

Retirement Savings Laboratory



Push messages to incentivize voluntary retirement savings

WHAT IS IT?

The Mexican pension system has the *AforeMovil* app, a tool with great potential to increase the population's voluntary savings, as it is designed to help the account holder overcome several behavioral barriers to saving, such as inertia or procrastination. In addition, it is a direct and simple mechanism to contact members, considering the lack of updated data of Retirement Fund Administrator (*afore*) account holders in Mexico that makes it difficult to send users personalized messages.

Evidence shows that reminders can help savers focus on saving for retirement. In particular, key moments in a person's life have been identified, such as having children or getting married, which allow better communication with pension fund account holders and encourage interaction or commitment to the pension system. These are teachable moments (ideal moments to teach) be-

cause the person is more open to exploring ideas or behaviors on topics that they normally have low involvement with, such as active participation in saving for retirement.

This pilot sought to motivate individuals who downloaded *AforeMovil* to use the application (app) and voluntarily save for their retirement. To do this, a push message campaign was carried out through the app during teachable moments.

IMPACT

1. The study found that, among account holder who have previously been saving, push messages led to a 16% increase in accumulated savings after 9 months of the experiment (approximately USD 23). However, push messages were not effective in increasing account holders' probability of saving.
2. Push messages did not affect the probability of saving nor savings amounts among account holders who had not been saving prior to the intervention.
3. Given its low cost of implementation (virtually zero), and a relatively high delivery rate compared to other message delivery mechanisms, push messages are a highly cost-effective way to promote pension savings for people who have already demonstrated a willingness to save.
4. There is suggestive, but not conclusive, evidence that, among those who were previously saving, push messages increased the relative use of digital media to make contributions.

TITLE

Push messages to incentivize voluntary retirement savings.

MESSAGE

A reminder campaign that used push messages and behavioral economics strategies, increased both the probability of generating voluntary savings and savings amounts in Mexico.

TOPIC OF STUDY

Long-term retirement savings.

SUB-TOPIC

Reminders.

AÑO

2019-2020

AUTHORS

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OBJECTIVE

Incentivizing savings among *AforeMovil* users via push messages sent on holidays with family related content so that those who were not saving voluntarily began doing so and those who were already saving, led to an increase in their level of savings.

TOOL

Reminders, *nudges*.

EXECUTING AGENCY

Inter-American Development Bank (IDB) and the National Retirement Savings Commission (CONSAR, for its Spanish acronym).

TARGET POPULATION

AforeMovil users.

MECHANISM

Sending push messages with family related content during the holidays.

SAMPLE SIZE

488 285 National Retirement Savings System (SAR, for its Spanish acronym) account holders, successfully authenticated in CONSAR's *AforeMovil* app.

EVALUATION DESIGN

Randomized Controlled Trial (RCT).

FINANCING

IDB Lab and MetLife Foundation.

COST

At no additional cost, push messages are free within the functionalities of the *AforeMovil* app.



CHALLENGE

The vast majority of workers in Mexico do not save or save very little for retirement, particularly those who work informally or independently. Most people with lower incomes, around 40% of the total population, are disconnected from pension savings systems because they are mostly informal workers: only one in ten workers in this group is saving for their pension.

Access to savings services does not explain these low levels of savings: The Retirement Fund Administrators (AFORE, for its Spanish acronym) offer multiple alternatives for workers to contribute directly and voluntarily to the pension system, without the intermediation of an employer. Among them, the possibility of saving in commercial networks or through the *AforeMóvil* app stands out, in addition to the channels that each AFORE offers for this purpose. However, as of the third quarter of 2018, when this intervention was designed, only 6.8% of the individual accounts of the Retirement Savings System (SAR, for its Spanish acronym) had received any savings contributions.

The *AforeMóvil* mobile application is a tool with great potential to increase people's voluntary savings, as it is designed to help account holders overcome several behavioral barriers to savings, such as inertia or procrastination. Through the app, the account holder can save easily and recurrently in any location with wireless connectivity. In February 2019, at the end of the intervention design, *AforeMóvil* had nearly half a million users (1% of total account holders) who had completed the registration process, implying that the app would be fully operational. However, only a small fraction of them used it to save money. According to figures from the

National Retirement Savings Commission (CONSAR, for its Spanish acronym) in 2018, less than 10% of users made at least one voluntary savings contribution through the application throughout the month.

Mass scale campaign with low-cost personalized messages

CONSAR and the Inter-American Development Bank (IDB) launched a campaign to study the potential of push messages (a free feature within the *AforeMóvil* application) to reach hundreds of thousands of Mexicans and motivate them to save for retirement. These messages were sent on carefully selected holidays, based on the holiday's relationship to family. Reminders through push messages can minimize the role of psychological biases that work against saving for retirement. The messages, with contents designed to counteract some of the behavioral biases, provided a direct link to the savings channel available to workers within the mobile application.

