



**Canada Trust**

# Nudging Recommendation

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# Content



# Current Situation

Canadians are saving less than ever, with significant challenges across multiple demographics.

TD's deposit balances are decreasing because consumers are spending their money instead of building up their savings. If consumers make fewer deposits, TD will have less money to lend, reducing their revenue spread.

## **Bottlenecks:**

- Increased Risk of Loan Defaults
- Lower Demand for Financial Planning and Advice
- Limited Uptake of Retirement Savings Plans (RRSPs/TFSA)

**40%** of millennials (ages 23-38) in Canada have less than \$500 saved, and over **30%** have no savings at all.



# Relevant Studies

## Article #1: The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior

This study examines the impact of automatic enrollment in 401(k) plans on employee savings behavior, focusing on how default settings influence participation rates and savings decisions, and exploring behavioral factors such as procrastination and status quo bias.

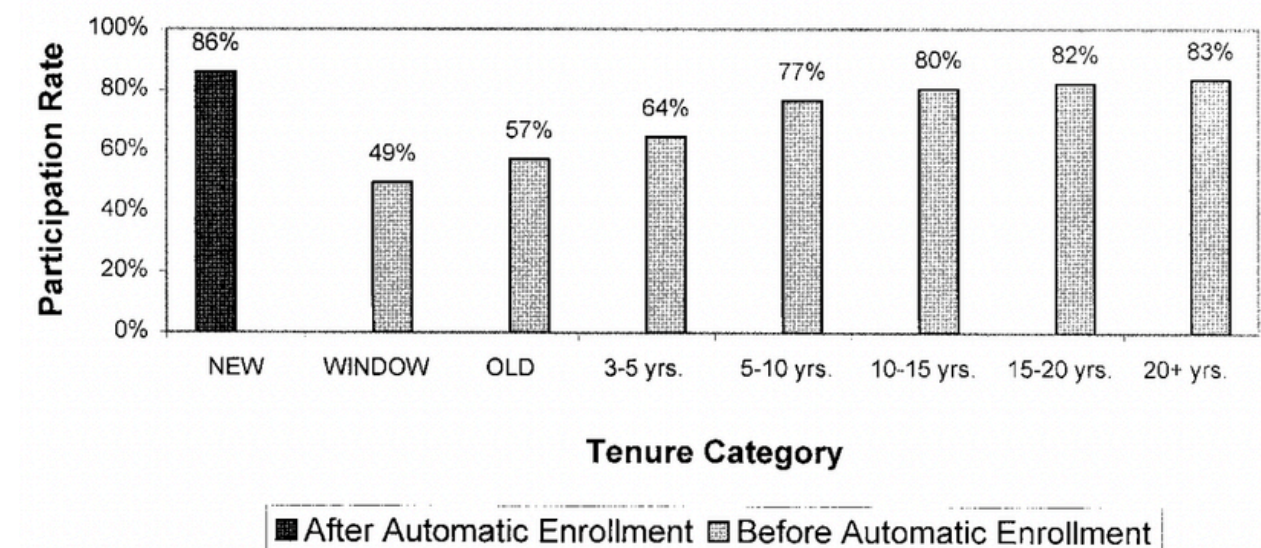
**Participants:** Employees of a large U.S. corporation in the healthcare and insurance industry

### Design:

- Intervention: A policy change on April 1, 1998, introduced automatic enrollment with a default contribution rate of 3% of pay and allocation to a money market fund.
- Control Condition: Employees hired before automatic enrollment, who had to opt in actively.
- Treatment Condition: Employees hired under automatic enrollment, automatically enrolled unless they opted out.

### Results:

- Automatic enrollment drastically increased participation rates compared to the opt-in system, demonstrating that setting a default encourages action without requiring customers to take the first step.
- Under the opt-in system, many employees delayed saving indefinitely, but automatic enrollment eliminated the need for initial effort, ensuring immediate participation.
- Once enrolled, participants were more likely to stick with the default settings due to the psychological tendency to favor the status quo, which helps sustain savings behavior.



