## Survey of Australians' Life Satisfaction in 2020\*

Yuxuan Yang

Puyu Liu

Fengyuan Tang

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#### Abstract

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### 1 Introduction

You can and should cross-reference sections and sub-sections. For instance, Section 2. R Markdown automatically makes the sections lower case and adds a dash to spaces to generate labels, for instance, Section 5.1.

- 2 Data
- 3 Results

### 4 Result

The data of the overall life satisfaction rate analyzed different groups of people by sex, which contains 3 columns: Males, Females, Total persons respectively. Figure 2 shows the mean life satisfaction scores among different age groups: 15 - 24, 25 - 39, 40 - 54, 55 - 69, 70 years old and over respectively. It shows an obvious upward trend on the mean life satisfaction score with the age going higher (from a mean score of 6.9 of people aged from 15-34, to 7.9 of people aged 70 years or older. Figure 6 divided people into two groups by their migration status, which results in similar mean scores between Recent migrants and non-recent migrant. But non-recent migrants tend to have a higher mean score especially for females refer to the data. Figure 3 shows the mean scores of people with a mental health condition and people without a mental health condition (a score of 5.8 compared to 7.4). Same as mental health, people with a long-term physical health condition also tend to have a lower mean score of life satisfaction (Figure 4) Figure 5 shows that people with disability have a mean score of 6.7, compared to 7.4 of people without disability. Figure 6 shows the mean scores between homosexual and heterosexual people. We concluded that Heterosexual has a higher overall mean score than homosexual and bisexual. Within the male homosexual group, their life satisfaction score is as much as heterosexual. Figure 7 and figure 9 shows the relative standard error of mean. Both shows that the RSE of two different groups differs to a large extent. A large RSE means that the scores widely spread around the population mean. For example, gay, lesbian or Bisexual has a much larger RSE than Heterosexual, so we can draw a conclusion that Heterosexual people have relatively concentrated life satisfaction scores.

Figure 1 in the data section showed the scores among several aggregated groups. By comparing the overall life satisfaction mean scores from different years (2014, 2019, 2020), we found that people's overall scores decreased a bit in 2020 (From around 7.6 to 7.2). As of covid pandemic is introduced in australia in January 2020, people's life satisfaction score fell by around 0.3 unit.

<sup>\*</sup>Code and data are available at: https://github.com/UofT-STA304-Paper2/Australia-2020.

Table 1: Glimpse 20 rows of our Mean Life Satisfaction Score dataset

Australian Bureau of Statistics	2	3	4	5	6
NA	2014	NA	NA	NA	2019
NA	Males	Females	Total persons	NA	Males
NA	MEAN SCORE	NA	NA	NA	NA
Age group	NA	NA	NA	NA	NA
15–24	7.8	7.7	7.7	NA	7.8
25–39	7.6	7.7	7.7	NA	7.5
40-54	7.4	7.3	7.4	NA	7.1
55-69	7.5	7.8	7.6	NA	7.5
70 years and over	8.1	8.199999999999993	8.1	NA	7.8
NA	NA	NA	NA	NA	NA
Recent migrants and temporary residents	7.6	7.7	7.7	NA	7.8
Not a recent migrant or temporary resident	7.6	7.7	7.6	NA	7.5
NA	NA	NA	NA	NA	NA
Has a mental health condition	6.3	6.9	6.6	NA	6.2
Does not have a mental health condition	7.8	7.9	7.9	NA	7.6
NA	NA	NA	NA	NA	NA
Has a long term health condition	7.4	7.5	7.5	NA	7.2
Does not have a long term health condition	7.9	7.9	7.9	NA	7.7
NA	NA	NA	NA	NA	NA
Has disability	7.2	7.3	7.2	NA	6.8
Has no disability	7.8	7.9	7.8	NA	7.8

