



# The Association Between Distress and Financial Well-being

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## Introduction

- Financial well-being has two components: objective financial well-being and subjective financial well-being (Michael Collins, J. & C. Urban, 2020).
- Researchers have established a relationship between health and levels of stress (Barbara, O. N., et al., 2006).
- Additionally, some research shows that a positive correlation has been found between financial well-being and health status (O'Neill, B., et al., 2005).
- Stress can affect an individual's judgements of financial well-being and health status (Barbara, O. N., et al., 2006).
- It is unclear that whether those who have a lower financial well-being would experience more distress when controlling for health status.

## Research Questions

- Is there an association between distress and financial well-being controlling for demographic variables?
- Does the relationship between distress and financial well-being exist above and beyond health status?

## Methods

### Sample

- Respondents (n=6318) were drawn from the 2017 Financial Well-being survey (FinancialWB), a nationally representative sample of noninstitutionalized adult population in the 50 U.S. states and Washington, D.C.

### Measures

- Financial Well-being: Consumer Financial Protection Bureau's validated financial well-being scale is used to measure the financial well-being. Financial well-being scores are collapsed into five ordered categories. Each category contains 20% of respondents.
- Distress: The variable "Lots of stress in respondent's life" is used to assess the respondent's distress level. The variable is collapsed into two categories, "distressed" and "not distressed".
- Health status: The variable "In general, would you see your health is ..." shows the respondent's health status. The variable is collapsed into two categories, "good" and "poor".
- Demographic variables: gender, age and race.

## Results

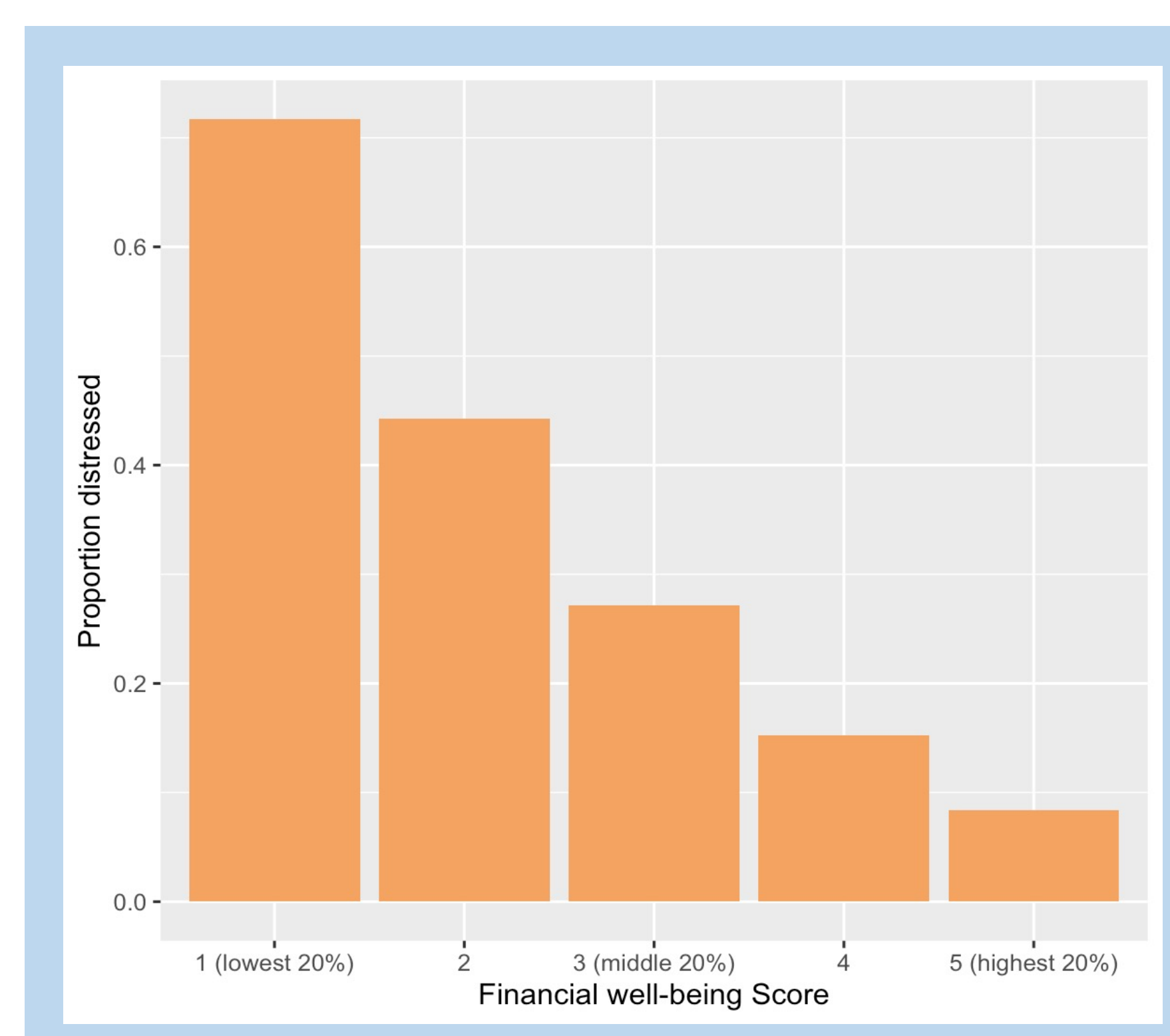
### Univariate

- 60.8% of respondents are distressed
- 14.7% of respondents are in poor health status, while 85.2% respondents are in good health status.

