Longitudinal Changes in Financial Well-Being, Financial Behaviors, and Life Events

Research Brief

Final

By Jeremy Burke and Francisco Perez-Arce

University of Southern California, Center for Economic and Social Research

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Executive Summary

Prior research has examined how financial well-being (FWB) is related to financial knowledge, behaviors, and personal traits, yet little research has explored how FWB changes over time and in response to life events. In this study, we examine how FWB changes over time, which financial behaviors are associated with higher levels of and changes in FWB, and how FWB responds to numerous life events, including financial shocks. In addition, we examine which factors reduce the impacts of negative financial shocks both directly – by reducing the *magnitude* of the impact of an experienced shock – and indirectly – by reducing the *probability* a shock occurs.

To address our research questions, we leverage three waves of data from the Understanding America Study, a nationally representative Internet panel, spanning multiple years. We use a descriptive outcome study approach to describe the evolution in FWB over time, and regression analysis to examine: (1) how levels of and changes in FWB are associated with demographic characteristics, protective behaviors, and financial shocks; and (2) whether protective financial behaviors reduce the likelihood of experiencing a negative financial shock, and its impact conditional on occurrence.

We find that:

- Financial well-being is relatively stable over our 2.5 year window of observation. The median change we observe is zero, and the vast majority of respondents experience single digit changes in the FWB scale;
- Protective financial behaviors, such as planning ahead and maintaining a manageable debt load, are associated with higher current and future levels of FWB. However, we find no evidence that these protective behaviors are associated with changes in FWB over time;
- Some protective behaviors are associated with a reduced likelihood of experiencing a negative financial shock, though we find essentially no evidence that individuals who engage in protective financial behaviors are less impacted by these shocks conditional on their occurrence.

Individuals who display protective financial behaviors, such as spending less than income and regularly saving in liquid accounts, tend to have higher FWB than their counterparts who do not. Yet, our evidence suggests that the gap in FWB between these groups does not appear to be changing over time (at least over the length of time that we can observe). Relatedly, our evidence suggests that protective behaviors are "protective" only in so far as they lessen the likelihood of negative financial shocks, but they do not lessen the harmful impacts of negative financial events on FWB when they do occur. It is important to note that the associations we observe may not be causal, and that there may be stronger associations between protective behaviors and increases in financial well-being over longer time horizons than currently available to us. Future research can build on our analysis by shedding further light on both dimensions.

1. Background

There is growing recognition, among both researchers and practitioners, that it is important to try to measure not just savings balances and credit outcomes, but also individuals' overall financial

well-being. However, research measuring and examining the determinants of financial well-being is still in its infancy. While prior research has documented a number of associations between financial well-being and financial knowledge, behaviors, and personal traits (CFPB, 2017), research has yet to examine how financial well-being changes over time, which behaviors lead to improvements in financial well-being, and what factors protect against negative financial shocks.

In this project, we use data from a nationally representative, probability-based Internet panel to examine how financial well-being changes over time, which financial behaviors are associated with higher levels of and improvements (and declines) in financial well-being, and how financial well-being changes in response to various life events.

While in some cases insurance markets can help offset risks, it is difficult to completely insure against many life shocks, including job loss. Consequently, we examine what behaviors, such as saving regularly, reduce the impacts of negative financial shocks both directly – by reducing the impact of an experienced shock – and indirectly – by reducing the probability that the shock occurs. Ultimately, our project addresses three central research questions:

(1) How does financial well-being change over time?
(2) What life events or economic shocks influence levels of and changes in financial well-being?
(3) What behaviors and factors protect against negative financial shocks?

2. About the Study

We leverage multiple waves of survey data and a descriptive outcome study design to describe how financial well-being (FWB) changes over time and regression analysis to examine which life events and economic shocks influence levels of and changes in FWB, and what factors and behaviors protect against negative financial shocks.

We draw from three waves of data in the Understanding America Study (UAS). Shortly after entering the panel, all UAS participants are invited to complete a survey that contains the 10-item CFPB Financial Well-Being Scale ("FWB1"). This survey was first fielded in February 2015 to existing panelists and is fielded to new panelists as they enter. A randomly selected subsample of a little over 6,000 respondents were invited to complete a survey that included the 5 question short-form version of the CFPB Financial Well-Being Scale in May 2018 ("SF1"), which 5,058 of the invited respondents completed (82% response rate). Individuals who completed SF1 were then invited to complete the short-form version of the FWB scale again in May 2019 ("SF2"), resulting in 4,353 respondents who completed both surveys. The correlation between the short and long forms of the scale equaled 0.96. Given panelist entry dates, the median time between the measurements elicited in FWB1 and SF1 (SF2) is just over 1.5 (2.5) years, with 29% of the sample having at least two (three) years between measurements.

