



SYNERGIA

Outcomes of the Genesis Social Bond Programme

**Did Genesis Social Bond Programme
Improve Outcomes for Rangatahi and
Young People at Risk of Reoffending?**

Acknowledgements

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INTRODUCTION AND EXECUTIVE SUMMARY

Genesis Youth Trust works with at-risk rangatahi to reduce offending in Auckland's most vulnerable communities. In September 2017, it was awarded a Social Bond to substantially improve resourcing for its innovative wrap-around programme that enables young offenders to proudly transform their lives for themselves.

The purpose of our research was to establish whether the programme improved outcomes for its participants. Using the Integrated Data Infrastructure (IDI), a cross-agency government database maintained by Stats NZ, more than 500 rangatahi and young people (around 2/3 Māori) who completed the programme were compared to a contemporaneous cohort from the same geographical area matched in age, sex, ethnicity, and risk of reoffending (as determined by Police YORST youth offending risk scores). We compared them on several different outcome variables within the IDI including education, employment, justice, social support, driver's licensing, and consumption of health services.

The key outcomes were that:

- Overall, on the clear majority of metrics, measured outcomes for social bond participants were either significantly better or tending in that direction compared to the matched cohort.
- There were significantly fewer police offences and criminal charges recorded for the social bond participants than their matched cohort.
- Significantly more social bond participants enrolled in tertiary education.
- When compared to their paired individuals in the matched cohort, the social bond participants were significantly more likely to have a higher income overall, and a higher income from wages and salary.
- A number of outcomes tended in the direction of being more favourable for social bond participants, but the differences were not statistically significant. Specifically, more social bond participants enrolled in secondary education, obtained driver's licences, registered vehicles, used MSD-funded employment assistance programmes, although these differences were not statistically significant.
- There were no clear differences in the number of people consuming benefits or the number of people who completed a recognised course of education. Education completion counts were, however, small and may have been limited by the opportunity to complete courses of education.
- Although this outcome was not expected initially, participants in the programme were associated with significantly fewer hospital events, use of prescriptions, and consumption of mental health services.

DISCLAIMER

These results in this report are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit <https://www.stats.govt.nz/integrated-data/>.

RESEARCH METHODOLOGY

Research Design

The research design is a direct comparison between the social outcomes of those who participated in the Genesis programme, and a counterfactual group that is matched on as many important variables as possible (including YORST risk), but that did not participate in the programme. As such, any outcome differences between the groups can most likely (but not definitively) be attributed to participation in the programme. While this design is not as ideal as one with randomised allocation to experimental and control groups, it is the next best thing – and perhaps the best design permissible in the context of ethical considerations.

Community Consultation and Ethical Considerations

To ensure compliance with Te Tiriti o Waitangi and foster alignment with iwi, Genesis Youth Trust engaged with numerous iwi/mana whēnua, marae, and urban authorities across the Auckland region prior to commencing the Social Bond programme. All stakeholders who provided a formal response supported the programme. No negative responses were reported. Kaimahi within Genesis Youth Trust are representative of the wider community and were supportive of both the programme and the general research around it.

We also sought feedback by interviewing several participants in the Social Bond programme and asking them about this specific piece of research. All clients interviewed gave their strong and positive support to the use of this Police data and its connection with wider data sets. This explicitly included the data that was about them. Indeed, one client's verbatim response was: "Yes I'm happy for this data to be used like this, especially if it might help other kids to avoid bad things happening, and help positive things happen".

We also note that the programme's participants all provided consent for their data to be used for research purposes.

The Integrated Data Infrastructure (IDI)

New Zealand's Integrated Data Infrastructure (IDI) is an extensive collection of administrative data maintained by Stats NZ, providing a rich resource for understanding social, economic, and health patterns across the motu. The IDI comprises anonymised data about individuals and households, collected from various government agencies, surveys, and non-governmental organisations. The IDI's strength lies in its ability to link data across multiple sources at an individual level, allowing researchers to gain comprehensive insights into outcomes for New Zealanders. For the current research, access to the IDI provided the means to evaluate Social Bond participants on a range of important indicators, spanning education, employment, justice, social support, driver's licensing, and consumption of health services.

The secure nature of the IDI ensures that the privacy of individuals is protected, while still allowing for significant research and analysis that can inform better decision-making and contribute to the public good in New Zealand. While the process of matching Social Bond clients to a contemporaneous cohort and analysis was carried out on individual-level data within the secure IDI data lab environment, all results reported in the following have undergone checking by Stats NZ to ensure confidentiality is preserved within results. This checking process involves the suppression of values with low counts and the random rounding of sufficiently high counts.

The integration of data into the IDI was supported by a Data Ethics and Privacy Impact Assessment submitted to Stats NZ which assessed data usage against privacy and Ngā Tikanga Paihere principles.

Participant and Comparison Data

Using a combination of New Zealand Police and Genesis Youth Trust records, we obtained a confidentialised list of around 600 participants who had participated in the Social Bond programme, with intakes from 2017 onwards. At the time of the programme, they were residents of the Papakura, Mangere, Glen Innes, or Manurewa in the Auckland region. Around three-quarters were male. Around two-thirds were Māori, one-fifth were Pacific Peoples, and around one-tenth were NZ European. Close to two-thirds were aged 16 years plus at the time of the programme, with fewer than around one-tenth being aged less than 15. The minimum age was 10. All those who participated in the programme had medium

to high YORST risk scores for youth offending.

In addition to the Genesis Youth Trust participants, we obtained from New Zealand Police confidentialised records of all YORST assessments conducted nationwide during the relevant time period. YORST assessments are conducted when young people become known to Police through their offending. It was from this data set that we selected a contemporaneous matched cohort. Data included an individual identifier, YORST score, date of assessment, and the associated Police station. For both the Social Bond participants and those who did not participate, these data were submitted to Stats NZ and loaded into the IDI so that they could be linked to other government records. Records were excluded if age data suggested an incorrect link to identities in the IDI. Of the approximately 600 Social Bond participants identified, 519 were successfully linked to individual identities in the IDI.

Construction of Matched Cohort

We matched each social bond client to a comparable person who was not a social bond client, but who was:

- at similar risk (being in the same YORST risk category, and having had a similar YORST score at a similar time),
- of about the same age,
- of the same ethnic group (using prioritised ethnicity),
- of the same sex/gender, and
- processed within the same Police District within Auckland.

