Using Behavioral Science to Improve Criminal Justice Outcomes

Preventing Failures to Appear in Court

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January 2018

Acknowledgments

About ideas42

We're a leader in our field with unique expertise and experience at the forefront of behavioral science. We use this to innovate, drive social change, and improve millions of lives. We create fresh solutions to tough issues based on behavioral insights that can be scaled up for the greatest impact. ideas42 also educates leaders and helps institutions improve existing programs and policies.

Our work spans 30 countries and encompasses consumer finance, economic mobility, education, energy and the environment, health, international development, and safety and justice. As a global nonprofit organization, our partners include governments, foundations, companies, NGOs, and many other institutions.

At its core, behavioral science helps us understand human behavior and why people make the decisions they do. It teaches us that context matters, that asking the right questions is critical, and that simple solutions are often available, but frequently overlooked or dismissed. We work to identify the subtle but important contextual details that can have a disproportionate impact on outcomes.

Visit ideas42.org and follow @ideas42 on Twitter for more.

About the University of Chicago Crime Lab

The U.S. has the highest rate of homicide among any developed nation in the world. The U.S. also has by far the highest rate of incarceration among any high-income nation, with over 2.2 million people currently incarcerated nationwide. Both of these problems disproportionately affect our most economically disadvantaged and socially marginalized communities.

Taken together, all levels of government in the U.S. spend well over $200 billion per year on the criminal justice system (including police, courts, and corrections). Yet we have made little long-term progress on these problems. The homicide rate in America today is about the same as it was in 1950, or even 1900. This stands in stark contrast to the enormous progress the U.S. has made toward reducing mortality rates from almost every other leading cause of death. One key reason we have not made more progress on these problems is a striking lack of rigorous evidence about what actually works, for whom, and why.

The University of Chicago Crime Lab and sister organization Crime Lab New York aim to change this by doing the most rigorous research possible in close collaboration with city government and non-profits. Using randomized controlled trials, insights from behavioral economics, and predictive analytics, the Crime Lab partners with government agencies and frontline practitioners to design and test promising ways to prevent violence and reduce the social harms of the criminal justice system, with the ultimate goal of helping the public sector deploy its resources more effectively (and humanely) to improve lives.

Building on the model of the Crime Lab, the University of Chicago launched Urban Labs in 2015 to help cities identify and test the policies and programs with the greatest potential to improve human lives at scale. Under the direction of leading social scientists, Urban Labs utilizes this approach across five labs that tackle urban challenges in the crime, education, energy & environment, health, and poverty domains.

Visit urbanlabs.uchicago.edu/labs/crime

Executive Summary

In 2014, nearly 41% of the approximately 320,000 cases from tickets issued to people for low-level offenses in New York City (NYC) had recipients who did not appear in court or resolve their summons by mail. This represents approximately 130,000 missed court dates for these offenses. Regardless of the offense severity (summonses are issued for offenses ranging from things like littering on the street or sidewalk to drinking in public), failure to appear in court automatically results in the issuance of an arrest warrant. Because warrants are costly and burdensome for both the criminal justice system and recipients, the NYC Mayor's Office of Criminal Justice—in partnership with the New York City Police Department and New York State Unified Court System Office of Court Administration—asked ideas42 and the University of Chicago Crime Lab to design and implement inexpensive, scalable solutions to reduce the failure to appear (FTA) rate.

