



# Public Confidence and Life Satisfaction During the COVID-19 Pandemic with a Moderating Effect of Income An Australian Perspective

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**Abstract.** During the COVID-19 pandemic, considerable research observed a simultaneous decrease in both public confidence and life satisfaction. Does a decline in public confidence result in a worsening of citizens' quality of life, or does a rise in confidence result in an improvement? Subjective wellbeing at the individual level, including education level, income level, social interaction, and changes in marital status, has been the focus of research [3] [11] [12]. In support of this widespread tendency, extensive study has revealed that the functioning of the government, whose activities impacted people' lives, had both small- and large-scale positive impacts on life satisfaction [2]. Researchers have focused on issues related to how the responsiveness, credibility, and other aspects of government performance affect how well individuals evaluate their quality of life [9]. This paper shows that public confidence in federal government and income are positively associated with life satisfaction. Moreover, the moderating impacts of income level enhances the main association.

**Keywords:** Australia · Public confidence · Life satisfaction · Ordered logit model

## 1 Introduction

The COVID-19 pandemic, commented as “the most serious global health crisis since 1918 influenza” [4], has brought an essential shock to the world community. In addition to endangering people's bodily and emotional wellbeing, it also hindered the growth of the economy. People's trust in the federal government has fluctuated with a declining tendency from the start of the COVID-19 epidemic, while life satisfaction in Australia has been declining at the same time.

This study examines the relationship between subjective well-being and the effectiveness of the federal government, as determined by the corresponding public confidence, using measures of life satisfaction. This essay has two goals in mind. First, ordered logit model with fixed effect is employed to discuss the relationship between these measures. Second, income is incorporated as a predictor to utilised along with the interaction

of public confidence as the moderating variables to discuss the role of income in the dominating association.

The following article is structured as follows: Sect. 2 summarises the existing literature on this topic, including the replicating paper; whilst Sect. 3 introduces the research hypotheses, model selection, data analysis and empirical results. In the Sect. 5, this study concludes its main findings and provide corresponding policy implications.

## 2 Literature Review

The way to generate happiness has been the subject of extensive enquiry and analysis. In the 1970s and 1980s, industrialised nations like the United States, Australia, and Europe were the focus of empirical study on wellbeing outcomes. Broad consensus argued that the degree of people's happiness remained steady across time in the advanced democratic nations [6]. Life happiness would marginally increase as economic status improved. Since the 1990s, the focus of the current study has shifted to the analysis of developing nations, where it has discovered a generally low and erratic trend [7].

The determinants of life satisfaction can be categorized into two dimensions: the individual-level (micro) and the country-level (macro).

In terms of micro level, first, a higher-income level increases wellbeing outcomes. However, Eastlin [6] put forward the Happiness-Income paradox indicating that the impact of income eliminates overtime. Second, higher education qualifications tend to be positively related to life satisfaction. Third, life satisfaction varies nonlinearly with age, declining until the mid-40s, at which point it begins to increase once more. Fourth, the study discovered that religiosity had a significant impact on wellbeing outcomes [5]. Fifth, having children or not, being married, and having children or not all have an impact on life satisfaction, while it's uncertain whether having children has an impact on life satisfaction [8].

The second branch of the literature concentrates on the country level. Many aggregate elements are proposed to be major determinants in some literature, while they are analyzed to be insignificant in others. Government performance is hardly an exception. Studies on life satisfaction and the effects of good governance have become increasingly prominent over the last 20 years. By examining data from 75 different nations, Helliwell and Huang [9] discovered that when evaluating disparities in life happiness, the quality of a government considerably outweighs the impact of income. People who live in countries with liberal governments, compared with conservative governments, tend to have higher life satisfaction [2]. Similar findings were made by Hudson [10], who discovered that life satisfaction was positively correlated with institutional trust across all EU member states. Jovanovic's data collection revealed, however, that, contrary to earlier literature, there is little place for institutional trust in the analysis of wellbeing outcomes in Serbia. The majority of the current study on life happiness in Australia is conducted at the micro-level. There aren't many research on the effects of large-scale factors, including how well the federal government performed during the pandemic, on health outcomes. The significance of using longitudinal datasets is also lacking. This study aims to fill these gaps by investigating the association between life satisfaction and

trust in federal government to understand how declining or increasing institutional confidence impacts wellbeing outcomes, including possible individual predictors as control variables.

