

# Same Crime – Different Outcomes: Do Court Outcomes Differ Systematically by Ethnicity?



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TE KĀHUI RANGAHAU MANA TAURITE



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## Executive Summary

Māori are overrepresented in New Zealand's criminal justice statistics; however, it is unclear to what extent differences in offending behaviour contribute to disparities in court outcomes. This study investigates whether sentencing outcomes still differ systematically between Māori and NZ Europeans in cases of almost identical offences. We focus on first-time drink-driving offenders, and a key design feature of our empirical identification strategy is that we control for alcohol readings, providing an objective measure of offence severity. Using Stats NZ's Integrated Data Infrastructure (IDI), we analyse more than 10,000 convictions between 2008 and 2013, focusing on whether an offender's highest sentence is a fine (the least severe and most common outcome) or a community-based sentence (a more serious penalty such as community service or supervision). To make Māori and NZ European offenders directly comparable and to ensure that any ethnic differences reflect sentencing practices rather than differences in offending history or case type, we restrict the sample to offenders who are directly comparable. Therefore, we limit the sample to adults (20-69 years) with no prior court appearances, who were prosecuted by police, and who pleaded guilty.

### Key Findings:

1. *Sentencing gaps in raw data:* Māori offenders are three times more likely than NZ European offenders to receive a community-based sentence (9.9% vs 3.3%).
2. *After adjusting for background factors:* Logistic regression models show Māori are, on average, twice as likely (104%) to receive a community-based sentence as NZ Europeans. These differences remain statistically significant even after controlling for offence characteristics, socio-demographic factors, economic circumstances, and neighbourhood deprivation.
3. *District Court location matters:* Ethnic disparities vary across District Courts. Māori face higher odds of receiving community-based sentences in the courts that use such penalties most often, indicating that some courts show greater within-courts differences than others.
4. *Other ethnicities:* The analysis was repeated for people who identified as both Māori and NZ European, as well as Pacific Peoples. Offenders identifying as Māori and NZ European are, on average, 35% more likely to receive a community-based sentence than those identifying as only NZ Europeans. Pacific Peoples offenders receive similar sentences to NZ European offenders. This could be attributed to the fact that most Pacific Peoples cases are heard in Auckland courts, where sentencing practices tend to be fairly consistent.

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# 1 Introduction

Ethnic disparities in criminal justice outcomes, particularly regarding the experiences of Māori, are part of an ongoing public discussion in Aotearoa New Zealand. While public discourse and qualitative research have repeatedly highlighted the overrepresentation of Māori in arrest and incarceration statistics, there remains a critical gap in empirical research that systematically investigates whether individuals of different ethnicities are treated differently by the courts for comparable offences. Understanding whether sentencing outcomes differ for comparable offenders is essential for assessing the fairness and consistency of the justice system. However, consistent court outcomes matter beyond the judicial sphere because first convictions and labour-market entry often both occur when people are young, a period when starting salaries shape long-term earnings. A criminal record can create employment barriers—especially during economic downturns—because background checks are standard in New Zealand and more severe sentences may further disadvantage applicants.

The main research question of this report: **Do court outcomes differ systematically by ethnicity?** Focusing on first-time drink-driving offences, we use New Zealand’s *Integrated Data Infrastructure* (IDI)—a comprehensive, anonymised dataset maintained by Stats NZ that links administrative data from across various agencies—to explore whether Māori and NZ Europeans experience different judicial outcomes when charged with the same offence type.

Our study focuses on drink-driving offences as this offence type offers a unique opportunity to test judicial equity, with the alcohol level measurements (breath or blood) providing an objective indicator of offence severity. This allows for like-for-like comparison between offenders charged with essentially the same crime. By focusing on first-time offenders and controlling for relevant socio-demographic and offence-related factors, we isolate ethnicity as a potential determinant of differential treatment within the justice system.

This work is especially timely in light of recent findings from the Understanding Policing Delivery (UPD) programme (New Zealand Police, 2024), which revealed systemic bias in policing decisions. Māori were found to be 11% more likely to be prosecuted than their Pākehā counterparts when other variables were held constant. These findings raise the question of whether such disparities persist beyond policing and into the courtroom? While existing studies have advanced our understanding of bias in law enforcement, little is known about whether these disparities extend into the judicial process. International research, including studies by Rehavi & Starr (2014) and Arnold et al. (2018), have demonstrated significant racial disparities in sentencing and bail decisions, but comparable quantitative work in the New Zealand context is lacking.

A New Zealand-specific analysis is essential because the country’s legal framework, sentencing principles, ethnic composition, and obligations under Te Tiriti o Waitangi create a context that is distinctly different

from other jurisdictions. Relying solely on overseas evidence risks overlooking how local institutional practices, regional court structures, and historical relationships between the justice system and Māori shape outcomes.

By leveraging the rich and detailed data within the IDI, this study is the first of its kind in New Zealand to quantitatively assess ethnic disparities in judicial outcomes using matched comparisons of nearly identical offences. Our analysis reveals that Māori offenders remain significantly more likely to receive a more severe sentence than comparable NZ European offenders, even after accounting for offence severity and background factors. In doing so, it contributes to both academic literature and ongoing policy debates, offering novel and impartial empirical evidence to support discussions on bias, equity, and justice system reform. Increasingly, such work reflects a broader international shift toward using data-driven approaches to uncover and address structural inequities within justice systems. For example, Ramos-Maqueda & Chen (2025) emphasise that the growing availability of large-scale administrative datasets is reshaping how bias and decision-making processes are understood, enabling more transparent and evidence-based pathways to reform.

We focus our empirical research on the type of highest sentence the drink-driving offender has received: whether it is a fine (the least severe and most common outcome) or a community-based sentence (e.g., community service or supervision, which is a more serious penalty). Our sample includes only first-time offenders with no prior convictions and whose drink-driving charge is based solely on elevated alcohol levels (that is, no additional offences such as dangerous driving). These offenders do not receive custodial sentences, so fines and community-based sentences capture the full range of sentencing severity relevant to this group. In our logistic regression models, we control for offence-related characteristics as well as the individual's socio-demographic and economic background. We then add a binary indicator for the individual's ethnicity, using data from Stat NZ's personal details files rather than court records, to reduce potential misclassification bias.

Our first focus is on the group of offenders who identify as Māori. The raw distributions indicate that Māori offenders are about three times more likely to receive a community-based sentence than NZ European offenders (9.9% vs. 3.3%). After accounting for offence characteristics, socio-economic factors, and economic circumstances, Māori offenders remain around twice as likely to receive a community-based sentence than NZ European offenders. These differences are statistically significant, indicating that some, but far from all, of the disparity can be explained by background characteristics.

We then examine the role of District Court location. Sentencing practices vary widely between courts, with some imposing community-based sentences more often than others. At the same time, we find that ethnic disparities are largest in these courts: Māori are more likely to receive community-based sentences in places where such penalties are generally more common, indicating that regional differences in court practice amplify national disparities. From a policy perspective, this finding is highly significant, as it suggests that

regional sentencing practices can unintentionally magnify existing ethnic disparities. Ensuring greater consistency across courts could therefore be an important step toward achieving a fairer and more equitable justice system.

Finally, for robustness, we then test what discrepancies look like for two other ethnic groups. We start by looking at people who identify as both Māori and NZ European, and we find smaller but still sizable differences compared to individuals who identify as solely NZ European. When we repeated our analysis for offenders who identify as Pacific Peoples, no significant differences in court outcomes are found compared to NZ European offenders. However, further investigation reveals that most Pacific Peoples cases are heard in Auckland courts, where sentencing practices tend to be fairly consistent.

The remainder of this report is organised as follows: Section 2 discusses Māori justice, the impact of colonisation, and their experiences with the New Zealand criminal justice system. Section 3 reviews international research on racial disparities. Section 4 outlines the legal background of drink-driving offences. Sections 5 to 7 form the core of the analysis: Section 5 describes the data and provides descriptive statistics; Section 6 explains the econometric model; and Section 7 presents the results. Section 8 concludes with a discussion on the findings.

## 2 Māori justice, colonisation, and experiences of New Zealand's criminal justice system

It is essential to reflect on the power relations that have shaped certain perceptions of Māori justice practices as well as the experiences of Māori, the Indigenous peoples of New Zealand, who have encountered the country's criminal justice system. Both prior to and following colonisation, Māori justice practices and systems of social control functioned at the community level (Webb, 2017), where criminal responsibility was shared by the collective rather than attributed solely to the individual (Tauri, 2005). This relational approach forms a core tenet of Māori justice practices, which can be both diverse in application, varying from iwi to iwi (Tauri & Morris, 1997), yet share common and indispensable values that underpin them (Vieille, 2012). Among these values is tikanga Māori—a term open to multiple interpretations (Mead, 2003) but can be broadly understood as Māori custom (Brittain & Tuffin, 2017), or as a shared set of beliefs concerning moral behaviour and the distinction between right and wrong (Mead, 2003; Vieille, 2012). Tikanga Māori is inseparable from spirituality and deeply embedded in whanaungatanga (kinship) and social and political organisation (Webb, 2017). As Jackson (1988) succinctly notes, tikanga “was interwoven with the deep spiritual and religious underpinnings of Māori society so that the Māori people did not so much live under the law, as with it” (p. 36).

Traditional Māori conceptualisations of justice and social order integrated tikanga Māori into practice. When a hara (wrongdoing) has occurred, it constituted a breach of tapu (a violation or spiritual transgression), which in turn affected the mana (authority or power) of an individual, hapū (subtribe), or iwi (tribe). Following the wrongdoing, utu (reparation) was sought in order to restore whakahoki mauri (balance and harmony) to the community (Workman, 2016; Brittain & Tuffin, 2017; Webb, 2017). Although what was considered a customarily appropriate utu could include the loss of group treasures or supplies, public shame, or in the circumstance of a serious hara—death—however, the focus of dispute resolution or discipline remained predominantly future-oriented. It prioritised reintegration of the offender into the community and the victims' healing by balancing the acknowledgment of wrongdoing and progression (Workman, 2019).

The impacts of British colonisation for Māori are profound and form the basis of much intergenerational trauma and harm (Mills & Webb, 2022). Prior to any large-scale political engagement with Britain, Māori maintained a particularly robust system of justice and law (Workman, 2019) and is evidenced in the signing of He Whakaputanga o te Rangatiratanga o Nu Tirenī (The Declaration of Independence) in 1835 between the official British Resident and Northern rangatira (chiefs). He Whakaputanga most notably recognised the independence of Māori tribal organisation and political structures and the collective authority that Northern rangatira possessed as chiefs of iwi (Webb, 2017). However, by 1840, with trade and European immigration increasing (Stanley & Mihaere, 2018), He Whakaputanga was steadily overshadowed during

the period of colonial expansion, paving the way for the signing of Te Tiriti o Waitangi (the Treaty of Waitangi), which marked a turning point of colonisation in New Zealand (Mikaere, 2011). Signed by the British colonial leaders and numerous iwi, the Treaty of Waitangi formalised the connection between Māori and the British Crown, declaring New Zealand a sovereign state. The Treaty guaranteed Māori rights and possession of their lands and resources under the arrangements of iwi, hapū, and whānau (extended family), while retaining Māori political authority, sovereignty, and tino rangatiratanga (Nakhid & Shorter, 2013; Webb, 2017). Despite these guarantees, the provisions of the Treaty were routinely violated as the settler colonial state embarked on a larger campaign of expanding control over substantial parts of the country (Webb, 2017), while actively dismantling Māori culture, including the suppression of Māori legal practices (Finnane, 1995).

The pursuit of assimilation policies by the British Colonial Office and the New Zealand Government of the time sought to dismantle traditional Māori systems of justice and social control—mirroring the treatment of other indigenous peoples within the British Empire (Tauri & Morris, 1997). In addition to citizenship gained through the Treaty, assimilation policies represented an additional layer of allegiance to Britain where Māori were expected to adopt nineteenth-century British behaviours, customs, and institutions, including European justice philosophies and approaches to punishment (Workman, 2019). British forms of legal control stood in stark contrast to Māori justice practices with the implementation of the common law legal system, which located criminal responsibility in the individual as opposed to the collective (Quince, 2007). Transgressions were treated as offences against the state, with formal criminal justice proceedings confined to private courtrooms that excluded victims and largely ignored reparation. For many Māori, the newly introduced British common law system appeared formal, rigid, and placed heavy weight on deterrence or retribution (Tauri, 2005; Quince, 2007), accompanied by the unfamiliar and increasing use of prisons (Quince, 2007; Webb, 2017; Stanley & Mihaere, 2018). Workman (2019) highlights a key cultural dissonance: In Te Ao Māori (the Māori world) confinement in a prison was equated to captivity which had an acute effect on the “personal, emotional and spiritual state” (p.2) of Māori and was met with both fear and aversion.

The normalisation of imprisonment during New Zealand’s colonial period served two purposes. First, it suppressed any perceived resistance to the Crown’s land grab by criminalising protest and undermining traditional Māori leadership. This process made it easier for the Crown to enforce its acquisition of land—often through purchase, deception, or illegitimate means—resulting in the loss of the principal economic base that Māori relied on to sustain their communities (Stanley & Mihaere, 2018). Tensions surrounding this mass accumulation of Māori land culminated in a series of conflicts between the mid-1840s to the 1860s known as The New Zealand Land Wars, which transpired between some iwi and government forces, including allied Māori (Webb, 2017). With the arrest and incarceration of Māori growing, The New Zealand Land Wars came to reflect how Māori “came into conflict with legislation that had been passed in the interests of the colonisers” (Bull, 2004, p. 499), namely the Suppression of Rebellion Act 1863, The

Land Settlement Act 1863, and The Māori Prisoners Trials Act 1879 (Webb, 2017; Workman, 2019). The other key function of imprisonment was to expedite assimilation, that is, conditioning Māori into so-called ‘good citizens’ in line with British social norms (Stanley & Mihaere, 2018; Workman, 2019). Colonial authorities set out to suppress indigenous methods of sanctioning offenders (Finnane, 1995), and Māori who resisted assimilation were increasingly depicted as ‘deficient’, a ‘warrior race’, a ‘dangerous underclass’, ‘rebels’ or, as the ‘other’—framings that lent legitimacy to colonial tactics of discipline and control (Jackson, 1988; Stanley & Mihaere, 2018; Workman, 2019). The legacies of colonisation for Māori are ongoing and far-reaching in terms of social marginalisation, poorer health outcomes, educational and socioeconomic disadvantage, and the extensive criminalisation and overrepresentation of tangata whenua (people of the land) in New Zealand’s criminal justice system (Nakhid & Shorter, 2013; Webb, 2017).