# Relevant Studies

## Article #2: The Effect of a Default Nudge on Experienced and Expected Autonomy: A Field Study on Food Donation



The study examines how a default nudge influences food donation behavior, as well as its impact on experienced and expected autonomy in a real-world supermarket setting.

**Participants:** 1,997 supermarket customers across two experiments in the Netherlands

### Design:

- A field experiment was conducted to test the impact of default nudges on food donations and autonomy. Customers were randomly assigned to different conditions:
  - Default Nudge Condition: A pre-selected donation item was placed in the customer's cart at entry, which they could choose to purchase and donate or remove.
  - Control Condition: Customers were informed about the food donation initiative but had to select and place items in their carts themselves.
  - Vignette Condition (Experiment 2 only): Participants were presented with a hypothetical scenario of the default nudge and asked to report their expected autonomy.

### Results:

- Default nudges significantly increased food donations, with participants donating more items and higher-value products compared to the control group.
- Experienced autonomy was not diminished by the default nudge, despite lower expected autonomy in hypothetical scenarios.
- Participants who donated reported higher autonomy and choice satisfaction than non-donors.

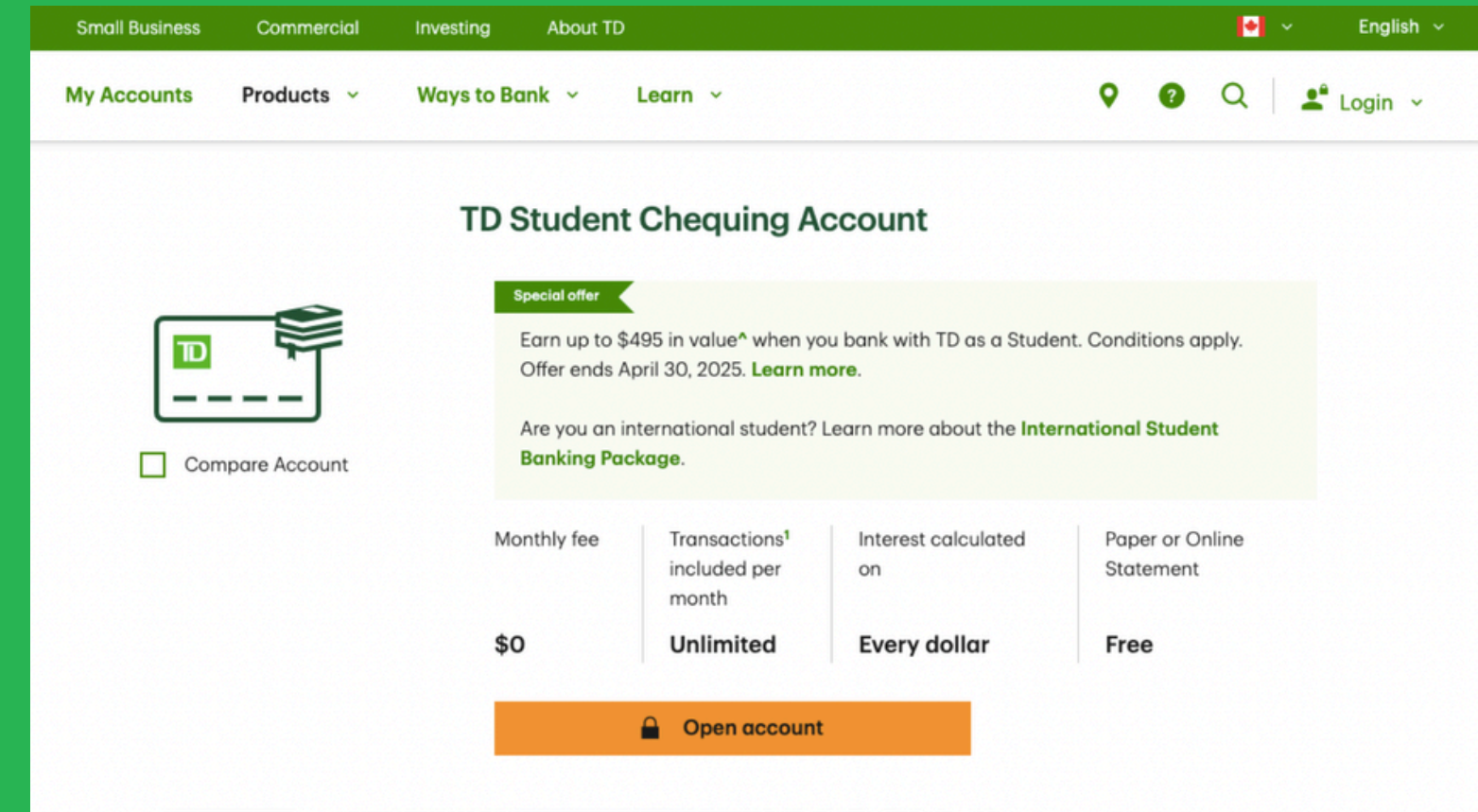
# Nudging Technique: Change Default Choice (B1)