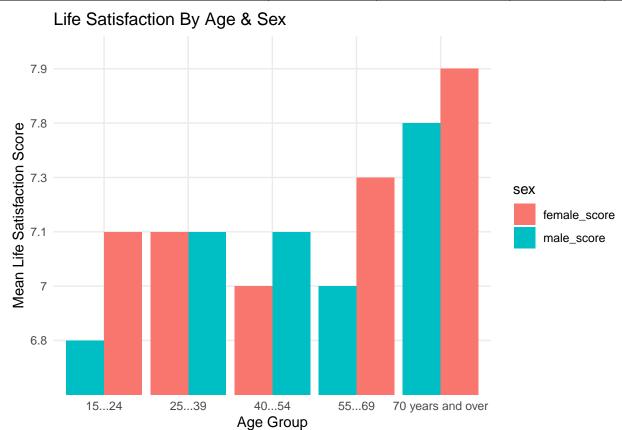


Figure 1: Mean Life Satisfaction Score of Australians in 2020 By Age Group & Sex

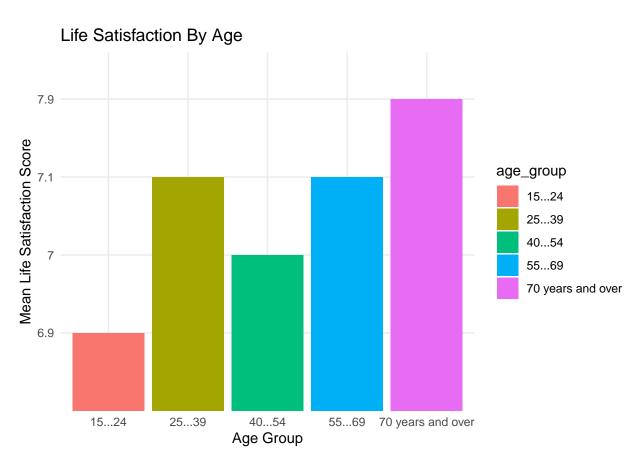


Figure 2: Mean Life Satisfaction Score of Australians in 2020 By Age Group

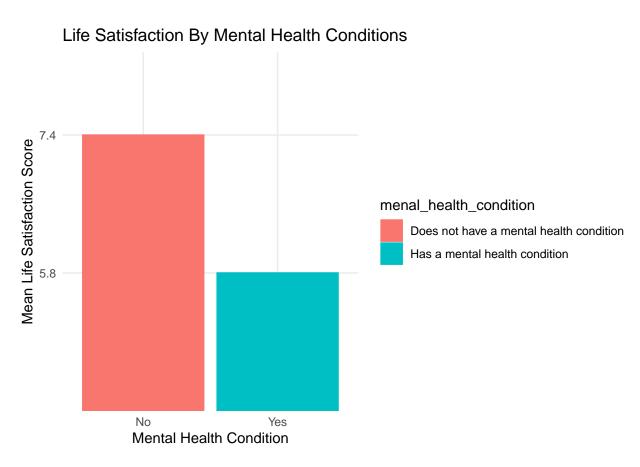


Figure 3: Mean Life Satisfaction Score of Australians in 2020 By Mental Health Condition

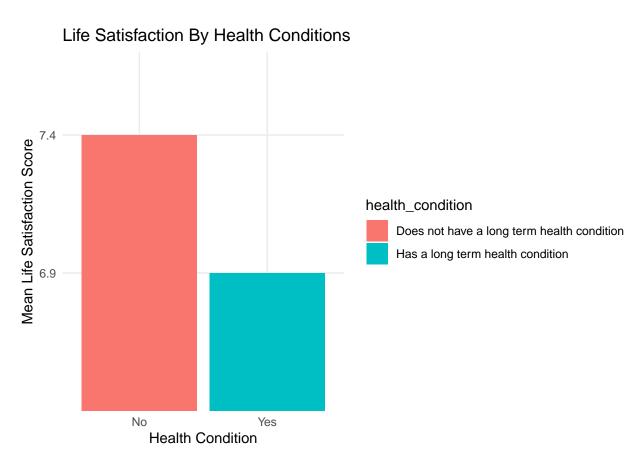


Figure 4: Mean Life Satisfaction Score of Australians in 2020 By Health Condition

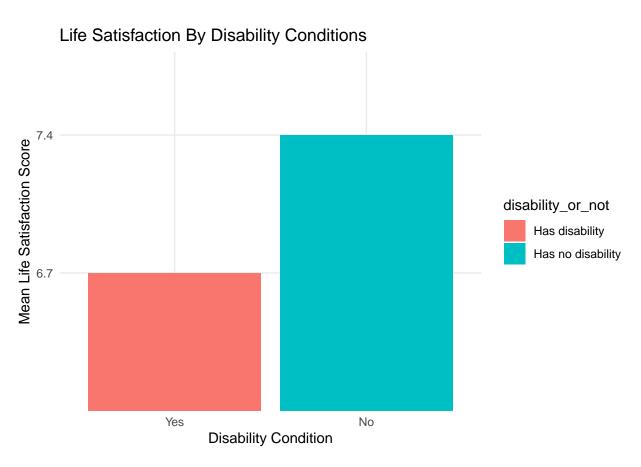


Figure 5: Mean Life Satisfaction Score of Australians in 2020 By Disability Condition