With the erosion of the traditional Māori legal system and justice practices, the growth of Māori urbanisation from the mid-twentieth century saw “the long arm of the colonial legal system” (Quince, 2007, p.10) outstretched to urban Māori who were experiencing cultural disconnection, limited employment opportunities, and discrimination (Stanley & Mihaere, 2018). Simultaneously, the over-policing of Māori communities intensified—often for minor misdemeanours—leading to escalating rates of arrests and convictions and drawing Māori deeper into the welfare and criminal justice systems (Webb, 2017; Stanley & Mihaere, 2018). From the early twenty-first century onwards, Māori have continued to be disproportionately represented in apprehensions, convictions and incarceration statistics, with Māori men comprising approximately 50% of the overall male prison population and Māori women comprising nearly 60% of the overall female prison population—an outcome widely described as the mass incarceration of Māori (Webb, 2017). Indeed, the state-mandated mass incarceration of Māori as a project of containment provides critical context to engaging with Māori experiences of New Zealand’s criminal justice system.

For a number of Māori, encounters with New Zealand’s criminal justice system are characterised by systemic failings. This issue is reflected in strained relationships with the police, racism and institutional racism, and a lack of culturally appropriate services in the criminal justice system for Māori. Māori/police relations have long been marked by what many Māori regard as unwarranted persecution, over-policing, and mistrust, often shaped by prior personal or whānau interactions with police (Te Whaiti & Roguski, 1998; Tauri, 2005; Quince, 2007). Research has highlighted this police bias. Fergusson et al. (2003), for example, found that in Christchurch, Māori cannabis users were arrested at three times the rate of non-Māori despite equivalent usage, while Maxwell and Smith (1998) found that negative police attitudes and perceptions of Māori impacted on some officers’ stop and search practices. Brittain and Tuffin (2017) captured the general concerns of some Māori regarding experiences with the police, where Māori perceived that police treatment of non-Māori was fair, while Māori were subjected to discriminatory and racist practices that channelled them towards imprisonment. These perceptions are further reflected in Te Whaiti and Roguski (1998) who assert that the present criminal justice system of New Zealand works to maintain a relationship of opposition and inequality between Māori and the police. Here, the echoes of colonisation

continue to shape contemporary Māori/police interactions of which are rooted in the historical subjugation of Māori.

Institutional racism within the criminal justice system is well-documented (Jackson, 1988; Tauri, 2005; Quince, 2007; Brittain & Tuffin, 2017; Webb, 2017; Stanley & Mihaere, 2018). Moana Jackson's seminal report *He Whaipaanga Hou: A New Perspective* (1988)—the first, and only large-scale analysis of Māori and the criminal justice system and its agencies—drew discussions with over 3,000 Māori during a 3-year period of research to discuss criminal justice issues (Tauri, 2005). Jackson (1988) concluded that Māori dissatisfaction with the criminal justice system stemmed largely from institutional racism and bias, evident in their overrepresentation across arrests, court appearances, and imprisonment statistics. This bias was particularly visible in policing and judicial practices. Encounters of institutional racism and blatant and implicit racism tied to Māori identity feature as an added layer of the experience for Māori of the criminal justice system. Enduring colonial discourses constructed Māori as a 'threat' (Stanley & Mihaere, 2018), with characterisations of Māori identity associated with criminality (Brittain & Tuffin, 2017), alongside the framing of crime in New Zealand as a 'Māori problem' (Stanley & Mihaere, 2018). Such denigration of Māori identity is linked to the wider subjugation of Māori culture that not only perpetuates stigma but also normalises the discourse of 'overrepresentation'—related to criminal justice statistics, risking its perception as an intrinsic attribute of Māori identity rather than a product of structural inequities (McIntosh & Coster, 2017).

Debates about a separate or parallel justice system for Māori have periodically resurfaced, grounded in the Treaty's Article Two guarantee of *tino rangatiratanga* over Māori affairs, including justice (Quince, 2007). The lack of culturally appropriate services for Māori in the current criminal justice system has fuelled calls for a Māori justice system embedded in *tikanga* Māori and *mātauranga* Māori (Māori knowledge and philosophy) (Brittain & Tuffin, 2017). Tauri (2005) critiques existing approaches as either indigenisation—employing more Māori within the justice system, often tokenistically—or co-option, whereby selective aspects of *tikanga* Māori and culture are incorporated into state justice interventions, reflective of the absence of 'by-Māori for Māori' approaches (Tauri, 2005). While strategies such as family group conferencing—a example of co-option—reflect partial incorporation of Māori cultural practices, critics argue that such measures primarily reinforce the state justice system while leaving little scope for genuine Māori authority and self-determination to address offending (Jackson, 1988; Tauri, 2005).

Overall, the experiences for many Māori of New Zealand's criminal justice system, marked by strained Māori/police relations, systemic racism, and a lack of culturally appropriate services, must be understood within the broader historical context of colonisation and the systematic erosion of *tikanga* Māori and *mātauranga* Māori. Moving beyond the reductive notion of a 'Māori crime problem' (Quince, 2007) requires a deeper examination of the structural conditions in which offending occurs and the differential treatment faced by Māori within New Zealand's criminal justice system.



### 3 International Research on Racial Disparities

International research, particularly from the United States, has extensively examined racial disparities within the criminal justice system, with a strong focus on policing practices. This body of work gained renewed momentum following the emergence of the Black Lives Matter movement in 2013, which drew global attention to institutional racism, systemic violence, and racial bias within law enforcement (Nix et al., 2017; Ross, 2015; Shoub, 2021; Spencer et al., 2016). Beyond the United States, similar disparities have been documented in other common-law jurisdictions. In the United Kingdom, Hood & Cordovil's 1993 landmark study on *Race and Sentencing* demonstrated that, even after controlling for offence seriousness and prior record, Black defendants were 5% more likely to receive custodial sentences than comparable White defendants, presenting clear evidence of discrimination within Crown Court sentencing (von Hirsch & Roberts, 1997). In Canada, Wortley & Owusu-Bempah (2011) found that Black Canadians were significantly more likely to be stopped, searched, and arrested by police, even after accounting for socio-economic and neighbourhood factors. Similarly, in Australia, Weatherburn et al. (2011) reported that Indigenous Australians experienced disproportionately high arrest rates, largely attributable to structural disadvantage and intergenerational trauma rather than individual offending behaviour while Hopkins & Popovic (2024) further identified ongoing racial profiling in policing practices despite limited official police data.

Research consistently shows that racial disparities in policing are not isolated incidents but part of wider systemic patterns. Hollis & Jennings (2018), in a meta-review of 41 studies, found that race remained one of the strongest predictors of police use of force, despite variation in study methodologies. Ross (2015) reported that unarmed Black Americans were 3.49 times more likely to be shot by police than unarmed White Americans. Shoub (2021) identified widespread racial disparities in post-traffic stop searches, suggesting that bias is rooted in institutional practice rather than individual prejudice. Nix et al. (2017) further showed that minority civilians were more likely to be fatally shot while not attacking, and that Black victims were twice as likely as White victims to be unarmed when killed by police. Although Fryer (2019) found no significant racial difference in shootings once contextual factors were controlled, his data nonetheless showed that Black and Hispanic civilians were more than 50% more likely to experience non-lethal force. Hollis & Jennings' (2018) findings reflect broader critiques by Obasogie & Provenzano (2023), who argue that criminology has often ignored the historical and structural roots of racism, narrowing how police violence is understood. Public perceptions mirror these realities: Weitzer & Tuch (2005) observed that trust in police fairness and legitimacy differs sharply by race, shaped by both direct experience and media narratives of injustice. These studies together show that racial bias in policing is not just a matter of individual conduct. It is embedded in the everyday workings and assumptions of policing institutions.

Evidence of racial disparities extends into judicial processes. One study closely aligned with our research is by Rehavi & Starr (2014), who examined racial disparities in federal sentencing across the US. Using

administrative data from 2006 to 2008, they tracked Black and White male US citizens from arrest to sentencing. After controlling for factors such as criminal history and offence characteristics, they found that Black defendants received sentences nearly 10% longer than comparable White defendants for the same crimes. Another relevant study by Arnold et al. (2018) explored racial bias in bail decisions. By analysing quasi-random assignments of bail judges in Miami and Philadelphia, the authors found that Black defendants were treated more harshly, especially by inexperienced and part-time judges. These disparities reflect broader systemic patterns. For instance, Schlesinger (2005) found that Black defendants were more likely to be denied bail and less likely to receive non-financial release, while Latino defendants faced higher bail amounts, outcomes consistent with judicial reliance on racialised stereotypes about dangerousness and irresponsibility. Clemons (2014) also noted that bias in the justice system is not always intentional or obvious. It can arise from unconscious assumptions that shape the decisions of judges, prosecutors, and juries. Taken together, the evidence suggests that racial bias can appear both openly and subtly, often within institutions that aim to be fair but still produce unequal outcomes.

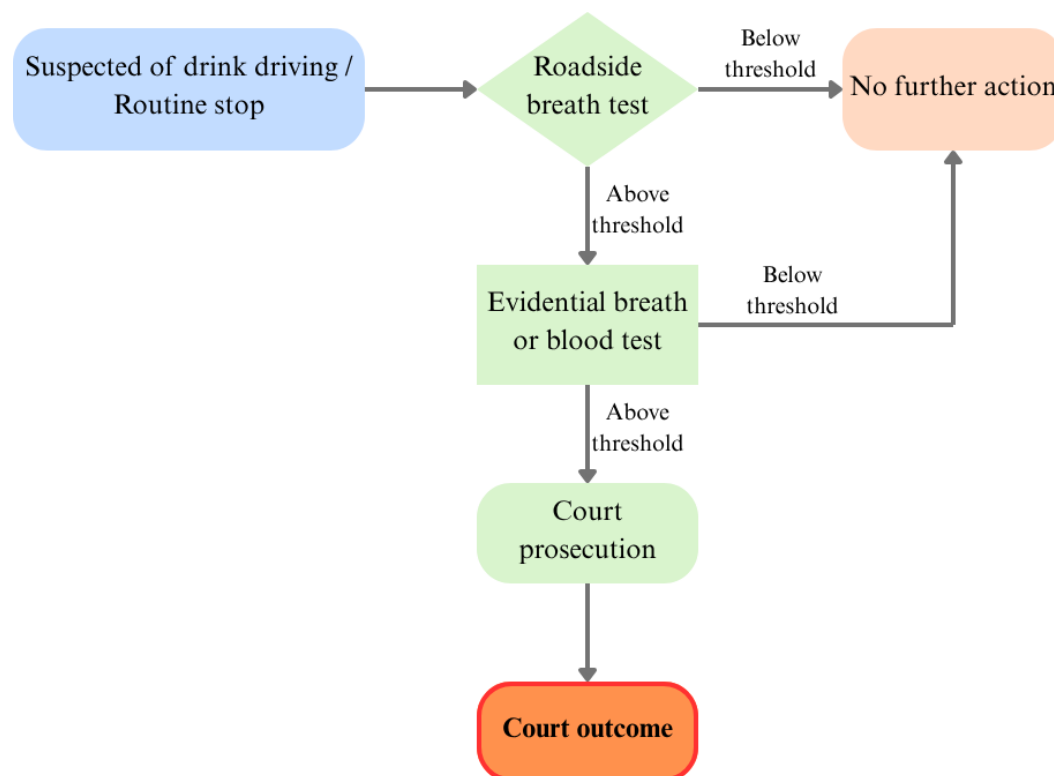
Bias within the judiciary has also been documented. A lack of ethnic representation in the judiciary can lead to gaps between judicial and societal understandings of justice, particularly when minority perspectives differ from those of the majority (Niki-Tobi, 2023). Rachlinski et al. (2009) found that judges exhibit implicit racial biases similar to those of the general White American population. Gill (2014) found that racial and gender biases persist in judicial performance evaluations. However, more recent findings suggest growing recognition of systemic racism within the judiciary, with about 65% of surveyed judges acknowledging its existence (Holbrook et al., 2022).

While much of the evidence relies on qualitative or perception-based approaches, quantitative attempts to measure systemic bias are less common. One such study by Dannefer & Schutt (1982) used official records from New Jersey and a log-linear model to compare charges across ethnic groups. Their findings indicated that racial bias was more evident in police decisions than in judicial rulings. Similarly, Abrams et al. (2012) applied a quasi-experimental design using randomly assigned judges in Cook County, Illinois, and found significant variation between judges in racial disparities in incarceration rates, indicating that systemic bias can be statistically identified within judicial discretion itself. Recent meta-analyses confirm that measurable racial disparities persist throughout the criminal justice process, with minority groups facing higher odds of police searches (Bolger & Lytle, 2018), adverse prosecutorial decisions (Wu, 2016), and harsher sentencing outcomes (Mitchell, 2005).

## 4 The Legal Background of Drink-driving Offences

Drink-driving remains one of the most significant road safety issues in New Zealand and is firmly established as a criminal offence under the Land Transport Act 1998. The statutory framework sets clear alcohol limits for drivers and provides a graduated response to breaches of these limits. Sanctions range from infringement notices to fines, licence disqualification, community-based sentences, and, in more serious or repeated cases, imprisonment.<sup>1</sup> The regulatory environment is designed not only to punish offenders but also to deter harmful behaviour and promote wider public safety.

**Figure 1. Roadmap: From Offending to Sentencing**



*Notes:* Authors' own depiction.