New TD customers will be automatically enrolled to transfer 5% of their payroll into a high-interest savings account. This system operates as an opt-out system, contrasting with a traditional opt-in system.

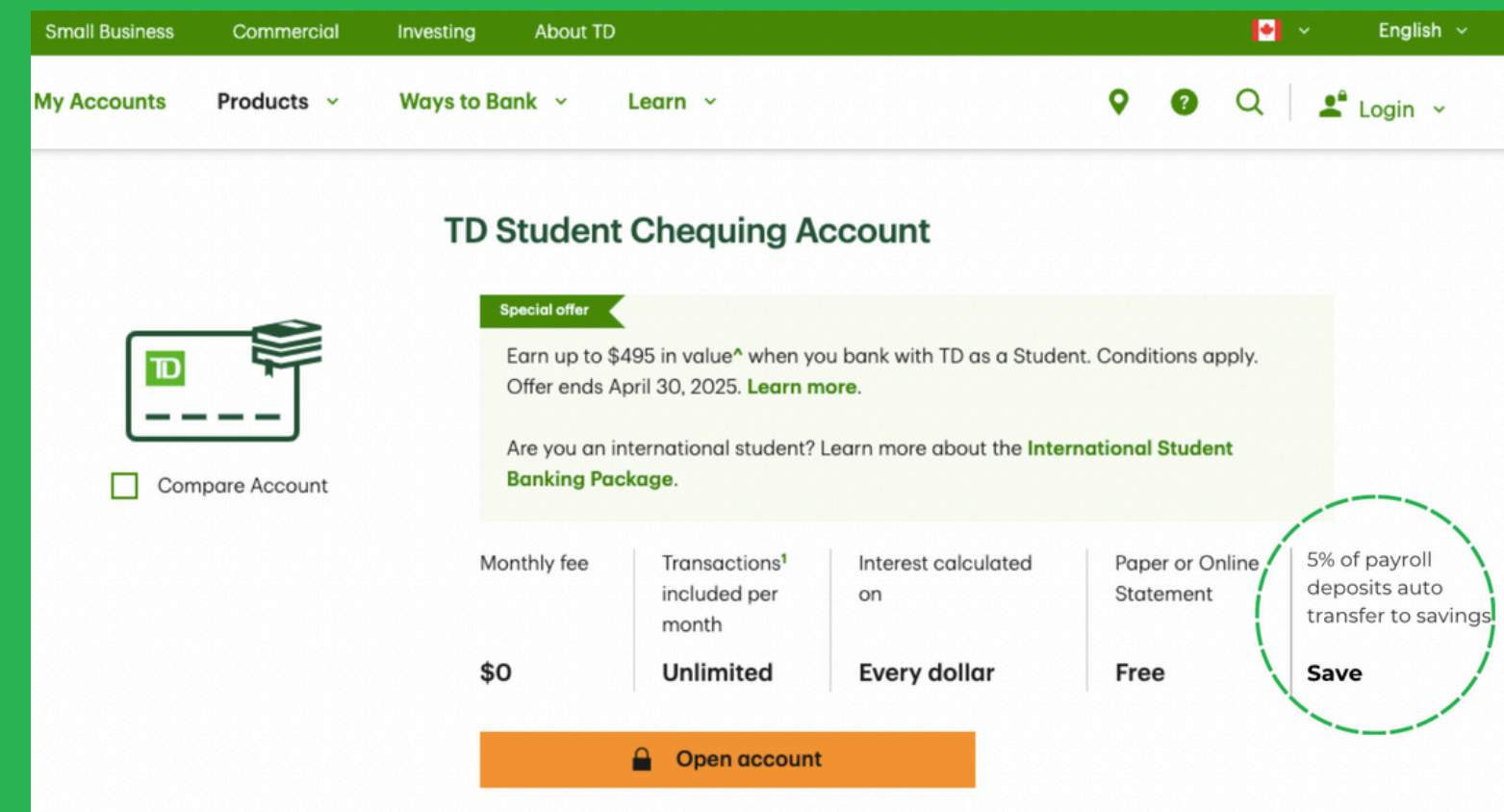
The current opt-in system requires customers to actively enroll in payroll savings transfers, resulting in low participation rates due to procrastination, decision fatigue, and limited awareness of the savings benefits.