Table 1: Survey Timing and Use in Analysis

	FWB1	SF1	SF2
Completion Date	Panel Entry	May 2018	May 2019
Research Question 1	X	X	X
Research Question 2		X	X
Research Question 3		X	X

Our primary outcome of interest is financial well-being, which is calculated using Item Response Theory methods. We also use measures of numerous financial behaviors and life events (shocks). Survey SF2 elicits whether, over the last 12 months, respondents got married, got divorced, had a baby, became the caregiver of an adult, experienced the death of a loved one, got a new job, received a significant raise or promotion, lost a job or had working hours cut, and/or incurred a major medical expense. By the nature of the questions, these are all discrete variables in our analyses indicating whether the event occurred. Surveys SF1 and SF2 also elicit numerous financial behaviors and characteristics. We code respondents as "planning ahead" if they indicate that they strongly or somewhat agree that their household plans ahead financially. Respondents are coded as having a manageable debt load if they have no debt or indicate that they have a "manageable amount of debt," while respondents are coded as spending less than income if they indicate that their spending was much less or a little less than income over the previous 12 months. We classify respondents as saving in liquid accounts if they indicate that they are regularly saving in either a savings account, a checking account, cash, mutual funds or stocks (outside retirement plans), or an "other" account. Respondents are classified as saving for retirement if they are regularly saving in an employer sponsored plan (e.g. a 401k) or an IRA.

3. Findings

Broadly, we find that FWB is relatively stable over our 2.5 year (on average) window of observation, though it is responsive to changes in economic circumstance. Protective financial behaviors (planning ahead, maintaining a manageable debt load, regularly saving in liquid accounts, and spending less than income) are all strongly associated with higher current and future levels of financial well-being. However, we find no evidence indicating that these protective behaviors are related to changes in financial well-being over time. Relatedly, we find some evidence that maintaining a manageable debt load is associated with reduced likelihood of experiencing an adverse financial shock, yet we find no evidence that individuals who display protective financial behaviors are less impacted by shocks conditional on their occurrence.

3.1. Financial well-being is relatively stable over our 2.5 year window

We find little change in FWB on average between survey waves FWB1 and SF1 (1.5 years on average) and between survey waves SF1 and SF2 (one year apart). Between the first two waves, the median change in FWB is 0, and and over half the sample had a change in score between -5 and 5. Between the later two waves, the median change in score is also 0, with 56 percent of the sample lying between -5 and 5. There is similar stability in the measure when disaggregated by

educational status, gender, and income and we find that changes in FWB are mostly uncorrelated with demographic characteristics, outside of a small positive gradient with age.

We do, however, find that FWB is related to financial shocks. In particular, we find that receiving a raise or a significant promotion is correlated with higher levels of and changes in FWB (both in levels and changes), while finding a new job is associated with improvements in FWB over time. Also as expected, losing one's job or experiencing a significant medical expense is negatively related to levels of and changes in FWB.

Figure 1a: Distribution of Changes in Financial Well-being

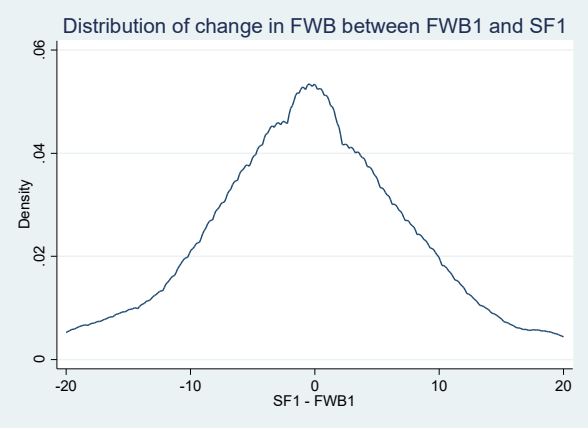
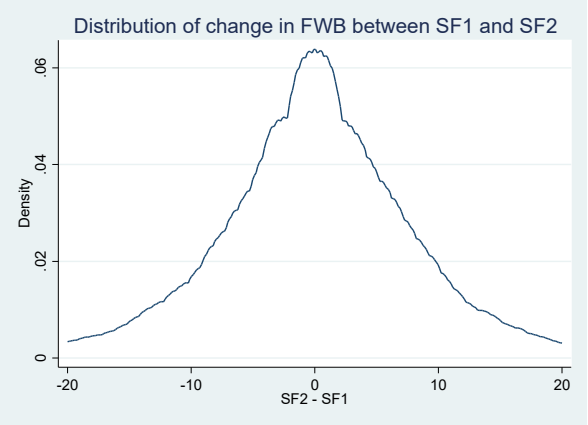