We created the comparison group by using an algorithm that, over a number of iterations, attempted to find the best overall risk- and demographically-matched group for the social bond clients. The demographic composition of the matched cohort was almost identical to that of the social bond group.

The algorithm to match social bond clients with a matched cohort of individuals with YORST scores was implemented following several rules. Firstly, a similarity score was generated for each possible pairing of social bond clients and the sample pool across a range of demographic (gender, ethnicity, age, location) and outcome (YORST score) factors. If multiple YORST scores were recorded for an individual, we used the earliest medium- or high-risk YORST score. The sample pool for each client was then reduced by excluding any pairing that did not match on station location and gender. Pairings were also excluded for any combination where ethnicity did not match at the level of "Māori and Pacific" vs "Other". While finer-grain ethnicity groups were included in the matching algorithm (e.g., Māori, Pacific Peoples, Other as separate groups), Māori and Pacific Peoples were combined as an additional characteristic to compare on. With the sample pool of Pacific Peoples being smaller, the combined ethnicity grouping ensured that if an

alternate ethnic group match was required, Pacific Peoples would be paired with Māori rather than Other. Matches were also strictly required to have an age within 2 years, an age at YORST completion within 2 years, and a YORST score within the same category (Medium/High). Pairings were sampled until every Social Bond client had a match, with the resulting matching cohort then evaluated based on the total sum of similarity scores across each pairing.

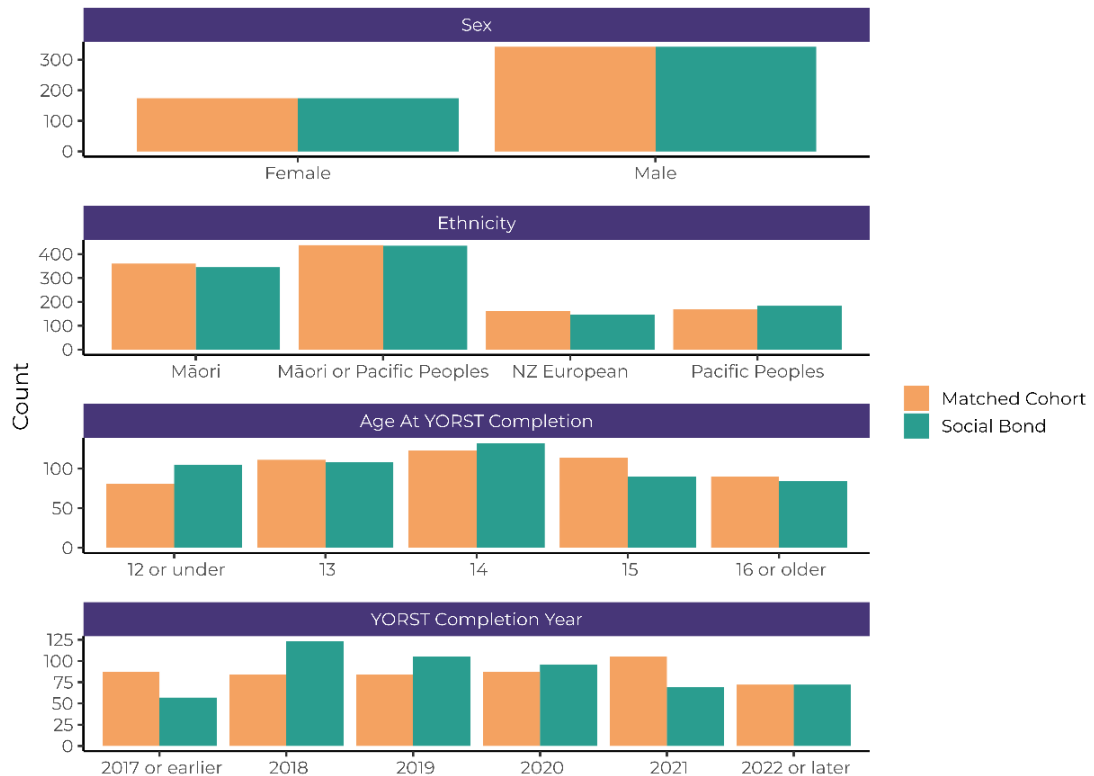
After iterating this process 100 times, the best sample was chosen as the matched cohort. All matches paired perfectly on location, sex, and ethnicity (at the level of Māori and Pacific/Other). Ages and age at YORST completion were all matched within 2 years (and not significantly different). The results of this matching are summarised in Table 1 and visualised in Figure 1.

Table 1. Social Bond and Matched Cohort Demographics. Due to confidentiality requirements, means, standard deviations and ranges are not reported here.

Attribute	Category	Social Bond Count (group %)	Matched Cohort Count (group %)	Matched Cohort Difference (percentage points)
Sex	Female	174 (33.7%)	174 (33.7%)	0 (0 pp)
	Male	342 (66.3%)	342 (66.3%)	0 (0 pp)
Ethnicity ¹	Māori	345 (66.5%)	360 (69.4%)	15 (3 pp)
	Māori or Pacific Peoples	435 (83.8%)	438 (84.4%)	3 (1 pp)
	NZ European	147 (28.3%)	162 (31.2%)	15 (3 pp)
	Pacific Peoples	183 (35.3%)	168 (32.4%)	-15 (-3 pp)
Age At YORST Completion	12 or under	105 (20.2%)	81 (15.6%)	-24 (-5 pp)
	13	108 (20.8%)	111 (21.4%)	3 (1 pp)
	14	132 (25.4%)	123 (23.7%)	-9 (-2 pp)
	15	90 (17.3%)	114 (22%)	24 (5 pp)
	16 or older	84 (16.2%)	90 (17.3%)	6 (1 pp)
YORST Completion Year	2017 or earlier	57 (10.9%)	87 (16.8%)	30 (6 pp)
	2018	123 (23.6%)	84 (16.2%)	-39 (-7 pp)
	2019	105 (20.1%)	84 (16.2%)	-21 (-4 pp)
	2020	96 (18.4%)	87 (16.8%)	-9 (-2 pp)
	2021	69 (13.2%)	105 (20.2%)	36 (7 pp)
	2022 or later	72 (13.8%)	72 (13.9%)	0 (0 pp)

¹ Multiple ethnicities allowed for when reporting counts. Groups can total over 100%.

Figure 1. Social Bond and Matched Cohort Sample Demographics.



Outcome Metrics

The broad areas covered by the outcome metrics were justice, education, employment and income, driver’s licensing and vehicle registration, consumption of benefits, and consumption of healthcare services. A description of each metric and its source appears in Table 2, below. These metrics were based on data in the 2023-06 refresh of the IDI database.