This system still gives customers full control over their finances, allowing them to easily adjust or stop participation at any time, while promoting strong savings habits and helping achieve long-term financial goals.

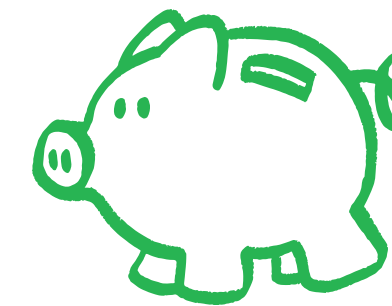
## Current Opt-In System



## Proposed Opt-Out System



# Reduce the Problem



The previous research indicates that default nudges, such as automatic enrollment systems, are highly effective at influencing behavior and addressing common barriers to action. This is demonstrated through the following findings:

- **Overcoming Procrastination:** Automatic enrollment, as seen in the 401(k) study, eliminates the need for individuals to take the first step, significantly increasing participation rates. Similarly, TD's system removes the barrier of procrastination, encouraging immediate savings.
- **Leveraging Status Quo Bias:** Both studies show that defaults capitalize on individuals' tendency to stick with pre-set options. This ensures sustained participation in beneficial programs like savings plans or food donations without requiring frequent decision-making.
- **Maintaining Autonomy:** The food donation study highlights that well-designed default systems preserve a sense of control and choice. TD's opt-out system offers flexibility, allowing customers to adjust or stop their contributions easily.
- **Encouraging Positive Habits:** Defaults anchor beneficial behaviors—such as saving or donating—making them the path of least resistance. TD's proposed system fosters consistent savings habits, helping customers achieve long-term financial goals.

# Hypotheses

- H1:** By changing the default chequings account to move 5% of each payroll deposit into savings, it will significantly increase the savings rates of TD Bank customers.
- H2:** Customers in the treatment group will report similar or higher levels of satisfaction over their financial decisions compared to those in the control group.

