



Evidence on the Legacy of Historical Frontier Violence in Australia

Submission to the Yoorrook Justice Commission

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Disclaimer

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Diln Duwa

Diln Duwa means everlasting flow (Woi Wurrung) and reflects the three streams of work (research, partnerships and teaching programs) that continually flow and interact. Diln Duwa brings the Faculty of Business and Economics at the University of Melbourne and the Melbourne Business School Limited together to support Indigenous business. There is an important role for



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our universities to play in partnering with the Indigenous business sector. It is in classrooms and curriculum where conversations and strategies about the future of business in Australia are shaped.

Through culturally bonded social capital in our universities (people, staff, and researchers), Indigenous-led networks that are founded in the educational process are a strong asset to the Indigenous business sector. The role of these networks is to disrupt business education transmission and expect it to change, adapt and engage

Dilin Duwa Centre for Indigenous Business Leadership, 103 Barry St. Carlton Victoria, email: [dilinduwa@unimelb.edu.au](mailto:dilin-duwa@unimelb.edu.au), visit: <https://dilinduwa.com.au/>

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The Australian National University (ANU) is ranked 30th in the 2025 QS World University Rankings, confirming the University's place among the best in the world. The ANU researchers associated with this project work with *POLIS: The Centre for Social Policy Research*. POLIS delivers exceptionally robust data and evidence driven insights into the key challenges facing contemporary Australia. *POLIS includes the* Centre for Indigenous Policy Research (formerly known as Centre for Aboriginal Economic Policy Research, CAEPR) which has delivered practical and influential policy research for Indigenous Australian for almost 35 years. This provides the foundational cornerstones of informed social policy development amongst leading stakeholders within our modern policy: government, community groups, business representatives, and educators.

Life Course Centre

The Australian Research Council Centre of Excellence for Children and Families over the Life Course (Life Course Centre) is a national research centre investigating the critical factors underlying deep and persistent disadvantage to provide new knowledge and lifechanging solutions for policy, service providers and communities. The Centre is administered by the Institute for Social Science Research at The University of Queensland and is a collaboration with the University of Sydney, the University of Melbourne and The University of Western Australia as well as leading international experts. It is supported by key Australian government and non-government organisations and community, business and philanthropic partners working at the front line of disadvantage.

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We acknowledge the traditional owners of the countries on which we live and work on the lands of the Wurundjeri, Boonwurrung, Turrbal and Jagera peoples, and pay our respects to their Elders past and present.

This submission does not contain images or voices of deceased people. However, it does relate to violent past and current events that may be distressing to Aboriginal and Torres Strait Islander communities.



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Project background

The School of Economics at the University of Queensland, the Melbourne Institute: Applied Economics and Social Research, Dilin Duwa, the Australian National University and The ARC Life Course Centre of Excellence welcome the opportunity to make a submission to the Yoorrook Justice Commission. This submission outlines the early findings of an Australian Research Council Discovery Grant (DP220101336) titled, “Historical frontier violence: drivers, legacy and the role of truth-telling”. The project combines quantitative and qualitative approaches to understand the current-day impacts of historical frontier violence, the mechanisms through which past violence impacts communities today and the role that truth-telling can play in healing and in developing opportunities for communities.

The project is guided by a steering committee comprising members of the Healing Foundation, Blak Pearl, Grandmothers Against Removals and the Centre for Aboriginal and Torres Strait Islander Wellbeing Research at Australia National University, Deloitte, Yipirinya School in Alice Springs, and the Indigenous Data Network at the University of Melbourne.¹ The qualitative aspect of this project is led by Indigenous academics Associate Professor Michelle Evans in collaboration with Emeritus Professor Judy Atkinson (AM).

In this submission, we present qualitative insights from interviews in Moree, but most of the findings presented are from the quantitative analysis, which should be interpreted as preliminary findings only. Further work over the next two years will quantify the importance of historical factors (such as characteristics of settlers, economic returns to land acquisition and Aboriginal and Torres Strait Islander resistance) that led to massacre; extend estimates on current-day outcomes (including health, safety and economic outcomes) and quantify the mechanisms through which the intergenerational impacts of historical violence are transmitted. The latter includes quantifying the persistence of discriminatory attitudes towards Aboriginal and Torres Strait Islander people in communities where historical violence occurred, the loss of culture, and in better understanding the role of missions and reserves.

