



Australian
National
University

CENTRE FOR SOCIAL
RESEARCH & METHODS

The experience of Asian-Australians during the COVID-19 pandemic: Discrimination and wellbeing

ANU Centre for Social Research and Methods

Professor Nicholas Biddle¹, Professor Matthew Gray¹ and Jieh Yung Lo²

- 1 ANU Centre for Social Research and Methods
- 2 ANU Centre for Asian-Australian Leadership

Australian National University

Acknowledgements

This research was funded by the Centre for Asian-Australian Leadership. The authors would like to thank a number of people who were involved in the development of the ANUpoll questionnaires, including A/Professor Ben Edwards and Kate Sollis who were co-authors on previous reports, as well as Diane Herz, Dr Benjamin Phillips, Dr Paul Myers, Matilda Page, and Charles Dove from the Social Research Centre, and Professor Ian McAllister from the ANU.

Authorship order is alphabetical.

28th October 2020

Extended abstract

There is a strong potential for people from an Asian-ethnicity background in Australia to have been particularly impacted by the spread of COVID-19. This could be because they are held responsible for the spread of the virus around the world, or because of their demographic characteristics and position in the labour market. The aim of this paper is to document the changes in outcomes for Asian-Australians from January 2020 to October 2020, comparing the change in outcomes to the rest of the Australian population.

This paper is based on data collected in October 2020 (immediately after the second wave of infections), April 2020 (during the height of the first wave of infections), and August 2019 (prior to the spread of COVID-19). In our latest wave of data, we have data on 3,043 adult Australians, of which 334 identified as having Asian-Ancestry.

We find that there has been no increase in discrimination reported by Asian-Australians compared to August 2019. Based on our index value (which takes into account frequency and location of discrimination), there was a 12.3 per cent decline in discrimination between April 2019 and April 2020 (when lockdowns were in full force and there was less exposure to potential sources of discrimination), but a roughly equal and opposite increase between April 2020 and October 2020 when restrictions had mostly been eased (at least outside of Melbourne).

Australians are no more likely to think that people from a different ethnic background to the majority of the Australian population should be restricted from moving to Australia than they did prior to the pandemic. There has been a slight decline in support for migration in general, but this does not appear to have been targeted towards particular ethnic groups.

Social cohesion in general has improved over the COVID-19 period. What is perhaps more interesting though is that Australians are more likely to think that Asian-Australians can be trusted, are fair, and are helpful than they are to think the same thing of Anglo-Australians. Around 65 per cent of the Australian population has high trust in Asian-Australians, compared to 55 per cent who have high trust in Anglo-Australians.

What our data does show, however, is that Asian-Australians have had a worse trajectory in their own outcomes during the pandemic. Asian-Australians are more likely to be anxious and worried due to COVID-19 than the rest of the Australian population 80.7 per cent compared to 62.4 per cent. Asian-Australians started off with higher levels of psychological distress prior to COVID-19, but experienced a much greater increase up until April 2020.

The biggest difference though has been in terms of economics. The drop in hours worked for Asian-Australians between February and April 2020 (5.0 hours) was more than twice the drop for the rest of the Australians population (2.4 hours). Some of this gap has been regained since, but even in October 2020 Asian-Australians were working fewer hours than they had in February 2020, whereas the rest of the Australian population were back closer to their pre-COVID levels.

Asian-Australians have fared worse during the COVID-19 period than the rest of the Australian population, and there is an ongoing need to understand the source of this disparity, as well as the most effective policy responses.

1 Introduction and overview

The COVID-19 pandemic has affected almost all aspects of life in Australia. At the time of finalising this paper (October 21st 2020) there were 27,430 confirmed cases of COVID-19 in Australia, and 905 deaths attributable to the disease. While this is quite low in per-person terms (1.08 cases per 100,000 and 0.04 deaths per 100,000) relative to many other developed democracies with accurate reporting of data, the physical health impacts of COVID-19 are only a small part of the overall effect of the pandemic.

Australia has suffered an economic shock of a greater rapidity and magnitude than any since the Great Depression in the 1930s. According to the Australian Bureau of Statistics' Labour Force Survey (ABS 2020), between March and May 2020, there was a 10.4 per cent decline in monthly hours worked for all Australians (9.4 per cent for males and 11.8 per cent for females). By September 2020, around half of this decline had been reversed, though there still has been a 5.7 per cent decline for males and a 4.3 per cent decline for females in monthly hours worked between March and September 2020 (5.1 per cent decline for males and females combined).

Partly due to this massive employment shock, but also due to the physical distancing and isolation measures imposed to stop the spread of the virus, there has also been a mental health worsening over the period. Using the longitudinal dataset presented and analysed for this paper, Biddle, Edwards et al. (2020) showed that:

In February 2017 ... the average value [for the K6 measure of psychological distress] was 11.2. By April 2020, the score had increased to have a mean of 11.9. Between April and May 2020 there was a significant reduction in psychological distress, although the K6 measure was still above the pre-COVID-19 values (mean = 11.5 in May 2020). Mental health worsened again though between May 2020 and August 2020, with an average in our most recent data collection of 11.7.

The COVID-19 pandemic has not impacted on all Australians consistently. Despite the disease itself being particularly dangerous for older people, the mental health and socioeconomic data has consistently shown that young Australians have been more negatively affected than older Australians. Furthermore, while the first wave of infections was spread reasonably evenly across Australia, the second wave of infections (which occurred between late July and early September) was primarily concentrated in Victoria, and Melbourne in particular. In general though, primarily due to population density and higher rates of international mobility, people in more urban parts of the country have been impacted more than those in remote and regional Australia. In terms of labour market outcomes, two industries have been particularly affected – Arts and Recreation Services; and Accommodation and Food Services (Biddle, Gray et al. 2020)

One group of Australians who may have been particularly affected by the COVID-19 pandemic is Asian-Australians. Compared to the rest of the population, Asian-Australians are younger and tend to live in more urban areas. They are also more likely to work in some of the industries particularly impacted by the economic shutdown.