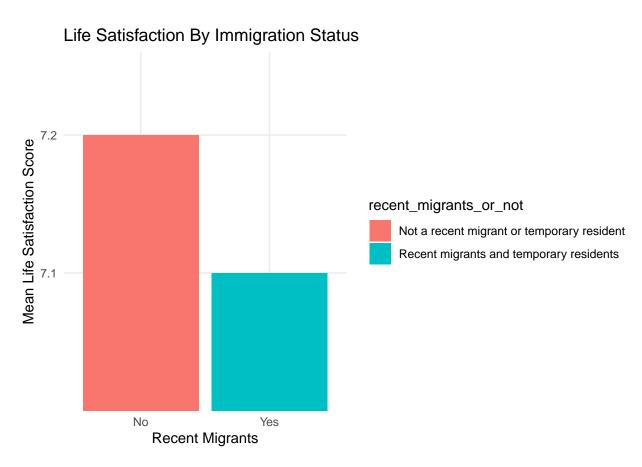


Figure 6: Mean Life Satisfaction Score of Australians in 2020 By Immigration Status

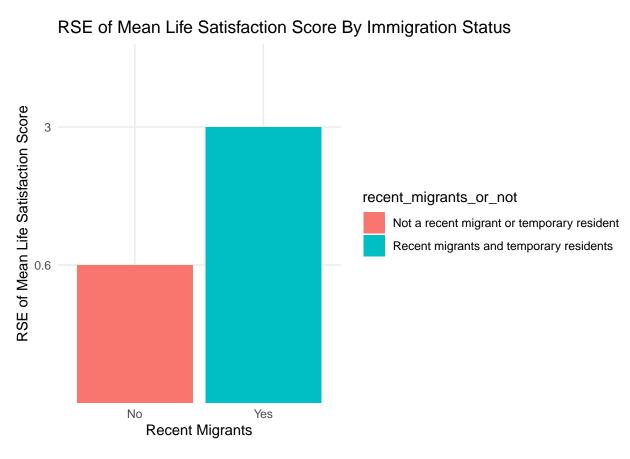


Figure 7: RSE of Mean Life Satisfaction Score of Australians in 2020 By Immigration Status

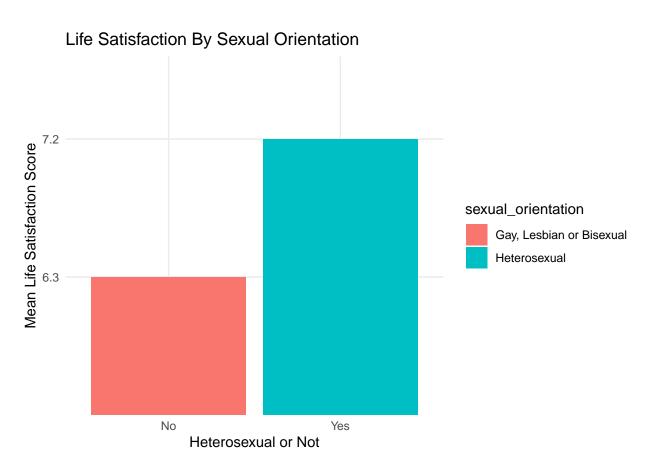


Figure 8: Mean Life Satisfaction Score of Australians in 2020 By Sexual Orientation