Table 2. The outcome metrics used to compare Genesis Youth Trust Social Bond participants to their matched cohort.

Area	Metric	Description and IDI Source
Justice	Count of Police offences	The count of individuals who were recorded as having Police criminal proceedings against them since their YORST completion. Based on [po_clean].[pre_count_offenders]

	Count of criminal charges	The count of individuals who were recorded as having MOJ criminal convictions or youth offences against them since their YORST completion. Based on [moj_clean].[charges]
Education	Individuals with secondary enrolment	The count of individuals who were recorded as having enrolled in secondary school after their YORST completion. Based on [moe_clean].[student_standard]
	Individuals with tertiary enrolment	The count of individuals who were recorded as having enrolled in tertiary education after their YORST completion. Based on [moe_clean].[enrolment]
	Individuals completing education	The count of individuals who were recorded as having completed a recognised course of education after their YORST completion. Based on [moe_clean].[completion]
Drivers' Licensing and Vehicle Registration	Individuals with driver's licence	The count of individuals who were recorded as having obtained a driver's licence after their YORST completion. Based on [nzta_clean].[drivers_licence_register]
	Individuals with vehicle registration	The count of individuals who were recorded as having registered a vehicle after their YORST completion. Based on [nzta_clean].[motor_vehicle_register]
Employment and Income	Individuals with employment	The count of individuals who were recorded as having received wages or salary at some time following their YORST completion. Based on [ir_clean].[ird_ems]
	Individuals with earnings greater than match	The count of individuals who received more gross earnings following YORST completion than their risk- and demographic-matched comparison individual. Based on [ir_clean].[ird_ems]
	Individuals with wages and salaries greater than match	The count of individuals who received more wages and salary following YORST completion than their risk- and demographic-matched comparison

		individuals. Based on [ir_clean].[ird_ems]
	Individuals using employment assistance	The count of individuals who were recorded as having received MSD-funded employment assistance after their YORST completion. Based on [msd_clean].[msd_employment_assistance]
Consumption of benefits	Individuals consuming benefits (MSD)	The count of individuals who were recorded as having one or more benefit events following their YORST completion. Based on [msd_clean].[msd_spell]
	Individuals consuming benefits (IR)	The count of individuals who were recorded as having received benefits based on IR data at some time following their YORST completion. Based on [ir_clean].[ird_ems]
Consumption of healthcare services	Count of hospital events	The total count of hospital discharge events recorded across the entire group since YORST completion. Based on [moh_clean].[pub_fund_hosp_discharges_event] and [moh_clean].[priv_fund_hosp_discharges_event].
	Count of pharmaceutical events	The total count of pharmaceutical events recorded across the entire group since YORST completion. Based on [moh_clean].[pharmaceutical].
	Count of mental health service events	The total count of PRIMHD events recorded across the entire group since YORST completion. Based on [moh_clean].[PRIMHD]
	Count of mental health service events	The total count of PRIMHD events recorded across the entire group since YORST completion. Based on [moh_clean].[PRIMHD]

Metrics were based on recorded occurrences since YORST completion. The YORST completion date was the first YORST completion by an individual that resulted in a

medium- or high-risk score. When the matched cohort was constructed, the YORST completion date was required to be similar to that of the match. Moreover, there was no overall difference in the time elapsed since the YORST completion date, or the age of individuals.

Key caveats around the metrics are that:

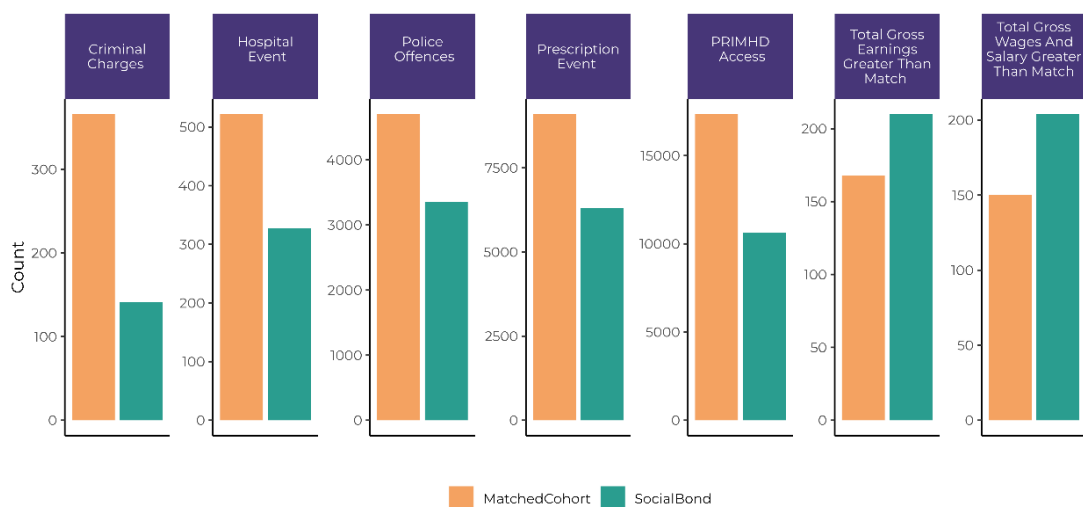
- Outcome data may not be less available for people with more recent YORST completion dates, or younger people. If so, however, the same will be true for equivalent individuals in the matched cohort.
- Many participants will be too young to have meaningful data available for some of the outcome variables (e.g., tertiary education or employment).
- Income data excludes some sources of income, the most notable being self-employment.

RESULTS

Overall

Social Bond clients had better outcomes compared to the matched cohort across the range of outcome metrics. Figure 2 shows the count of events across metrics, ranging from criminal charges and police offenses to Hospital events and PRIMHD access, and to total gross earnings and wages and salary. For each of these metrics, Social Bond clients were more likely to have better outcomes.