The data, known as the Frontier Wars Dataset (FWD) was built for the quantitative analysis in this project, around the massacre map data produced by the late Emerita Professor Lyndall Ryan (and former chief investigator on the grant). To this data we integrate other historical data (such as historical census data, data on land arability) and current-day national outcome data (such as child development, health, safety, and economic outcomes).

For more information on the project, our team, methods and updates on the findings, please visit our website: <https://melbourneinstitute.unimelb.edu.au/research/historical-frontier-violence>.

¹ The findings and views reported in this submission should not be attributed to their organisations.



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Introduction

Since colonisation, First Nations, Aboriginal or Indigenous peoples in many wealthy colonised countries, including in Australia, have experienced poorer child development, health, safety and economic outcomes compared to others in their societies. There are many reasons why these gaps may occur, but arguably the most important relates to the circumstances of colonisation, its legacy, and the injustices felt by Aboriginal and Torres Strait Islander people. It is often said that history is written by the conquerors, and in the case of colonisation in Australia, the dominant narrative is of brave frontiersmen and women who overcame odds to ‘open-up’ or ‘tame’ inhospitable country. The violent history of colonisation perpetrated against Aboriginal and Torres Strait Islander peoples has been omitted in a state of national amnesia.

Today many Australians are shocked to learn the truth of our violent past, but most *do not* link the historical trauma of colonisation to gaps in Aboriginal and Torres Strait Islander life prospects today compared to non-Indigenous Australia (Biddle et al., 2023). The lack of understanding of the impact of colonisation is because there is no appreciation of the richness of lives of Aboriginal and Torres Strait Islander people prior to colonisation against which Australians can compare the realities of outcomes today. In the absence of such understanding, many people tend to think that the responsibility for current-day outcomes only lie with the victims. This is born-out in a nationally representative post-referendum survey result that more than half Australians agreed that if:

“Indigenous Australians tried harder they could be just as well off as the non-Indigenous population” (Biddle et al. 2023, p. 64).

With such widely held beliefs, it is hard to garner widespread community support for measures to unwind the loss of empowerment from colonisation. The resounding “no” vote in the 2023 Voice to Parliament referendum is an example of this.

Nonetheless, there is hope that the nation can come together and review our collective history and its legacy to find a better and equitable future. Currently 80 percent of Australia agree that Australia should undertake formal truth-telling (Biddle et al. 2023), but many are unlikely to fully understand what truth-telling means. For positive change to happen, it cannot be just a reflection of what others did many years ago, it needs to include the link to the present and a view to the future to make amends. In her Thea Astley address, Byron Bay Writers Festival in 2022, Professor Judy Atkinson, trauma worker, Jiman and Bundjalung elder, underlined this message:

“Confronting the past may be hard, painful, shameful but pathways open, and we can see a future that can hold all our stories. For these stories are our future” (Professor Judy Atkinson 2022).

The aim of this project is to support truth-telling by providing qualitative and quantitative evidence on the legacy of a specific aspect of colonisation, historical frontier violence. While it is only one aspect of colonisation, it is important because it led to dispossession and splintering of communities, and was the genesis for further atrocities, including stolen generations. We focus on measuring impacts on a broad set of outcomes including child development, health, economic and safety outcomes. We also attempt to shed light on the mechanisms for impacts



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today. We do this by estimating the relationship between community exposure to historical violence and attitudes towards Aboriginal and Torres Strait Islanders today and measuring the extent to which intergenerational impacts are related to the co-location of missions and reserves where massacres occurred.

Below we present preliminary quantitative analysis that has been produced to date, focussing on the link between community exposure to historical violence and child development outcomes from the Australian Early Development Census (AEDC) and the proportion who voted “no” in the Voice to Parliament Referendum. The latter reflects resistance to empowering Aboriginal and Torres Strait Islander people, which is a potential mechanism for intergenerational impacts. We discuss future research as part of this project in the final section below.