# Study Design

- **H1 & H2** tested
- Quasi- experiment

## Timeline:

- 2 year study

**IV:** Default account type (Treatment or Control)

**DV:** Saving rate of participants

## Covariates:

- Monthly expenses
- Income bracket
- Financial goals

## Participants:

600 TD customers opening a new student chequings account.

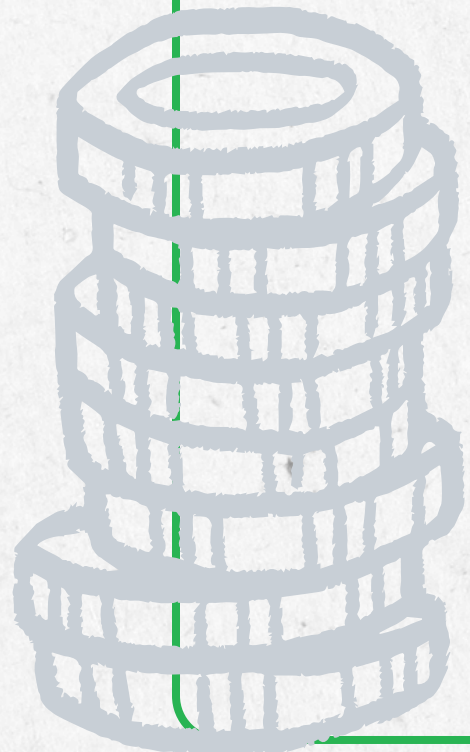
## Participant selection process

Consumers opening a new account will be offered to join an experimental study on spending habits. Those who opt into the study will be screened to determine covariate and satisfaction measurements

# Methodology

## PRE- STUDY SCREENING

- Combination of questionnaire and 7 point likert scale
- Determines
  - Monthly expenses
  - Savings
  - Income bracket
  - Employment status
  - Household size
  - Financial goals



## YEAR 1: BASELINE COLLECTION:

All participants will receive no intervention,

- Receive pre-screening survey to collect covariate data, & savings satisfaction rating
- Monitored for spending habits & savings rates.

## Year 2: INTERVENTION PHASE & CONTROL #2

New participant group.

- Receive pre-screening survey to collect covariate data & satisfaction ratings, then split into condition A or B and savings are monitored quarterly
- Condition A: the control group who receive no intervention
- Condition B: the treatment condition where participants' will have an automatic 5% portion of payroll deposits transferred to a high interest savings account





### TD Student Chequing Account

[No Thanks](#)

# Help us, help you!



[Learn more and sign up now](#) to participate in our new savings study



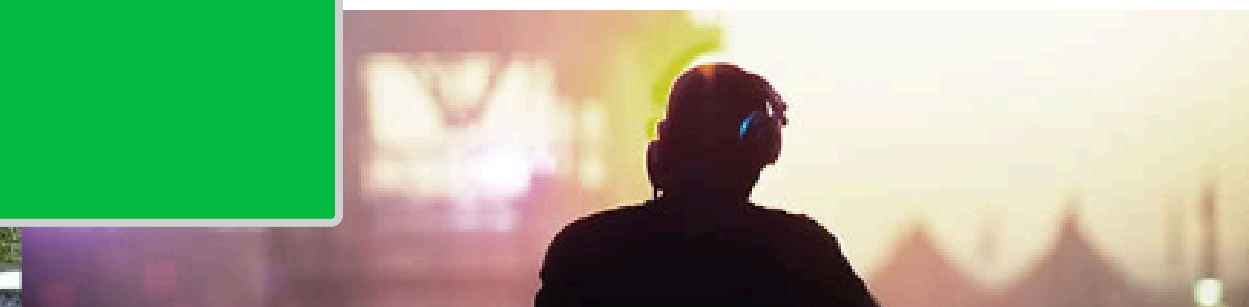
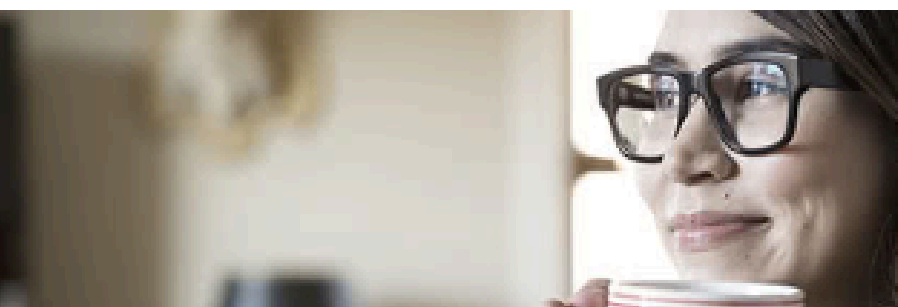
Complete

Conditions apply.