For drivers aged twenty years and older, the offence thresholds are defined at 400 micrograms of alcohol per litre of breath or 80 milligrams of alcohol per 100 millilitres of blood. However, since December 2014

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<sup>1</sup> See the NZ Transport Agency's website for information on court-imposed penalties for different types of drink-driving offences: <https://www.nzta.govt.nz/roadcode/heavy-vehicle-road-code/road-code/about-limits/alcohol-and-drugs-limits>

lower thresholds, defined at 250 micrograms per litre of breath or 50 milligrams per 100 millilitres of blood, have allowed police to issue infringement notices, providing an opportunity for early legal intervention before an offence progresses to court prosecution (Land Transport Act 1998, s 56(1A)–(2A); Ministry of Transport, n.d.; Land Transport Amendment Act (No 2) 2014). Drivers under the age of twenty, as well as those holding zero-alcohol or alcohol-interlock licences, are subject to a strict zero-tolerance regime, reflecting evidence that younger drivers are disproportionately involved in alcohol-related crashes and exhibit higher propensities for risk-taking behaviours associated with alcohol consumption (Begg, Brookland, & Connor, 2016; Ministry of Transport, n.d.).

Detection typically begins with an initial roadside breath screening test. A positive result provides the basis for further testing, usually an evidential breath test or a blood test conducted by a medical professional. These latter tests provide the legally admissible results used in court proceedings. The use of objective and quantifiable evidence in this process establishes a foundation for consistent judicial outcomes. Figure 1 illustrates the progression from offence detection to sentencing.

Drink-driving offences are generally classified as summary offences, which are considered less serious and are adjudicated in the District Court, usually by a judge alone (Criminal Procedure Act 2011, ss 6–8; Ministry of Justice, n.d.-a, n.d.-b). Such cases are processed relatively quickly and typically result in fines, licence disqualification, or community-based sentences such as community work or supervision. However, when drink-driving results in serious harm, particularly where it causes injury or death, or where offending is repeated, the matter may be elevated to an indictable offence. In these circumstances, offenders can face significantly more severe penalties, including imprisonment. In such cases, the proceedings may also be heard before a jury (Land Transport Act 1998, ss 56 & 61; Criminal Procedure Act 2011, s 6).

## 4.1 Sentencing Principles

Sentencing in drink-driving cases is guided by the Sentencing Act 2002, which requires courts to balance proportionality, deterrence, public protection, and rehabilitation when determining appropriate outcomes. The *Memorandum on the Land Transport Act 1998 and the Sentencing Act 2002* (Gledhill, 2025; see Appendix A) notes that Parliament sets maximum penalties to indicate the relative seriousness of the offence, but judicial discretion is necessary to tailor sentences to both the offence and the offender. This balance reflects the constitutional aim of individualised justice.

The Memorandum emphasises that judges must first consider whether conviction is necessary, with the Act permitting discharge without conviction in limited cases. Although drink-driving normally carries a mandatory disqualification from driving, recent case law suggests that this requirement is not absolute. Judges may waive disqualification where special reasons are demonstrated, such as exceptional features of the offence that make automatic disqualification disproportionate. This discretion, confirmed in *Trotter v*

Police [2024] NZHC 2376 and discussed by Gledhill (2025), ensures that sentencing outcomes remain consistent with the principles of individualised justice.

The selection of sentencing purposes is also critical. As the Memorandum explains, accountability and denunciation emphasise the seriousness of breaching the social contract, while deterrence, protection of the public, and rehabilitation all serve to prevent future harm. Reparation, though less directly relevant in most drink-driving cases, remains an important statutory consideration. These purposes are not mutually exclusive but must be weighed according to the facts of each case.

In determining the appropriate sentence, courts must also observe statutory principles such as proportionality, consistency, and the imposition of the least restrictive outcome consistent with public safety. The Memorandum highlights that while consistency is not the paramount principle in the Sentencing Act, it continues to be important, particularly in nationwide application (particularly *McEachen v Police* [1995] 2 NZLR 251). This is especially true in drink-driving cases, where the presence of objective evidence such as alcohol levels provides a basis for comparable treatment across similar cases.

Mitigating and aggravating factors, outlined in section 9 of the Sentencing Act, further influence outcomes. The Memorandum draws attention to factors such as premeditation and prior convictions as aggravating circumstances, while youth, good character, and early guilty pleas can mitigate sentence severity. The case of *Hessell v R* [2009] NZCA 450 clarified that early guilty pleas may attract a sentencing discount of up to 25 percent.

Finally, the statutory hierarchy of sentences, beginning with discharge and escalating through fines, community sentences, home detention, and ultimately imprisonment, provides structure for judicial decision-making. As the Memorandum observes, imprisonment should only be imposed when no other sentence can fulfil the purposes of sentencing.

## 4.2 Typical Outcomes for Drink Driving Offences

In practice, first-time offenders typically face a fine proportionate to their alcohol reading and a driving disqualification of at least six months. Convictions are commonly entered, with enduring consequences for an individual's criminal record. Repeat offenders are subject to progressively severe sanctions, including longer disqualification periods, higher fines, and increased likelihood of community or custodial sentences. Where drink-driving results in injury or death, the law provides for indictable charges with the possibility of lengthy imprisonment.

Drink-driving offences in New Zealand illustrate the interaction between statutory regulation, judicial discretion, and societal expectations of safety and fairness. The legislative framework, grounded in the Land Transport Act 1998 and interpreted through the Sentencing Act 2002, provides a structured response

while preserving flexibility to account for individual circumstances. As *the Memorandum on the Land Transport Act 1998 and the Sentencing Act 2002* (henceforth, ‘the Memorandum’) explains, “individualised justice is the constitutional aim, namely making the sentence fit the offence and the offender” (Gledhill, 2025; see Appendix A, p. 1). This principle is underpinned by section 8 of the Sentencing Act 2002, which requires courts to “take into account the seriousness of the type of offence in comparison with other types of offences” (Gledhill, 2025, p. 1). The Memorandum further confirms that consistency, proportionality, and fairness remain the guiding principles of sentencing in this area, noting that “the general desirability of consistency in sentencing (section 8(e))” continues to guide judicial reasoning, particularly for offences such as drink-driving where nationwide uniformity is expected (Gledhill, 2025, p. 2). The combination of measurable offence criteria and judicial discretion ensures that drink-driving is not only treated as a public safety concern but also serves as a broader case study in sentencing policy and judicial impartiality.

Because drink-driving sentencing relies on quantifiable measures, it offers a distinctive opportunity to evaluate court outcomes. As the Memorandum notes, “the presence of objective, quantifiable measures of the offence (breath or blood alcohol levels) allow for relatively consistent sentencing guidelines and makes drink driving a suitable context for analysing judicial impartiality” (Gledhill, 2025; see Appendix A, p. 3). However, outcomes can still diverge despite similar readings because of the offender’s background or circumstances, which is another aspect crucially to be accounted for. In summary, drink-driving provides a valuable opportunity for examining questions of equity and fairness in New Zealand’s criminal justice system, particularly concerning ethnicity and socio-economic background.

## 5 Data & Descriptives

### 5.1 The Integrated Data Infrastructure

We use Stats NZ’s Integrated Data Infrastructure (IDI) for this study. The IDI is a large-scale research database managed by Stats NZ. It links de-identified microdata from multiple government agencies, providing a powerful platform for longitudinal and cross-sectoral analysis. Due to its comprehensive population coverage and rich individual-level linkage, the IDI provides a robust foundation for assessing systemic differences in outcomes, including for example ethnic disparities in court decisions (Milne, 2022; Narayanan et al., 2025).

A key feature of the IDI is its ability to identify the same individual across different government datasets. Stats NZ first applies deterministic matching using exact identifiers (such as IRD or National Health Index numbers) where available, followed by probabilistic matching based on personal information such as name, date of birth, and sex to link remaining records (Statistics New Zealand, 2025). Once linked, each individual is assigned a unique anonymised identifier (*snz\_uid*). All personally identifiable information is removed or encrypted before researchers gain access.

The quality of these linkages is very high. For justice-related data, the linkage success rate is approximately 91.6%, with an estimated false positive rate of just 0.8% (Statistics New Zealand, 2024, Table 1, p. 4). This level of accuracy allows researchers to build comprehensive profiles of individuals, including their justice interactions, health records, education history, and economic circumstances, while maintaining strict privacy protections. Access to the IDI is restricted to approved researchers working within secure environments, and all findings are subject to confidentiality rules, including minimum reporting thresholds.

The IDI is highly suitable to address our research question on ethnic differences in court outcomes for the following reasons:

1. Its population-wide coverage ensures that we can identify all individuals charged with drink-driving offences during the study period, reducing sampling bias.
2. The longitudinal data structure helps to account for historical information, such as prior convictions, income, and health events, providing richer context and allowing for better control of confounding factors.
3. The IDI’s individual-level linkage enables the construction of detailed offender profiles (Milne, 2022; Narayanan et al., 2025) and near-identical comparison groups, often referred to as “doppelgängers”, allowing the role of ethnicity in court outcomes to be isolated more effectively.

Despite these advantages, the IDI has limitations. First, alcohol level data from the Ministry of Justice are only available for the years 2008 to 2013, restricting the analytical time window. Second, the data does not include identifiers for individual judges<sup>2</sup>, so we cannot analyse judge-level variation; however, court identifiers allow us to examine differences across District Courts. Third, the IDI lacks qualitative context. It does not record circumstances surrounding police stops or judicial decision-making. Factors such as courtroom demeanour, verbal arguments, or character references, which may influence outcomes are not captured. These strengths and limitations are considered in the design of the empirical strategy and in the interpretation of results presented in later sections.

## 5.2 Identifying the population of interest

Our study centres around the research question of whether ethnic differences in court outcomes exist. As discussed in Section 4.2, multiple factors influence sentencing decisions such as offence type, prior criminal history and other circumstantial variables. Our data-driven approach aims to reduce differences in observable court-relevant factors between individuals, thereby isolating the effect of ethnicity.

We applied the following restrictions when building our sample (see Table 1 for a list and description of the datasets used):

- Offender characteristics: We included drink-driving offenders aged 20–69 at the offence date. Individuals with any prior court appearances, including those not found guilty, were excluded. We also excluded cases with multiple offences on the same date, as these typically involved additional charges (e.g. dangerous or careless driving) that could have affected sentencing. Offence codes must indicate excess breath or blood alcohol levels, and the offence must have occurred between 2008 and 2013 (due to alcohol level data availability).
- Court processing: Offenders must have been processed in District Courts (excluding High Courts), which handle almost all drink-driving cases, to ensure consistency in sentencing frameworks. Cases transferred between courts were excluded so that outcomes could be clearly attributed to a

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<sup>2</sup> Scandinavian countries maintain administrative databases similar to New Zealand’s IDI, but with an important difference: their court data include identifiers for individual judges. This enables researchers to study judicial decision-making more precisely. Because judges are typically (quasi-)randomly assigned to cases, based on scheduling rather than offender characteristics, their sentencing tendencies (e.g., more lenient or stricter) can be treated as plausibly exogenous. This variation allows researchers to estimate the causal impact of judicial discretion on court outcomes. Empirical studies using judge-assignment designs demonstrate how this exogenous variation can reveal disparities in judicial behaviour. For instance, Abrams, Bertrand, and Mullainathan (2012) show that sentencing outcomes in randomly assigned cases vary systematically by defendant race, indicating substantial heterogeneity in judges’ treatment of minority defendants. Similarly, Arnold, Dobbie, and Yang (2018) exploit quasi-random bail-judge assignment to identify racial bias in pre-trial detention decisions, providing robust causal evidence of unequal treatment across racial groups.



single District Court. We also removed cases with unusually long processing times—defined as more than 125 days between the first and last court date—as these often reflect complex or atypical proceedings (e.g. multiple adjournments or disputed evidence). Only guilty pleas were included, since plea decisions strongly influence sentencing. Fewer than 1% of cases involved not-guilty pleas, as alcohol-level evidence was objective and hard to refute. Finally, we limited the sample to convicted individuals to ensure that sentencing outcomes were well-defined; those discharged without conviction were excluded, though they represented fewer than 1% of cases.

- **Health filters:** We excluded individuals who were hospitalised during the offence month or had an ACC road-accident record, as these cases likely reflect situations where the offender was injured in connection with a drink-driving incident subsequently processed in court. Although the accident itself may not have been chargeable, the associated circumstances could still influence sentencing outcomes.
- **Residency filter:** We also excluded individuals who were overseas at any point in the 12 months prior to the offence. Recent overseas residence often results in limited income, employment, or address information in the IDI, making these individuals less comparable to other offenders and potentially biasing socio-economic controls. In addition, offenders may have received convictions overseas that are not captured in our data but could still influence sentencing outcomes.
- **Ethnicity identification:** Ethnicity data were not available from the Ministry of Justice’s court records, so we sourced them from Stats NZ’s personal details file. This file consolidates ethnicity information from multiple administrative and survey sources, including the Census, Ministry of Health, Ministry of Education, ACC, Department of Internal Affairs, Ministry of Social Development, and other surveys. Stats NZ applies a prioritisation system (with the Census as the primary source) and assigns the most recent available record. Ethnicity is recorded as six binary indicators (NZ European, Māori, Pacific Peoples, Asian, Middle Eastern/Latin American/African (MELAA), and Other), and individuals can report multiple ethnicities. For our main analysis, we restricted the sample to individuals who identified solely either as Māori or NZ European, excluding those who reported multiple ethnicities. For robustness, we repeated our empirical analysis with individuals who identified as both Māori and NZ European, and finally with individuals who identified as Pacific Peoples.