These links are estimated at the national level using multivariate regression, where community exposure to historical violence is related to massacres recorded in a community from the “Colonial Frontier Massacres, Australia, 1788 to 1930” map (Ryan et al. 2022). The map includes over 400 massacres across Australia and more than 10,000 Aboriginal and Torres Strait Islander people killed between 1788 and 1930.

Qualitative approach

Preliminary qualitative findings reflect insights gained from interviews and focus groups with community members in our first case study, Moree, NSW.

To gather rich qualitative data, we explored with community Elders, leaders, and members:

- Connections between frontier violence and what’s happening in their community today,
- How it may be connected to the historical legacy of violence, and
- How truth-telling can play a role in helping communities heal.

We accumulated evidence in two stages, first with Aboriginal community Elders, leaders and members through interviews, followed by two separate dialogues with Aboriginal community and with non-Aboriginal community members. The community focus groups encouraged collective examination of why there is a continuation of racial segregation and violence in the community and what is interrupting and changing that relic of the past.

When asked whether the participants saw a link between historical frontier violence and present-day outcomes, we noticed a range of viewpoints that describe the environment of Moree and how individuals are working to create their lives and livelihoods in this environment.

Several of the Aboriginal participants acknowledged that the historical violence directly impacts Aboriginal lives today. However, participants also described how they are working hard to make a difference in their own lives and their children’s lives despite the environment of the town.

“It’s like the frontier wars are not over yet...Because Gomerioi Murris are very much aware of what happened. Our kids are indirectly a result of what happened, because quite frankly, back in those days, our kids wouldn’t exist. They’d just fucking kill them.”



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(ABS) statistical geographic definition for Statistical Area level 2 (SA2), defined to represent a community of between 3,000-25,000 people that interacts together socially and economically. For voting outcomes, a community reflects the Federal Electoral Division defined by the Australian Electoral Commission.

In our regression analysis, we also adjust for differences at the community level which could explain coincidental associations between historical massacres and outcomes today (composition of the population, community location, geography/topography). At present, we have constructed important controls to make such adjustments. For estimating relationships between massacre and the “no” vote, we include controls to adjust for differences in electoral divisions associated with their state; whether it is rural, urban or remote; number of voters at the polling places and informal or non-ordinary voting (postal, pre-polling, provisional and absent). For estimating relationships between massacre and child development, we adjust for differences in SA2s related to state; whether it is rural, urban or remote; individual-person characteristics (gender, country of birth, whether speak English at home); the census year colonial sex ratios and topography (average and variation in elevation across the SA2). Future data developments will extend the list of characteristics that we adjust for in the regression analysis.

Although these associations remain relatively simple, we test for the presence of coincidental associations stemming from differences in SA2 characteristics that are not adjusted for. To test this, we estimate the same relationships in the non-Aboriginal and Torres Strait Islander community (falsification test). If our estimates indeed reflect the long-term impacts of historical massacres, and not the effects of coinciding SA2 factors that are not adjusted for (such as the quality of childcare), we expect no (or smaller) effects from historical massacres in non-Indigenous communities.

As far as we are aware, this is the first study that estimates the intergenerational impacts of colonial violence on Aboriginal and Torres Strait Islander peoples. Previous studies on the impacts of colonisation in Australia have been qualitative and have highlighted social determinants of poor health outcomes including social injustice, lack of treaty, and disruption of Indigenous cultures (Kunitz, 1990); deprivation of resources and intergenerational trauma (Atkinson, 2002). Previous quantitative studies have focussed on the effects of extractive colonies, without settlement (e.g., Dell, 2010; Michalopoulos and Papaioannou, 2013; Dell and Olken, 2020; Lowes and Montero, 2021, among many others). Only a few have estimated the impacts of European settlement, but have generally concentrated on demographic shifts, specific colonial policies or competition for resources (Feir, 2016; Grosjean and Khattar, 2017; Cobb-Clark et al. 2018; Gregg, 2018; Baranov, De Haas and Grosjean, 2023; Feir et al. 2024). None have examined the impacts of colonial violence.