Student

or Online  
Application

e



# Condition A: The Control Group

Login 

## TD Student Chequing Account

 Compare Account

### Special offer

Earn up to \$495 in value<sup>^</sup> when you bank with TD as a Student. Conditions apply. Offer ends April 30, 2025. [Learn more.](#)

Are you an international student? Learn more about the [International Student Banking Package.](#)

Monthly fee	Transactions <sup>1</sup> included per month	Interest calculated on	Paper or Online Statement
<b>\$0</b>	<b>Unlimited</b>	<b>Every dollar</b>	<b>Free</b>

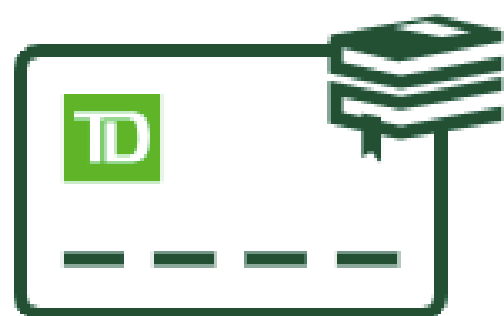
[Open account](#)

# Condition B: The Intervention Group



Login ▼

## TD Student Chequing Account



Compare Account

### Special offer

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Monthly fee

**\$0**

Transactions<sup>1</sup>  
included per  
month

**Unlimited**

Interest calculated  
on

**Every dollar**

Paper or Online  
Statement

**Free**

5% of payroll  
deposits auto  
transfer to savings

**Save**



**Open account**

# Methodology

## MONITORING AND DATA COLLECTION

- For all groups, account balances will be monitored and recorded quarterly throughout the duration of the experiment (with consent granted during our pre screening exercise).

## FINAL ANALYSIS

### After the first year:

- We will summarize the data from our questionnaire & saving habits to use as baseline measurement for the intervention group through comparison for similar consumers

### , After the second year:

- Data will be de personalized for analysis
- An ANCOVA would be required to run an analysis of this data to account for covariates in our experiment.
- A secondary satisfaction survey will be sent out after the expermint and summarized to conclude our findings on hypothesis 2