Push messages are an easy alternative to reach account holders. However, the lack of updated data of the Afore account holders in Mexico (Fertig, Fishbane, & Lefkowitz, 2018) makes it very difficult to send personalized messages addressed at account holders during personal events in their lives. Therefore, holidays or commemorative dates, moments in which people are reminded to protect their families and to prepare for unforeseen events, becomes a great opportunity to take advantage of the emotional availability of teachable moments (Blakstad, Brügger and Post, 2017). Some messages also included monthly savings goals, a strategy to make savings more achievable.

INTERVENTION DESIGN

The strategy used was based on reminders via push messages to encourage savings, thus motivating people who had already downloaded *AforeMóvil* to use the app, and to save voluntarily for their retirement. In total, 488,285 SAR members who had been successfully authenticated in the CONSAR *AforeMóvil* app as of December 2018, were randomly assigned to one of eight treatment groups (receiving 16 push messages for nine months) or the control group. Variations in the eight treatment groups were based on whether the messages were sent on holidays and commemorative dates related to family or on days before the holiday, whether the message alluded to the holiday or was a simple reminder, and

whether the message contained a suggested high monthly savings goal (MXN 500, or about USD 20) or a low goal (MXN 100, or about USD 5).

Holidays related to family were chosen mainly because there is international (Fischer and Montalbo, 2010) and local (Fertig, Fishbane, and Lefkowitz, 2018) evidence identifying the family as an important reason to save for old age, either in order to provide for them, when the individual is gone, or be an example of someone who takes actions that are considered desirable in his or her family. In this way, the treatments with messages related to the family (on holidays) had the purpose



of evaluating whether these messages have an effect beyond the one derived from simply receiving a push message through the app – whichever it may be— pointing out the importance of saving. On the other hand, treatment messages sent on holidays evaluated whether susceptibility to messages related

to savings increases during these teachable moments. The IDB already had evidence that the suggested goals increase the [effectiveness](#) of the messages, so all treatments were assigned to a low or high savings goal, although the goal was not included in all messages.

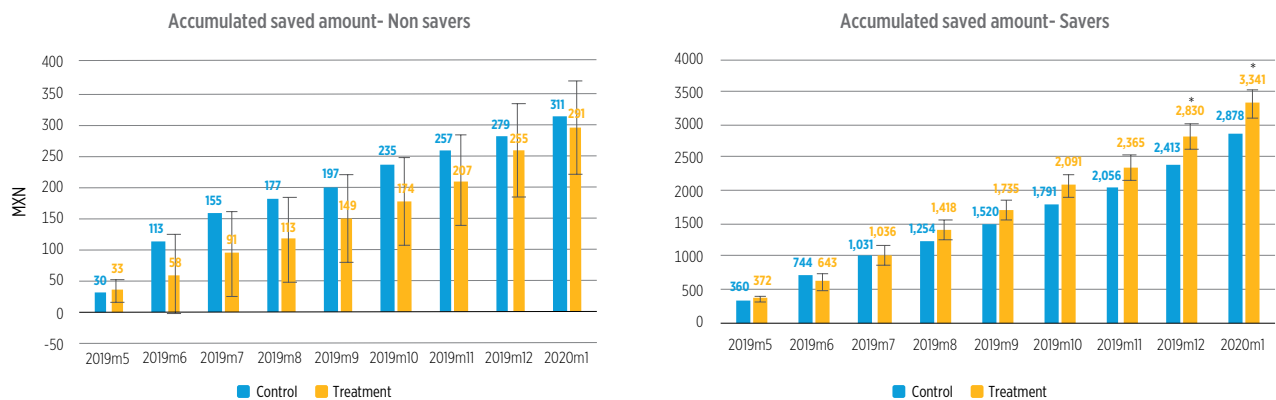
IMPACT

At the end of the 9 treatment months, the 16 push messages sent to members of the treatment groups (without distinguishing between treatment types) **did not have a significant effect on the probability of making any contribution.**

In terms of the amounts, among previous savers, sending push messages had a positive and significant effect on

the accumulated amount saved, but took a few months to become evident (figure 1). In particular, those receiving the treatment ended up saving 16% (MXN 463, USD 23, approx.) more during the nine months of treatment. Among non-savers there was no significant effect.

FIGURE 1. EVOLUTION OF ACCUMULATED AMOUNTS DURING THE EXPERIMENT, ACCORDING TO PREVIOUS SAVINGS STATUS.



Note: The figures show the means of the amount saved per member in each month for the control group, and for the treatment group this mean plus the estimated effect. To estimate the effect, the effects of age and gender were controlled. The bars present robust standard errors of the estimated effects. * p < 0.05, ** p < 0.01, *** p < 0.001.