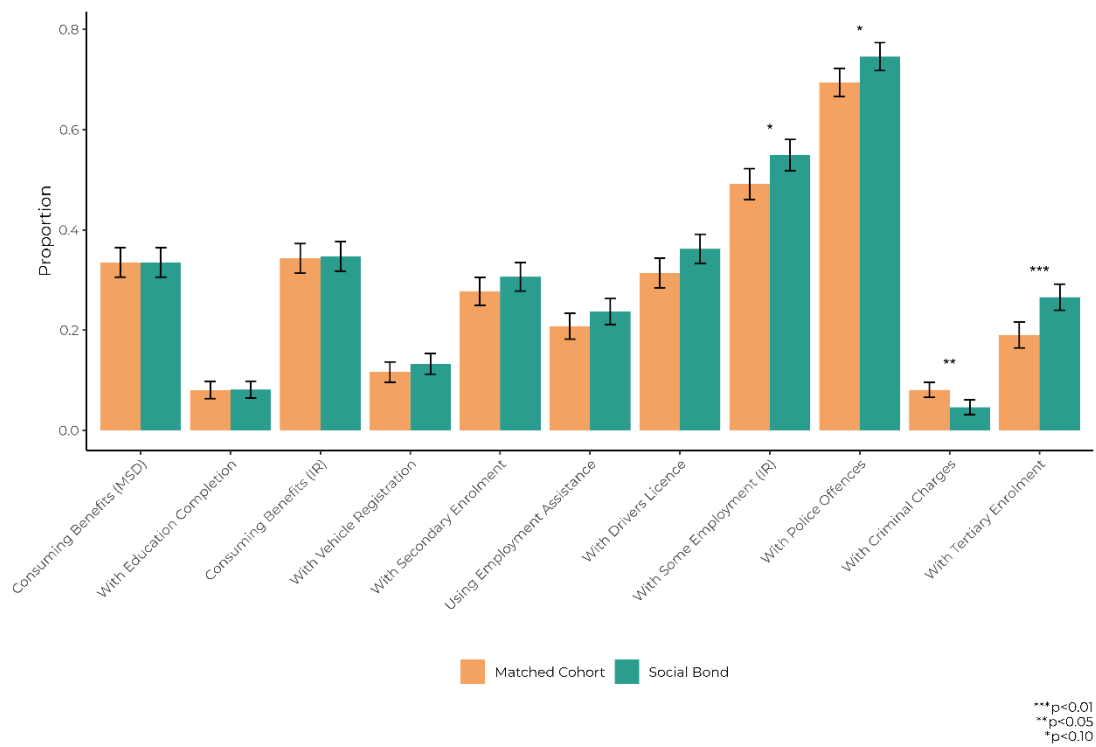
Figure 2. Counts Comparing Social Bond and the Matched Cohort across Metrics



Additional significance tests were carried out to compare Social Bond clients with

the matched cohort based on the proportion of individuals within each group who had records across specific outcome metrics. Figure 3 shows that Social Bond clients were significantly more likely to have a record of Tertiary Enrolment ($p < 0.001$) and significantly less likely to have records of criminal charges ($p < 0.05$). Other metrics were not statistically significant.

Figure 3. Tests for significant differences between Social Bond clients and the matched cohort across metrics



Justice

The overall count of Police offences was highly significantly ($p < 0.001$) lower for the Social Bond group than for the matched cohort ($\chi^2(1) = 225$) (Figure 4). The difference was similar for males and females but appears to have been more pronounced for non-Māori than Māori (see appendix supplementary figure S1).

The overall count of criminal convictions was highly significantly ($p < 0.001$) lower for the Social Bond group than the matched cohort ($\chi^2(1) = 100$) (Figure 4). As with Police offences, this difference appears to have been more pronounced for non-Māori than Māori (see appendix supplementary figure S2). Unlike Police offences, however, the difference may have been more pronounced for males than females.

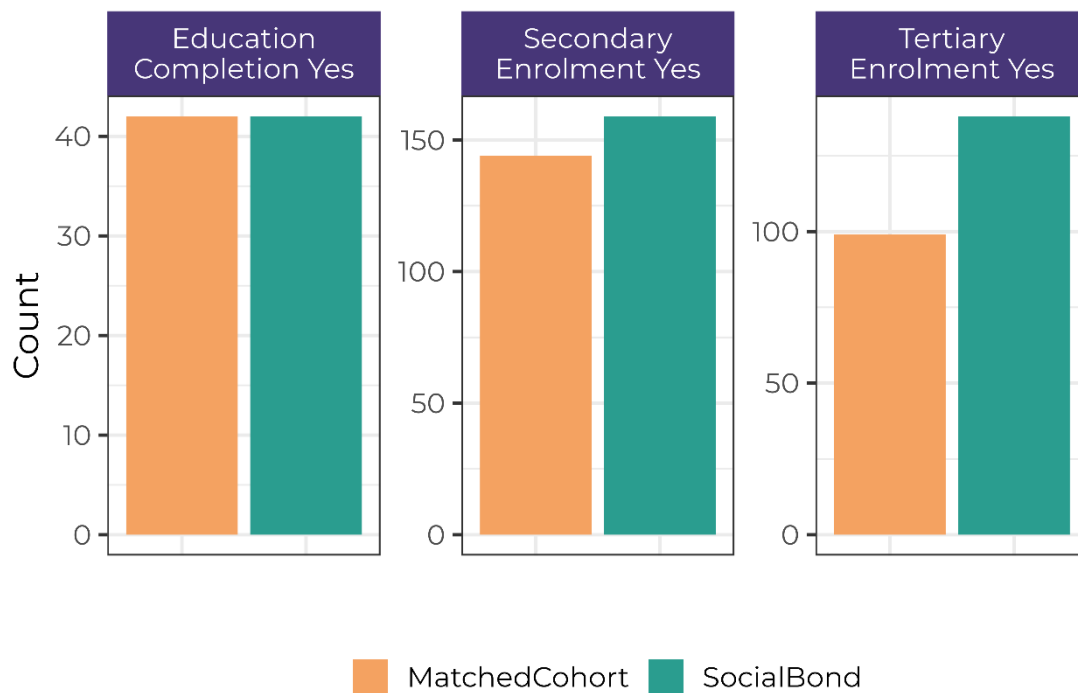
Figure 4. Justice Outcomes



Education

Significantly more Social Bond participants than their matched cohort enrolled in tertiary education ($p < 0.05$) (Figure 5). This pattern appeared to be consistent across Māori and non-Māori, males and females (see appendix supplementary figure S3). There were no significant differences in education completion, although this may be related to the limited opportunity in time to complete education and, consequently, to the small counts involved. Although more Social Bond participants enrolled in secondary education than the matched cohort, the difference was not significant. If there was a difference, it may have been more pronounced for males than females, but similar across Māori and non-Māori.