In addition, China was the first country to experience a significant level of infections and to put in place lockdown restrictions. While reported cases in other countries have since overtaken those in China (albeit with significant uncertainty around the numbers (Tsang et al. 2020; He et al. 2020), prominent politicians (including US President Donald Trump¹) and many in the media have labelled SARA-CoV-2 the 'China Virus' or similar, potentially precipitating a

backlash against those from an ethnic-Chinese background in Australia.

The aim of this paper is to document the changes in outcomes for Asian-Australians from January 2020 to October 2020, comparing the change in outcomes to the rest of the Australian population. In addition, we compare how attitudes of the total Australian population towards Asian-Australians compare to attitudes more generally. As far as the authors are aware, this is the first such longitudinal study in Australia, based on a large and representative sample of the population.

The data used for the survey is described in Appendix 1. To identify Asian-Australians in our sample, we use a similar ancestry measure to that which is used on the ABS Census of Population and Housing. Specifically, we asked respondents in January 2020 'How would you describe your ancestry? Please choose up to two ancestries that best apply to you.' A note is then given to the effect of 'Ancestry means your ethnic origin or background. For example: Australian, Irish, Greek, etc.' We provided a list of 27 potential ancestries with five of these geographically tied to Asia: Chinese, Filipino, Indian, Sri Lankan, and Vietnamese. We also gave an 'other' category, with respondents able to enter their ancestry as free text.

Those respondents who answered yes to one of the Asian categories as either of their two ancestries, or who wrote an ancestry tied to an Asia country in the 'other' category were classified as Asian-Australian.² In our interim dataset, there were 334 respondents or 11.1 per cent of the total sample who identify as having Asian-Ancestry.³

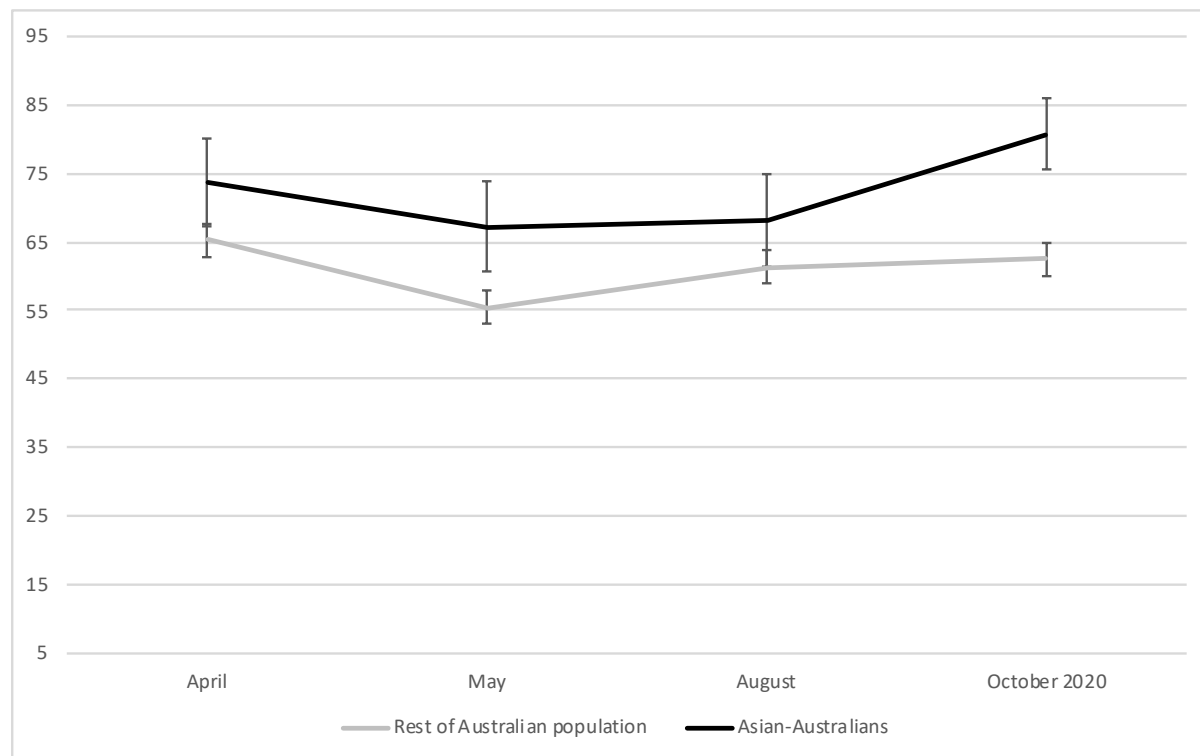
To document changes in outcomes for Asian-Australians, the remainder of the paper is structured as follows. Section 2 describes how the wellbeing and mental health of Asian-Australians compares to other Australians and how this has changed during COVID-19 and this compares to other Australians and Section 3 provides estimates of the impact of COVID-19 on economic outcomes for Asian-Australians. Section 4 reports Asian-Australians experience of discrimination and how this has changed since COVID-19.

2 Wellbeing and mental health outcomes for Asian-Australians

We begin our analysis of outcomes for Asian-Australians with a direct COVID-19 measure. Specifically, since April 2020 we have asked respondents 'We would now like to ask you some questions about your experiences with COVID-19, which is the respiratory illness caused by the Coronavirus. Thinking about the spread of COVID-19 that is currently occurring. Have you felt anxious or worried for the safety of yourself, close family members or friends, due to COVID-19?' Asian-Australians are much more likely to say that they were anxious or worried about COVID-19 with 80.7 per cent saying that they were compared to 62.4 per cent of the rest of the Australian population.

Asian-Australians have been more likely to say that they were anxious and worried due to COVID-19 in all of our surveys waves (April 2020, May, August and October 2020). The extent to which Asia-Australians were more likely to be anxious and worried due to COVID-19 compared to other Australians fell somewhat between May and August 2020, but widened substantially between August and October 2020.