**Table 1: Overview of the datasets used**

<b>Dataset</b>	<b>Description</b>
Ministry of Justice – Court Charges Data (from 1992 onwards)	<ul style="list-style-type: none"> <li>• Offence type and code; prosecuting agency</li> <li>• Key dates (e.g., offence, hearing, charge);</li> <li>• Plea type</li> <li>• Court outcome</li> <li>• Sentence details.</li> </ul>
Ministry of Justice – Alcohol Level Data (2008–2013)	<ul style="list-style-type: none"> <li>• Type of test (breath vs. blood)</li> <li>• Measured alcohol level (<math>\mu\text{g/L}</math> or <math>\text{mg/mL}</math>)</li> <li>• Linked to charge via (moj_charge_uid) a unique charge identifier for linking to court data.</li> </ul>
Stats NZ – Personal Details File	<ul style="list-style-type: none"> <li>• Contains demographic information such as age, sex at birth, and ethnicity classification.</li> </ul>
ACC & Ministry of Health (MoH)	<ul style="list-style-type: none"> <li>• Hospitalisation and accident records, used to identify whether the incident involved injury.</li> </ul>
Inland Revenue (IRD)	<ul style="list-style-type: none"> <li>• Employment status and earnings information, used to control for socioeconomic background.</li> </ul>
Ministry of Social Development (MSD)	<ul style="list-style-type: none"> <li>• Measuring benefit uptake</li> </ul>
Department of Internal Affairs (DIA)	<ul style="list-style-type: none"> <li>• Information on children born</li> </ul>
NZTA Driver Licence Data	<ul style="list-style-type: none"> <li>• Contains information on drivers' licence type at the time of the drink driving offence.</li> </ul>
Stats NZ Address and Overseas Spell Data	<ul style="list-style-type: none"> <li>• Allows us to calculate the length of time an individual has left NZ and/or when they first entered. Also identify the meshblock a person lives and the corresponding deprivation level.</li> </ul>

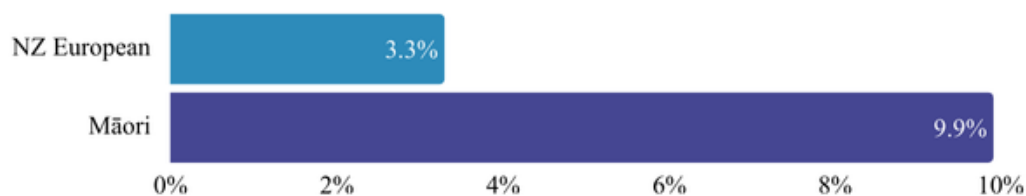
*Notes:* Authors' own compilation.

The final sample for the focus of our main analysis comparing Māori and NZ European offenders consisted of 10,599 convictions, of which 2,250 involved individuals who were identified as Māori and 8,349 involved individuals who identified as NZ European. It is crucial to note that due to our identification strategy, offenders in the sample are similar across numerous dimensions relevant to sentencing decisions, such as prior convictions or offence characteristics.

## 5.3 Descriptive statistics

The first two columns of Table B. 1 in Appendix B introduce our sample of convicted first-time drink-driving offenders, disaggregated by ethnicity. The most notable difference, and the focus of this study, lies in the distribution of the highest sentence outcome. The Ministry of Justice (MoJ) court charges data list the first five most serious sentence types. We constructed a binary indicator variable that takes the value of 1 if the person received a community-based sentence and 0 otherwise.<sup>3</sup> Among those who did not receive a community-based sentence, the overwhelmingly predominant outcome (>99%) was a fine. We observe from Figure 2 that 3.3% of NZ European first-time drink-driving offenders receive a community-based sentence, whereas the corresponding proportion for Māori is 9.9%—three times higher.

**Figure 2. Proportion of first-time drink-driving offenders receiving a community-based sentence**



Notes: Authors' own depiction. Full table of descriptive statistics can be found in Table B. 1 of Appendix B.

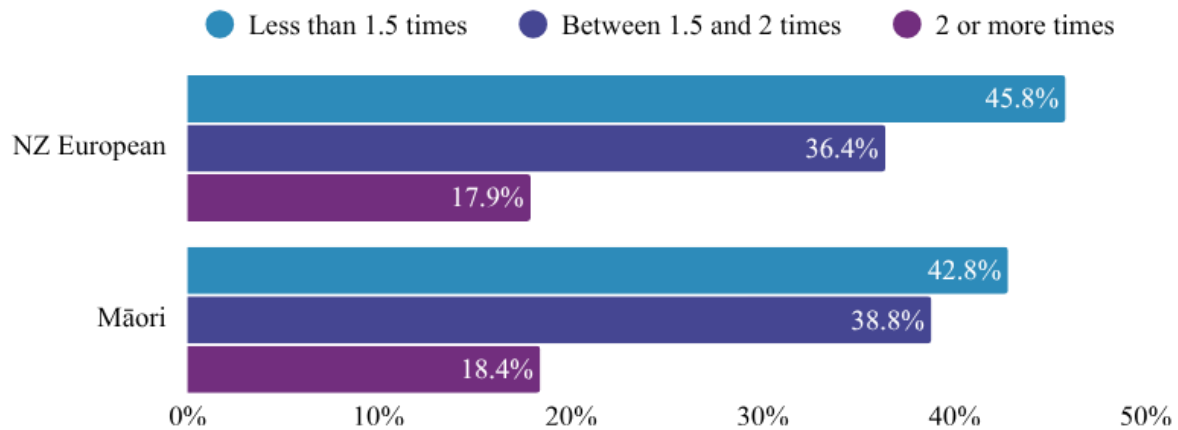
We then examined offender profiles to assess whether these ethnic differences persist across other dimensions. First, we compared measured alcohol levels. Alcohol content is assessed via breath (measured as micrograms of alcohol per litre of breath) or blood (measured as milligrams per 100 millilitres). In New Zealand, an evidential breath test is the primary method of measuring alcohol impairment for driving offences. A blood test may be required when the evidential breath test is refused or unavailable, or when the driver elects a blood test following a breath test result; it may also be used in cases of serious crash or hospitalisation (Land Transport Act 1998, ss. 69(4A)(a), 72(1)(a)). To standardise the measure, we calculated the reading relative to the legal limit: 400 micrograms of alcohol per litre of breath or 80 milligrams of alcohol per 100 millilitres of blood. Approximately half of offenders registered below 1.5 times the legal limit, while another third fell between 1.5 and 2 times the legal limit. This distribution was broadly similar across both ethnic groups (see Figure 3). However, regarding the method of alcohol measurement, one in five NZ European offenders were assessed via blood sample, compared to one in ten Māori offenders. Because hospitalised offenders were excluded from the sample, this difference is unlikely

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<sup>3</sup> The identification and ranking of the most serious sentence are provided by the Ministry of Justice.

to reflect injury-related testing and instead suggests that NZ European offenders were more likely to request a blood test, possibly reflecting greater awareness of procedural rights or greater comfort in asserting them during police interactions.

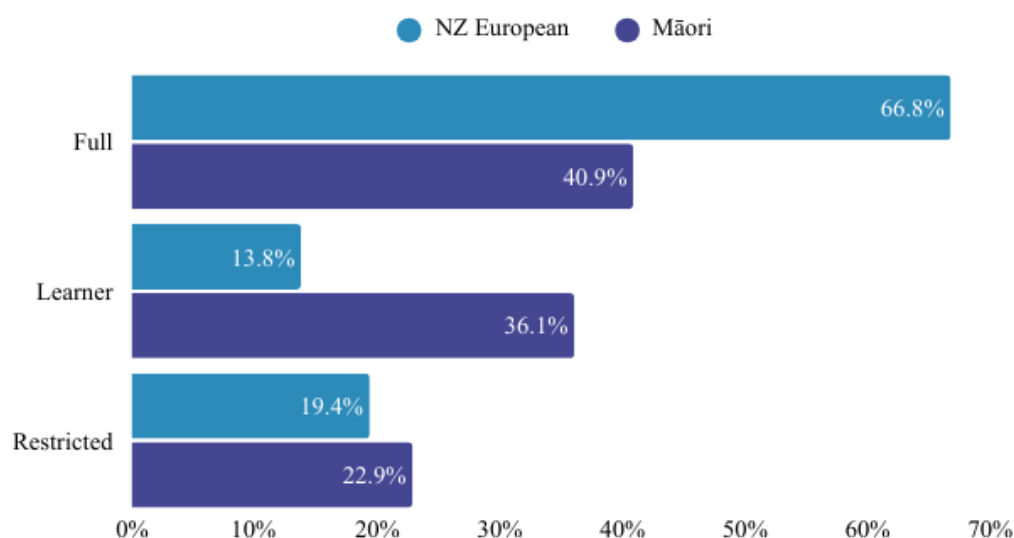
**Figure 3. Alcohol level relative to threshold**



Notes: Authors' own depiction. Full table of descriptive statistics can be found in Table B. 1 of Appendix B.

New Zealand operates a graduated driver licensing system, where drivers progress through three stages: learner, restricted, and full licences. Each carries specific conditions and alcohol limits under the *Land Transport Act 1998* (ss. 64-67). During the study period (2008-2013), however, all adult drivers were subject to the same legal blood-alcohol limit, irrespective of licence type (*Land Transport Act 1998*, s. 56). Ethnic disparities were nonetheless evident in licence status at the time of the offence: two-thirds of NZ European offenders held a full licence, compared with only 41% of Māori offenders (see Figure 4). It is important to note, however, that none of the offenders were charged with breaching specific licensing conditions; each was prosecuted solely for drink-driving under section 56 of the *Land Transport Act 1998*, with no additional charges (such as breaching licence conditions under s. 65) laid. While licence type did not determine the legal alcohol limit at that time, it remained a relevant indicator of driving experience and compliance with regulatory milestones. Courts may view offending by less-experienced drivers as more serious, given their reduced driving experience and the stricter licensing conditions typically associated with learner and restricted licences.

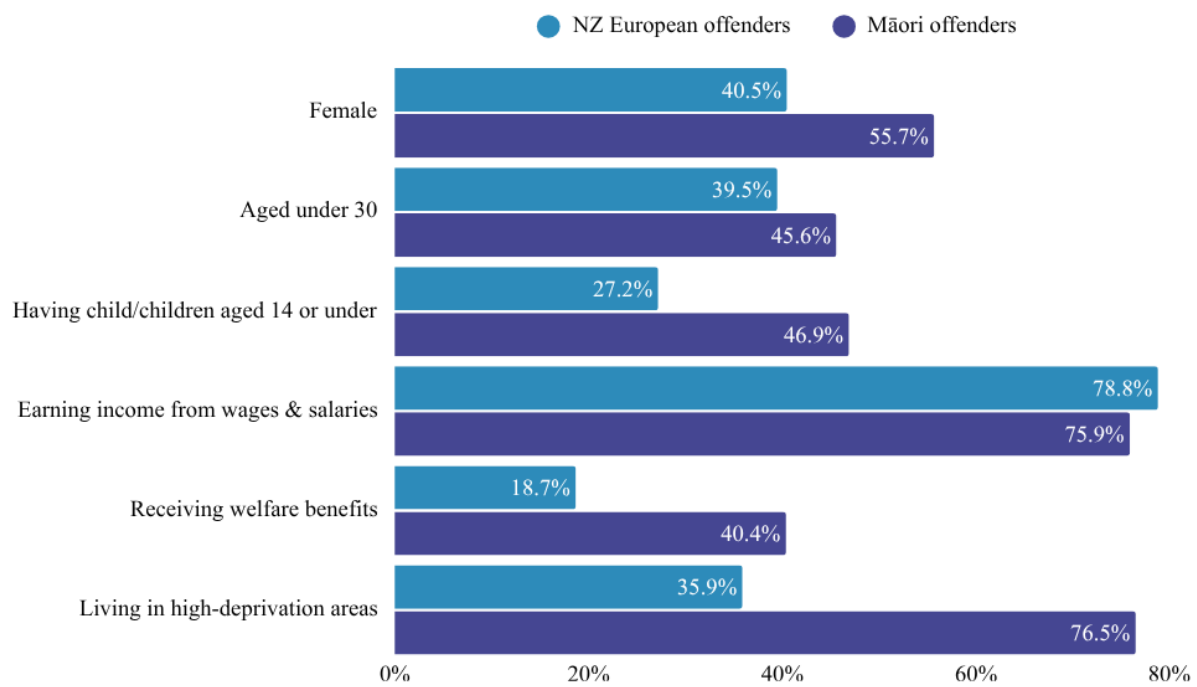
**Figure 4. Driver licence status**



*Notes:* Authors' own depiction. Full table of descriptive statistics can be found in Table B. 1 of Appendix B.

Turning to socio-demographic characteristics, ethnic differences were pronounced. A significantly higher proportion of Māori offenders were female (56%) compared to NZ European offenders (41%). Māori offenders were also, on average, younger and more likely to have a young child (see Figure 5). While employment rates were similar, approximately three in four, benefit uptake was substantially higher among Māori in the 12 months leading up to the offence date. This greater level of deprivation was further reflected in neighbourhood characteristics: it can be observed from Figure 5 that three-quarters of Māori offenders resided in highly deprived areas, whereas only one-third of NZ European offenders lived in neighbourhoods with a deprivation index of 7 or higher.

**Figure 5. Ethnic differences when examining socio-demographic characteristics (measured at offence month)**



*Notes:* Authors' own depiction. Full table of descriptive statistics can be found in Table B. 1 of Appendix B. High deprivation refers to NZ deprivation index scores from 7 to 10.

## 6 Econometric approach

In our study, we employed a logistic regression model to estimate the probability of receiving a community-based sentence (coded as 1) rather than any other sentence (coded as 0), conditional on offender characteristics. The model takes the familiar form:

$$P_i = \frac{e^{x\beta}}{1 + e^{x\beta}} \quad (1)$$

where  $P_i$  denotes the probability of a community-based (i.e. more serious) sentence, and coefficients are estimated by maximum likelihood.

Central to our analysis was a binary indicator for ethnicity. The variable took the value of 1 for individuals who identified solely as Māori and 0 otherwise, with the reference category being individuals who identified solely as NZ European. We repeated our analysis and looked into offenders who identified as Pacific Peoples (coded as 1, and 0 otherwise), as well as those who identified as both Māori and NZ European (also binary), again with “NZ European” as the reference category.

We included a comprehensive set of explanatory variables measured at the date of the offence, controlling for the following characteristics:

- Measured alcohol level relative to the legal threshold (to minimise the impact of outliers we used a categorical variable with three groups:  $<1.5x$  (*reference*),  $\geq 1.5x$  and  $<2x$ ,  $\geq 2x$ )<sup>4</sup>,
- Type of alcohol test: Blood vs Breath (*reference*),
- Driver's licence status (Full (*reference*), Learner, Restricted),
- Gender (male (*reference*), female),
- Age (categorical: 20-24 (*reference*), 25-29, 30-34, ..., 65-69),
- Having a child/children according to Department of Internal Affairs' birth records (categorical: No child (*reference*), youngest child 5 or below, youngest child between 6-14, youngest child above 14),
- Receipt of welfare (MSD) benefits in the 12 months prior to the offence (binary),
- Income from wages and salaries (categorical: No income (*reference*), below median sample level, above median),

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<sup>4</sup> The findings stay virtually unchanged when replacing it by a continuous measure.

- Meshblock deprivation index of residence (categorical: 1-3 (less deprived), 4-6 (*reference*), 7-10 (most deprived)).