We tackled this problem using a two-sided approach. First, we redesigned the NYC summons form to make the most relevant information stand out, making it easier for people to respond appropriately. In the new form, important information about one's court date and location is moved to the top, the negative consequence of failing to act is boldly displayed, and clear language encourages recipients to show up to court or plead by mail.
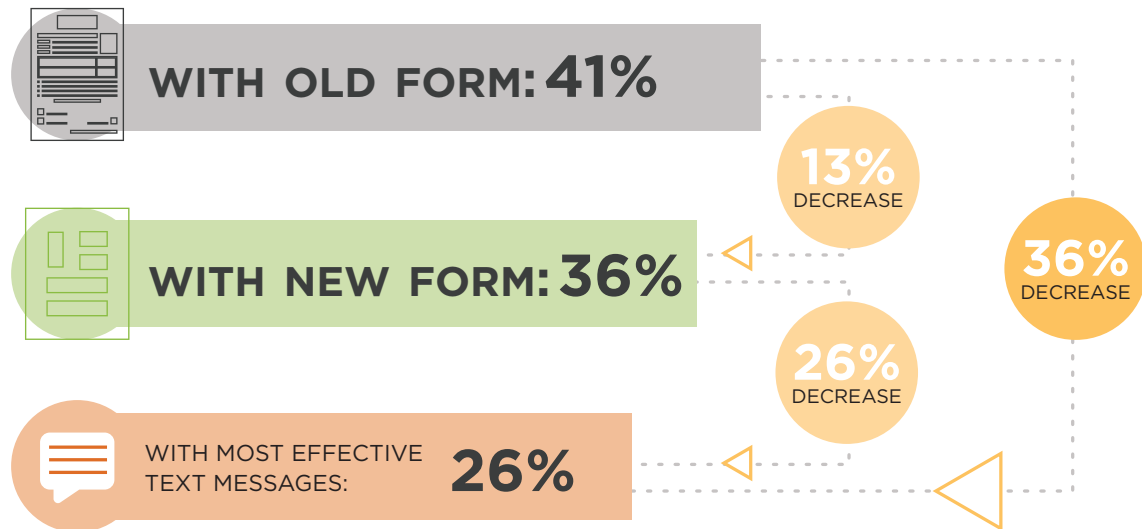
Second, we created text message reminders. We identified behavioral barriers leading many to miss their court dates: people forget, they have mistaken beliefs about how often other people skip court, they see a mismatch between minor offenses and the obligation to appear in court, and they overweigh the immediate hassles of attending court and ignore the downstream consequences. We then designed different reminders targeted at helping recipients overcome these barriers.

From March 2016 to September 2017 we implemented and evaluated our interventions, and showed that both have significant and positive effects on appearance rates. **We found that behavioral redesign of the form reduced FTA by 13%.** This form has already been scaled system-wide to all criminal court summonses, and, based on 2014 figures, translates to preventing roughly 17,000 arrest warrants per year.

Using a randomized controlled trial, **we found that the most effective reminder messaging reduced FTA by 26%** relative to receiving no messages. **Looking 30 days after the court date, the most effective messaging reduced open warrants by 32% relative to receiving no messages.** This stems from both reducing FTA on the scheduled court date as well as court appearances after the FTA to clear the resulting warrant. These results are in addition to the gains already realized from the summons form redesign. The most effective messaging combined information on the consequences of not showing up to court, what to expect at court, and plan-making elements.

Improvements in timely court appearance

FTA Rates

WITH OLD FORM: **41%**

WITH NEW FORM: **36%**

WITH MOST EFFECTIVE TEXT MESSAGES: **26%**

13% DECREASE

26% DECREASE

36% DECREASE

Estimates for summons recipients who provide a phone number

Traditionally, criminal justice policy is informed by the assumption that people make an explicit decision to offend, and so most approaches aim to make crime less worthwhile. But our interventions are built on the view that people who miss their court date do not necessarily make an active choice to skip it. Rather, they may have failed to consider the decision at all due to a number of obstacles. The results indicate that crime policies that focus on behavioral barriers can offer humane approaches to reduce negative consequences for both citizens and the criminal justice system, without resorting to the traditional lever of increasing enforcement.

Introduction

To bring about behavior change and crime prevention, policymakers within the criminal justice system have traditionally focused on deterrence. For example, longer prison sentences are often used to discourage crime by making crimes more costly for offenders.

However, these policies will only be effective if people carefully consider the costs and benefits of their actions. Yet a growing body of literature in the behavioral sciences suggests that people often do not think systematically about costs and benefits before acting. Instead, people often base their decisions on intuitive or automatic processes that falter in predictable ways. Fortunately, the predictability of these processes opens up additional levers for generating behavior change. For example, behavioral science has shown people will reduce their energy consumption if told how much energy they use relative to their neighbors[1] or that medical adherence can be boosted with simple reminders to reduce forgetting.[2] However, insights from behavioral science have yet to be methodically applied to criminal justice, where they hold promise for making the system fairer and more efficient.