Data

Our base data is from the colonial frontier massacre map produced by the late Emerita Professor Lyndall Ryan and her team that contains over 400 verified massacres. A massacre is defined as ‘the deliberate and unlawful killing of six or more defenceless people in one operation’ (Ryan 2020). It is important to note that only massacres that appear in printed and archival sources



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are included in the data. Massacre data includes information on the number of people killed, the geocoordinates of the site, weapons used and the circumstances of the event (if known).

At present, we have estimated relationships between aggregate numbers of community massacres and massacre deaths and the following outcomes:

- Individual child development outcomes (scale of 0 to 10) from the AEDC, and
- Individual “no” votes in the 2023 national voice to parliament referendum.

The AEDC is an internationally used and validated non-diagnostic assessment tool of early childhood development, first developed at McMaster University in Canada.² The assessment is of children in their first year of full-time school and is conducted every three years by trained teachers. The assessment contains around 100 questions on each child’s development in five key domains: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based), and communication skills and general knowledge. For each domain, responses to relevant questions are combined to produce an overall score from 0 to 10, in which a higher score indicates a higher level of development. For preliminary analysis presented below, we pool individual scores from 4 cohorts of children in their first year of full-time school (in 2012, 2015, 2018 and 2021) in each domain and link these to SA2 aggregate massacre data based on the place of residence of the child. Importantly, the AEDC has been validated for use in measuring outcomes of Aboriginal and Torres Strait Islander children.³

For examining outcomes from the 2023 referendum, we use individual data for 15,895,231 counted votes from the Australian Electoral Commission, linked to massacre data from 151 federal electoral division, with the linkage based on the location of the polling booth.

Preliminary results

In Figure 1, we compare AEDC outcomes of children in communities with and without recorded historical massacres. These results suggest that in their first year of full-time school, Aboriginal and Torres Strait Islander children in communities where massacres are recorded have lower developmental scores in all domains than Aboriginal and Torres Strait Islander children in communities where massacres are not recorded. We also find that the difference in the developmental scores is larger in communities where there were 4 or more massacres compared to 1 to 3 (Figure 2). Tellingly, we observe no statistical differences in development scores between non-Aboriginal and Torres Strait Islander children in communities where massacres are and are not recorded (Figure 1). The latter suggests that community-level confounders are

²For more information on the Early Development Instrument, see <https://edi.offordcentre.com/>.

³For more details visit <https://www.aedc.gov.au/about-the-aedc/history/validation-and-trial-of-the-aedi/the-aedi-and-indigenous-children>.



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unlikely to drive the results because such confounders would affect both ATSI and non-ATSI children.

Figure 1: Differences in AEDC child development scores (0-10) in communities (SA2) where historical massacres are recorded, compared to scores where massacres are not

