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Helping New York City Drivers Avoid Unnecessary Debt



Behavioral envelope design to reduce the number of parking tickets entering judgement

The New York City Behavioral Design Team (NYC BDT) worked with the City's Department of Finance (DOF) to create a behaviorally designed envelope in which to mail the penalty notices sent to people with unpaid tickets. This envelope design increased the number of drivers who resolved expensive parking tickets before they entered judgment, preventing these drivers from accruing avoidable fines and interest, which can be a significant financial burden for low-income households.

Summary

About a fifth of parking tickets issued to drivers in NYC enter into judgment, meaning the tickets are not paid or disputed within 100 days of being issued. This is costly to drivers: in addition to the \$60 fine owed on top of the original ticket cost, drivers accrue daily interest on their debt at a 9% annual interest rate. Eventually, more than three-quarters of these tickets end up being resolved—either through payment or dismissal as "not guilty"—yet, until then, additional fines and daily accruing interest may make the difference between an annoying, but affordable, ticket

Highlights

- Unpaid parking tickets are costly to NYC drivers with fines and interest added on top of original amount.
 - Using a colorful redesigned envelope that reframes parking illegally as a simple mistake helped increase payment.

expense and insurmountable debt. This has an outsized impact on drivers from low-income households. Additionally, once a ticket has entered into judgment, the City may take steps to collect the total amount owed (including the accrued fines and interest) from the driver by sending the debt to a collections agency or seizing a driver's assets, which can have long-term negative consequences on a driver's credit history.

To reduce the number of tickets unresolved after 100 days and prevent avoidable debt for drivers, the New York City Behavioral Design Team (NYC BDT) worked with the City's Department of Finance (DOF) to redesign the envelope containing the penalty notices sent to people with unpaid tickets.

By calling attention to the outer envelope, rather than the notice itself, we hoped to prevent drivers from ignoring important reminder notices at a key moment—before they even open (or, as likely, don't open) the mailing. The redesigned envelope uses attention-grabbing colorful text, graphics, and language with a non-blaming tone to encourage recipients to open the notice. We chose this design, particularly the non-judgmental framing, with the ultimate aim of reducing drivers' tendency to **ostrich** from—or avoid—unpleasant news. We also attempted to reduce **present bias**, the common inclination to prioritize current needs and desires over future ones, with a **loss aversion** framing, highlighting the potential loss drivers would face, in the form of higher costs, if they wait to either pay or dispute their tickets over time.

A randomized controlled trial showed that the subset of drivers with the most expensive tickets (a ticket of \$180 on average, compared to the typical \$65 fine) were 9.7 percentage points more likely to resolve their tickets prior to the 100-day deadline after receiving our behaviorally informed envelope design, sent



90 days after they received their tickets. As a result of these findings, the City scaled the behaviorally informed envelope to all drivers whose unpaid tickets prompt the 90-day notice to help them avoid accruing additional fees, interest, and debt collections.

Why not pay parking tickets?

There may be many reasons why NYC drivers don't pay their parking ticket debt. After talking with indebted drivers attempting to resolve their debt, and going through the processes of paying and disputing tickets ourselves, we hypothesized that the following behavioral bottlenecks contribute to low repayment rates:

- **Present bias, procrastination, and hassle factors:** Drivers may defer paying or disputing their parking tickets until they go into judgment, accruing unnecessary fines and interest, because they overweight the costs of paying or disputing the ticket now and underweight the costs of the fine and accrued interest in the future. This could be triggered by even the smallest hassles that create upfront costs, like missing information to locate a ticket, difficulty navigating to the payment site, or collecting and uploading enough eligible evidence to dispute a violation.
- **Ostriching:** Drivers who receive parking violation notices may ostrich on the issue, meaning they avoid thinking about it and opening or reading correspondence regarding their parking tickets because of the negative feelings the notice prompts.
- ▶ **Identity threat:** If a person has done something "wrong" to get into their current situation (like park illegally), they may feel embarrassed, ashamed, or even threatened by being caught. And further, they may feel a sense of mental discomfort because they identify as being a good, ruleabiding citizen, yet the ticket indicates otherwise. This may lead people to ostrich further and avoid correspondence related to this event.