Figure 1 Anxious and worried due to COVID-19 by Asian-Australian Ancestry, April-October 2020

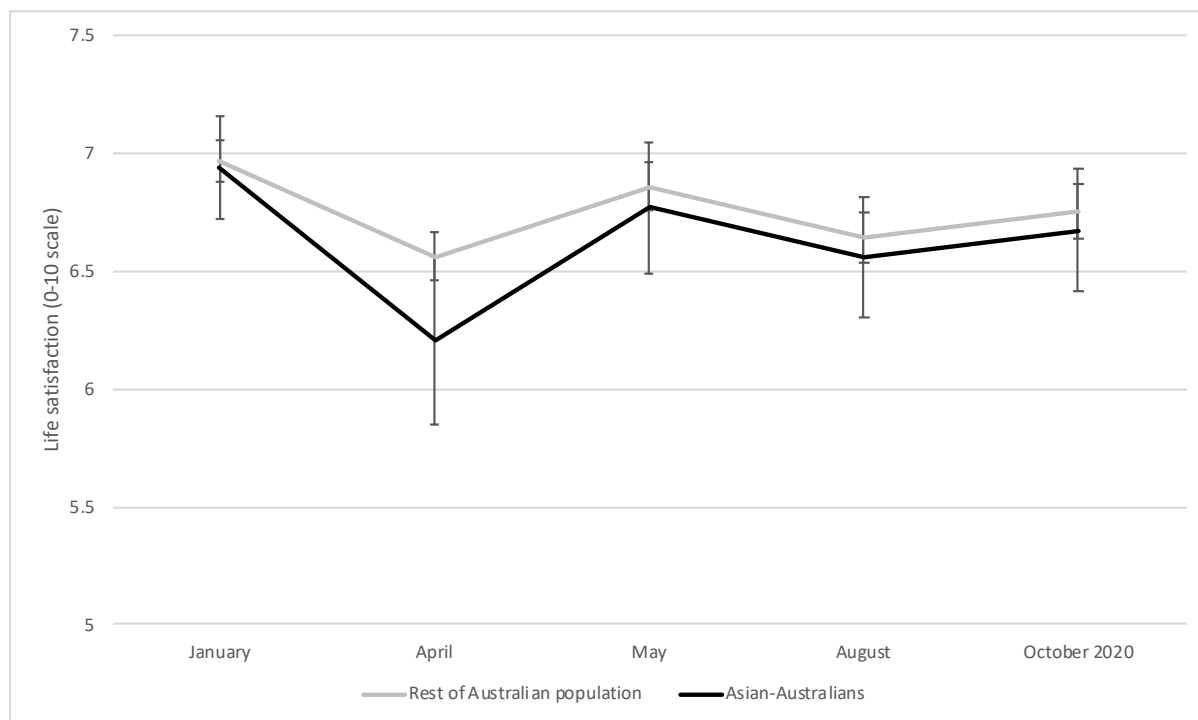


Notes: The “whiskers” on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll, April, May, August and October 2020.

While the difference is not as large, Asian-Australians were slightly less satisfied with their life in October 2020 compared to the rest of the Australian population. On a scale of 0 (least satisfied) to 10 (most satisfied), the average value for Asian-Australians (6.67) was slightly but not significantly less than the value for the rest of the Australian population (6.76). Over the period for which we have data, however, there has been a greater level of fluctuation for Asian-Australians (Figure 2). Life satisfaction started very similarly for the two populations in January 2020 (6.94 for Asian-Australians and 6.97 for the rest of the population). Between January and April 2020 when the first wave of infections was at its peak, the decline was much greater for Asian-Australians (to 6.20) than it was for the rest of the population (to 6.56). Between April and May 2020 as the first round of restrictions began to be eased there was a convergence again, with only a small gap between the two populations in our two most recent surveys.

Figure 2 Life satisfaction by Asian-Australian Ancestry, January- October 2020

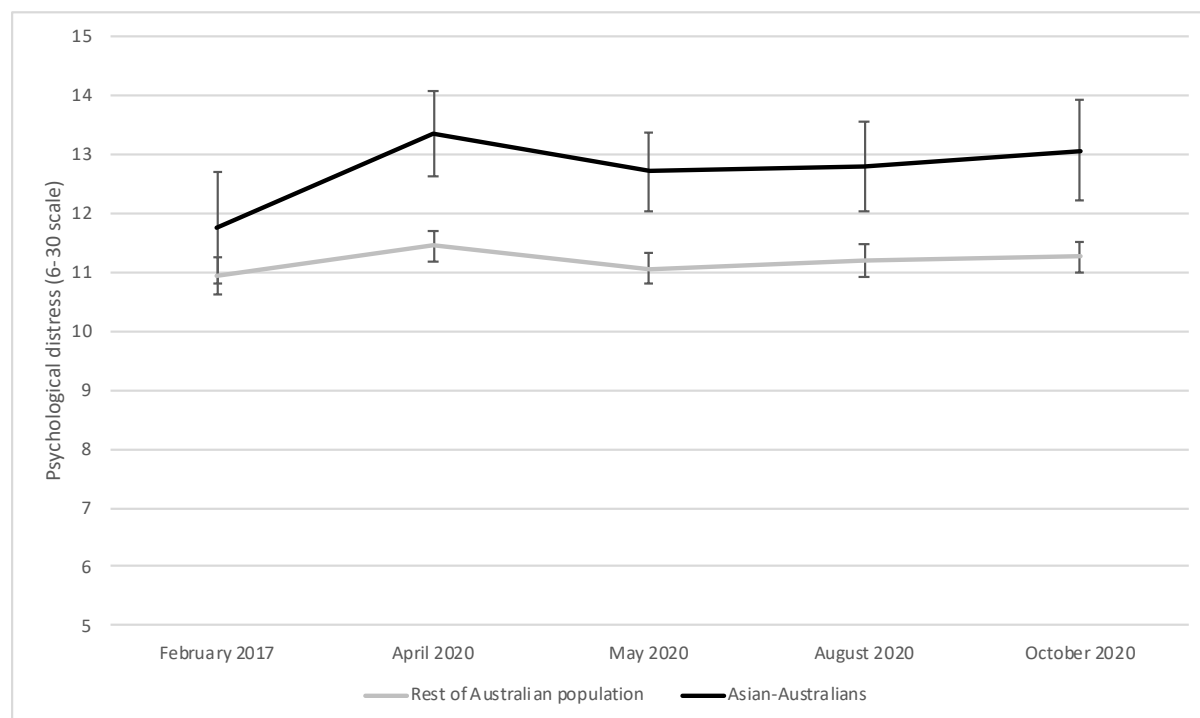


Notes: The “whiskers” on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll, January, April, May, August and October 2020.