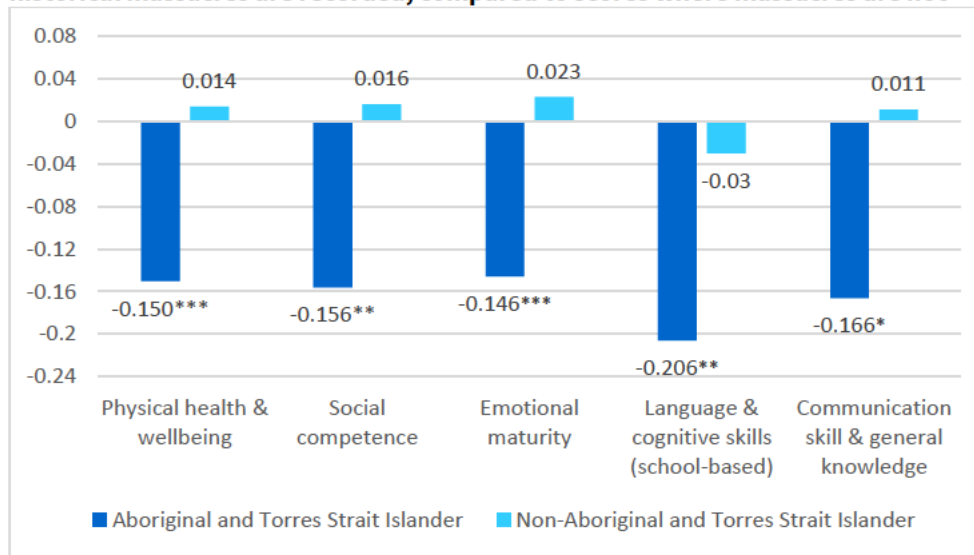


Figure notes: ***Statistically significant at 99% level; **Statistically significant at 95% level; *Statistically significant at 90% level. Controls include: state dummies (ref: NSW), year dummies, remoteness indicators, elevation (mean & std), historical sex ratios, individual controls for gender, country of birth, native English speakers. Standard errors are robust and clustered at the SA2 level (i.e. level of aggregation of massacres). N=83,444-83,922 Aboriginal and Torres Strait Islander children and 1,376,203-1,381,709 non-Aboriginal and Torres Strait Islander children.

Figure 2: Differences in AEDC child development scores (0-10) in communities (SA2) where historical massacres are recorded (by number of massacre), compared to scores where massacres are not

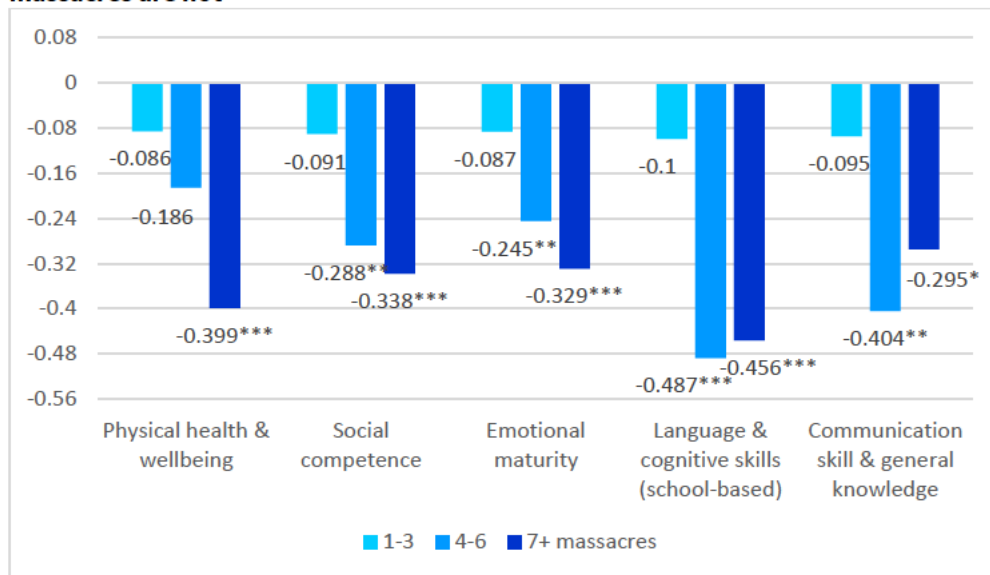


Figure notes: ***Statistically significant at 99% level; **Statistically significant at 95% level; *Statistically significant at 90% level. Controls include: state dummies (ref: NSW), year dummies, remoteness indicators, elevation (mean & std), historical sex ratios, individual controls for gender, country of birth, native English speakers. Standard errors are robust and clustered at the SA2 level (i.e. level of aggregation of massacres).

To address the concern that this result may merely reflect political divisions between rural (where more massacres are recorded) and urban areas (where fewer massacres are recorded), rather than historical violence, we show that in every state where we can compare electoral division results with and without massacres *within* rural and remote, provincial and outer metropolitan regions, there is a consistently higher “no” vote in divisions where massacres are recorded compared to those where no massacres are recorded (Figure 4). For instance, within rural and remote Queensland, there is a 5 percentage-point higher “no” vote in divisions with recorded massacres compared to divisions without (71% versus 66%), and an 11 percentage-point higher “no” vote in divisions with massacre within provincial Victoria (71% to 60%). If the higher “no” vote in divisions where historical massacres were recorded was not apparent *within* the same regions in each state, then it could be argued that the pattern just reflects differences in voting patterns by region.

