be relatively wide variations between different types of dark-skinned suspects (White and Black Caribbean – 25%; Black Caribbean – 32%; Black African – 34%; White and Black African – 48%), if disproportionality was to be taken independently

of anything else.

To add to this, there are no startling differences in terms of stops-and-searches that resulted in no further action (Fig. 5). While our analyses cannot address the decision-making process that have led to making a stop in the first place (no data were available on this stage of the encounter), one would expect larger differences between erroneously stopping minority suspects and Whites. There also seem to be no particular patterns: if the decision-making were biased, it could be expected that, for instance, *all* dark-skinned suspects would be erroneously stopped and then NFAed in similar proportions, which is not the case. Similarly, if officers in Goldenshire are biased, then Asian suspects would also be stopped and then NFAed in similar ratios across the different ethnic groups, but this was not the case either. These findings can suggest two scenarios: first, that the distributive bias officers hold against minorities is advanced enough that they can differentiate between the various ethnic backgrounds and target particular subsets of people within these broader minority groups. However, as ‘more law’ and ‘less law’ seem to be applied heterogeneously, this scenario seems less probable. Instead, there may be other predictors of stop and search outcomes that predict more strongly the different stop and search outcomes.

### ***Predicting Stop-and-Search Outcomes***

Table 5 presents the results of four binomial regression models – informal advice, formal warning, arrests and NFAs, with a host of independent variables. We present the model *b*’s along with the standard errors (in parentheses). We also show each model’s explanatory powers using Nagelkerke’s  $R^2$ . Notice that we have incorporated an interaction term as well, between ethnicity and property found on suspect during the search, as the decision to conclude the encounter might interact with the existence of ‘positive evidence’ against the suspect found

during the search. We suspected that such an interaction would be particularly interesting in encounters that resulted in no further again.

Overall, we can see that across the four models, ethnicity is never the stronger predictor once we controlled for other variables. While all other things held constant in the models, property found on the suspect during the stop and search, whether the suspect was known to the police, and being a male, and having the stop conducted within a hotspot, were nearly always stronger predictors and always statistically significant at the .001 level. The need for additional variables to predict outcomes is most clearly illustrated by the model fit, with variance explained ranging between 21.9% and 58.5% with the additional variables added, versus ethnicity-only models (which usually predict less than 1% of the variance).

Of noticeable importance is the interaction term, which was not statistically significant across the first three models, however it was statistically significant and large (based on the  $b$  values) for NFAs ( $b = .309$ ;  $SE = .149$ ;  $p \leq .05$ ). We discuss this outcome below.

**Table 5: Predicting Stop-and-Search Outcomes: Four Binary Logistic Regression Models – Arrests, Advises, Formal Warnings, NFA's**

Predictors	Model I: Arrests	Model II: Advice	Model III: Warnings	Model IV: NFA
Minority Suspect	0.318*** (0.06) <sup>^</sup>	0.100** (0.031)	-0.215 (0.143)	-0.068* (0.027)
Age of Suspect during Encounter	0.026*** (0.002)	-0.013*** (0.001)	-0.026*** (0.003)	0.007*** (0.001)
Male	0.260*** (0.073)	-0.103* (0.051)	-0.456* (0.092)	-0.118** (0.044)
Known to the Police	0.902*** (0.05)	-0.075** (0.028)	-0.453** (0.051)	-0.022 (0.025)
Property Found	2.432*** (0.048)	-1.274*** (0.063)	4.908*** (0.074)	-4.113*** (0.071)
Stop within Hotspot	0.182*** (0.019)	0.111*** (0.013)	-0.138*** (0.023)	-0.127*** (0.012)
Stop Duration (in minutes)	0.006* (0.003)	0.011* (0.002)	0.01* (0.003)	-0.025*** (0.002)



Vehicle Stop	-0.033 (0.049)	0.018 (0.032)	0.0 (0.058)	0.016 (0.028)
Minority Suspect * Property Found	-0.069 (0.09)	0.162 (0.12)	0.025 (0.155)	-0.309* (0.142)
Nagelkerke R <sup>2</sup>	21.9%	35.0%	58.5%	33.1%
Nagelkerke R <sup>2</sup> (model w/ethnicity only)	1%	1%	0.4%	0.0%
* $p < .05$ ; ** $p < .01$ ; *** $p < .001$ ; ^ standard errors				

## DISCUSSION

Our aim in this study was to test the key proposition from Donald Black's (1976) theory of law – namely stratification – according to which people's positions in the social structure determine the amount of law that applied to them. While being conceptually compelling and in line with traditional observations of police-public encounters, the hierarchical interpretation of *more law* to minorities compared to *less law* to Whites became open to challenge as soon as we applied a more complicated approach to the question of stratification. A number of interesting findings arose from the data.

A mixed picture emerged when we compared outcomes for a Whites-versus-minorities model. We found that, in those cases where the police chose to issue formal warnings, White British were more likely to receive such an outcome than people of minority background. This would seem to contradict Black's theory. However, formal warnings are not the most punitive outcome of a stop-and-search encounter: among the outcomes we examined, arrests are the most punitive or serious outcome. Black's theory predicted that minorities of any background would experience more arrests during stops-and-searches than Whites. The results of a binary comparison of both groups, based on descriptive analysis, supports Black's prediction: minorities were more likely than Whites to be arrested in a stop-and-search encounter. This is broadly the case, as has been shown by previous studies (Borooah 2011; Bowling and Phillips

2007; Brown 1997; Equality and Human Rights Commission 2010; Loader 2006; Miller 2010; Rosenfeld and Decker 2012; Renauer 2012; Ryder 2009). However, once the minority group was disaggregated into different specific groupings, the story becomes complicated with no clear discernible pattern. Ultimately, our findings do not fully support Black's model of the behavior of the law in the police practice of stop-and-search. The findings about arrest also contradict what Gelman, Fagan and Kiss (2007) found in their analysis of data from New York: stops of whites were more likely than those of blacks and Hispanics to result in an arrest.