Figure 1b: Distribution of Changes in Financial Well-being



3.2. Protective behaviors are associated with higher levels of financial well-being, but not improvements over time

Our observable protective behaviors are strongly related with higher FWB - planning ahead, maintaining a manageable debt load, regularly saving in liquid accounts, and spending less than income are all strongly associated with higher contemporaneous and future levels in FWB. Interestingly, we find little evidence of an association between regular retirement savings and FWB, perhaps because retirement balances are less salient to one's current assessment of her

financial situation. However, despite the relationship in levels, we find little evidence of an association between protective behaviors and changes in FWB. The estimated coefficients (Table 2, Column 3) are all small and not statistically significant at conventional levels, though the estimate of spending less than income is marginally significant and negatively related to changes in FWB (though again small).

Table 2: Demographic Characteristics, Protective Behaviors and FWB

VARIABLES	FWB SF1 Coefficient	FWB SF1 Std. Error	FWB SF2 Coefficient	FWB SF2 Std. Error	ΔFWB SF1 to SF2 Coefficient	ΔFWB SF1 to SF2 Std. Error
Plan ahead	5.115***	-0.369	4.850***	-0.389	-0.264	-0.322
Debt manageable	8.724***	-0.387	8.342***	-0.407	-0.382	-0.338
Saving - retirement	-0.186	-0.354	-0.01	-0.373	0.175	-0.309
Saving – liquid	4.518***	-0.367	4.060***	-0.387	-0.458	-0.321
Spend < Income	5.245***	-0.346	4.720***	-0.365	-0.524*	-0.302
Constant	33.019***	-0.637	32.658***	-0.672	-0.361	-0.556
Includes Demographics?	Y		Y		Y	
Observations	4,292		4,292		4,292	
R-squared	0.434		0.389		0.006	

Notes: Protective behaviors and demographic characteristics were measured in survey SF1.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.3. Protective behaviors are associated with reduced incidence of financial shocks, but do not mitigate effects conditional on occurrence

We find that individuals who carry a manageable debt load are approximately 12 percentage points less likely to experience a negative financial shock than those who find their debt difficult to manage – particularly, they are less likely to experience job loss or a significant medical expense. While additional research will be informative, this may be due to unmeasured other factors, such as conscientiousness, that are correlated with both debt management practices and the occurrence of negative financial shocks. Yet, despite some evidence of a relationship between protective behaviors and reduced incidence of financial shocks, we find essentially no evidence that individuals who engage in protective behaviors are less impacted by financial shocks than those who do not, conditional on shock occurrence. Our evidence suggests that protective behaviors do not reduce the negative impacts on FWB of either income reductions or expense increases.

4. Conclusion

While prior work has examined the associations between financial well-being and financial knowledge, behaviors, and personal traits, little work has examined how financial well-being

changes over time, which behaviors lead to improvements in financial well-being, and what factors protect against negative financial shocks. In this study, we attempt to address these gaps. Using three waves of data from the Understanding America Study that span several years, we find that financial well-being is relatively stable in the population over our window of observation (2.5 years on average). The median change in the Financial Well-Being Scale that we observe is zero, and the vast majority of the sample experiences changes in the single digits over our time period. We find evidence that there is a small, positive gradient with age, but little systematic evidence of different trajectories based on demographic characteristics.

Our data also allow us to examine which financial shocks and financial behaviors are associated with levels of and changes in financial well-being. For shocks, unsurprisingly, we find that receiving a raise or a significant promotion is correlated with higher financial well-being (both in levels and changes), while finding a new job is associated with improvements in financial well-being over time. Also as expected, losing one's job or experiencing a significant medical expense is negatively related to levels of and changes in financial well-being. For financial behaviors, we find that planning ahead, maintaining a manageable debt load, regularly saving in liquid accounts, and spending less than income are all strongly associated with higher current and future levels of financial well-being. However, we find little evidence indicating that these protective behaviors are related to changes in financial well-being over time. Thus, while individuals who engage in protective behaviors tend to have higher financial well-being than their counterparts who do not, this gap in financial well-being does not appear to be increasing over time (at least for the time horizon we can observe).

Finally, we also examine whether engaging in protective behaviors reduces the likelihood and the impact of negative financial shocks. We find some evidence that carrying a manageable debt load is associated with a reduced likelihood of experiencing a negative financial shock, though we find essentially no evidence that individuals who engage in protective behaviors are less impacted by these shocks (either income losses or expense increases) conditional on their occurrence.