Prior to the spread of COVID-19, Asian-Australians had higher levels of psychological distress than the rest of the Australian population. This would appear to be only partly explained by differences in demographic, socioeconomic, and geographic characteristics. Between February 2017 and April 2020, however, there was a much larger increase in psychological distress for Asian-Australians, with the gap on the K6 score increasing from 7.5 per cent in February 2017 to 16.5 per cent in April 2020. There was a slight convergence between April and May and then again between May and August, but a further widening between August and October (to 15.9 per cent).

Figure 3 Psychological distress by Asian-Australian Ancestry, February 2017 and April-October 2020



Notes: The “whiskers” on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: Life in Australia™, February 2017 and ANUpoll, April, May, August and October 2020.

3 Economic outcomes for Asian-Australians

It is clear from the data presented in the previous section that the wellbeing outcomes of Asian-Australians have worsened over the COVID-19 period relative to the rest of the Australian population. As far as we are aware, there is no data by ethnicity on infection or mortality rates in Australia, at the individual level. Fortunately, rates of infection and mortality are so low that they are not analysable in sample surveys with standard sample sizes. One of the drivers of this wellbeing change that is observable in survey data, however, is employment outcomes.

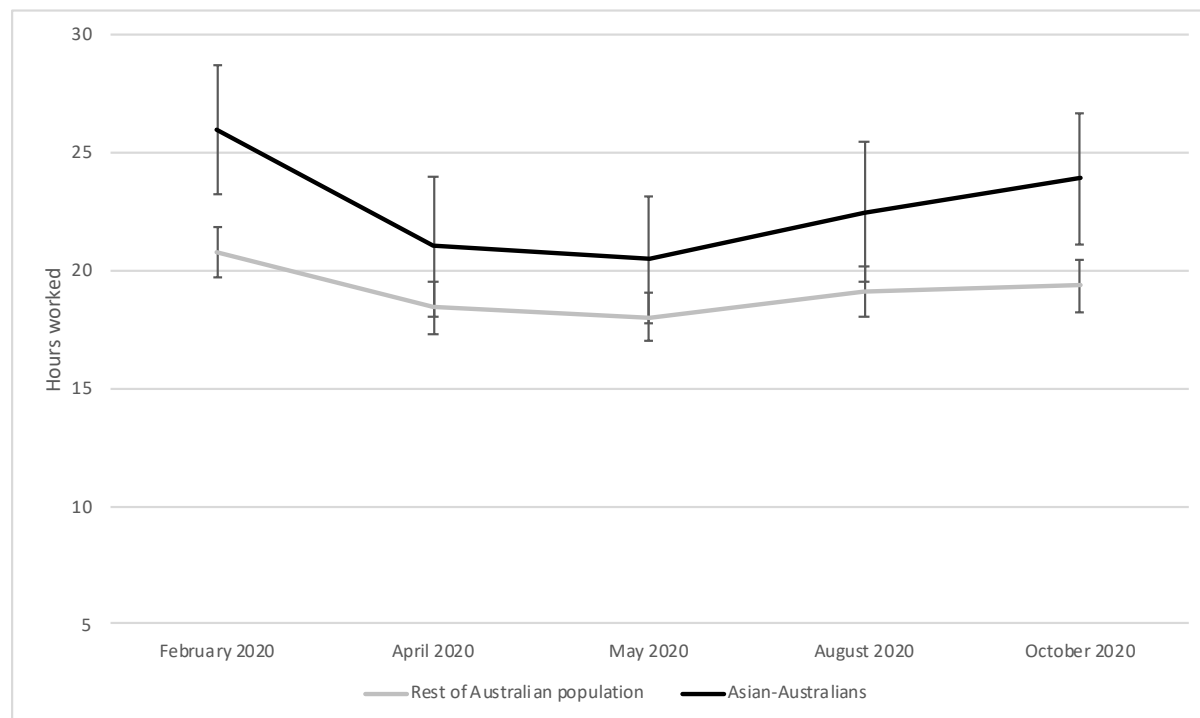
Changes in employment over the COVID-19 period are influenced by a range of factors, including the industry in which a person works, the area in which they live/work, their caring and other responsibilities outside the work place (with increasing demands on many due to the pandemic) and their own human capital skills and qualifications.

Prior to the COVID-19 pandemic (in February 2020), Asian-Australians were working significantly more hours than the rest of the Australian population (Figure 4); 26.0 hours on average per week compared to 20.8 hours per week respectively. Between February and April 2020, hours declined for the rest of the Australian population by 2.4 hours per week (to 18.4 hours per week). The decline in hours worked for Asian-Australians was much larger with average hours worked per week for Asian-Australians declined by 5.0 hours per week (to 21.0 hours per week). To put this into context, 29.5 per cent in the decline in hours worked between February and April 2020 for Australia as a whole was due to the decline in hours worked for Asian-Australians, despite Asian-Australians making up only 16.6 per cent of the (weighted) population in February.

Asian-Australian's experience during COVID-19

Neither population has returned to their pre-COVID level of hours worked. However, since April 2020 when employment was at its lowest, there has been a somewhat larger increase for Asian Australians, with a particularly large increase between May and August 2020 (from 20.5 hours to 22.5 hours).