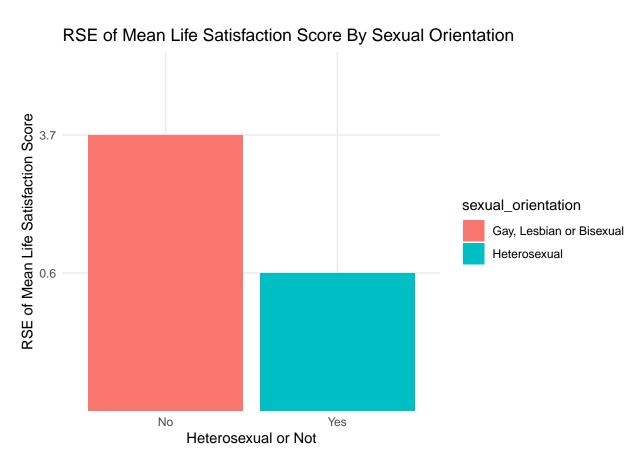


Figure 9: RSE of Mean Life Satisfaction Score of Australians in 2020 By Sexual Orientation

### 5 Discussion

#### 5.1 First Discussion Point

As the mean life satisfaction score goes lower while the age group goes younger, we observed a positive effect of aging. This is mainly because life satisfaction of older people is mainly affected by their life style. While younger people have a lower/decreasing life satisfaction, government should emphasize more on social/work benefits to reduce the living cost of younger people, as the outer happiness takes the mainly role in their life satisfaction. It is clear that the mean life satisfaction score is higher in the heterosexual group. But according to the RSE difference between the homosexual group and heterosexual group. We found that Australia has an unstable distribution of life satisfaction among different sexuality groups, which reflects that Australia needs to improve the life quality of homosexual group and try to eliminate the discrimination on the homosexual/bisexual group.

#### 5.2 Second Discussion Point

People with physical or mental conditions or disabilities have a much lower mean life satisfaction score than normal people, and this gap is increasing by time. Government should pay more attention on deploying more social benefits to people with mental health problems and disables. With good use of life satisfaction survey, governments could gain more knowledge of how to improve the life quality of some specific demographic groups.

#### 5.3 Weaknesses

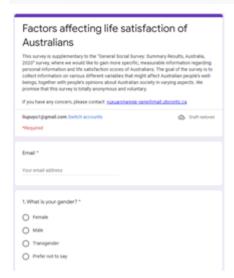
This survey converted people's life satisfaction into a number (life satisfaction score). This is apparently not enough for assessing the overall satisfaction level. The satisfaction contains factors such as healthy physical being, inner happiness and social life. Furthermore, The population of this survey contains a larger proportion of disabled, people with mental/physical health problems than usual, this biased the survey to an extent.

## **Appendix**

 $\label{link} Link\ to\ our\ survey:\ https://docs.google.com/forms/d/e/1FAIpQLSd7j1FaWfGA13mVcCd5J7JTyjxB2n-IuFqmdB1nqSwS2uv-TA/viewform?usp=sf\_link$ 

# Bigger fig.width

include\_graphics("/cloud/project/outputs/paper/Picture2.png")



knitr::include\_graphics("/cloud/project/outputs/paper/Picture2.png")



## 

2. What is your sexual orientation? *
Heterosexual (Straight)
O Homosexual
O Biomusi
Prefer not to say
3. What is your age group? *
O 1924
O 25-39
O 4054
O 5549
O 70+
Prefer not to say
4. What is your residence status in Australia? *
I recently migrated or am a temporary resident
i am a permanent resident
Prefer not to say

5. Do you have a major health condition? *
○ Yes
○ No
Prefer not to say
6. Do you have a major mental health condition? *
○ Yes
○ No
Prefer not to say
7. Do you identify to have disability? "
○ Yes
○ No
O Prefer not to say
8. Please rate your life satisfaction score: *
1 2 3 4 5 6 7 8 9 10
Not at all satisfied O O O O O O O Cutremely satisfied

9. Do you think you have experienced gender wage gaps? *
○ Yes
O No
O Prefer not to say
10. Do you think you experienced an obvious increase in your well-being and life satisfaction in the past 5 years? *
○ Yes
○ No
O Prefer not to say
11. Do you think you have experienced age discrimination in your daily life? *
○ Yes
○ No
Prefer not to say
12. Do you think you have experienced inconvenience in your life due to sickness?
O Yes
O No
O Prefer not to say

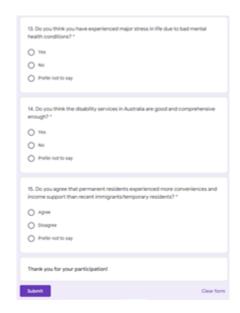


Figure 10: IMG 6.



Figure 11: IMG 7.

# A References