### Bivariate

- The graph (figure 1) reveals a negative association between distress and financial well-being score. As the level of financial well-being increases, the level of distress decreases.
- Chi Square of independence ( $X^2=575.62$ ,  $df=4$ ,  $p\text{-value}<0.0001$ ) reveals that among respondents, financial well-being score and distress are significantly associated.

Figure 1. The association between financial well-being score and distress

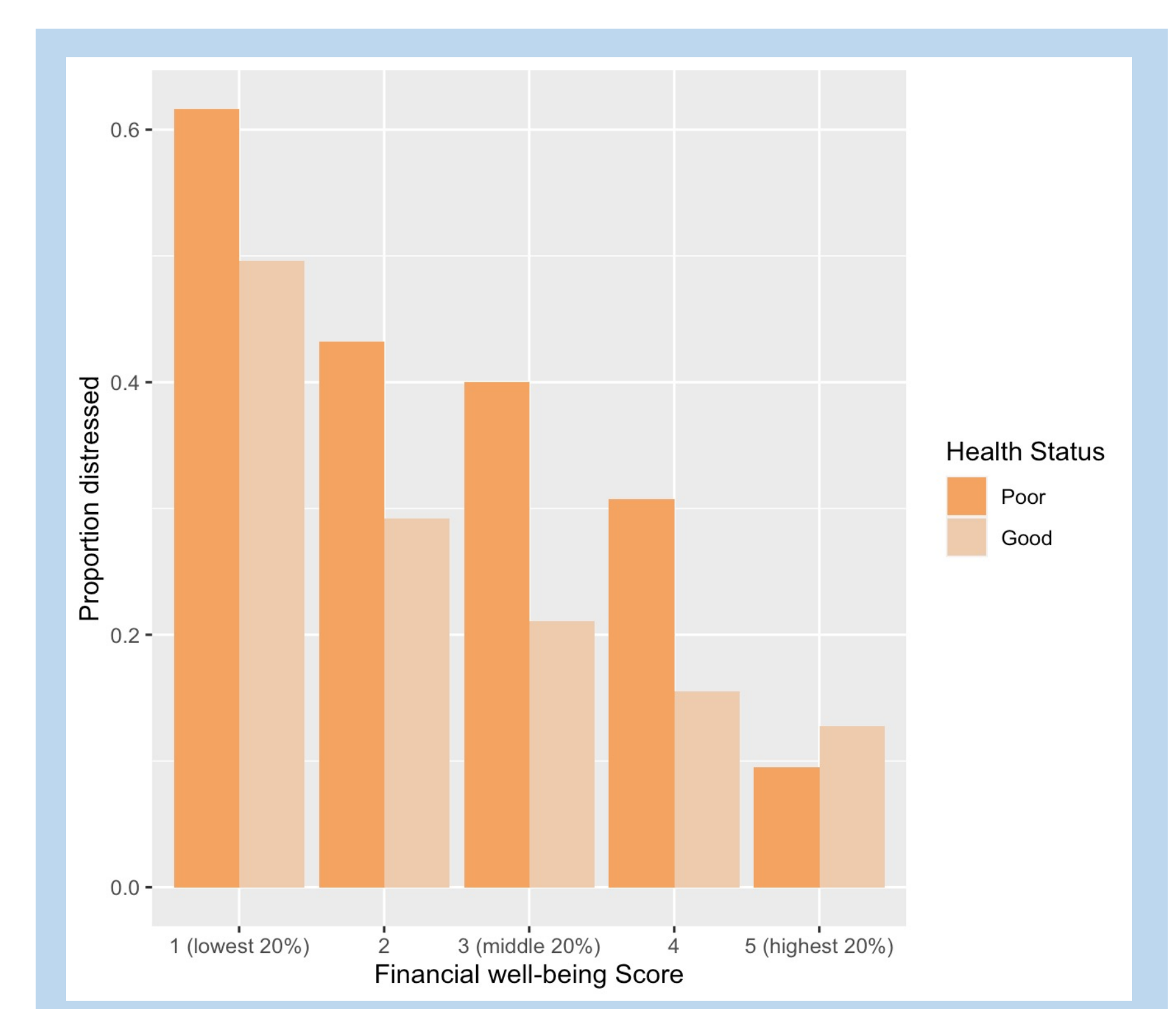


- Post hoc comparisons of rates of distress by financial well-being score categories revealed that higher rates of distress are seen among the those with lower financial well-being. Since 10 pairwise comparisons are made, the adjusted alpha level is 0.005. The two quintiles level 4 and 5 of financial well-being are not found different ( $p\text{-value} = 0.1587$ ). Level 3 and 4 are also not found different ( $p\text{-value} = 0.0068$ ).

### Multivariate

- Health status is not a moderator but a covariate for the association between distress and financial well-being (Figure 2).
- After controlling for demographic variables and health status, distress level is significantly associated with financial well-being score (O.R. 0.95, CI 0.94, 0.95,  $p<0.001$ ). As the financial well-being score increases by 1, the odds ratio of distress decreases by 5% with health status and demographic variables fixed.

Figure 2. Proportion distressed by financial well-being score and health status



## Discussion

- Individuals who have a lower financial well-being score tend to have higher distress level.
- Individuals who have a higher financial well-being score usually have a better health status.
- Such information is useful for educational programs and credit counseling sessions to make positive improvements and help the group of low financial well-being people.
- When assessing the health status of respondents, there may be difference between the respondents' perceived health status and an objective third party assessment. Further research can be carried out using objective measurements of health status.