We cluster standard errors at the District Court level to account for potential similarities in sentencing practices within jurisdictions.

Rather than presenting the estimated coefficients from the logistic regression model, we reported odds ratios (ORs), which are obtained by exponentiating the model coefficients. An odds ratio expresses the multiplicative change in the odds of an event occurring for one group (e.g., Māori) relative to a reference group (e.g., NZ European), holding other variables constant. An OR value of 1 indicates no difference between groups; values greater than 1 indicate higher odds of the outcome and values less than 1 indicate lower odds. For example, an OR of 1.5 means the odds of receiving a community-based sentence are 50% higher for that group compared with the reference group, while an OR of 0.7 means the odds are 30% lower. Throughout the report, we presented odds ratios comparing the non-NZ European (e.g., Māori, Māori & European, Pacific Peoples) group to the NZ European group in terms of receiving a community-based sentence.



## 7 Results

Our objective is to examine whether ethnic disparities exist in court outcomes for first-time drink-driving offenders. We focus our analysis on comparing the likelihood of receiving a community-based sentence between Māori and NZ European (see Section 7.1). In Section 7.2, we discuss variation in sentencing by District Courts. We then check robustness of our findings by repeating our analyses for two other ethnic group in Section 7.3: Māori & NZ European (Section 7.3.1) and Pacific Peoples (Section 7.3.2).

### 7.1 Outcomes for Māori

In this subsection, we discuss the results of our regression models for Māori and NZ European offenders. As shown earlier in Figure 2, the proportion of Māori offenders receiving a community-based sentence was three times higher than that of NZ European offenders.

Table 2 presents the key results of our logistic regression models. The table is structured in the following way: the top part of the table (Section A) summarises the characteristics that were included in each model, while the bottom part (Section B) shows the odds ratios for offenders identifying as Māori receiving a community-based sentence rather than a fine (or lesser sentence), compared to NZ European offenders. Note that each cell entry refers to a separate regression, as each time either further covariates are added or replaced.

Model (I), which controlled solely for ethnicity, confirmed our earlier findings from Figure 2. The odds of receiving a community-based sentence were 3.185 times (or 218.5%) greater for Māori offenders than NZ European offenders.

When we additionally controlled for offence characteristics, namely alcohol level, type of alcohol measurement, and driver's licence type the odds ratios decreased, yet remained highly statistically significant (Model (II)). The odds of receiving a community-based sentence were 2.604 times greater for Māori offenders than NZ European offenders. Further controlling for demographic characteristics like in Model (III), including the offender's sex, age and whether he/she has a child, reduced the odds ratios to 2.356. In our final specification (Model (IV)), we incorporated indicators of economic status, including employment, earnings level and welfare (MSD) benefit uptake in the 12 months preceding the offence. Here, Māori offenders were, on average, 2.036 times more likely to receive a community-based sentence than NZ European offenders, and this difference remains statistically significant. Our findings remained virtually unchanged when we substituted individual economic indicators with the neighbourhood deprivation index (Model (V)).

**Table 2: Logistic regression estimation results (Māori versus NZ European)**

		Model				
		(I)	(II)	(III)	(IV)	(V)
(A)	Offence characteristics <sup>a</sup>		✓	✓	✓	✓
	Demographic characteristics <sup>b</sup>			✓	✓	✓
	Economic characteristics <sup>c</sup>				✓	
	Neighbourhood deprivation index <sup>d</sup>					✓
(B)	NZ European			<i>reference</i>		
	Māori	3.185*** (0.443)	2.604*** (0.361)	2.356*** (0.329)	2.036*** (0.292)	2.005*** (0.257)

*Notes:* Authors' own calculations using the IDI. This table shows the odds ratios for a Māori offender to receive a community-based sentence instead of a fine or a lower ranked sentence, compared to a NZ European offender. Each cell refers to a separate regression. Numbers in brackets refer to standard errors which are clustered at the District Court level. Significance levels are: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Observations: n = 10,599.

<sup>a</sup> includes alcohol level, type of alcohol measure, driver licence type

<sup>b</sup> includes sex, age, whether offender has a child, and child's age

<sup>c</sup> includes employment indicator, earnings level and welfare benefit uptake in the 12 months prior to the offence

<sup>d</sup> includes the NZ Deprivation Index

These regression estimates suggested that observable factors such as employment, earnings, and age, contributed meaningfully to explaining the sentencing gap between Māori and NZ European offenders. However, even after accounting for this comprehensive set of observable characteristics, Models (IV) and (V) revealed that Māori had, on average, a significantly higher likelihood to receive a community-based sentence. This indicates that the ethnic disparity in sentencing was not fully explained by differences in observable characteristics.

A key assumption of the logistic regression model is that the estimated effects are consistent across all subgroups. For example, we assumed that alcohol level has a uniform impact on the likelihood of receiving a community-based sentence, regardless of the offender's age. To investigate potential heterogeneity and ensure that results were not driven by specific segments of the sample, we applied a common empirical technique: stratifying the sample by observable characteristics.

We chose to use Model (IV) which comprised offence characteristics, demographic characteristics, and economic characteristics, to run a separate logistic regression model with stratified samples. The results are shown in Table C. 1 of Appendix C. The odds ratios did not vary much when applying Model (V) instead of Model (IV), which means the economic variables were replaced with the Meshblock deprivation index variable.

Notably, across all stratifications, Māori offenders were consistently and significantly more likely to receive a community-based sentence than NZ European offenders. Moreover, we observed only minor differences in the odds ratios across stratified samples. For example, there was little variation when stratifying by alcohol level or by age group (below vs above 30 years). However, we found higher odds ratios for Māori women than for Māori men (2.272 vs 1.742), for those with higher income (2.349) compared to those with no income (2.001), and for those not receiving welfare benefits (2.461) compared to those who do (1.665).

## 7.2 Variation by District Court Location

In this subsection, we examine the role of District Court location in shaping ethnic differences in sentencing outcomes. Our sample included 63 District Courts, and in a first step, we ranked these courts based on the proportion of offenders receiving community-based sentences from lowest share to highest share. We then divided these courts into four groups of about similar share of Māori in each group. Groups with the corresponding District Court names are listed in Table 3.

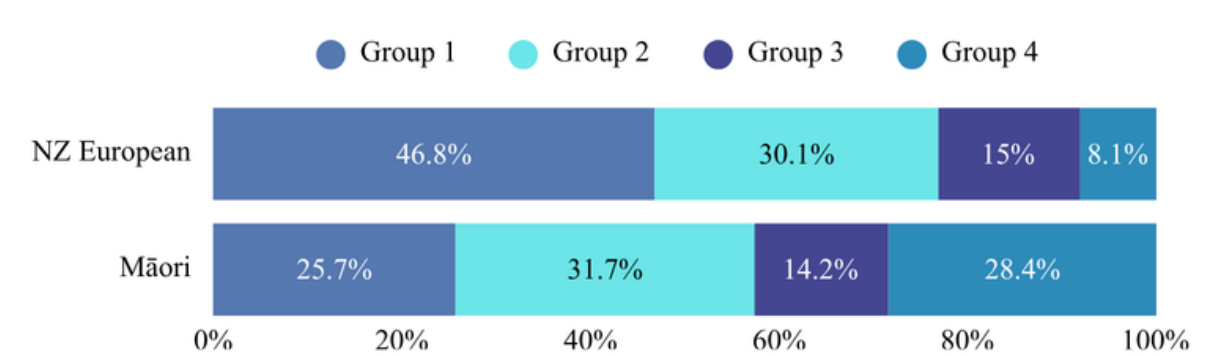
**Table 3: Court locations by ranking**

Group 1 (20 courts)	Group 2 (20 courts)	Group 3 (10 courts)	Group 4 (13 courts)
Auckland, Christchurch, Dannevirke, Feilding, Greymouth, Hamilton, Hutt Valley, Kaikoura, Marton, Morrinsville, North Shore, Oamaru, Ruatoria, Taumarunui, Taupo, Timaru, Waitakere, Warkworth, Wellington, Whataroa	Alexandra, Balclutha, Blenheim, Dargaville, Dunedin, Hastings, Hawera, Invercargill, Manukau, New Plymouth, Papakura, Pukekohe, Rangiora, Taihape, Tauranga, Te Awamutu, Thames, Waihi, Waipukurau, Whanganui	Ashburton, Huntly, Lower Hutt, Masterton, Napier, Nelson, Palmerston North, Queenstown, Tokoroa, Whangarei	Gisborne, Gore, Kaikohe, Kaitaia, Levin, Opotiki, Porirua, Rotorua, Te Kuiti, Upper Hutt, Wairoa, Westport, Whakatane

*Notes:* Authors' own calculations using the IDI. 63 District Courts were ordered by the proportion of community-based sentences for NZ European and Māori and then split into four groups.

Figure 6 shows the distribution by ethnicity at which group the offenders were processed. Nearly half of NZ European offenders were processed in courts belonging to the group with the lowest share of community-based sentences (Group 1). In contrast, only about one in four Māori offenders were processed in these courts. The pattern reversed for the group with the highest share of community-based sentences (Group 4): just 8% of NZ Europeans were processed in these courts, compared to 28% of Māori.

**Figure 6. Ethnic distribution of sample population across courts grouped by share of community-based sentences issued**

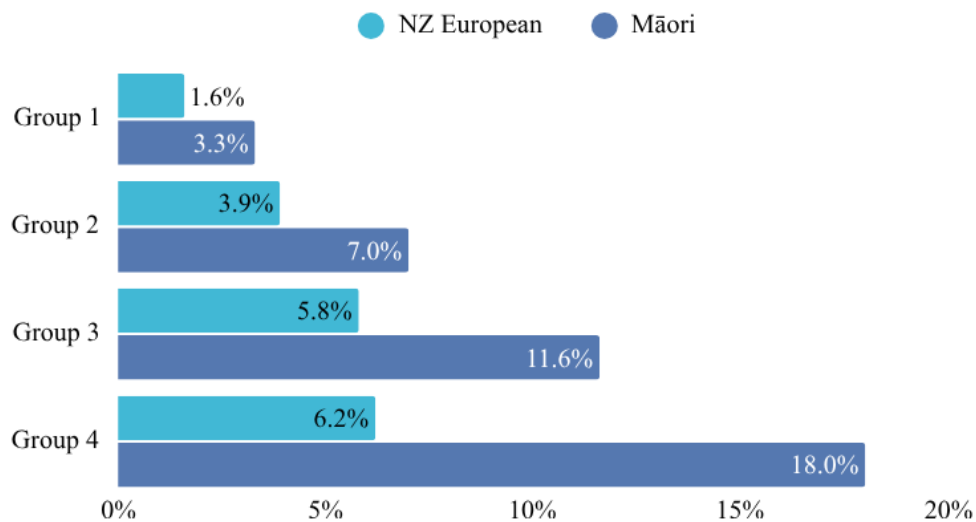


*Notes:* Authors’ own depiction. Full table of descriptive statistics can be found in Table B. 2 of Appendix B. Refer to Table 3 for the group specific District Court names.

Figure 7 illustrates the share of community-based sentences by ethnicity across the four court groups. Note that given the way we defined the court groups, we expect that, on average, the share of community-based sentences increases with the group rank. Two key findings emerge:

1. The overall share of community-based sentences varied substantially across court groups. For example, only 1.1% of NZ Europeans received community-based sentences in Group 1 courts, compared to 6.2% in Group 4.
2. Ethnic disparities increased with court group rank. In Group 1, Māori and NZ Europeans received similar rates of community-based sentences. However, in Group 4, 18% of Māori offenders received community-based sentences, compared to just 6.2% of NZ Europeans.

**Figure 7. Share of community-based sentences issued across court groups by ethnic groups**



*Notes:* Authors' own depiction. Full table of descriptive statistics can be found in Table B. 2 of Appendix B. Refer to Table 4 for ordered groups of 63 District Courts.

We then performed separate logistic regressions for each court group (with the same set of control variables as described in Model (IV) in Table 2), with NZ Europeans as the reference category. Table 4 presents the odds ratios. For the 40 courts with the lowest rates of community-based sentencing (Groups 1 and 2), we did not find statistically significant differences between Māori and NZ Europeans. However, in Group 4, which comprised courts with the highest rates of community-based sentencing, we observed substantial ethnic disparities: Māori offenders were, on average, 2.4 times more likely to receive community-based sentences than their NZ European counterparts.

**Table 4: Logistic regression estimation results by court locations (Māori versus NZ European)**

Court ordered by proportion of community-based sentences	Odds ratios of Māori receiving community-based sentence
Group 1	1.570 (0.598)
Group 2	1.226 (0.157)
Group 3	1.314* (0.194)
Group 4	2.393*** (0.437)
Observations	10,599

Notes: Authors' own calculations using the IDI. This table shows the odds ratios of a Māori offender receiving a community-based sentence versus a fine or a lower ranked sentence, compared with a NZ European offender. Each cell refers to a separate regression. Numbers in brackets refer to standard errors which were clustered at the District Court level. Significance levels are: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The regression models used Model (VI) which accounts for offence, court, demographic, and economic characteristics.

## 7.3 Outcomes for Other Ethnicities

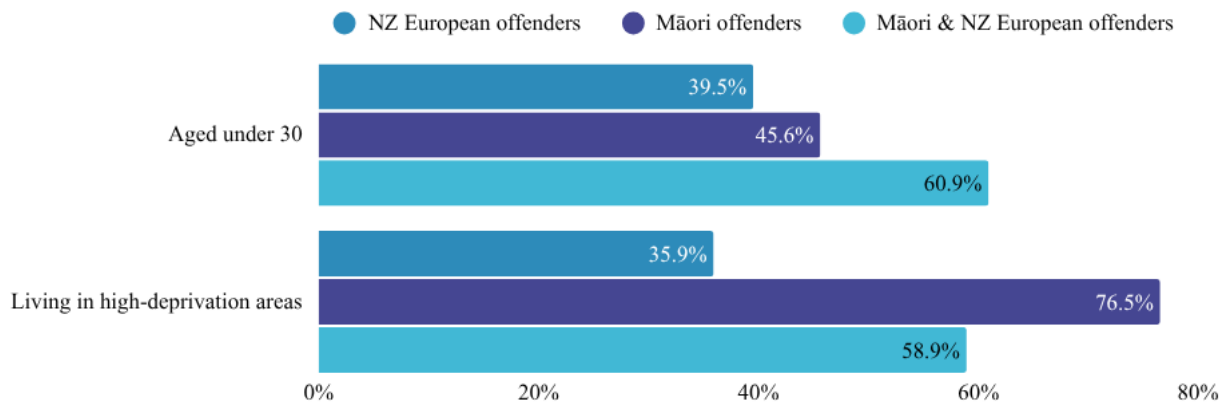
For robustness, we extend our analysis to two other ethnic groups. So far, we have compared sentencing outcomes between offenders who identified solely as Māori and those who identified solely as NZ European. Because many people in Aotearoa New Zealand identify with multiple ethnicities, we next examine outcomes for two further groups: (1) offenders who identified as both Māori and NZ European, and (2) offenders who identified as Pacific Peoples.