### 3 Data Methodology

The data is employed from six ANUpoll from May 2020 to January 2022. ANUpoll is based on a longitudinal survey with repeated cross-sections that are representative in Australia in each survey period. Although ANUpoll's survey of COVID 19 experiences offers data from 2019 to 2022, this study's dataset is limited to the shorter May 2020 to January 2022 timeframe because there is noticeable fluctuation throughout these times. After deleting all missing variables in six waves (10370 observations in total), the final sample covers 13540 observations and 2734 panel units.

The hypotheses (H1, H2) are the following:

H1: Public confidence in federal government is positively associated with life satisfaction.

H2: Better economic status not only leads to higher life satisfaction but modify the relationship between public confidence and life satisfaction.

The estimated equation for baseline model is:

$$Y_{i,t} = \beta_0 + \beta_1 X_{i,t} + \beta_2 Z_{i,t} + \epsilon_{i,t}$$

The estimated equation for extended model is:

$$Y_{i,t} = \beta_0 + \beta_1 I_{i,t} + \beta_2 Z_{i,t} + \epsilon_{i,t}$$

where  $Y_{i,t}$  is life satisfaction,  $X_{i,t}$  is public confidence in federal government,  $I_{i,t}$  is the interaction term of public confidence in federal government and income,  $Z_{i,t}$  is time-invariant heterogeneities and  $\epsilon_{i,t}$  is the error term.

The dependent variable introduced is life satisfaction. As the first branch of study, an additional independent variable, the performance of federal government measured by the corresponding public confidence, is incorporated in this study. According to H2, income has a substantial impact on the underlying connection in addition to influencing life happiness. Therefore, the study adopts ordinal variables to define income level. For better illustration, income statistics are recoded into 5 categories from 1 denoting the lowest income quintile to 5 denoting the fifth income quintile. Regarding the control variables, the algorithm automatically manages and eliminates the impact of those time-invariant characteristics, such as gender, place of birth, and spoken language, removing omitted variable bias. This is done by running the fixed-effect ordered logit model.

### 4 Results and Discussions

A fixed-effects ordered logit model was run, taking into account the dependent variable's ordinal character. The outcomes demonstrate that the log-likelihood maximisation approach converged after three iterations. Due to the nature of panel data, only subjects who

**Table 1.** Regression results

VARIABLES	FEOLGIT	FEOLGIT
Quite a lot	-0.308***	
Not very much	-0.890***	
Not at all	-1.283***	
Second income quintile	0.308***	
Third income quintile	0.439***	
Fourth income quintile	0.519***	
Fifth income quintile	0.696***	
Wave44 (Nov 2020)	0.877***	0.873***
Wave45 (Jan 2021)	0.897***	0.893***
Wave48 (Apr 2021)	0.889***	0.872***
Wave54 (Oct 2021)	0.300***	0.274***
Wave57 (Jan 2022)	0.127*	0.0902
A great deal #c.income		0.385***
Quite a lot #c.income		0.278***
Not very much #c.income		0.104**
Not at all #c.income		-0.0267
Time fixed	YES	YES
ID fixed	YES	YES
Observations	28,850	28,850

differ in their dependent variables, or whose life satisfaction varies throughout three periods at least once, are instructive and are therefore included in the regression.

Table 1 shows a positive relationship between public confidence in federal government and life satisfaction. Income level also exerts a positive influence on life satisfaction. People with better economic status are more likely to gain higher life satisfaction.

