Time Inconsistency and Saving among Low-Income Tax Filers in the United States

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Sector(s): Finance

Location: New York City, United States of America

Sample: 833 tax filers

Outcome of interest: Taxation

Intervention type: Commitment devices Financial literacy Incentives Savings

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Partner organization(s): The Financial Clinic

Present-biased preferences, or the tendency to value immediate rewards over greater benefits in the future, may contribute to persistent poverty, preventing low-income households from accumulating savings, making investments, and rationing their resources over time. However, there is little rigorous evidence to confirm that present-biased preferences and related self-control problems lead to poor savings decisions. Researchers designed and tested a savings product that offered monetary rewards to low-income tax payers in the United States if they saved or committed to save their annual tax refund for a period of eight months. Results confirmed that the low-income filers had present-biased preferences and that the incentives increased the numbers of individuals who chose to save their taxes.

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Present-biased preferences, or the tendency to value immediate rewards over greater benefits in the future, may contribute to persistent poverty. People with such preferences often face self-control problems, meaning that they succumb to the temptation of purchasing goods today instead of saving for the future. A large body of literature suggests that such problems may lead to poverty traps for low-income households, preventing them from making investments, such as acquiring a new vehicle or moving to a new neighborhood, that could improve their standard of living in the long-run. On the other hand, common solutions to self-control problems, such as savings accounts that limit withdrawals, may make low-income households more vulnerable to unexpected income shocks, for example, a sudden health emergency.

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The United States tax system is structured such that low-income filers often receive a refund when they file their taxes. This refund comprises as much as forty percent of annual income for low-income households who often face the decision of whether to save the refund or spend it on immediate needs.

The Financial Clinic, based in New York City, is part of the non-profit tax preparation industry that provides tax preparation assistance to low-and-moderate-income tax filers. Such non-profits, referred to as Volunteer Income Tax Association (VITA)

organizations, typically offer additional services such as enrollment assistance for public benefits and financial counseling throughout the year. In this study, researchers followed tax-filers at the clinic with an average annual income of US$17,600. About one-half of participants had a high school equivalent degree and four percent had a college degree or higher. Study participants were limited to English and Spanish speakers.

Internal Revenue Service Building.

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Researchers examined the impact of commitment savings products on savings behavior in the context of income tax refund-based saving in the United States. In partnership with the Financial Clinic, researchers randomly assigned 833 Financial Clinic clients, who had received a tax refund of at least US$300 in the previous year, to six groups that each received a different saving opportunity. The Financial Clinic opened a savings account with the money from each client's income tax refund, via a direct deposit option on the tax return, and informed all tax filers of their saving opportunity. These opportunities varied in when clients had to make a savings decision and when they received bonus payments for saving:

- **On-the-spot:** Three groups were offered the opportunity to open a "SaveUp" account, which offered tax filers an incentive to save their tax refund during the filing season, when they visited the Financial Clinic. With this account, they could receive a fifty percent match for every dollar saved (up to US$1,050) in return for keeping at least US$300 in the account for eight months. There was no penalty associated with withdrawing funds from these accounts before the end of the eight-month period.

- *On-the-spot comparison:* These participants served as the comparison group among SaveUp account holders as they only received information regarding the saving opportunity. They could receive up to US$375 in matched funds if they saved US$1,050.
- *Immediate incentive:* These participants were offered a monetary reward of US$50 if they agreed to save their tax refund. They had to decide on-the-spot whether or not to save their refund, and they received the reward immediately, at the time of filing their taxes. Including the monetary reward, participants could receive up to US$425 in additional funds.
- *Delayed incentive:* These participants were offered the same monetary reward of US$50. In contrast, they were not eligible to receive the reward until the end of the eight-month savings period. These participants could also receive up to US$425 in additional funds.

- **Soft commitment:** Three groups were offered the opportunity to open a "SaveUpFront" account that offered a similar match to account holders for every dollar saved (up to US$950) in return for saving at least US$300 for eight months. These tax filers could make a soft commitment towards saving their tax refund two months prior to the tax season. The savings commitment was "soft" in that filers could change their savings decision when filing their taxes, but they earned an additional $100 for committing to save. In addition, filers who did not make the soft commitment to save could still decide to save at the time of filing taxes, earning a smaller benefit US$75 payment at the end of the eight-month savings period.
  - *Soft-commitment comparison:* These participants, who received only the option to make a soft commitment to save, served as the comparison group for SaveUpFront account holders. They could receive up to US$425 in saving and commitment rewards.
  - *Early incentive:* These participants were offered an additional incentive of US$50 if they soft-committed to save, which they would receive when they came in to file their taxes. They could receive up to US$475 in saving and commitment rewards.
  - *Late incentive:* These participants were offered the same incentive of US$50 if they soft-committed to save but they were not eligible to receive this benefit until the end of the savings period (eight months later). These participants could also receive up to US$475 in saving and commitment rewards.

This study design allowed researchers to examine whether participants were in fact present-biased in their savings decisions. Comparing responses within and across the on-the-spot and commitment groups allowed researchers to observe (i) participants' preferences to save in advance (before the tax season) or on the spot (during the tax season) and (ii) their preferences between rewards received earlier and later in time.

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Results suggest that participants had present-biased preferences and that the monetary incentives effectively increased the number of individuals who chose to save their tax refund for at least eight months. Tax filers were two to three times more likely to save when they were offered immediate incentives.

Attrition: Researchers were able to contact less than one-third of the tax filers they had initially planned to reach; they were unable to reach these participants by phone, so they never learned about the program. Tax filers in the on-the-spot group were less likely to be reached by phone, to consent to the study (by phone), or appear at the Financial Clinic. A possible reason for this difference is that the soft-commitment group on average received a larger financial incentive than the on-the-spot group. While this may have led to biased or misleading estimates between the two groups, researchers noted that there were no significant

differences between those who could not be reached within the two groups, i.e. within the on-the-spot group (on-the-spot comparison, immediate incentive, delayed incentive), and within the soft-commitment group (soft-commitment comparison, early incentive, late incentive).

Decision to commit: On average, tax filers in the soft-commitment group were more likely to pre-commit to save if they were offered an additional US$50 reward. However, the relative timing of the reward did not seem to matter. Among tax filers who signed up for a SaveUpFront account over the phone, those offered an early or late incentive were 69 percent and 71 percent more likely to make a soft commitment, relative to the comparison group (37 percent).

Decision to save and saving amount: On-the-spot group members who received an immediate incentive saved an average of US$834 at the end of the eight month period relative to the on-the-spot comparison group who saved US$320. For the on-the-spot group, timing of the saving reward seemed to matter: Participants who received a delayed incentive were less likely to save their tax refund and saved US$478 on average, compared to participants in who received an immediate incentive.

Present-biased preferences: By comparing tax-filers' preferences (i) for making an on-the-spot or advance savings decision and (ii) for receiving a reward for savings earlier or later in the future, researchers were able to estimate the degree to which participants were present-biased. They estimated a discount rate of 79-164 percent, meaning that their savings would have to earn at least 79 percent interest for these individuals to prefer to save the tax refund.

Jones, Damon, and Aprajit Mahajan. "Time-Inconsistency and Saving: Experimental Evidence from Low-Income Tax Filers." NBER Working Paper No. 21272, June 2015.