Figure 4: Proportion of “no” vote by state, region and historical massacre events

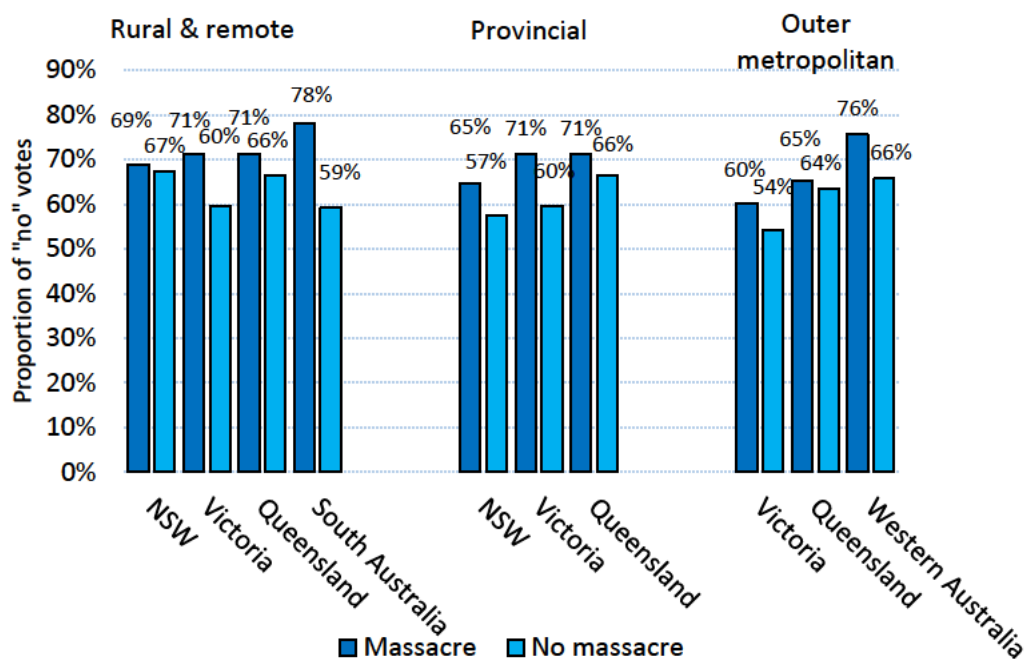


Figure notes: we exclude states and territories in each regional classification where we cannot observe electoral divisions where there were and were not historical massacres.



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Future work

These results are the first of a series that will be produced on the relationships between community exposure to historical frontier violence and contemporary outcomes of Aboriginal and Torres Strait Islander peoples. Results with more extensive outcomes will be available in the second half of 2024. These results will include:

- economic outcomes (e.g. employment, income, income support receipt, entrepreneurship, education attainment, home ownership);
- health outcomes (obesity, mortality, smoking and drinking rates, mental health conditions, diabetes, cancer, heart disease);
- safety (attacks against the person).

To estimate potential mechanisms of the outcomes above (besides the 2023 referendum result), we will examine the relationships between community exposure to historical frontier violence and:

- negative attitudes towards Indigenous people (reports of discrimination, opposition to the 1967 referendum, reports of school bullying);
- establishment of missions and reserves; and
- cultural and land resources (art production, successful native title claims).

More work is also underway to more fully adjust estimated relationships for the presence of confounders. This involves generating community-level factors to include in the regression models, including measures of current-day community characteristics, pre-settlement Aboriginal and Torres Strait Islander population, and natural resources.

Another part of this project is quantifying the importance of historical factors (such as attitudes of settlers, economic returns to land acquisition and Aboriginal and Torres Strait Islander resistance) that led to massacre. Early results from this work will be available in 2025.



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