

# Training and planning in saving decisions

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Requested amount: \$7,500

## Project Description

Evidence on low retirement savings and other failures to smooth consumption over time (Hurst 2004, Laibson, Repetto and Tobacman 2007, Madrian and Shea 2001, Choi, Laibson and Madrian 2004) suggests that our ideal saving behavior and what we actually do are not always the same. Planning ahead and seeing a financial planner are strongly associated with higher-than-average saving rates in observational data (Lusardi and Mitchell 2006, Lusardi 2003, Ameriks, Caplin and Leahy 2003). However, identifying whether financial planning and training lead to better is difficult because people self-select into these activities. Additionally, key parameters such as time and risk preference, income history and expectations, and expected lifespan are unobserved. I propose to study the effects of planning and financial training on saving behavior using a laboratory experiment. This experiment tests a methodology for studying saving decisions that could be applied to other elements such as risk and safety net programs.

In this experiment, subjects choose whether to watch video clips immediately or wait and watch longer clips later. A session consists of five rounds of ten minutes each. At the beginning of each of the first few rounds, subjects receive tokens. Each token may be used to watch one clip at any time during the session. The incentive to use the tokens early is boredom; subjects do not have access to internet, phones, music, or even pen and paper. However, someone who spends all of his or her tokens early will be bored in the later rounds. Additionally, the length of the available clips increases in each successive round, so someone who saves tokens will spend a larger proportion of their time watching videos. The tradeoff

between watching videos now versus later is a saving decision, similar to choosing between spending money now or saving it for retirement.

The experiment session can take place all at once, making the decisions short-term, or it can be split into pieces, allowing a week or more to elapse between the second and third rounds. The longer-term version may either validate the short-term design for studying saving decisions or show how decisions differ depending on the time horizon.

I use a 2x2x2 design to estimate the effects financial training and planning ahead in the short- versus long-term versions of the experiment. Potential subjects will be randomly offered a chance to sign up for either the long- or short-term version. Each session is either high or low training. Within a session, subjects are randomized into planning or non-planning treatments. This design enables me to study both individual and interactive treatment effects for the long versus short term.

The financial training treatments show subjects either intensive (high training) or simple (low training) instructions. The simple instructions summarize key information. In contrast, the high training group is given detailed information about the design including examples describing how many minutes they might spend watching videos depending on when they use their tokens. These instructions simulate a financial advisor helping a client understand their saving options. The simple instructions simulate a general knowledge of interest rates and life spans.

The planning treatment asks subjects to record how many tokens they expect to use in each round. This treatment investigates whether how thinking strategically about the available options changes behavior. Previous results suggest that more strategic thinking leads to smoothing token use over the session.

All sessions will take place at the Experimental Social Science Laboratory (ESSL). The ESSL is a computer laboratory at UC, Irvine designed for economics-style experiments. It offers a pre-existing subject pool, dividers separating subjects from one another, and full

experimenter control of the computers. I have access to the laboratory at no cost aside from paying participants. The laboratory's blanket human subjects protocol covers this experiment, so it will not be necessary to seek separate Internal Review Board approval.

## **Analytic Approach**

Measurable outcomes include total number of minutes watched, deviation from written plans, and observed strategy type. Higher total minutes watched represents higher saving because video clips in later rounds are longer. Subjects will be divided into strategy categories according to whether they saved for the end, smoothed the videos over the five rounds, or spent their tokens early.

High training and high planning will be the primary explanatory variables, and will be assessed separately for the long-term versus short-term design. Additional possible explanatory variables include demographics such as gender, area of study, and parental education; elicited risk aversion, time preference, and present bias; and personality traits including locus of control and sense of purpose. The long term results are expected to be similar to the short-term except that subjects might save less on average. The high training treatment is expected to reduce the probability of spending early, increasing number of minutes watched and accuracy of written plans. The planning treatment may increase number of minutes watched or it may induce smoothing behavior.

I have tested the short-term version of this design in previous work (Motika 2012), finding that training increased saving while planning led subjects in the high-training group to smooth video-watching over the five rounds. Several factors indicated that the design effectively induces a saving decision. Subjects' comments discussed the difficulty of waiting before using their tokens, and high elicited discount rate was positively correlated with using tokens early. That is, subjects who more strongly preferred money in one week as opposed

to three weeks also tended to use their tokens early. Russell Sage Foundation funding would allow me to rigorously test these results using increased sample size, improved experiment design, and the extension to longer-term decisions.

## Budget

I request a total of \$7,500. \$7,300 of this will go to pay research subjects as described below. These payments will ensure that I am able to use the Experimental Social Science Laboratory (ESSL) subject pool. I am also requesting \$200 to purchase 20 pairs of headphones so that subjects can watch video clips in the laboratory.

Of the money requested to pay subjects, \$5,000 will pay 100 subjects an average of \$50 apiece to participate in a long-term version of this design. Approximately \$2,160 will be used to pay 90 subjects an average of \$24 each to participate in the short-term version. These amounts are based on the ESSL policy of paying a minimum of \$15 per hour and include an incentive to encourage the long-term subjects to return to the laboratory for the second session. This incentive is designed to reduce attrition. At 190 subjects, I also expect to use about \$140 to pay \$7 show-up payments to people who are recruited but do not participate, typically because the session they attend is full. If this money is not needed for show-up payments, it will be used to pay additional subjects.

## References

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**Laibson, David, Andrea Repetto, and Jeremy Tobacman**, “Estimating Discount Functions with Consumption Choices over the Lifecycle,” Technical Report 2007.

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