### 7.3.1 Māori & NZ European

We retained our reference group, i.e., individuals identifying as NZ European *only*, and replaced the comparison group with offenders who identified themselves as both Māori and NZ European. We referred to this group as “Māori & NZ European”.

Returning to the descriptive statistics in Table B. 1 in Appendix B, we see that the Māori & NZ European group included approximately 1,700 first-time drink-driving offenders (see Column III). Many characteristics, such as driver's licence status and gender distribution, were similar to the Māori-only sample (Column II). However, the proportion of offenders under age 30 was notably higher in the Māori & NZ European (Column III) group compared to the NZ European (Column I) and Māori (Column II) groups (see also Figure 8). Additionally, about 58.9% of Māori & NZ European offenders lived in highly deprived areas, placing them between the Māori-only group (76.5%) and the NZ European-only group (35.9%) (see Figure 8).

**Figure 8: Comparison of Māori & NZ European offenders and NZ European and Māori offenders (measured at offence month)**



Notes: Authors' own depiction. Full table of descriptive statistics can be found in Table B. 1 of Appendix B.

In terms of sentencing outcomes, 6.2% of Māori & NZ European offenders received a community-based sentence, compared to just 3.3% of NZ Europeans (see Table B. 2 in Appendix B). Our preferred model (Model IV) estimated that Māori & NZ European offenders were, on average, 1.346 times (or 34.6%) more likely to receive a community-based sentence than NZ Europeans (see Table 5). While this showed continued disparity, the difference was smaller than that observed for Māori-only offenders (odds ratio of 2.036, see Table 2).

When we stratified the sample by observable characteristics (see Table C. 1 in Appendix C), we found higher odds ratios among certain subgroups, including offenders with higher alcohol level readings (1.654), women (1.618), those aged 30 and above (1.861), individuals with higher income (2.104), and those living in highly deprived neighbourhoods (1.460), indicating that disparities in sentencing outcomes between Māori & NZ European offenders and NZ European offenders are more pronounced within these groups.

**Table 5: Logistic regression estimation results (Māori & NZ European versus NZ European)**

		Model				
		(I)	(II)	(III)	(IV)	(V)
(A)	Offence characteristics <sup>a</sup>		✓	✓	✓	✓
	Demographic characteristics <sup>b</sup>			✓	✓	✓
	Economic characteristics <sup>c</sup>				✓	
	Neighbourhood deprivation index <sup>d</sup>					✓
(B)	NZ European			<i>reference</i>		
	Māori & NZ European	1.923*** (0.241)	1.641*** (0.210)	1.462*** (0.188)	1.346** (0.181)	1.319** (0.169)

*Notes:* Authors' own calculations using the IDI. This table shows the odds ratios of a "Māori & NZ European" offender receiving a community-based sentence versus a fine or a lower ranked sentence, compared to a NZ European offender. Each cell refers to a separate regression. Numbers in brackets refer to standard errors which are clustered at the District Court level. Significance levels are: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Observations: n = 10,035.

<sup>a</sup> includes alcohol level, type of alcohol measure, driver licence type

<sup>b</sup> includes sex, age, whether offender has a child, and child's age

<sup>c</sup> includes employment indicator, earnings level and welfare benefit uptake in the 12 months prior to the offence

<sup>d</sup> includes the NZ Deprivation Index

We also performed separate logistic regressions for each court group, comparing Māori & NZ European offenders with NZ Europeans as the reference category (see Table 6). The patterns observed for the Māori offenders did not emerge in this group, suggesting that the influence of court location on sentencing disparities may vary across ethnic subgroups. However, it must also be noted that the share of Māori & NZ European processed at District Courts belonging to Group 4 is substantially lower (16.1%) compared to Māori (28.4%).



**Table 6: Logistic regression estimation results by court locations (Māori & NZ European versus NZ European)**

Court ordered by proportion of community-based sentences	Odds ratios of Māori & NZ European receiving community-based sentence
Group 1	1.459 (0.459)
Group 2	1.407* (0.248)
Group 3	1.301 (0.407)
Group 4	0.977 (0.347)
Observations	10,035

*Notes:* Authors' own calculations using the IDI. This table shows the odds ratios of a "Māori & NZ European" offender receiving a community-based sentence versus a fine or a lower ranked sentence, compared with a NZ European offender. Each cell refers to a separate regression. Numbers in brackets refer to standard errors which were clustered at the District Court level. Significance levels are: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The regression models used Model (VI) which accounts for offence, court, demographic, and economic characteristics.

### 7.3.2 Pacific Peoples

Pacific Peoples are a fast-growing and diverse population in Aotearoa New Zealand, representing individuals from across the Pacific Islands. In this subsection, we examine court outcomes for individuals who solely identified as Pacific Peoples and compared them to those who identified as NZ European.

We identified 500 first-time drink-driving offenders in the Pacific Peoples group (see Table B. 1, Column IV in Appendix B). Compared to NZ Europeans, Pacific Peoples offenders were substantially younger: three out of four were under the age of 30 (74.1%), compared to two out of five NZ Europeans (39.5%). Similar to the Māori group (Column II), a large majority of Pacific Peoples offenders lived in highly deprived neighbourhoods. Despite these differences, we observed only a small gap in sentencing outcomes: 4.2% of Pacific Peoples offenders received a community-based sentence, compared to 3.3% of NZ Europeans (see Table B. 1 in Appendix B).

Logistic regression results in Table 7 show that, across all model specifications, there were no statistically significant differences in the likelihood of receiving a community-based sentence between Pacific Peoples and NZ European offenders. This finding is further supported by stratified analyses in Table C. 1 of Appendix C.

**Table 7: Logistic regression estimation results (Pacific Peoples versus NZ European)**

		Model				
		(I)	(II)	(III)	(IV)	(V)
(A)	Offence characteristics <sup>a</sup>		✓	✓	✓	✓
	Demographic characteristics <sup>b</sup>			✓	✓	✓
	Economic characteristics <sup>c</sup>				✓	
	Neighbourhood deprivation index <sup>d</sup>					✓
(B)	NZ European			<i>reference</i>		
	Pacific Peoples	1.219 (0.436)	0.955 (0.326)	0.913 (0.316)	0.919 (0.338)	0.762 (0.272)

*Notes:* Authors' own calculations using the IDI. This table shows the odds ratios of a Pacific Peoples offender in receiving a community-based sentence versus a fine or a lower ranked sentence, compared with a NZ European offender. Each cell refers to a separate regression. Numbers in brackets refer to standard errors which are clustered at the District Court level. Significance levels are: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Observations: n = 8,847.

<sup>a</sup> includes alcohol level, type of alcohol measure, driver licence type

<sup>b</sup> includes sex, age, whether offender has a child, and child's age

<sup>c</sup> includes employment indicator, earnings level and welfare benefit uptake in the 12 months prior to the offence

<sup>d</sup> includes the NZ Deprivation Index

These findings were in stark contrast to the disparities observed for Māori (see Section 7.1) and Māori & NZ European (see Section 7.3.1). One key difference was the geographic concentration of Pacific Peoples offenders: approximately 75% were processed in one of four Auckland courts (including Manukau, Papakura, and Waitākere), whereas fewer than 20% of NZ European, Māori and Māori & NZ European offenders were processed in these locations. When we repeated our analysis and restricted the samples to cases processed at one of the four Auckland District Courts, we found little ethnic differences in court outcomes in general: we estimated odds ratios of 1.833 (0.582) for Māori, 1.282 (0.600) for Māori & NZ European, and 1.238 (0.638) for Pacific Peoples, highlighting the effect of court location.

## 8 Discussion and Conclusion

In the previous three sections, we presented empirical evidence for ethnic differences in court outcomes for offenders prosecuted for the first time for drink-driving violations. We showed that these discrepancies were particularly pronounced between Māori and NZ European individuals, especially within a subset of District Courts.

Drink driving is a relatively low-discretion offence, and the results may generalise to other similar nature offences such as traffic or licensing violations, which are highly standardised, where the evidence is objective and penalties are structured. However, there is literature that suggest that these results are unlikely to generalise to offences requiring subjective evaluations, such as assault, drug possession/supply, family harm, or to stages with wide discretion (arrest, charge selection, plea offers, bail, sentence length). In these areas, the prior literature suggests that we should expect larger ethnic disparities, because higher discretion tends to widen gaps, compared with drink-driving offences.

Can we interpret these findings as proof that court outcomes systemically differ by ethnicity? For the following reasons, our findings must be interpreted with caution:

1. Regression models can test whether outcomes remain consistent across groups once observable characteristics are accounted for, but they cannot by themselves prove the existence of bias. A lack of statistical difference between groups after adjustment is evidence of consistency, not fairness per se. Bias is fundamentally about processes, motives, and unobserved treatment, which regression analysis cannot directly capture. At best, regression models provide evidence that outcomes are not inconsistent with equal treatment, but they cannot definitively establish—or rule in—discriminatory intent.
2. While we find significant differences in court outcomes by ethnicity, the underlying *cause* remains unknown. There may be other observable or unobservable factors not included in our model that correlate with the ethnicity marker. For example, our measure of economic deprivation may be insufficient: we do not observe whether a community-based sentence was requested by the offender due to limited financial resources to pay a fine. Or the person may already have a high outstanding fine balance from previous infringement offences (which are not visible in conviction data), making further fines impractical. In this sense, our ethnicity marker could be interpreted as a residual that captures other, non-offence-related differences associated with ethnicity.
3. As noted, our analysis covers the period from 2008 to 2013. Access to more recent data would help us understand whether these patterns persist. This question is particularly relevant given the steady

decline in drink-driving incidents over the past decades. For instance, while the number of finalised drink-driving charges was 34,388 in 2008/09, it had halved to 17,111 by 2024/25.<sup>5</sup>

These findings matter beyond the judicial sphere. The first conviction and entry to the labour market typically occur during similar life stages—conviction rates peak in the late teens to early twenties, coinciding with the completion of formal education. The first job, and especially the starting salary, has a long-term impact on lifetime earnings. A conviction results in a criminal record, which employers commonly review during background checks—a standard practice in New Zealand. Employment law stipulates that such checks must be relevant to the safe and appropriate performance of the job and must be conducted with the applicant’s consent. Thus, a criminal conviction can create employment barriers, which may be further exacerbated by higher sentences. This impact might be especially relevant during economic downturns, when vacancies are scarce and competition is high.

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<sup>5</sup> See Ministry of Justice’s Conviction and Charge data tables (retrieved 1 October 2025): [https://www.justice.govt.nz/assets/Documents/Publications/3qvhPH\\_All-finalised-charges-and-convicted-charges\\_jun2025\\_v1.0.xlsx](https://www.justice.govt.nz/assets/Documents/Publications/3qvhPH_All-finalised-charges-and-convicted-charges_jun2025_v1.0.xlsx)

# References

- Abrams, D. S., Bertrand, M., & Mullainathan, S. (2012). *Do judges vary in their treatment of race?* *Journal of Legal Studies*, 41(2), 347–383. <https://doi.org/10.1086/666006>
- Arnold, D., Dobbie, W., & Yang, C. S. (2018). Racial bias in bail decisions. *The Quarterly Journal of Economics*, 133(4), 1885-1932.
- Begg, D., Brookland, R., & Connor, J. (2016). Associations of repeated high alcohol use with unsafe driving behaviors, traffic offenses, and traffic crashes among young drivers: Findings from the New Zealand Drivers Study. *Traffic Injury Prevention*, 18(2), 111–117. <https://doi.org/10.1080/15389588.2016.1220476>
- Bolger, P. C., & Lytle, D. (2018). *A meta-analysis of suspect demographic characteristics and American police officer search decisions.* *Criminology, Criminal Justice, Law & Society*, 19(2), 1-23.
- Brittain, E., & Tuffin, K. (2017). Ko tehea te ara tika? A discourse analysis of Māori experience in the criminal justice system. *New Zealand Journal of Psychology*, 46(2), 99-107. <https://www.psychology.org.nz/journal-archive/NZJP-Vol-46-No-2-2017-2.pdf#page=99>
- Bull, S. (2004). The Land of Murder, Cannibalism, and All Kinds of Atrocious Crimes? *British Journal of Criminology*, 44(4), 496–519. <https://doi.org/10.1093/bjc/azh029>
- Clemons, T. R. (2014). Blind injustice: The Supreme Court, implicit racial bias, and the racial disparity in the criminal justice system. *American Criminal Law Review*, 51(3), 689–714.
- Colmar Burton. (2013). *Public Perceptions of Crime – Survey Report*. Report prepared for the Ministry of Justice.
- Criminal Procedure Act 2011 (NZ). (2011). *Public Act 2011 No 81*. New Zealand Legislation. <https://www.legislation.govt.nz/act/public/2011/0081/latest/whole.html>
- Dannefer, D. & Schutt, R. K. (1982). Race and Juvenile Justice Processing in Court and Police Agencies. *American Journal of Sociology*, 87(5), 1113-1132.
- Deane, H. (2000). The Influence of Pre-Sentence Reports on Sentencing in a District Court in New Zealand. *The Australian and New Zealand Journal of Criminology*, 33, 91-106.
- Fergusson, D. M., Horwood, L. J., Lynskey, M. T. (1993). Ethnicity and bias in police contact statistics. *Australian and New Zealand Journal of Criminology*, 26, 193–206.
- Fergusson, D., Swain-Campbell, N., & Horwood, L. (2003). Arrests and convictions for cannabis related offences in a New Zealand birth cohort. *Drug and Alcohol Dependence*, 70(1), 53–63. [https://doi.org/10.1016/s0376-8716\(02\)00336-8](https://doi.org/10.1016/s0376-8716(02)00336-8)