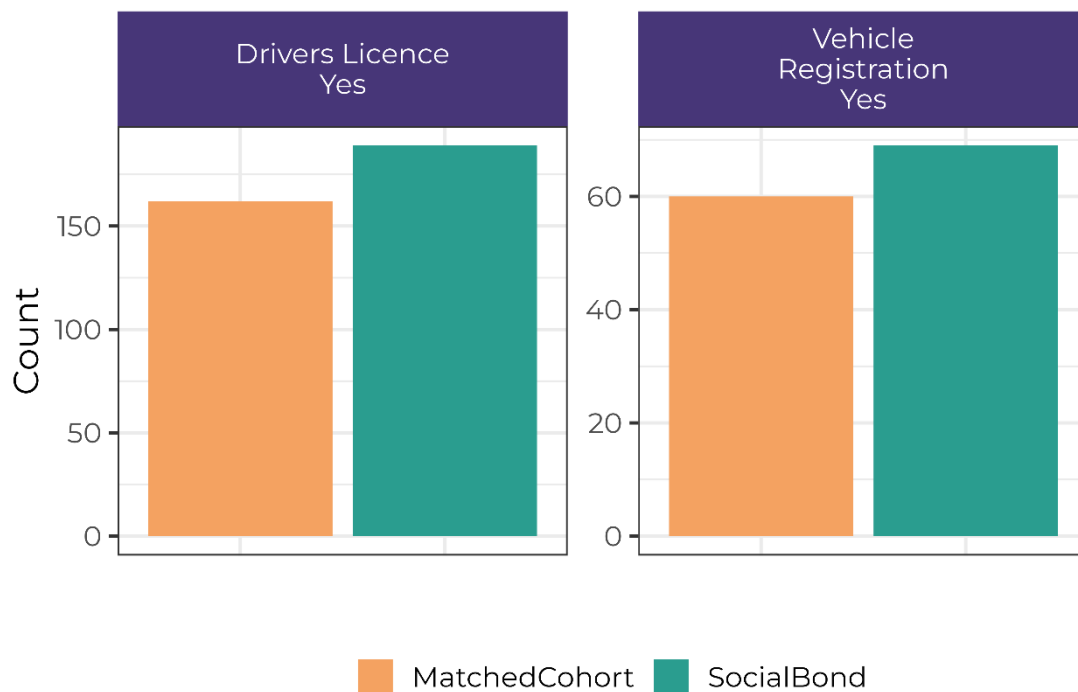
Figure 5. Education Outcomes



Driver's Licensing and Vehicle Registrations

Although more people in the Social Bond group obtained a driver's license, the difference was not significant (Figure 6). Nevertheless, any observed difference was consistent across Māori and non-Māori, males and females (see appendix supplementary figure S4). Similarly, although Social Bond participants may have been more likely to register vehicles, this difference was not significant. Unlike driver's licensing, if there was a difference it appeared to be more pronounced for Māori than non-Māori, and may have been exclusively for females.

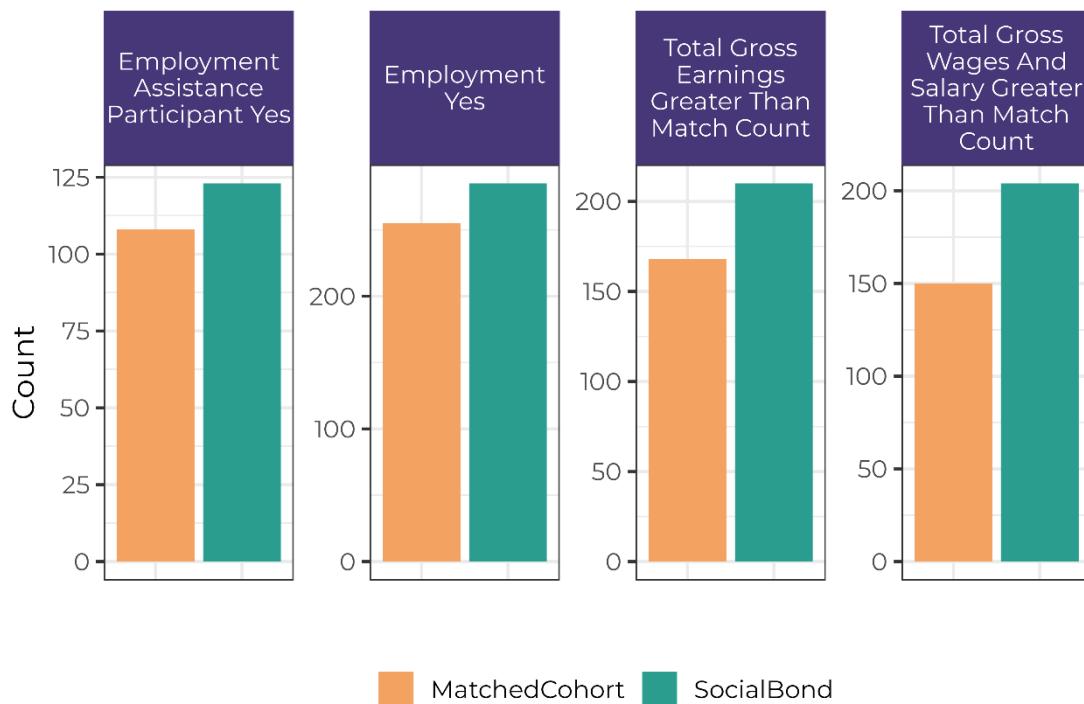
Figure 6. Vehicle Outcomes



Employment and Income

When Social Bond individuals were compared to the individual that they paired with in the matched cohort, they were significantly more likely to have earned more overall income ($p < 0.05$) and highly significantly more likely to have earned more wages and salary ($p < 0.01$) (Figure 7). These differences appeared to be fairly consistent across Māori and non-Māori, males and females (see appendix supplementary figure S5). Relatedly, although there were more Social Bond participants recorded in employment than the matched cohort, this difference was not significant. If there was a difference, it appeared to be similar across demographic groups. The number of individuals using MSD-funded employment assistance programmes appeared to be higher for the Social Bond group than for the matched cohort, but this difference, too, was not significant. Any difference here appeared to be exclusively for Māori but was similar across males and females.