We believed that the envelope design would be most effective for drivers who were most likely to avoid engaging with correspondence without an envelope like ours. For example, this envelope design may influence drivers who had clearly been caught parking illegally—97% of expensive tickets are issued to drivers who have either parked in a handicap spot without a permit or blocking the pedestrian ramp to an intersection. These types of violations are likely known to the driver, and the driver was, perhaps, taking a chance before receiving the ticket. A clear violation is likely to trigger more embarrassment or identity threat than one that could easily be justified as a mistake.

By contrast, a parking violation for illegally parking during designated routine street cleaning hours or for overstaying a meter are violations issued when a driver could have made a mistake, like failing to move their parked car in time for the meter or forgetting which side of the street has street cleaning that day. Those drivers are less likely to experience negative identity threat, since these violations are much easier to justify as a simple mistake, and in turn result in smaller fines. In addition, smaller fines are much more affordable to pay and get out of the way (smaller upfront costs), which may lead to less present bias and procrastination.



Redesigning the envelope to change behavior

To reduce drivers' tendency to avoid correspondence about their parking tickets, the NYC BDT designed a new envelope to accompany mailed reminders from the city that used a non-blaming tone to encourage drivers to open the correspondence and emphasized the costs of waiting to reduce drivers' tendency to ostrich and procrastinate.

One way the envelope design aimed to get around avoidance was to lighten the blame that a person may place on themselves for receiving a parking ticket. The idea was to prime a positive identity rather than a negative one—for example, by reframing parking illegally as a simple mistake made by many good, lawabiding citizens.

The redesigned envelope—front and back pictured below—aimed to do the following:

- ▶ Grab the recipient's attention using color and graphics, to increase the likelihood of it being opened and acted upon and to correct for the possibility of a notice being ignored altogether.
- ▶ Make salient the consequences of paying later to reduce present bias and the tendency to procrastinate.
- ▶ Prime a positive identity by using an encouraging, non-judgmental tone and framing an unpaid violation as a common mistake.





The behaviorally designed envelope was printed in color with content on both the front and back. The message printed on the front states: "We all forget things sometimes—that's why we sent you this friendly reminder!" With this phrase, we are using a non-blaming tone to frame an overdue ticket as a common mistake, rather than a judgment of negative character, which may reduce any threat it presents.

On the back of the envelope, we made salient the consequences of waiting to pay the ticket, in order to reduce present bias and a driver's tendency to procrastinate. The graphic is meant to invoke loss aversion, demonstrating the increasing amount of money that the driver will lose if they avoid paying their ticket now. Loss is emphasized using a pile of money that grows larger and larger. Below this chart, the letter emphasizes the loss that comes with waiting, stating: "The longer you wait, the more you will owe."

Lastly, the bottom of the envelope includes a line saying "Need help? Call 311 anytime." Demonstrating that DOF provides help to drivers may encourage people to act rather than avoid their unresolved debt.

Results

Overall, the behaviorally designed envelope had no significant impact on ticket resolution. Yet, when we look at the effect of the envelope for different ticket amounts, the highest ticket amounts (\$165-\$515) were, on average, 9.7 percentage points less likely to go into judgment when drivers received our redesign, compared to the standard envelope. This represents a 56% decrease in the highest-amount tickets entering judgment.

In addition, those drivers with expensive tickets who received a pre-penalty notice (30 days rather than 90 days after their tickets were issued) in our redesigned envelope were 6 percentage points less likely to go into judgment.

We looked at the effect on people with differing ticket amounts because those who receive higher ticket amounts are historically more likely to enter judgement. In addition, because the envelope emphasized increasing costs associated with waiting to pay, we hypothesized that the effect might vary across ticket amounts (grouped into quintiles).

As a result of these findings, the City scaled the behaviorally designed envelope to all drivers whose unpaid tickets prompt a 90-day notice. If these envelopes continue to reduce the likelihood of these expensive tickets entering judgment, we expect to prevent thousands of drivers from accruing unnecessary debt and, especially for low-income New Yorkers, from experiencing a serious financial burden.

¹ This result is statistically significant at the 1% level (p<0.01).