The Missing Link: Financial Self-Efficacy's Critical Role in Financial Capability

by **William M. Lapp, Ph.D.**

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EARN White Paper

Research Institute

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INTRODUCTION

The EARN Research Institute formally launched in November of 2010. One of the keys to this enterprise is to examine ways of effectively encouraging low-income people to foster financial capability through saving money and building financial knowledge. Simple as that may sound, saving money is not easy for most Americans, who tend to spend more than they earn (Taylor, Funk & Clark, 2007). As the nation's leading provider of microsavings, EARN is already addressing this concern, primarily through Individual Development Accounts (IDAs), which are goal-related savings accounts with 200% or 300% matching funds. EARN has collected survey data from over 500 low-income workers over 7 years, both at the beginning of their participation in EARN's IDA program and at planned intervals, to measure the economic and social impacts of savings. Perhaps our most illuminating research finding is that a component of financial capability we identify as *financial self-efficacy* appears to be the missing link between knowledge and effective action. This paper presents groundbreaking models that reflect theoretically relevant aspects of helping people change their financial lives and ideas on operationalizing financial self-efficacy to position low-income people to prosper.

Detailed methods and statistical findings related to this research can be found in the companion to this paper, *Behavioral Models for Prosperity: A Statistical Assessment of Savings and Behavioral Change.*

EVIDENCE OF EARN'S THEORY OF CHANGE

EARN's survey was analyzed with advanced statistical software[1] to see which, if any, of the program's anticipated outcomes were achieved and to test a theoretical model of how the program is supposed to work.[2] These statistical analyses insured that high-quality answers were obtained regarding clients' relationships to money in terms of their (a) knowledge of their finances, (b) financial self-efficacy – that is, their perceived ability to handle their finances – and (c) financial problems. It was theorized that "Savers," our matched savings clients, would learn more about their financial situation, become empowered to improve it through EARN's information sessions and financial

[1] SPSS and Mplus
[2] The present paper deemphasizes the exact nature of these analyses, but a detailed report is available upon request that includes reliability analyses, factor analyses and structural equation modeling.

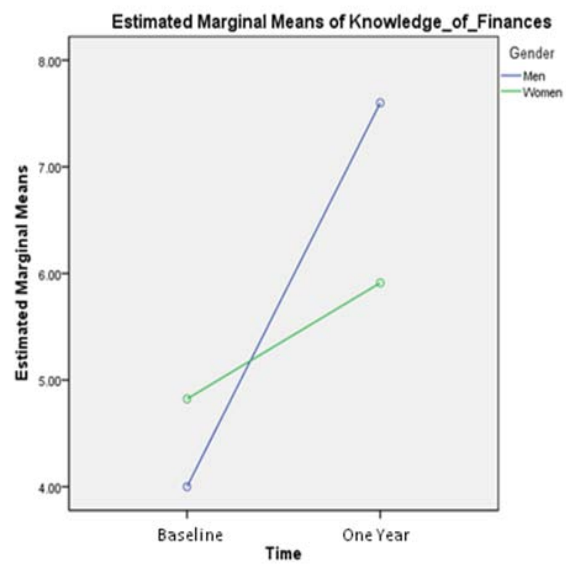
training, and thereby reduce their financial problems. In our analyses, savings and debt were added as variables that mediate between financial self-efficacy and financial problems, because they are the two main mechanisms EARN teaches its participants to change, thereby helping them in their quest for greater prosperity. As it turned out, Savers' happiness with their financial situations increased and perceived financial stress decreased. Finance-related stress and happiness were reciprocally related to each other and were reciprocally predicted by financial problems; financial problems led to an increase in financial stress and a decrease in happiness with people's current financial situation. Financial self-efficacy, on the other hand, increased as financial knowledge grew. Even though financial knowledge grew, it did not directly predict a decrease in financial problems. Instead, baseline measures suggested that financial self-efficacy was the pivotal predictor of fewer financial problems among all of the people who took the survey. For people who participated in the program, increases in their financial knowledge above and beyond baseline levels further increased their financial self-efficacy, which in turn reduced their financial problems.

Financial Knowledge

Three items on the survey were used as indicators of financial knowledge. The overarching question was, "How much do you know about the following topics?" Survey takers then rated their knowledge concerning (a) investing their savings, (b) their credit rating, and (c) what they knew about finding and buying insurance. Respondents rated their knowledge of these three financial questions based on a five-category scale: "Nothing," "Very little," "Some," "A fair amount" or "A lot." An analysis of how responses to these items changed during participation in the program showed that all types of knowledge increased for both women and men (see Figure 1).