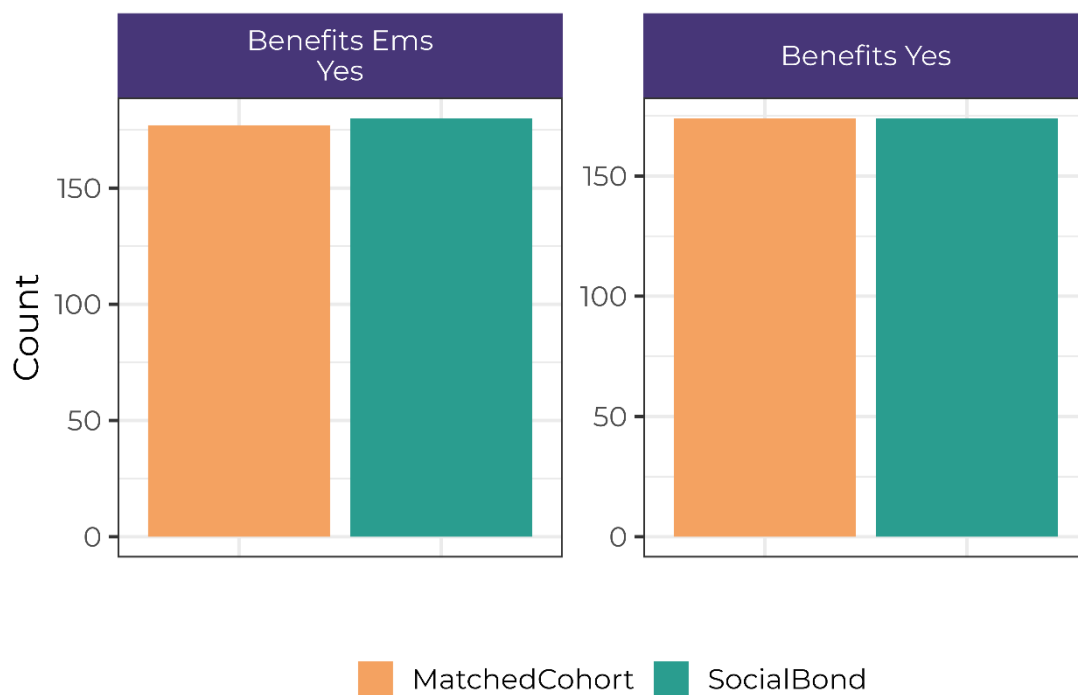
Figure 7. Employment Outcomes



Consumption of Benefits

Across both IR EMS records and MSD records, the number of Social Bond participants consuming benefits was similar to the number of matched cohort individuals consuming benefits. If there were any differences, it may have been that Social Bond non-Māori were less likely to consume benefits, but there was not enough statistical evidence to support such a claim (see appendix supplementary figure S6).

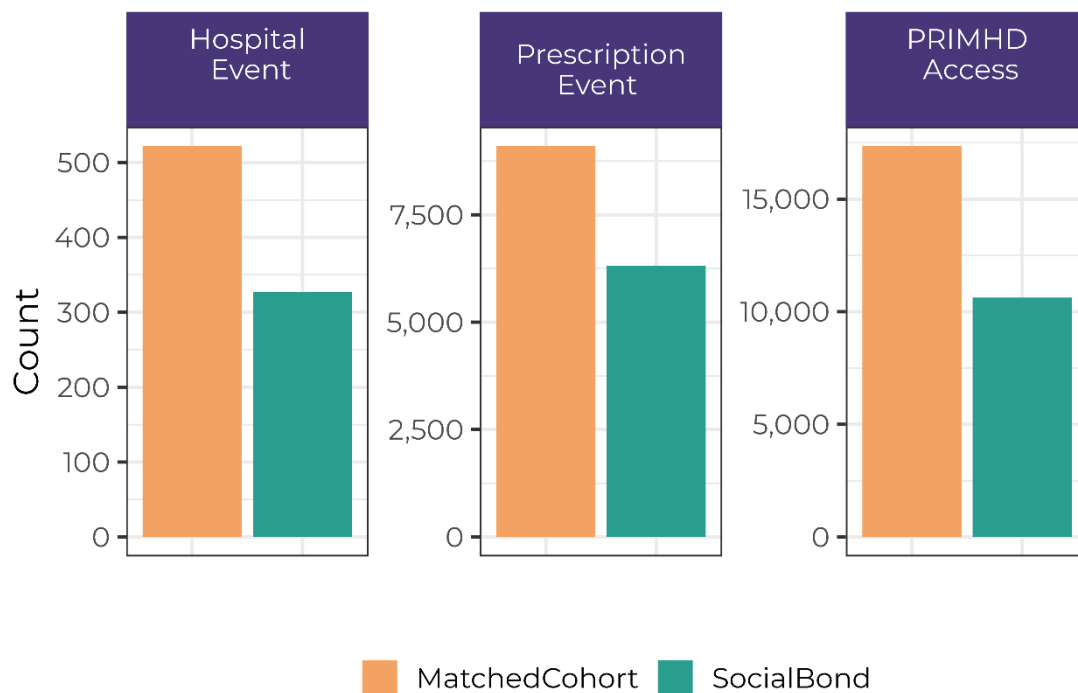
Figure 8. Benefits Outcomes



Consumption of Healthcare Services

The Social Bond group was associated highly significantly fewer hospital events ($\chi^2(1) = 1617, p < 0.001$), pharmaceutical events ($\chi^2(1) = 44, p < 0.001$), and PRIMHD mental health services usage ($\chi^2(1) = 488, p < 0.001$) than the matched cohort. All of these differences appeared to be more pronounced for non-Māori and males than females (see appendix supplementary figure S7).

Figure 9. Healthcare Service Outcomes



Summary of Results

Across all the metrics examined, overall differences between the Social Bond group and the matched cohort either favoured the Social Bond group (often statistically significant) or did not show a difference. The clearest differences were in improved justice metrics, reduced healthcare service usage, higher wages and salary, and higher tertiary enrolment for the Social Bond group compared to the matched cohort.

APPENDIX

Minimum Criteria for Completing a YORST

From p.4 of Mossman, E. (2011). *Research to validate the New Zealand Police Youth Offending Risk Screening Tool (YORST) Phase II: Predictive ability analysis*. Available: [2012-02-27 YORST Predictive Ability Analysis FINAL \(police.govt.nz\)](#)

A YORST is to be completed on every child and young offender who meets the following minimum criteria:

Child offenders

- All children (aged 10-13 years) who have come to police attention for a second offence and/or incident.
- All children that are having a Youth Justice Family Group Conference (FGC) [s14(1)(e), s247(a)].