- Fergusson D.M., Swain-Campbell N.R., Horwood L.J. (2003a). Arrests and convictions for cannabis related offences in a New Zealand birth cohort. *Drug and Alcohol Dependence*, 70, 53–63.
- Fergusson, D. M., Horwood, L. J. & Swain-Campbell, N. (2003b) Ethnic and Criminal Convictions: Results of a 21-year Longitudinal Study. *The Australian and New Zealand Journal of Criminology*, 36(3), 354-367.
- Finnane, M. (1995). Book Review: Punishment in a Perfect Society: The New Zealand Penal System, 1840-1939, John Pratt. *The Australian and New Zealand Journal of Criminology*, 28(1), 123-126.
- Fridell, L. A. (2017). Explaining the disparity in results across studies assessing racial disparity in police use of force: A research note. *American Journal of Criminal Justice*, 42(3), 502–513.  
<https://doi.org/10.1007/s12103-016-9378-y>
- Fryer, R. G. Jr. (2019). An empirical analysis of racial differences in police use of force. *Journal of Political Economy*, 127(3), 1210–1261.\* <https://doi.org/10.1086/701423>
- Hollis, M. E., & Jennings, W. G. (2018). Racial disparities in police use of force: A state-of-the-art review. *Policing: An International Journal*, 41(2), 178–193. <https://doi.org/10.1108/PIJPSM-09-2017-0112>
- Hopkins, T., & Popovic, G. (2024). Do Australian police engage in racial profiling? A method for identifying racial profiling in the absence of police data. *Current Issues in Criminal Justice*, 37(1), 19–40. <https://doi.org/10.1080/10345329.2024.2326709>
- Hoekstra, M., & Sloan, C. (2022). Does race matter for police use of force? Evidence from 911 calls. *American Economic Review*, 112(3), 827-860.
- Holbrook, M. A., Dunbar, A. & Miller, M. K. (2022). Judges' Perceptions of Systemic Racism in the Criminal Justice System. *Race and Justice*.
- Jackson, M. (1988). *The Māori and the criminal justice system a new perspective: He Whaipanga Hou (Part 1 & 2)*. Department of Justice.
- Kovera, M. B. (2019). Racial disparities in the criminal justice system: Prevalence, causes, and a search for solutions. *Journal of Social Issues*, 75(4), 1139-1164.
- Land Transport Act 1998 (NZ). (1998). *Public Act 1998 No 110*. New Zealand Legislation.  
<https://www.legislation.govt.nz/act/public/1998/0110/latest/whole.html>
- Land Transport Amendment Act (No 2) 2014 (NZ). (2014). *Public Act 2014 No 57*. New Zealand Legislation. <https://www.legislation.govt.nz/act/public/2014/0057/latest/whole.html>

- Land Transport Act 1998 (NZ). (2024). *Land Transport Act 1998 No 110 (as at 1 August 2024)*, Public Act. New Zealand Legislation.  
<https://www.legislation.govt.nz/act/public/1998/0110/latest/DLM434833.html>
- Maxwell, G., & Smith, C. (1998). *Police perceptions of Māori* (A Report to the New Zealand Police and the Ministry of Māori Development: Te Puni Kokiri). Institute of Criminology, Victoria University of Wellington. <https://www.police.govt.nz/sites/default/files/publications/police-perceptions-of-maori.pdf>
- McIntosh, T., & Coster, S. (2017). Indigenous Insider Knowledge and Prison Identity. *Counterfutures*, 3, 68-98. <https://doi.org/10.26686/cf.v3i0.6418>
- Mead, H. M. (2003). *Tikanga Māori: Living by Māori values*. Huia Publishers.
- Mikaere, A. (2011). *Colonising Myths — Māori Realities: He Rukuruku Whakaaro*. Huia Publishers.
- Mills, A., & Webb, R. (2022). Rehabilitation, Restoration and Reintegration in Aotearoa New Zealand. In M. Vanstone, & P. Priestley (Eds.), *The Palgrave Handbook of Global Rehabilitation in Criminal Justice* (pp. 429-448). Springer International Publishing AG.  
<https://ebookcentral.proquest.com/lib/auckland/detail.action?docID=7144513>
- Milne, B. J. (2022). Longitudinal research in Aotearoa New Zealand using the Integrated Data Infrastructure: a review. *Journal of the Royal Society of New Zealand*, 52(3), 301–312.  
<https://doi.org/10.1080/03036758.2022.2072905>
- Ministry of Justice. (n.d.-a). *Types of trials*. <https://www.justice.govt.nz/courts/criminal/charged-with-a-crime/types-of-trials>
- Ministry of Justice. (n.d.-b). *Offence categories and types of trial (Info Sheet 4)*. Victims Information. <https://www.victimsinfo.govt.nz/assets/infosheet-4-offence-categories-and-types-of-trial.pdf>
- Ministry of Transport. (n.d.). *Regulation of drink-driving limits*. <https://www.transport.govt.nz/about-us/what-we-do/queries/regulation-of-drink-driving-limits>
- Mitchell, O. (2005). *A meta-analysis of race and sentencing research: Explaining the inconsistencies*. *Journal of Quantitative Criminology*, 21(4), 439-466.
- Nakhid, C., & Shorter, L. T. (2013). Narratives of Four Māori Ex-Inmates About Their Experiences and Perspectives of Rehabilitation Programmes. *International Journal of Offender Therapy and Comparative Criminology*, 58(6), 697-717. <https://doi.org/10.1177/0306624X13476939>
- Narayanan, A., Stewart, T., Duncan, S., & Pacheco, G.. (2025). Using machine learning to explore the efficacy of administrative variables in prediction of subjective-wellbeing outcomes in New Zealand. *Scientific Reports*, 15(1). <https://doi.org/10.1038/s41598-025-90852-0>

- New Zealand Police. (2024). *Understanding Policing Delivery publications*. New Zealand Police.  
<https://www.police.govt.nz/about-us/publication/understanding-policing-delivery-publications>
- Niki-Tobi, A. (2023). The Role of Judges in Eliminating Implicit Bias and Discrimination, for Diversity and Inclusion in New York State Courts: A Judicial Dilemma. *International Journal for Court Administration*, 14(1), DOI: <https://doi.org/10.36745/ijca.484>
- Nix, J., Campbell, B. A., Byers, E. H., & Alpert, G. P. (2017). A bird's eye view of civilians killed by police in 2015: Further evidence of implicit bias. *Criminology & Public Policy*, 16(1), 309–340.\*  
<https://doi.org/10.1111/1745-9133.12269>
- NZ Transport Agency Waka Kotahi. (n.d.). *Alcohol and drugs limits*.  
<https://www.nzta.govt.nz/roadcode/heavy-vehicle-road-code/road-code/about-limits/alcohol-and-drugs-limits>
- Obasogie, O. K., & Provenzano, P. (2023). Race, racism, and police use of force in 21st century criminology: An empirical examination. *UCLA Law Review*, 69(5), 1206–1269.\*  
<https://heinonline.org/HOL/Page?handle=hein.journals/uclalr69&id=1248>
- Quince, K. (2007). Māori and the Criminal Justice System in New Zealand. In J. Tolmie & W. Brookbanks (Eds.), *The New Zealand Criminal Justice System* (pp. 1-26). Lexis Nexis.
- Rachlinski, J., Johnson, S. L., Wistrich, A. J. & Guthrie, C. (2009). Does Unconscious Racial Bias Affect Trial Judges? *Notre Dame Law Review*.
- Ramos-Maqueda, M., & Chen, D. L. (2025). The data revolution in justice. *World Development*, 186, 106834.
- Rehavi, M. M., & Starr, S. B. (2014). Racial disparity in federal criminal sentences. *Journal of Political Economy*, 122(6), 1320-1354.
- Ross, C. T. (2015). A multi-level Bayesian analysis of racial bias in police shootings at the county-level in the United States, 2011–2014. *PLOS ONE*, 10(11), e0141854.\*  
<https://doi.org/10.1371/journal.pone.0141854>
- Schlesinger, T. (2005). Racial and ethnic disparity in pretrial criminal processing. *Justice Quarterly*, 22(2), 170–192. <https://doi.org/10.1080/07418820500088929>
- Shoub, K. (2021). Investigating the sources of racial disparities in traffic stop outcomes. *American Journal of Political Science*, 65(2), 371–387.\* <https://doi.org/10.1111/ajps.12523>
- Spencer, K. B., Charbonneau, K. A. & Glaser, J. (2016). Implicit Bias and Policing. *Social & Personality Psychology Compass*, 10(1).



- Stanley, E., & Mihaere, R. (2018). Managing Ignorance About Māori Imprisonment. In A. Barton & H. Davis (Eds.), *Ignorance, Power and Harm. Critical Criminological Perspectives* (pp. 113–138). Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-319-97343-2\\_6](https://doi.org/10.1007/978-3-319-97343-2_6)
- Statistics New Zealand. (2024, March). *Integrated Data Infrastructure (IDI) refresh: Linking report* (March 2024 refresh) [PDF]. Wellington, New Zealand: Author. <https://statsnz.contentdm.oclc.org/digital/api/collection/p20045coll4/id/573/download>
- Statistics New Zealand. (2025, June). *Integrated Data Infrastructure refresh: Linking report*. Statistics New Zealand. <https://statsnz.contentdm.oclc.org/digital/api/collection/p20045coll4/id/584/download>
- Tauri, J., & Morris, A. (1997). Re-forming Justice: The Potential of Maori Processes. *Australian & New Zealand Journal of Criminology*, 30(2), 149-167. <https://doi.org/10.1177/000486589703000203>
- Tauri, J. (2005) Indigenous perspectives and experience: Maori and the criminal justice system. In R. Walters & T. Bradley (Eds.), *Introduction to Criminological Thought* (pp. 1-21). Pearson. <https://www.sfu.ca/~palys/Tauri%20chapter%20on%20Maori%20the%20CJS.pdf>
- Te Whaiti, P., & Roguski, M. (1998). *Māori Perceptions of the Police*. He Pārekereke/Victoria Link Ltd. <https://www.police.govt.nz/about-us/publication/maori-perceptions-police-1998>.
- Vieille, S. (2012). Māori Customary Law: A Relational Approach to Justice. *The International Indigenous Policy Journal*, 3(1), 1-20. <https://doi.org/10.18584/iipj.2012.3.1.4>
- Von Hirsch, A. and Roberts, J.V. (1997), Racial Disparity in Sentencing: Reflections on the Hood Study. *The Howard Journal of Criminal Justice*, 36: 227-236. <https://doi.org/10.1111/1468-2311.00053>
- Weatherburn, D., Snowball, L., & Hunter, B. (2008). Predictors of Indigenous arrest: An exploratory study. *Australian & New Zealand Journal of Criminology*, 41(2), 307-322.
- Webb, R. (2017). Māori Experiences of Colonisation and Māori Criminology. In A. Deckert & R. Sarre (Eds.), *The Palgrave Handbook of Australian and New Zealand Criminology, Crime and Justice* (pp. 683-696). Palgrave Macmillan Cham. <https://doi.org/10.1007/978-3-319-55747-2>
- Weitzer, R., & Tuch, S. A. (2005). Racially biased policing: Determinants of citizen perceptions. *Social Forces*, 83(3), 1009–1030.\* <https://doi.org/10.1353/sof.2005.0000>
- Workman, K. (2016). The social integration of Māori prisoners. *Aotearoa New Zealand Social Work*, 26(1), 39-46. <https://doi.org/10.11157/anzswj-vol26iss1id53>
- Workman, K. (2019). *Whānau ora and imprisonment* (Te Arotahi Series Paper No. 01). Ngā Pae o te Māramatanga New Zealand's Māori Centre of Research Excellence. <https://www.maramatanga.ac.nz/media/5604/download?inline>

Wortley, S., & Owusu-Bempah, A. (2011). The usual suspects: police stop and search practices in Canada. *Policing and Society*, 21(4), 395–407. <https://doi.org/10.1080/10439463.2011.610198>

Wu, J. (2016). *Racial/ethnic discrimination and prosecution: A meta-analysis*. *Criminal Justice & Behavior*, 43(4), 437-458.

# Appendix A

## Memorandum on Land Transport Act 1998 and the Sentencing Act 2002

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### A. General Propositions About Sentencing

There is a legal framework for sentencing, comprised of the maximum sentence for the offence (which creates the envelope within which the judge must operate) and guidance on where to place the offender within that envelope. This guidance comes in the Sentencing Act 2002 and in guidance given by the appellate courts.

#### 1. The Maximum Sentence

The starting point is that when Parliament creates an offence,<sup>1</sup> it invariably sets a maximum sentence for the offence.<sup>2</sup> This maximum is in part a statement by Parliament about the relative seriousness of the offence:<sup>3</sup> accordingly, section 8 of the Sentencing Act 2002 requires the sentencing court to “take into account the seriousness of the type of offence in comparison with other types of offences, as indicated by the maximum penalties prescribed for the offences” (section 8(b)). The second aim of the maximum is to provide a sentence for the worst possible example of the offence.<sup>4</sup>

#### 2. Guidance on Sentencing

Individualised justice is the constitutional aim, namely making the sentence fit the offence and the offender. This is part of the right to a fair trial (which covers the sentencing stage). It goes without saying that non-discrimination is part of this: section 19 of the New Zealand Bill of Rights Act 1990 is a right to non-discrimination, but the right to a “fair ... hearing by an independent and impartial court” (in section 25(a) of the NZBORA) cannot be met by discrimination. At its most basic level, discrimination is treating similar situations differently on the basis of the status of the defendant, without any good reason for the different treatment.

The approach to sentencing set out in the Sentencing Act 2002 contains the following elements:

First, Judges have to decide whether there should be a conviction: section 106 of the Sentencing Act 2002 allows a “discharge without conviction”. It is also possible to convict and discharge without sentence if the conviction alone is a sufficient penalty.<sup>5</sup> Also possible is for the court to make an order for the defendant to attend for sentence if called on, under sections 110 and 111, which allows the sentencing process to be deferred. Consideration of these options is mandatory: section 11 of the Sentencing Act 2002.