Figure 1

Knowledge of Clients' Own Finances Increased After a Year in the Program

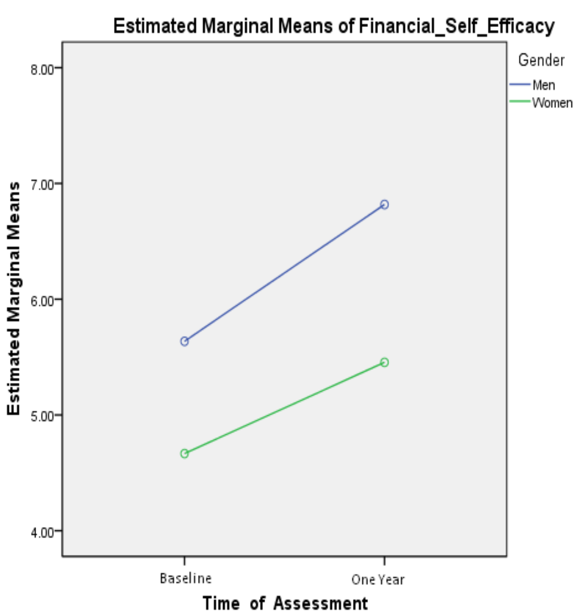


Financial Self-Efficacy

Self-efficacy is a psychological concept that has been shown to be one of the best predictors of successful performance across many areas of human endeavor, gender and age group notwithstanding, and it is a pivotal idea behind numerous psychologically based interventions (Bandura, 1994, 1997, 2008; Marlatt & Gordon, 1985). EARN's survey contains three questions regarding an adapted concept - *financial* self-efficacy, that were preceded by the instruction, "Thinking about *the last 12 months*, how much do you agree with the following: (a) I was good at planning for my financial future, (b) I was satisfied with my financial situation, and (c) I was able to save money." As predicted by EARN's theory of change, wherein knowledge drives justifiable self-confidence in handling money, which in turn leads to more successful financial outcomes, financial self-efficacy increased during the program (see Figure 2). It appears that financial self-efficacy may be an integral part of what the Center for Financial Services Innovation (CFSI) is calling "*financial capability*," which is defined by CFSI by five factors: 1) being able to cover monthly expenses with income; 2) tracking spending; 3) planning ahead and saving for the future; 4) selecting and managing financial products and services, and; 5) gaining and exercising financial knowledge. EARN is adding the psychological notion of financial self-efficacy, in which people know that they are capable of using their financial knowledge to access and successfully engage high-quality products. The results observed with EARN's survey of IDA participants suggest that financial self-efficacy is the missing link between knowledge and effective action.

Figure 2

Financial Self-Efficacy Increased After a Year in the Program



Financial Problems and Their Mitigation

Three items from EARN's survey also formed a set of questions surrounding some financial problems that are very common among low-income people: (a) problems paying for utility bills, (b) problems paying for housing, and (c) bouncing a check. Survey takers indicated whether they had not encountered the problem, worried about it or actually experienced it within the past six months. To help systematize our thinking about how the EARN program might be helping to change the way people relate to money, a statistical model was built using all three of the components discussed so far: (a) financial knowledge, (b) financial self-efficacy, and (c) financial problems. It was hypothesized that financial knowledge would predict higher levels of financial self-efficacy, which, in turn, would predict a decrease in financial problems. Debt and savings were added to the model as potential factors that could fuel or squelch financial problems. It was further hypothesized that financial problems would predict an increase in the perceived stressfulness of people's finances and lead to a reduction in their happiness with their finances. Many of the hypothesized relationships proved to be significant and in the predicted direction. The exception of savings at baseline was not at first negatively related to financial problems; however, after participating in the program for a year, savings predicted a decrease in financial problems. The overall fit of the model was also excellent, according to two of the best global fit indexes.[3]