Youth offenders

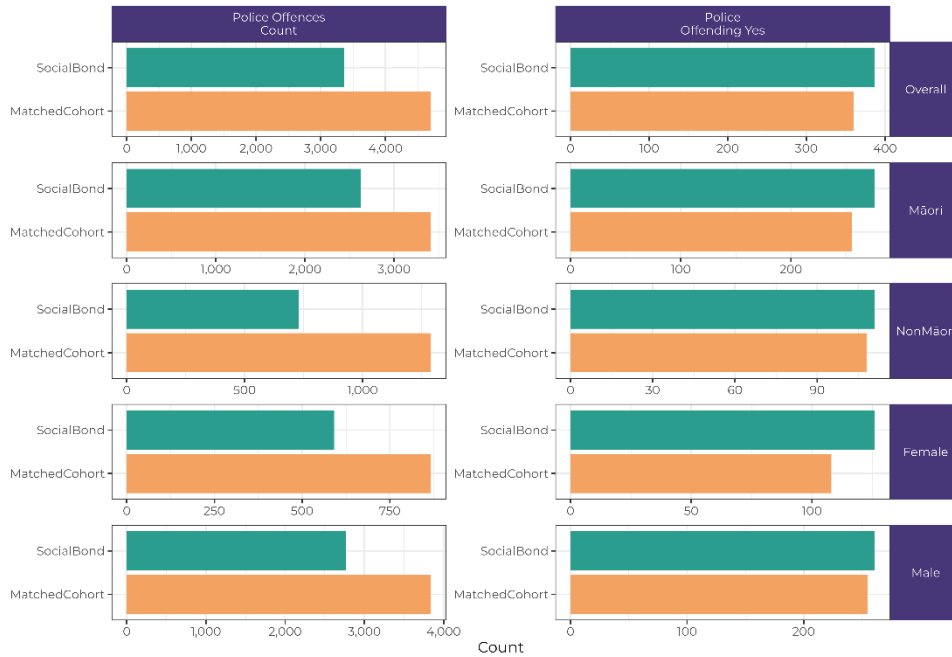
- Every young person referred by the police for a Youth Justice FGC (s247(b)).
- Every young person who is arrested and brought before the Youth Court and an FGC is required pursuant to;
 - Section 247(c) - the charge is denied and the young person has been remanded in custody
 - Section 247(d) - the Youth Justice Co-ordinator is directed to convene an FGC
 - Section 247(e) - the charge against the young person is proved and a FGC has not had the opportunity to consider ways in which the Court might deal with the young person for the offence that forms the basis of the charge.

Police Youth Development Referrals

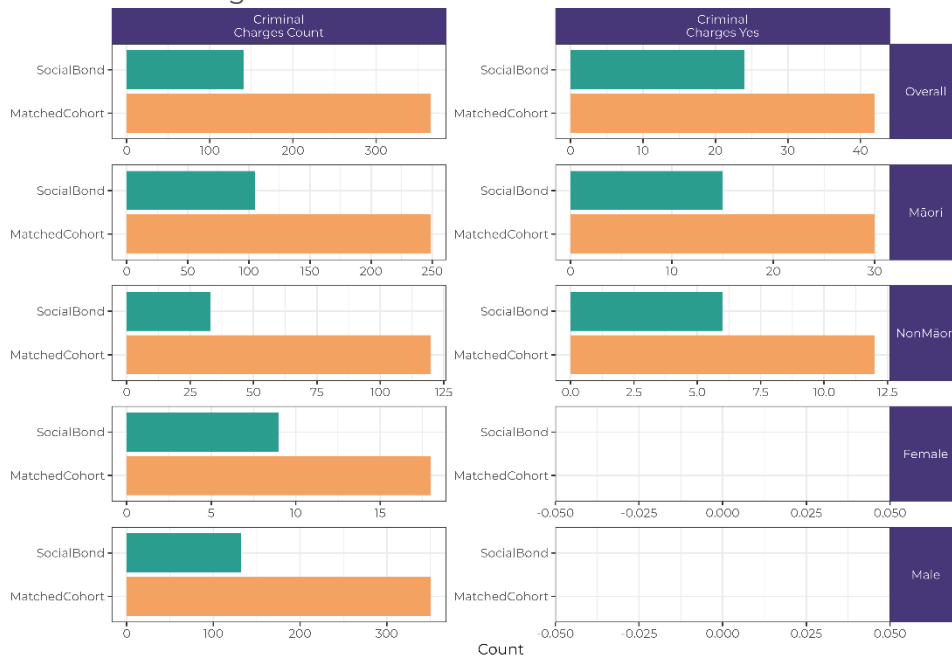
- Children or young people being referred to a Police Youth Development Programme (YDP).