The results of multivariate analysis showed a person's ethnicity consistently predicted the outcome of their stop-and-search encounter, in particular the likelihood that they would be arrested, receive advice or have no further action taken against them. Thus, even when we controlled for non-ethnicity variables, a person's ethnic status shaped the type of outcome they received. However, the effect of ethnicity was subsidiary to other factors that previous studies have not always fully explored. Was a property found on the suspect? Did the person have a criminal history prior to the encounter? Was the stop-and-search within a crime hotspot or outside it? These, together with gender, emerged as stronger correlates of a stop-and-search encounter. By complicating Black's model to include more stop-and-search outcomes and by including a wider range of ethnicities, the story was far more nuanced.

Skogan and Frydl (2004) have argued for more contextualized analysis of disproportionality and ethnic stratification (and see also Smith and Visser 1981). This would seem even more relevant in the case of police use of stop-and-search powers. Our conclusion, therefore, has to be qualified by the phrase 'in areas of the same type as Goldenshire'. Here, the ethnicity variable is a poor(er) predictor of outcomes when other variables are controlled for. If ethnicity has such a dramatic impact on case outcomes, one would expect the predictive power of each group to be much greater, let alone statistically significant across all ethnicities.

As our findings suggest, this was often not the case, and they call the simple and unmediated interpretation of a ‘minorities-versus-Whites’ disproportionality hypothesis into question (American Civil Liberties Union 2013; *The Guardian* 2012; Floyd and others vs. The City of New York 08 Civ. 1034). Thus, if ethnic stratification were simply about ‘more law’ – i.e. as Donald Black viewed it – then it would be difficult to explain why there is so much variance in the outcomes for stop-and-search. One interpretation for the variance could have been small sample groups. This was not the case. Our groups included hundreds of cases, so our interpretation remains conceptual. Put differently, if the Black model were sufficient, we should have expected fixity and a clearer order for the various ethnic groups in relation to the majority group (Whites). Our data provide little evidence to support such expectations.

### ***Limitations***

Three major caveats are worthy of emphasis. First, we were unable to investigate the subjective reasons which might have led police officers to stop-and-search individuals belonging to certain ethnic groups. Even if bias does exist, we are unable to observe it in our data, particularly in the context of institutional racism (see Lea 2000). Our discussion is limited to the result of the encounter and to some of its situational factors. Notwithstanding, we find the results informative.

Second, it might seldom be the case that whenever a stop-and-search is conducted it is only members of the same ethnic group that were involved in the encounter. It is not inconceivable that, when in groups, individuals of different race are ‘targeted’ together. This calls to mind a key factor that the source of our data did not allow us to control for in our analysis: social class (see Weber 1922 more broadly). There is evidence that stop-and-search is not randomly distributed across class; on the contrary, the police often target lower class

young men in urban cities (e.g. Waddington, Stenson, and Don 2004; Mooney and Young 1999). That suggests that future studies that compare lower class young men of different racial groupings – while controlling for other factors such as those examined in this study – could provide further insight into the complexities of race and police use of stop-and-search powers.

Third, Black's model focuses primarily on predicting the individuals or groups that more or less to experience law. The model offers little insight into a key controversy in the stop-and-search discussion: *legitimacy*. That is, the extent to which police stop-and-search powers are acknowledged as rightful. What makes police stop-and-search powers legitimate? According to Bottoms and Tankebe (2012), legitimacy is a multidimensional concept comprising lawfulness, distributive justice (that is, proportionate distribution of 'goods' and punishments), procedural justice (that is, fair and respectful treatment of citizens) and effectiveness. In the United Kingdom, police managers and politicians seek to answer the question by referring to the lawfulness and effectiveness of stop-and-search tactics, with the latter measured in terms of arrest rates. Two difficulties arise from this approach.

First, the findings from our analysis show that arrests may not be a useful metric; only 7 per cent of the arrests in Goldenshire resulted in this outcome (see also Murray 2014). On the contrary, most stops-and-searches resulted in no further action by police (66%) or community disposals such as formal warnings and penalty notices. Moreover, as Murray (2014), deterrence-based legitimations of stop-and-search powers are "not entirely straightforward, and may carry unintended consequences" such as public support for the police (Murray 2014: 29). Second, being lawful does not prevent citizens from perceiving police power as illegitimate. It is also, as Bottoms and Tankebe (2012) suggest, a question of the fairness – both in the distributive and procedural sense (see also, Meares and Neyroud 2015). Thus, analyzing survey data from young men in New York, Tyler and his colleagues found that "respondents saw the

police as more legitimate when the police were viewed as having acted fairly and lawfully” (Tyler, Fagan and Geller 2014: 766). However, the study further showed that the *frequency* of street stops undermined perceptions of the legality and the fairness of police powers. This is an important insight. However, what the New York study did not examine was how far *frequent* and perceived *lawful* stops, or perceived *fair* and *effective* stops, shaped views about police legitimacy. Future studies that explore these issues will advance our knowledge of the nature and effect of police use of stop-and-search powers. Such studies need to move beyond an understanding of fairness almost exclusively in terms of procedure; *distributive justice* can be equally important.

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