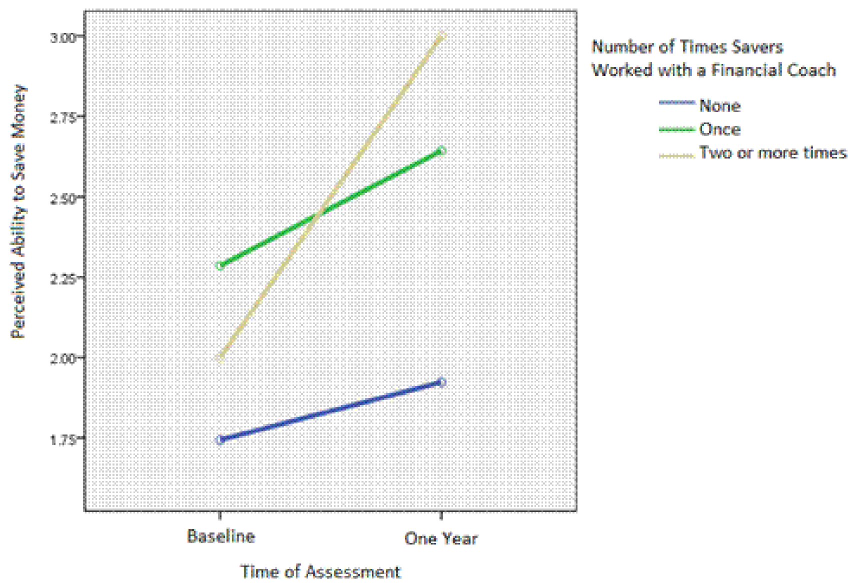
[3] Hu and Bentler (1998, 1999) established on an empirical basis that the fit statistics for well fitting models were 0.95 for the Comparative Fit Index and 0.97 for the Tucker Lewis Index – both .

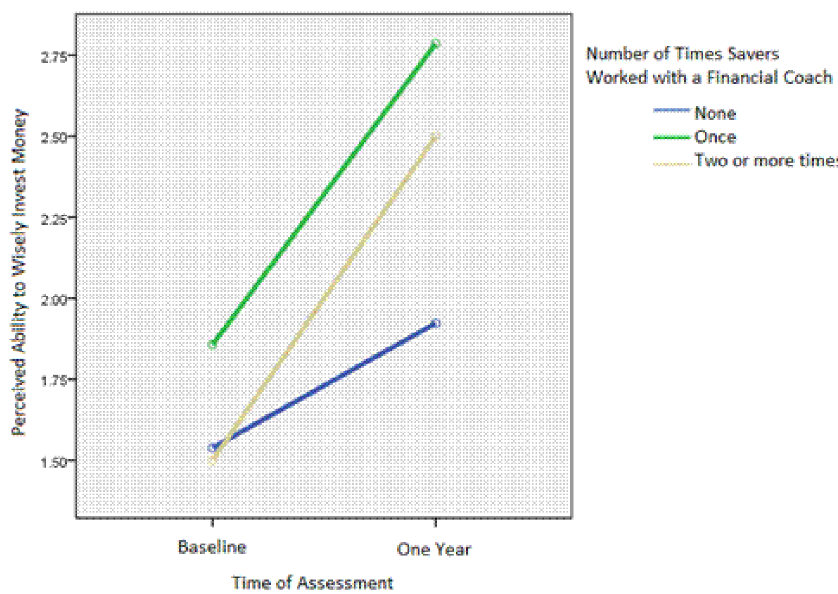
Financial Coaching

EARN offered financial coaching to some of the IDA participants, and although they were a self-selected group who paid a nominal fee of $50, their progress relative to other participants who did not elect to receive up to 18 months of financial coaching may provide preliminary evidence of its effectiveness. Figure 3 shows differences between Savers who received no financial coaching, Savers who received one session, and Savers who received two or more sessions in terms of their perceived ability to save and invest money. The initial differences were not statistically significant, but the differences in two aspects of financial self-efficacy between those who were coached and those who were not coached were significant, suggesting that coaching accelerated the process of acquiring higher levels of this pivotal aspect of financial capacity.