Note that although the excess breath alcohol provisions come with a mandatory sentence of disqualification, this does not appear to have led to the view that the power under section 106 is excluded (and since there is a discretion to disapply the otherwise mandatory disqualification, it can be argued that it is not mandatory). See *Trotter v Police* [2024] NZHC 2376 for a discussion of the case law that shows the power is available, and also reference to statistics that its use is becoming more common.

Second, Judges have to select one or more purposes, which are listed in section 7 of the Sentencing Act.<sup>6</sup> These evoke a range of the traditional bases for sentencing: accountability is about breaching the social contract of society (backward-looking), denunciation is about securing that social contract (forward-looking, to minimise future harm); promoting responsibility is about both securing the social contract and preventing future harm by the individual; deterrence is about preventing future harm; public protection is about securing current and future benefits from incapacitation; rehabilitation is about minimising future harm; reparation is about making good and providing for the interests of victims – which may have some difficulties in that not all victims will have the same approach – is about avoiding them taking their own

actions. These can also be viewed through various lenses – deontological (moral), utilitarian (future good) and protective.

Third, Parliament has also indicated the matters that should be taken into account as the principles of setting:

- Impose the least restrictive outcome that is appropriate (section 8(g));<sup>7</sup>
- Impose the maximum or close to when the facts reveal that require it;
- take into account the gravity of the offending, including:
  - the degree of culpability of the offender (section 8(a));
  - the seriousness of the type of offence (section 8(b));
  - the general desirability of consistency in sentencing (section 8(e));
  - the impact of the offending on the victim (section 8(f));
  - whether the circumstances of the offender would make the otherwise appropriate sentence would be disproportionately severe (section 8(h));
  - the offender's personal, family, whanau, community, and cultural background);
  - in imposing a sentence or other means of dealing with the offender with a partly or wholly rehabilitative purpose (section 8(i));
  - any restorative justice process (section 8(j)) and offer to make amends or other response to the offending (section 10).

Although consistency is a low level factor in the statute (its general desirability must be taken into account), the legal textbooks on these offences suggest that case law pre-dating the Sentencing Act 2002 which emphasises the need for consistency (particularly *McEachen v Police* [1995] 2 NZLR 251) remains applicable, particularly on a nationwide basis.

Fourth, Parliament has also set out various aggravating and mitigating factors, in section 9 of the Sentencing Act 2002. None of the listed aggravating factors appear particularly relevant in the excess alcohol setting save that premeditation is relevant (section 9(1)(i)) and previous convictions and other offences being sentenced at the same time might be relevant (section 9(1)(j)), as might any procedural defaults causing delay (section 9(1)(k)).

In terms of mitigating factors, various ones set out in section 9(2) are relevant: age, a guilty plea (in relation to which there is a maximum 25% discount for an early guilty plea: *Hessell v R* [2009] NZCA 450, [2010] 2 NZLR 298), other steps to shorten proceedings, previous good character; the court may also consider other matters (section 9(4)), and this is where income levels can be taken into account.

Fifth, there is a specific hierarchy of sentences, set out in section 10A and is

- (a) discharge or order to come up for sentence if called on;
- (b) sentences of a fine and reparation;
- (c) community-based sentences of community work and supervision;
- (d) community-based sentences of intensive supervision and community detention;
- (e) sentence of home detention;
- (f) sentence of imprisonment.

In addition, see s16, which is clear that imprisonment should only follow if other options do not meet the purposes of sentencing on the facts.

### **Sentencing Guidelines for Drink Driving**

For first-time drink-driving offences:

- The court will typically impose a fine, calculated in proportion to the offender's alcohol level (e.g., a 500 mcg breath reading may attract a \$500 fine).
- The offender will be disqualified from driving for at least six months.
- In some cases, a conviction may be entered, which then appears on the person's criminal record.

The court also has discretion to issue an absolute or conditional discharge, which means the individual is found guilty but not formally convicted, depending on factors like the level of harm, mitigating circumstances, and the defendant's background.

The presence of objective, quantifiable measures of the offence (breath or blood alcohol levels) allows for relatively consistent sentencing guidelines and makes drink driving a suitable context for analysing judicial impartiality. When comparing offenders with similar alcohol readings, similar criminal history, and similar socio-demographic profiles, differences in court outcomes may more clearly reflect the presence or absence of systemic bias—particularly as it relates to ethnicity.

### **3. Matters of Penalty and Specific Sentencing Points in the Land Transport Act 1998**

The basic structure of the Land Transport Act 1998 is to set out various duties on drivers and then to have separate offences that enforce these duties. In relation to drink-driving, there is a duty not to drive a motor vehicle whilst “incapable of having proper control of the vehicle” (section 12), but also a duty not to exceed specified alcohol limits (section 11). The latter obligation reads as follows:

#### **11. Drivers not to exceed specified alcohol limits**

A person may not drive or attempt to drive a motor vehicle while—

(a) the proportion of alcohol in the person's breath, as ascertained by an evidential breath test subsequently undergone by the person under section 69, exceeds 250 micrograms of alcohol per litre of breath; or

(b) the proportion of alcohol in the person's blood, as ascertained from an analysis of a blood specimen subsequently taken from the person under section 72 or section 73, exceeds 50 milligrams of alcohol per 100 millilitres of blood; or

(c) if the person is younger than 20,—

(i) the person's breath, as ascertained by an evidential breath test subsequently undergone by the person under section 69, contains alcohol; or

(ii) the person's blood, as ascertained from an analysis of a blood specimen subsequently taken from the person under section 72 or 73, contains alcohol; or

(d) if the person holds an alcohol interlock licence or a zero alcohol licence,—

(i) the person's breath, as ascertained by an evidential breath test subsequently undergone by the person under section 69, contains alcohol; or

(ii) the person's blood, as ascertained from an analysis of a blood specimen subsequently taken from the person under section 72 or 73, contains alcohol.

The provisions in subsection (d), added by the Land Transport (Road Safety and Other Matters) Amendment Act 2011, apply only to those who have been convicted and ordered to have an alcohol interlock licence (and so are not relevant to the study). However, there have been relevant changes. In particular, the original version of section 11 required the adult driver not to exceed a reading of 400 in breath or 80 in blood (ie the lower limit of 250 or 50 was not illegal), and the driver under 20 could not exceed 150 in breath and 30 in blood. The limit for young drivers was changed by the Land Transport (Road Safety and Other Matters) Amendment Act 2011; the change for adults came through the Land Transport Amendment Act (No 2) 2014.

Section 11 has to be read with sections 56 and 57, which create the offences for breaching section 11. As enacted in 1998, these provided as follows:

- (i) a first or second offence of exceeding the readings in breath (400) or blood (80) carried prison not exceeding 3 months or a fine not exceeding \$4500; a third or subsequent offence carried 2 years or \$6000;
- (ii) in the first category, there was also a disqualification of at least 6 months; the second category had a disqualification of at least 1 year; however, in both cases, section 81 allowed a court to find “special reasons” not to disqualify;
- (iii) for young drivers, exceeding the limits then in place carried up to 3 months’ imprisonment or a fine of up to \$2250, and 3 months’ disqualification, again subject to special reasons.

When the changes to the limits for young drivers were made in 2011, a reading from 1 to 150 in breath (or up to 30 in blood) was an infringement offence (ie a set fine) and above that a court offence (with the same penalties as the 1998 version). Similarly, the changes for adult in 2014 created an infringement offence (set fine) for a reading in breath of 251-400 (and 51 to 80 in blood) and a court offence for the levels above (with the same penalties as the 1998 version). Bizarrely, the maximum fine levels remain the same in 2025 as in 1998.

Another special sentencing provision is that in section 94. This provides that if a person has previously been disqualified from driving (which can cover any offence leading to disqualification, not just excess breath alcohol), the court can decide that it will be better to impose a community-based sentence rather than a further disqualification.

The offences against sections 56 and 57 are what are called “strict liability” offences, meaning that there is a defence of “absence of fault” by the driver (which can cover people having alcohol without knowing it – eg spiked drinks, medication with alcohol).

The offences are supplemented by various other offences, relating to the collection of evidence. Basically, the police have powers to require people to undergo a screening test: failing that or refusing to provide one gives the police power to require an evidential breath test, and failing to undergo a breathalyser test gives the power to require a blood test:

- (i) section 59 penalises not remaining in situ or accompanying an officer to an evidential breath test: maximum sentence of \$4500 and discretionary disqualification; note that there is no offence of refusing a screening test, but failure to take such a test gives a power to require an evidential test
- (ii) section 60 penalises not giving a blood sample: the sentences are the same as those for exceeding 400 in breath or 80 in blood.

From the above account, you can see that there is discretion (or judgement) in the court process in terms of (i) the level of the penalty (fine or imprisonment), (ii) the length of disqualification and (iii) whether to find special reasons not to impose the otherwise mandatory disqualification. (There is also the power to impose a community sentence rather than a disqualification, but this does not arise in relation to a first-time offender.)

There are also various discretions in the process whereby people are charged, including police discretions as to who to stop to test, where “booze buses” are located and so on. In addition, there are diversion schemes (ie alternatives to prosecution), but the publicity around them suggests that they are not usually applied to drink-driving matters: this means that there is a residual discretion to offer this route.

## Appendix B

**Table B. 1: Descriptive statistics (measured at the time of offence)**

	Ethnicity			
	NZ European	Māori	Māori & NZ European	Pacific Peoples
	(I)	(II)	(III)	(IV)
<b>Highest sentence outcome</b>				
Community-based sentence	3.3%	9.9%	6.2%	4.2%
<b>Offence-related characteristics</b>				
<i>Alcohol level relative to threshold</i>				
<1.5x	45.8%	42.8%	42.9%	47.0%
≥1.5x & <2x	36.4%	38.8%	39.1%	38.6%
≥2x	17.9%	18.4%	18.0%	14.5%
Type of alcohol test: Blood	22.1%	10.5%	14.9%	15.7%
<i>Driver licence status</i>				
Full	66.8%	40.9%	39.9%	20.5%
Learner	13.8%	36.1%	31.7%	51.2%
Restricted	19.4%	22.9%	28.5%	28.3%
<b>Socio-demographic characteristics</b>				
Gender: Female	40.5%	55.7%	55.0%	41.0%
Age: Below 30	39.5%	45.6%	60.9%	74.1%
<i>Having a child</i>				
No child	52.3%	35.1%	48.2%	58.4%
Youngest child is 14 or below	27.2%	46.9%	41.3%	38.6%
Youngest child is 15 or above	20.5%	18.0%	10.5%	3.0%
<b>Economic background</b>				
<i>Income sources in the 12 months before the offence date</i>				
Income from wages & salary	78.8%	75.9%	81.7%	85.5%
MSD benefits	18.7%	40.4%	32.2%	24.7%
<i>Meshblock deprivation index</i>				
1-3	31.6%	7.1%	16.7%	5.4%
4-6	32.5%	16.4%	24.4%	13.9%
7-10	35.9%	76.5%	58.9%	80.7%
Individuals	8,349	2,250	1,686	498

*Notes:* Authors' own calculations using the IDI. Meshblock deprivation index scores range from 1 (least deprived) to 10 (most deprived) (Atkinson, J., Salmond, C., & Crampton, P. (2014). NZDep2013 index of deprivation. *Wellington: Department of Public Health, University of Otago*, 5541, 1-64.)



**Table B. 2: Distribution of community-based sentences by court location**

Courts ordered by share of community-based sentences	Sample population distribution			Proportion of community-based sentence		
	NZ European	Māori	Māori & NZ European	NZ European	Māori	Māori & NZ European
	(I)	(II)	(III)	(IV)	(V)	(VI)
Group 1	46.8%	25.7%	40.0%	1.6%	3.3%	3.3%
Group 2	30.1%	31.7%	30.6%	3.9%	7.0%	6.6%
Group 3	15.0%	14.2%	13.3%	5.8%	11.6%	10.7%
Group 4	8.1%	28.4%	16.1%	6.2%	18.0%	8.9%
<i>Total/mean</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>3.3%</i>	<i>9.9%</i>	<i>6.2%</i>
Observations	8,349	2,250	1,686	8,349	2,250	1,686

*Notes:* Authors' own calculations using the IDI. 63 District Courts are ordered by the proportion of community-based sentences for NZ European and Māori, split into four groups.

# Appendix C

**Table C. 1: Logistic regression estimation results with stratified samples**

	Māori		Māori & NZ European		Pacific Peoples	
	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err
<b>Alcohol test type</b>						
Only breath	2.113***	(0.332)	1.425**	(0.196)	0.996	(0.381)
<b>Alcohol level relative to threshold</b>						
<1.5x	2.166***	(0.435)	1.212	(0.276)	0.755	(0.332)
≥1.5x & <2x	1.930***	(0.370)	1.330	(0.249)	1.060	(0.509)
≥2x	2.158***	(0.499)	1.654**	(0.412)	0.876	(0.486)
<b>Gender</b>						
Male	1.742**	(0.392)	1.009	(0.218)	0.959	(0.611)
Female	2.272***	(0.335)	1.618***	(0.290)	0.787	(0.255)
<b>Age</b>						
20-29	1.993***	(0.400)	1.141	(0.173)	0.798	(0.321)
30+	2.075***	(0.332)	1.861***	(0.411)	1.444	(0.591)
<b>Income from Wages &amp; Salaries</b>						
No income	2.001***	(0.475)	1.323	(0.378)	1.038	(0.565)
Low income	1.999***	(0.345)	1.204	(0.205)	0.776	(0.343)
Higher income	2.349***	(0.671)	2.104**	(0.644)	1.677	(1.590)
<b>Benefit uptake</b>						
None	2.461***	(0.517)	1.261	(0.231)	0.956	(0.710)
Uptake	1.665***	(0.274)	1.348	(0.253)	0.835	(0.313)
<b>Meshblock deprivation index</b>						
1-6	1.960***	(0.443)	0.961	(0.234)	0.631	(0.571)
7-10	1.812***	(0.277)	1.460**	(0.238)	0.881	(0.364)

*Notes:* Authors' own calculations using the IDI. The table shows odds ratios in receiving a community-based sentence vs a fine or a lower ranked sentence, comparing each ethnic group with "NZ European" as the reference group. Each cell refers to a separate regression. Numbers in brackets refer to standard errors which are clustered at the District Court level. Significance levels are: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The regression models with stratified samples used Model (VI) which accounts for offence, court, demographic, and economic characteristics.





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