The average group with the second, third, and fourth highest levels of trust in the federal government has negative marginal probability effects for the ninth and above categories and positive marginal probability effects for the lower ranks to the first level. People's risk of falling into the ninth group, for instance, is reduced by 16.4% and their likelihood of experiencing the lowest level of life satisfaction is increased by 0.86 percent when they lack faith in the federal government. Keeping other factors constant, a lack of confidence reduces the risk of falling into the 10th group by 7.7 percent and raises the likelihood of having the 4th rank of satisfaction by 2.9 percent.

The previous findings illustrate the positive effects of income and public confidence on people's life satisfaction. Whether the impact of income differs across different confidence groups is further investigated to justify the correlations. In particular, this paper aims to differentiate between high confidence with low income, and vice versa, low

confidence with high income. In other words, justifying whether high income makes up the loss of low public confidence. To avoid multicollinearity, independent variable is replaced with the interaction term of public trust and income. To simplify the augmented model, income is treated as a continuous variable.

The interaction results show a favourable relationship between income and life satisfaction. Overall results demonstrate that higher income elicits a stronger and more favourable response to the relationship between public confidence in the federal government and people's level of life satisfaction. However, the degree of income effect varies across levels of public confidence.

For the group having the highest confidence level, the impact of income is the most powerful and significant. Along with the confidence boost, rising income also helps people feel more content with their lives. One-unit increase in income leads to a 38.5% increase in life satisfaction.

Income effects increase the impact of public confidence on life satisfaction for the group with the second and third highest levels of confidence, suggesting that higher income may be able to offset some of the loss from low public confidence. People with high incomes and relatively low public confidence typically have better life satisfaction. Regarding the federal government, those with high confidence but living in the lowest income quintile (140.6%) had a lower marginal value than those with less confidence but living in the most favorable income quintile (154.8%).

For the group having no confidence, namely the 4th level, the income effect eliminates, and the positive impact on life satisfaction disappears. It shows that even when they have low incomes, highly confident federal employees can nonetheless lead respectable lives. The outcome shows that there is no statistically significant negative connection.

## 5 Conclusion

Based on six waves from ANUpoll of Australia wellbeing outcomes analysis from May 2020 to January 2022, this article investigates subjective wellbeing outcomes under the pandemic and their relationship with public confidence in federal government, thus, provides evidence that the performance of federal government, underpinned by the corresponding public trust, is critical to improve people's quality of life. It also looks at how income affects life satisfaction and how this influence varies depending on one's level of confidence. The study supports the idea that a household's financial situation has a favourable influence on the relationship between life satisfaction and public confidence. However, this impact varies across four levels of public confidence.

It provides valuable and practical suggestions to politicians, leaders of public organizations and communities on how best to improve the quality of life for their citizens during the pandemic. The pandemic's implementation of policy should provide a focus on the morally, medically, and economically optimal results. Government and major institutions should actively work together to boost public confidence and mutual trust in order to counteract the crisis's negative effects and encourage the recovery of wellbeing outcomes. Notably, the spirit of communitarianism is the foundation for this cooperation. To coordinate an effective medical response, increase information openness, and foster community cooperation, communications are essential between institutions as well as

**Table 2.** Variable description

Variable	Description	Data source
Life satisfaction	An ordinal variable measuring subjective wellbeing (on the scale of 0 to 10) to the question: “Overall, how satisfied are you with life these days?” (0 = Not at all satisfied; 10 = Completely satisfied, higher values indicating a higher life satisfaction).	ANUpoll from May 2020 to January 2022 on Australian Data Archive
Public confidence in federal government	An ordinal variable measuring the performance of the federal government (where 1 = A great deal of confidence; 2 = Quite a lot of confidence; 3 = Not very much confidence; 4 = None at all).	
Income level	An ordinal variable measures household’s economic status (where 1 = lowest income quintile; 2 = second income quintile; 3 = third income quintile; 4 = fourth income quintile; 5 = fifth income quintile).	

within and among them. Additionally, improving households’ financial situation is a somewhat time-consuming procedure. To end income inequality, the government may provide employment opportunities and implement sound fiscal and monetary policies.

## Appendix

See Table 2

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