Figure 4 Hours worked by Asian-Australian Ancestry, February- October 2020



Notes: The “whiskers” on the lines indicate the 95 per cent confidence intervals for the estimate. For those who were not in paid employment their working hours are set to zero.

Source: Life in Australia™, February 2020 and ANUpoll, April, May, August and October 2020.

There are a range of possible explanations for the larger impact of COVID-19 in hours worked by Asian-Australians, including that Asian-Australians tended to be working in jobs that were more negatively impacted by COVID-19, and that differences in age, sex or socioeconomic status put Asian-Australians at greater risk of losing hours of work. It is also possible that discrimination against Asian-Australians in the workplace may have had an effect.

A regression modelling that aims to estimate the extent to which Asian-Australian's working hours fell due to COVID-19 after holding constant demographic, socioeconomic and geographic characteristics and industry and occupation has been estimated. Although it is beyond the scope of this paper to analyse the changes in hours in detail, the relatively large decline in hours worked between February and April 2020 for Asian-Australians was not solely due to observable characteristics. Expressed slightly differently, the modelling shows that for individuals with similar observable characteristics prior to COVID-19, hours worked declined by a much greater extent for Asian-Australians. This could be due to choices made by Asian-Australians (that is, labour supply rather than labour demand reasons). It may also be due to unobserved characteristics. However, it is plausible that at least some of this difference is due to employers (potential or current) discriminating against Asian-Australians and treating them differently based on their ethnicity.

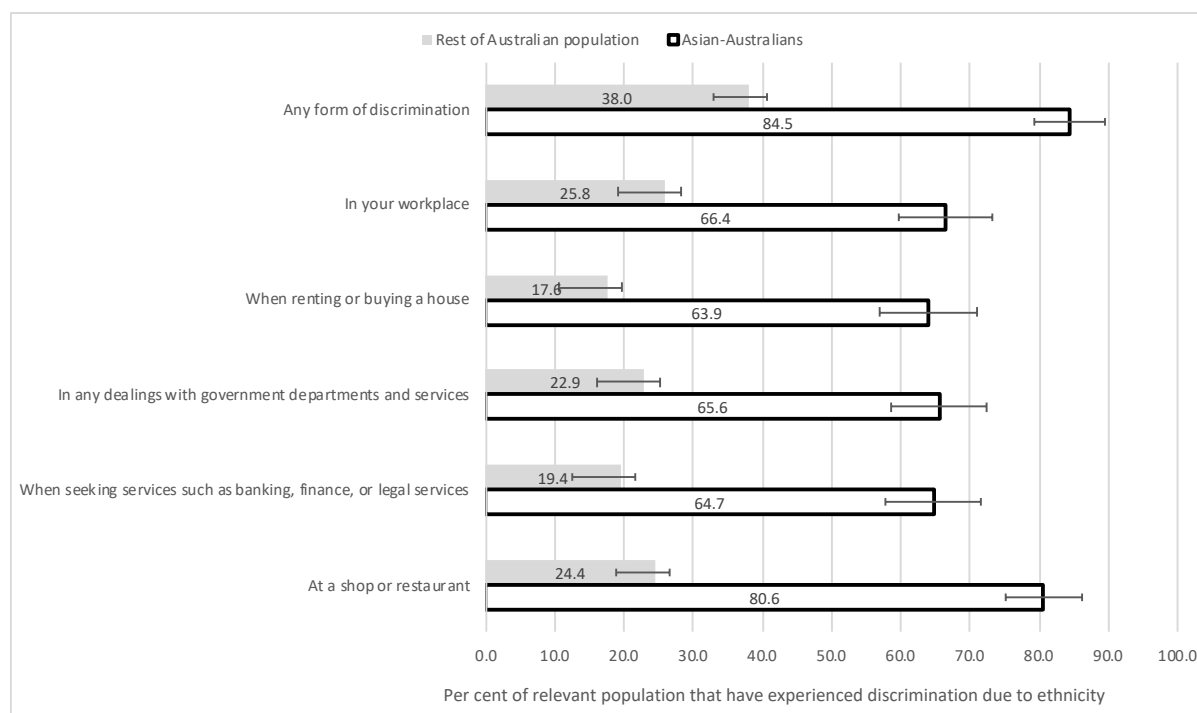
4 Experience of discrimination

The April and October 2020 ANUpoll surveys asked Asian-Australians (and other respondents about whether they have experienced discrimination tie workplace and about other forms of discrimination. Specifically, respondents to the April and October surveys were asked ‘How often have you experienced discrimination in Australia because of **your own ethnic** origin in the following situations?’ (emphasis in original), with five situations provided:

- In your workplace
- When renting or buying a house
- In any dealings with government departments and services
- When seeking services such as banking, finance, or legal services
- At a shop or restaurant

For each of these situations, there are five possible response options – Very often; Often; Sometimes; Hardly ever; and Never. Using the most expansive definition of discrimination (any of the first four response options for any of the situations), 84.5 per cent of Asian-Australians reported at least one form of discrimination in October 2020 (Figure 5). The most common form of discrimination reported was at a shop or restaurant (80.6 per cent). The least common form of discrimination was when seeking services (64.7 per cent) or when renting or buying a house (63.9 per cent).

Figure 5 Experiences of discrimination by Asian-Australian Ancestry –October 2020



Notes: The “whiskers” on the bars indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll, October 2020.

It is clear that Asian-Australians report experiencing higher rates of discrimination than the rest of the Australian population. This does not, of course, mean that there are not other groups that also experience high rates of discrimination.

Asian-Australian's experience during COVID-19

In order to measure the extent to which experiencing discrimination has changed since August 2019 (which was the last time we asked these questions prior to the spread of COVID-19), we constructed an index of the number types of discrimination and frequency of experiencing discrimination. An additive index has been constructed where for each source of discrimination Very often = 5; Often = 4; Sometimes = 3; Hardly ever = 2; and Never = 1. The maximum value for the index is therefore 25, and the minimum value is 5.⁴ A higher value of the index corresponds to experiencing a larger number of forms of discrimination and/or experiencing a particular type of discrimination more frequently.