Figure 3

Financial Self-Efficacy Was Accelerated By Financial Coaching

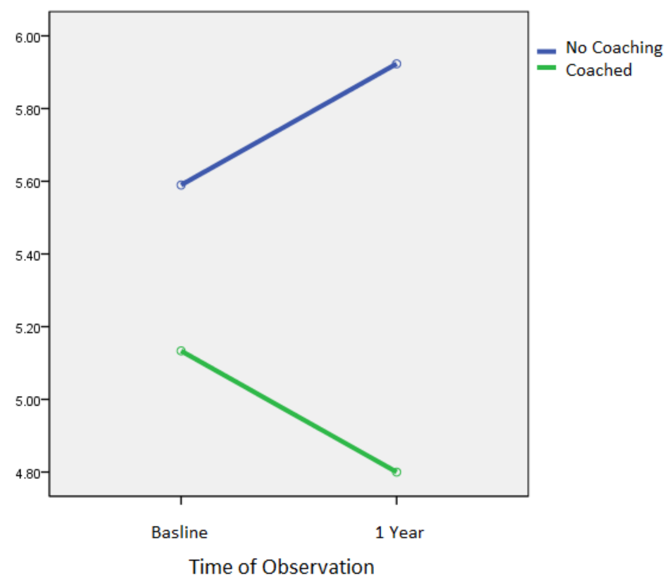




In our cross-sectional modeling of all respondents at baseline and in our longitudinal analysis of the participants over a year's time, we found that financial self-efficacy predicted decreases in finance-related stress. In the broad literature that spans back over a hundred years on the connection between wealth and health, stress is often cited as the most likely common denominator for why poorer people suffer more physical and mental health problems and why poorer communities are adversely affected by financial stress. It stands to reason that if financial coaching increases financial self-efficacy, then perhaps we could find a reduction in financial stress that is related to financial coaching. The past few years have been financially stressful for the American public, so it is probably not too surprising that among the un-coached IDA program participants, there was actually a slight increase in financial stress over time; however, there was a significant decrease in financial stress among participants who also received financial coaching (See Figure 4).

Figure 4

Coaching was Associated with a Decrease in Financial Stress



CONCLUSION

EARN's findings on the role of financial knowledge and financial self efficacy provide an evidence-based guide for decision making on programmatic decision and investment in efforts to create economic prosperity for low income Americans. EARN will continue our research on the role of financial self-efficacy in prosperity and publish findings in the hopes that we can advance the quality of work in this area.

ABOUT THE AUTHOR

Dr. William Lapp, PhD joined EARN as the Research Manager in 2010 to advance the cause of helping low- and middle-income people achieve economic prosperity by conducting research on evidence-based best practices in the financial industry. Dr. Lapp has diversity of experience evaluating pro-social initiatives such as the Friends for Youth Mentoring program in Redwood City, CA; sober living houses in Berkeley and Sacramento; programs for helping homeless people in the Haight-Ashbury district; and the Treatment on Demand program in the City and County of San Francisco (sponsored by the National Institute of Health).

Dr. Lapp's Bay Area experience includes working as a Biostatistician for the Public Health Institute in the East Bay, where among many other things he studied predictors of longevity; Senior Scientist at Ischemia Research and Education Foundation, finding ways to advance cardiac and other cardiovascular surgeries; Researcher/Analyst at Stanford University Medical School, examining treatments for Alzheimer's disease and late-life depression; and a two-year NIDA Sponsored Postdoctoral Fellowship at UCSF's Langley Porter Psychiatric Institute.

Dr. Lapp worked for 10 years as a Research Scientist at the New York State Research Institute on Addictions (RIA) in Buffalo, New York. He started at RIA during his last year of graduate school in the Department of Psychology at the State University of New York at Buffalo, where he studied Cognitive Psychology under one of the world's foremost Gestalt Theorists, James R. Pomerantz, Ph.D. In the process of learning about artificial intelligence models of perception, memory, language and thought, Dr. Lapp opened up his mind to the formal science of multivariate statistics, thereby discovering interesting ways to look for coherent patterns within nests of complex information. The clinically and theoretically oriented researchers at RIA invited him to join them in the search for models of addiction and effective treatments. There, he helped to develop psychological tests that have been broadly used in Addiction Medicine for decades, studied social interactions and cognitive-emotional reactions of people in a simulated bar setting, and conducted his own psychopharmacological research on the effects of alcohol on attention, creativity and the perception of time.

Dr. Lapp's research has been mentioned in the London Times. He has been interviewed by BBC Radio Scotland, asked to deliver an invited address on innovations in statistical analysis at the annual conference of the American Psychological Association, and received an Outstanding Research Award from the New York State Office of Alcoholism and Substance Abuse Services.

ABOUT EARN

EARN, the nation's leading provider of microsavings, is an award-winning non-profit that gives low-income workers the power to create economic prosperity for generations to come. Since 2001, EARN has helped tens of thousands of low-wage families through innovative financial products including matched savings accounts, checking accounts for the unbanked, micro-loans, and money management coaching. EARN's powerful combination of lasting assets and financial know-how enables families to build wealth and achieve life-changing goals such as saving for college, purchasing first homes, or starting small businesses.

The EARN Research Institute evaluates the impact of EARN's work and publishes original data, sharing lessons learned and best practices. EARN uses this unique grounding in rigorous research and direct service experience to transform the financial services landscape and to champion effective public policies. EARN's ultimate vision is that millions of well-informed, low-income American families will achieve financial success through proven strategies, fair public policy, and their own hard work.

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FOR FURTHER INFORMATION

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