Supplementary Figures

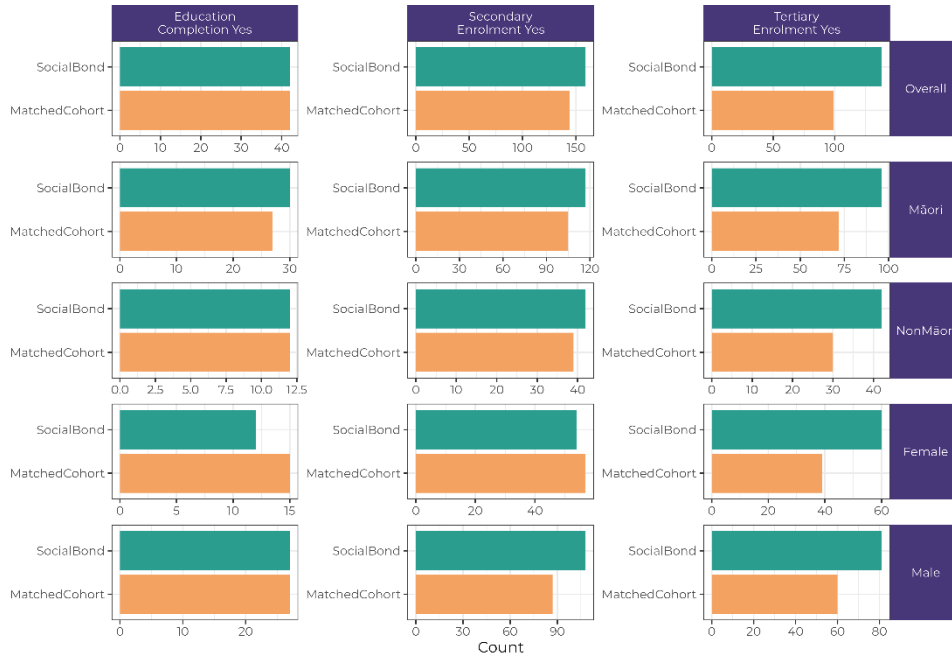
S1 – Justice



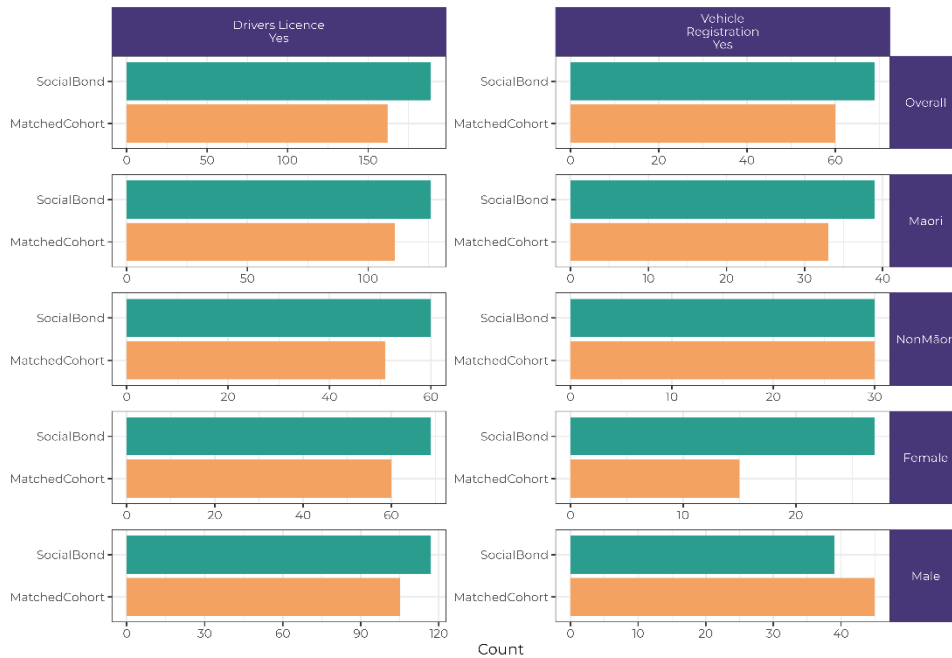
S2 – Criminal Charges Outcomes



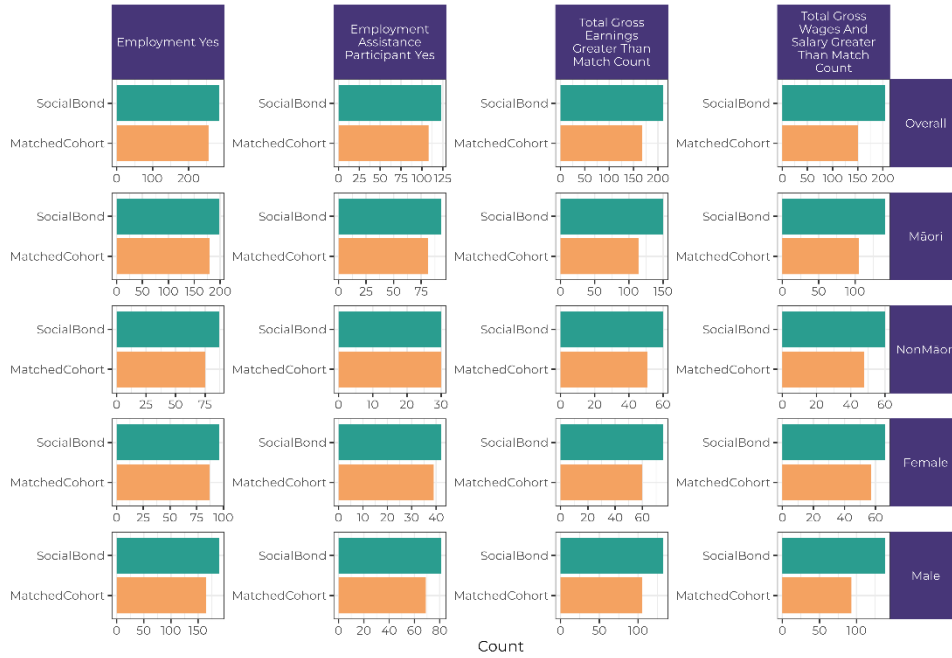
S3 – Education Outcomes



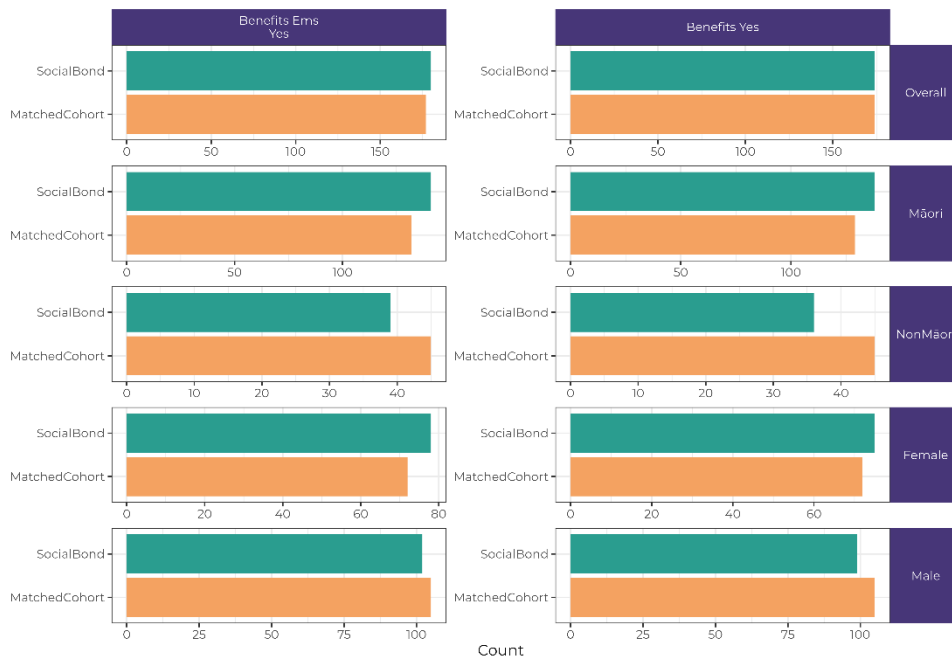
S4 – Vehicle Use Outcomes



S5 – Employment Outcomes



S6 – Benefit Outcomes



S7 – Healthcare Outcomes