In August 2019, the last time we asked these questions prior to the spread of COVID-19, the average value for the index for Asian-Australians was 10.6 compared to 6.4 for the rest of the Australian population. This declined substantially between August 2019 and April 2020 for both populations, to 9.3 and 6.0 respectively. That is, during the height of the first lockdown period in Australia, respondents to a high-quality representative survey reported lower rates of discrimination than prior to the spread of COVID-19. The aim of future research is to explain this change in detail, but a potential interpretation is that during the very strict lockdown period there was less scope to experience the particular types of discrimination that we asked about, as fewer people who might experience discrimination were at work, applying for houses, or using face-to-face commercial/government services where their ethnicity is discernible to potential discriminators. Some forms of discrimination that we didn't ask about, for example online discrimination, may have had very different trends.

Supporting this potential explanation, there was a large increase between April and October in reported discrimination. For Asian-Australians, the index increased to 10.4 and for the rest of the population it increased to 6.6. In absolute terms, the increase was much larger for Asian-Australians compared to the rest of the population (1.1 points compared to 0.6 points), though both returned to a value roughly similar to that observed prior to the spread of COVID-19. What is also interesting is that for the whole population (Asian-Australians and the rest of Australia combined) there was a slightly larger increase between April and October for those outside of Victoria (6.3 to 7.1) than those who were living in Victoria (6.7 to 7.2) where the lockdowns were still in place.

5 Trust and other attitudes amongst the Australian population

COVID-19 has had a larger negative impact on the wellbeing and economic outcomes of Asian-Australians, particularly during the earlier period of pandemic but the greater negative effects are still being found in October 2020. It would appear from our data that reported exposure to discrimination has not increased for Asian-Australians compared to a similar point in time in 2019, though there is also some evidence that discrimination has been minimised through a significant reduction in the type of interactions where discrimination is likely to occur.

Separate to the exposure to discrimination for Asian-Australians are any potential changes in attitudes amongst the rest of the Australian population. Discrimination might go up while explicit attitudes stay constant if the main drivers of discrimination are implicit biases (Harden and Banaji 2013). Alternatively, attitudes may change whilst experiences of discrimination stay constant if exposure to potential discriminators also vary. In the October 2020 survey we asked about two sets of explicit attitudes – support for migration and generalised trust.

5.1 Support for migration amongst the Australian population

In February 2020 and then again in October 2020 we asked two questions about support for migration to Australia: 'To what extent do you think Australia should allow people of **the same race or ethnic group** as most Australian people to come and live here?' and 'How about people of a **different** race or ethnic group from most Australian people?' [emphasis in original]. This question was modelled after a similar question on the European Social Survey, with possible response options as follows: Allow many to come and live here; Allow some; Allow a few; and Allow none to come and live here.

While this does not explicitly capture attitudes towards Asian-Australians, given much of the recent migration to Australia has come from countries in the Asia-region (and in particular China and India), a significant worsening in attitudes towards Asian-migrants is likely to be picked up by an increase in the proportion of people who say that Australia should allow none or a few people from a different race or ethnic group that is greater than the increase in the proportion who say that Australia should allow none or a few people of the same race or ethnic group (or a smaller decline). We do not find any support for this hypothesis in our data.

It is true that in October 2020 there was a greater proportion of people who said that Australia should allow only a few or no people from a different race or ethnic group to come to live here (27.9 per cent) compared to those who say the same thing for people of the same race or ethnic group (19.1 per cent). However, attitudes have not shifted by much during the COVID-19 period (the values pre-COVID were 29.3 per cent and 19.2 per cent respectively) and the relativities have stayed almost exactly the same. There is some weak evidence that support for migration in general has declined between February and October and 2020, but no evidence that support for migration of Asian-Australians has shifted in particular.

5.2 Trust during the COVID-19 period

Views on fellow Australians' trustworthiness, fairness and helpfulness improved between February and April 2020, with trust, perceptions of others' fairness and altruism all found to have increased from February to April 2020. In both February 2020 and April 2020, participants were asked:

- Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?
- Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair? And
- Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?

The responses are given on a scale from 0 to 10 where 0 is the most negative assessment and 10 the most positive.

Trust in others increased from a mean value of 5.39 in February 2020 to 5.84 in April 2020, while believing people are fair increased from 5.54 to 6.04, and perceptions of whether people are helpful increased from 5.64 to 6.08 out of 10.

In October 2020 we asked the same questions of all respondents. There was one major difference though, in that we repeated the question to test whether people's trust levels were different depending on the ethnicity of the object of the question. Specifically, we asked:

Asian-Australian's experience during COVID-19

- Generally speaking, would you say that most <DUM1> can be trusted, or that you can't be too careful in dealing with <DUM1>?
- Do you think that most <DUM1> would try to take advantage of you if they got the chance, or would they try to be fair?
- Would you say that most of the time <DUM1> try to be helpful or that they are mostly looking out for themselves?