Finally, studying the effect of the day it was sent and the contents found that, on the one hand, **a message alluding to the holiday versus a simple reminder had similar effects, and sending the messages during the holiday was not more effective than having sent the message a few days before.** Regardless, **the results show that the effect observed in the accumulated amounts was mainly due to the messages that suggested a high savings goal** (figure 2). In particular, the treatment participants with a high goal had a significant increase in the probability of saving in any given month, while those with the low goal also saved more than the control group, but the difference is not significant.

All these results, however, were limited because just over half of the treatment group members were not successfully receiving these push messages—one of the message delivery

mechanisms with the highest delivery rates—. Among the reasons that an account holder might not have received the messages include that they switched their phone, deleted the app, or turned off push messages. This suggests that, to maximize the effect of messaging strategies such as the one described, ensuring open communication channels with account holders is necessary. An account holder who does not receive a message will not change his or her behavior, regardless of the potential effect that it may have.

On the other hand, it is worth noting that this group of account holders made most of their savings digitally (via electronic transactions, Afore web or through AforeMóvil —50%—, and mainly direct debits —67%), and not sporadically in stores. This evidence is suggestive, since it does not reach statistically significant levels.



FIGURE 2. AMOUNT ACCUMULATED ACCORDING TO THE GOAL SUGGESTED IN THE MESSAGE.

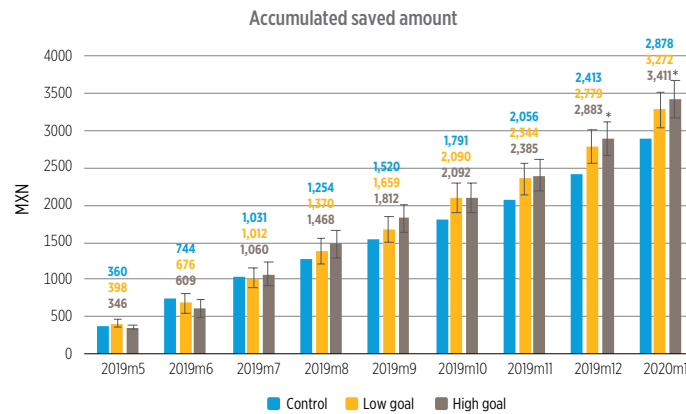
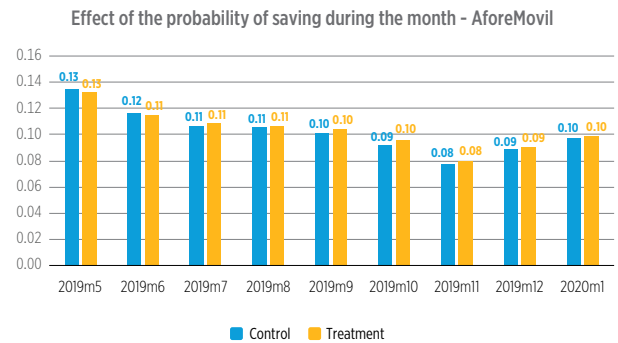
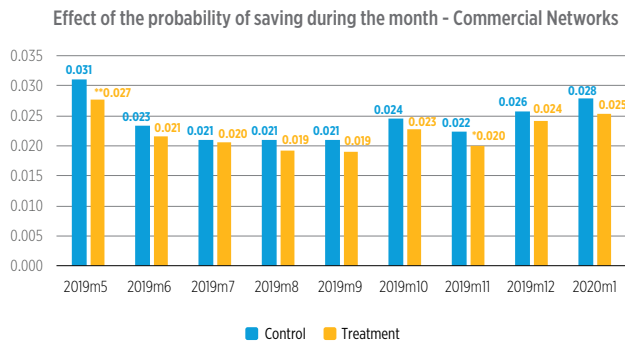


FIGURE 3. PROBABILITY OF SAVING DURING THE MONTH IN COMMERCIAL NETWORKS (LEFT) AND MOBILE APP (RIGHT), GROUP OF PREVIOUS SAVERS.



LESSONS FOR PUBLIC POLICY

Push messages are a cost-effective way to increase the use of voluntary savings in Mexico. This is due to the significant effect they have on the savings of people who have already been saving, and not because more people begin saving upon receiving the messages.

Likewise, despite the hypotheses upon which this pilot was based regarding the possibility of leveraging emotional availability towards the family (through Mexican holidays) to increase savings, **no particular date or message was strong enough** to distinguishably promote voluntary retirement savings. That being said, **the higher savings goals suggested were more effective in increasing the total savings in the treatment group among those who had been saving prior to the exper-**

iment. Also, there is evidence that suggests a rearrangement in savers' savings mechanism, in which the use of commercial networks is reduced in favor of the mobile application and other means that include direct deposits.

It is important to use all available tools to promote savings. Push messages are a standard feature in mobile applications, at no additional cost, and appear to be more **effective than SMS messages** in increasing voluntary savings for retirement in Mexico. Although contact details constitute a challenge in this context, the possibility of adding this tool to a comprehensive communication strategy focused on the importance of pension savings appears to be promising.