## LIMITATIONS & RISKS

- Measurement error for covariates
- Observer effect



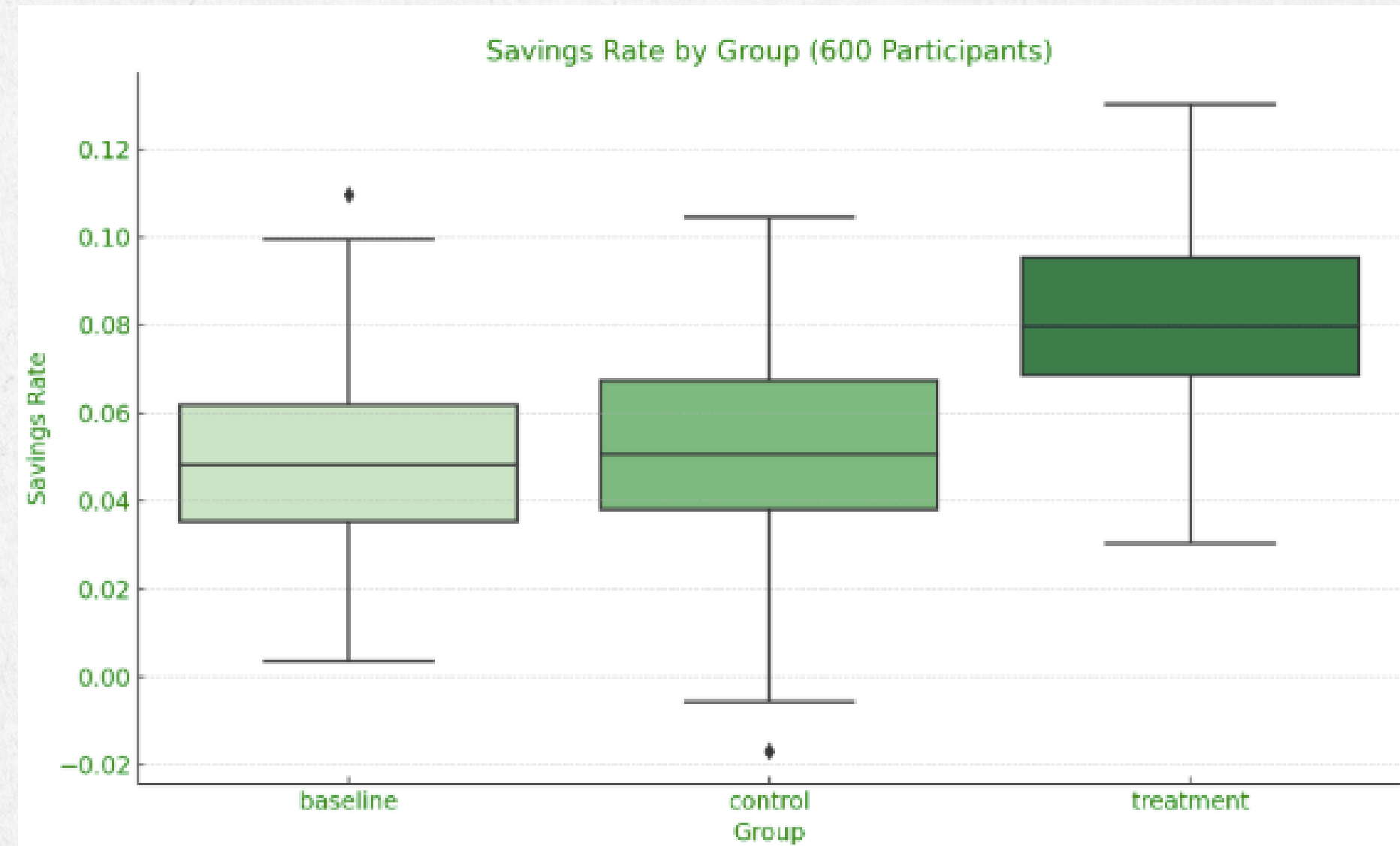
# H1 Simulated Results

(H1)

**Implementing savings reminders each time a TD customer receives a payroll deposit will significantly increase their savings rates.**

Bars Explained

- **Control Group (Baseline):** Shows average savings rate under no treatment, and are aware that their account will not be impacted but only observed.
- **Control Group 2 (no intervention):** No intervention average savings rate. Participants are aware their bank account could be changed & will be observed
- **Treatment Group (Intervention):** Average savings balance for participants who's accounts defaulted to the 5% auto transfer



- **Simulated Results** there is a statistically significant indicated in our simulated results ( $P < .005$ ). Increase in average savings rates between the control and treatment groups during the baseline and treatment periods were significant while covariate influences were not ( $p = 0.4178$  |  $p = 0.9014$  |  $p = 0.6343$  )

# H2 Simulated Results

**(H2) Customers in the treatment group will report similar or higher levels of satisfaction over their financial decisions compared to those in the control group.**

- Paired T-test

Bars Explained

- **Control Group (Regular account):** No significant change between satisfaction of financial decisions ( $P=0.189$ )
- **Treatment Group (Intervention):** Significant increase in satisfaction in post experiment survey compared to pre experiment answers. ( $P<.005$ )





# Discussion



**Question #1:** Could this default nudge strategy be expanded to other financial behaviors (e.g., debt repayment or investment)?

**Question #2:** What ethical problems arise when nudging financial behaviors? How do we ensure that nudges are in the best interest of consumers?

**Question #3:** How can we ensure that the opt-out system maintains consumer autonomy while still achieving higher participation rates in high-interest savings plans?





**Thank You!**