We substituted four ethnic groups for <DUM1> with one-quarter of respondents randomised to be asked about each of the following groups:

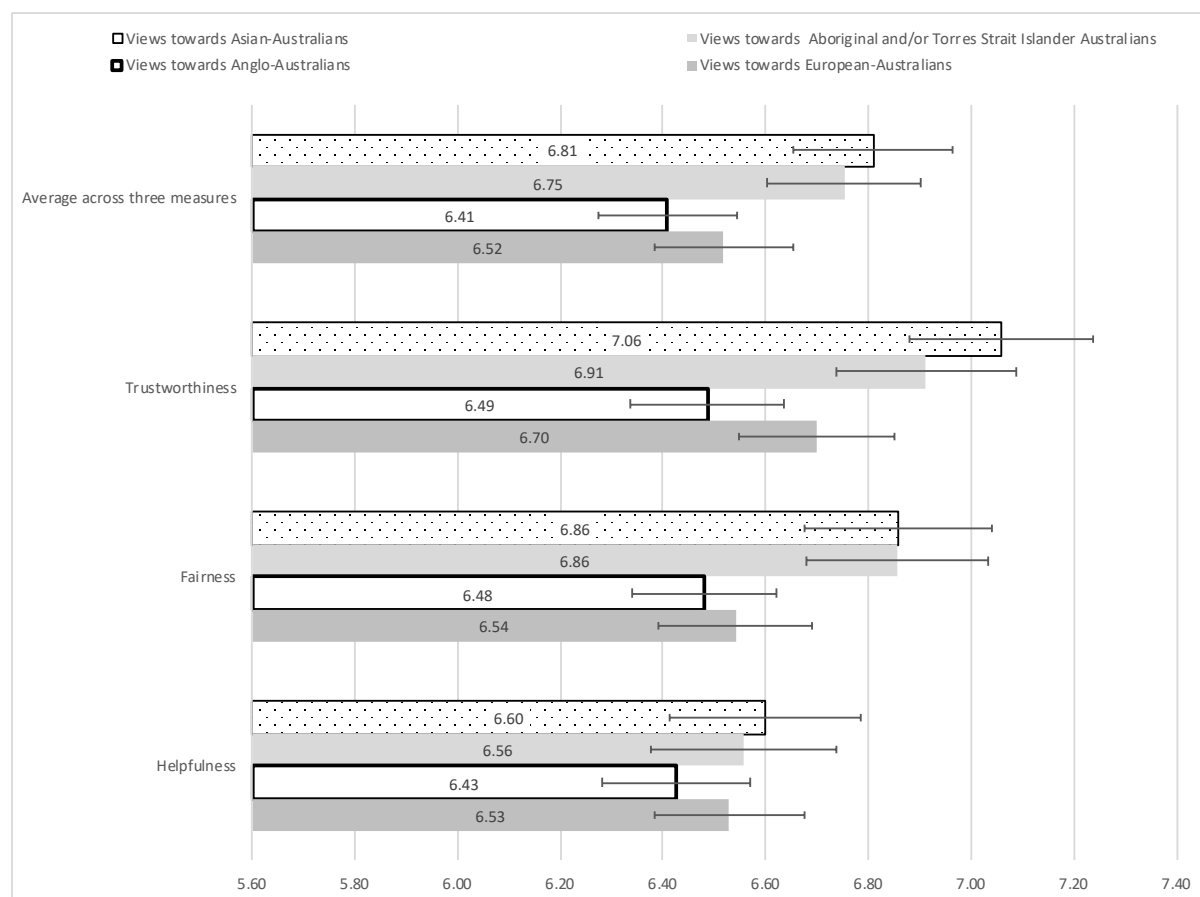
- Asian-Australians;
- Aboriginal and/or Torres Strait Islander Australians;
- Anglo-Australians;
- European-Australians;

For half of respondents we asked the generalised trust measures prior to the ethnicity-specific trust questions. For the other half of the sample, we reversed the order. For those who got asked the generalised trust questions first and were therefore more comparable to previous waves, there was a slight improvement in average trust between April and October (from 5.71 to 5.79 in the linked sample) a slight worsening in a belief that people are fair (6.00 to 5.88) and essentially no change in perceptions of helpfulness (6.02 to 6.00). Taking an average across the three measures, it would appear that these measures of social cohesion are essentially the same since the start of the pandemic (from 5.91 to 5.89), but that the values are still well above their pre-COVID levels.

Prior to the spread of COVID-19 (in February), Asian-Australians levels of trust (people can be trusted and people would try to take advantage) and assessment of people's helpfulness were slightly lower than for the rest of the Australian population, with an average across the three measures (social cohesion) of 5.59 compared to 5.76 for the rest of the population. This gap widened between February and April 2020 with the increase in the social cohesion measure much smaller for the Asian-Australian population (to 5.75) than the rest of the Australian population (to 6.20). The change between April and October was similar for Asian-Australians compared to the rest of the Australian population.

Unfortunately, we do not have time-series data on views towards specific ethnic groups in Australia. However, in Figure 6 we can see that in October 2020 there were more positive views towards Asian-Australians amongst the Australian population than there was towards Aboriginal and Torres Strait Islander Australians, and in particular than there was towards Anglo-Australians and to a lesser extent European-Australians.

Figure 6 Views towards particular ethnic groups –October 2020



Notes: The “whiskers” on the bars indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll, October 2020.

If we take 7 as a cut-off for high levels of trust, then around 65 per cent of the Australian population has high trust in Asian-Australians, compared to 55 per cent who have high trust in Anglo-Australians.

Interestingly, these more positive views are mostly driven by the rest of the Australian population, rather than the Asian-Australian population. The average value on the cohesion index towards Asian-Australians is 6.23 for Asian-Australians and 6.89 for the rest of the Australian population. The average value on the cohesion index towards Anglo-Australians, on the other hand, was 6.15 for Asian-Australians and 6.44 for the rest of the population. To put this another way, Asian-Australians are equally as positive towards Anglo-Australians as they are towards other Asian-Australians. The rest of the population, however, is much more positive towards Asian-Australians.

6 Concluding comments

The fact that SARS-CoV-2 originated in China, and notwithstanding the fact that the virus has now spread rapidly around the world, there is a strong potential for people from an Asian-ethnicity background in a country like Australia to be held responsible for the spread of the virus around the world and thus to experience increased levels of discrimination.

There does not appear to be much support for this hypothesis in the data presented in this paper. There has been no increase in discrimination reported by Asian-Australians compared

Asian-Australian's experience during COVID-19

to August 2019, Australians are no more likely to think that people from a different ethnic background to the majority of the Australian population should be restricted from moving to Australia than they did prior to the pandemic, and Australians are more likely to think that Asian-Australians can be trusted, are fair, and are helpful than they are to think the same thing of Anglo-Australians.

These findings should of course not diminish any negative experiences that Asian-Australians may have experienced since the virus first emerged in China. There may be forms of discrimination that are not observable in our data. Experiences of discrimination are still much higher for Asian-Australians than they are for the rest of the population. And generalised, abstract trust measures may not translate into more positive interaction between individuals. Nonetheless, it would appear that breakdowns in social cohesion have not occurred, despite the stress that the Australian population has been placed under.

What our data does show, however, is that Asian-Australians have had a worse trajectory in their own outcomes during the pandemic. Between February and April 2020, 29.5 per cent of the decline in hours worked for Australia as a whole was due to the decline in hours worked for Asian-Australians, despite Asian-Australians making up only 16.6 per cent of the (weighted) population. Psychological distress increased by more for Asian-Australians in the early stages of the pandemic, life satisfaction declined by more, and Asian-Australians are more likely to say that they are anxious and worried due to COVID-19 than the rest of the Australian population.

It is likely that this relative deterioration in outcomes was due to the circumstances that Asian-Australians were in prior to the spread of COVID-19 (young, in urban areas, in particular industries and occupations). A policy response that attempts to reduce the impact of the COVID-19 pandemic on Asian-Australians is likely to include a targeting of assistance to the industries and occupations that Asian-Australians worked in prior to the pandemic.

However, even when we control for these characteristics, Asian-Australians appear to have been impacted by the pandemic more so than their non-Asian counterparts. A strong argument can be made, therefore, for continuing to track outcomes for Asian-Australians separately from the rest of the population, investigating in more depth what the causes of this divergence are, and ensuring that there are policy settings that are exacerbating the differences.

Appendix 1 About the survey

The primary source of data for this paper is the October ANUpoll. Data collection for the full sample commenced on the 13th of October. In total, 1,785 individuals were collected across three main days of data collection – October 13th to 15th and by the end of the collection period (26th of October) the total sample size for the survey was 3,043.

The Social Research Centre collected data online and through Computer Assisted Telephone Interviewing (CATI) in order to ensure representation from the offline Australian population. Around 4.8 per cent of interviews were collected via CATI. The contact methodology adopted for the online Life in Australia™ members is an initial survey invitation via email and SMS (where available), followed by multiple email reminders and a reminder SMS. Telephone non-response of panel members who have not yet completed the survey commenced in the second week of fieldwork and consisted of reminder calls encouraging completion of the online survey.

The contact methodology for offline Life in Australia™ members was an initial SMS (where available), followed by an extended call-cycle over a two-week period. A reminder SMS was also sent in the second week of fieldwork. Taking into account recruitment to the panel, the cumulative response rate for this survey is around 8 per cent.

Unless otherwise stated, data in the paper is weighted to population benchmarks. For Life in Australia™, the approach for deriving weights generally consists of the following steps:

1. Compute a base weight for each respondent as the product of two weights:
 - a. Their enrolment weight, accounting for the initial chances of selection and subsequent post-stratification to key demographic benchmarks
 - b. Their response propensity weight, estimated from enrolment information available for both respondents and non-respondents to the present wave.
2. Adjust the base weights so that they satisfy the latest population benchmarks for several demographic characteristics.

The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee (2014/241).

References

- Australian Bureau of Statistics (2020a). "Labour Force Survey, Australia, July 2020." *Catalogue No. 6202.0*, Australian Bureau of Statistics, Canberra.
- Biddle, N., B. Edwards, M. Gray, and K. Sollis (2020). "Tracking outcomes during the COVID-19 pandemic (August 2020) – Divergence within Australia", COVID-19 Briefing Paper, ANU Centre for Social Research and Methods, Australian National University, Canberra.
- Biddle, N., M. Gray, M. Jahromi, and D. Marasinghe (2020). "Changes in paid and unpaid activities during the COVID-19 pandemic: Exploring labour supply and labour demand", COVID-19 Briefing Paper, ANU Centre for Social Research and Methods, Australian National University, Canberra.
- Hardin, C.D. and M.R. Banaji (2013). "The nature of implicit prejudice: Implications for personal and public policy." in E. Shafir (Ed.) *The Behavioral Foundations of Public Policy*, Princeton University Press, Princeton.
- He, M., L. Li, L.P. Dehner and L. (2020). "Cremation based estimates suggest significant under-and delayed reporting of COVID-19 epidemic data in Wuhan and China." medRxiv. doi: <https://doi.org/10.1101/2020.05.28.20116012>
- Tsang, T.K., P. Wu, Y. Lin, E.H. Lau, G.M. Leung, G.M. and B.J. Cowling (2020). "Effect of changing case definitions for COVID-19 on the epidemic curve and transmission parameters in mainland China: a modelling study." *The Lancet Public Health*. DOI:[https://doi.org/10.1016/S2468-2667\(20\)30089-X](https://doi.org/10.1016/S2468-2667(20)30089-X)

Endnotes

-
- 1 <https://theconversation.com/donald-trumps-chinese-virus-the-politics-of-naming-136796>
 - 2 Those who did not complete the survey were asked for their ancestry in February 2020, and those who did not complete either survey were asked in October 2020.
 - 3 In August 2019, we asked respondents whether they self-identify as Asian-Australian. For those who completed the self-identification and the ancestry questions, 76.9 per cent of those who self-identified as Asian-Australia in August 2019 reported an Asian-Ancestry in 2020. Using the linked sample, 92.2 per cent of those who reported an Asian-Ancestry in August 2019 reported an Asian-Ancestry in the relevant 2020 survey.
 - 4 The first step in this process was to check that the different forms of discrimination were sufficiently correlated with each other to be combined in an index. To do this, we undertook a principle components analysis of the five measures of discrimination. The Eigenvalue for the first component was 3.65, whereas for the second component it was 0.45. All the Eigenvectors had a loading of between 0.4 and 0.5, suggesting a single factor solution.