To illustrate this, we focus on one problem: failures to appear in court (FTA). The criminal justice system cannot work if people fail to appear in court, which is why the system places great weight on ensuring that people attend required hearings and enforces prescribed responses if they fail to do so. Nationally, the FTA rate is approximately 21-24% for felony cases.[3] FTA rates for misdemeanor and low-level offenses are even higher: historically this rate is around 40% for summons cases in New York City (NYC), which in 2014 represented about 130,000 missed court dates. In many jurisdictions, failing to appear can result in an arrest warrant; in NYC this is the default response in accordance with state law.

To reduce FTAs, a traditional policy approach would propose stricter enforcement of warrants, based on the assumption that people skip court because they weren't deterred by existing penalties. However, a behavioral science perspective suggests many other factors could lead people to miss court. For example, they may not have paid close attention to information about their court date when they got it, they may have simply forgotten, or they may not have planned for taking time off from work in order to attend their court date. If these behavioral barriers account for some instances of FTA, then behavioral interventions may help courts reduce FTA rates without resorting to stricter enforcement.

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[1] Allcott, Hunt, and Sendhil Mullainathan. "Behavior and energy policy." Science 327, no. 5970 (2010): 1204-1205.
http://science.sciencemag.org/content/327/5970/1204

[2] Dai, Hengchen, Katherine L. Milkman, John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian. "Planning prompts as a means of increasing rates of immunization and preventive screening." Public Policy & Aging Report 22, no. 4 (2012): 16-19.
http://nber.org/aging/roybalcenter/planning_prompts.pdf

[3] Cohen, T. H. (2010). Pretrial release of felony defendants in state courts: State court processing statistics, 1990-2004.
https://www.bjs.gov/content/pub/pdf/prfdsc.pdf

This policy brief outlines the process and results of a joint project with ideas42 and the University of Chicago Crime Lab, in partnership with the New York City Mayor's Office of Criminal Justice (MOCJ), New York City Police Department (NYPD), and the New York State Unified Court System Office of Courts Administration (OCA). The project's aim was to develop and test two behavioral approaches to addressing the common issue of FTA, which plagues court systems across the country. Instead of applying traditional approaches to increase compliance with court summonses (via stiffer enforcement), we looked for opportunities to address contextual factors that were contributing to missed appearances in NYC courts.

In the following sections, we outline the extent of the FTA problem in NYC, the contextual factors we identified as contributing to the problem, and two simple, cost-effective solutions we designed and tested to address it. After presenting results of each intervention, we conclude with thoughts and recommendations for moving forward.
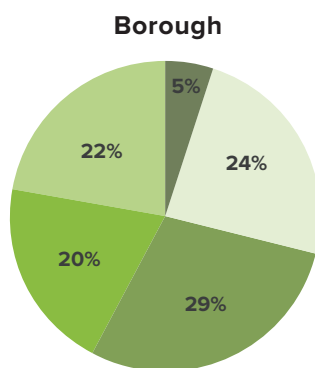
What is behavioral science?

Behavioral science is the study of how people make decisions and act within a complex and textured world where details matter. It draws from decades of research in the social sciences to create a more realistic framework for understanding people. The standard approach to predicting human behavior suggests that we consider all available information, weigh the pros and cons of each option, make the best choice, and then act on it. The behavioral approach suggests something different. We make decisions with imperfect information and do not always choose what's best for us. Seemingly small and inconsequential details undermine our intentions to act. Behavioral science has been used across a variety of fields to realign policies, programs, and products with how we really behave in order to improve outcomes.

Behavioral Reasons People Fail to Appear in Court

Court appearance tickets are issued for low-level offenses, which range from public consumption of alcohol and public urination to riding a bicycle on the sidewalk and spitting. Among summonses requiring an in-person court appearance (that were not resolved through plea by mail[4]), historically, around 40% end in FTA.
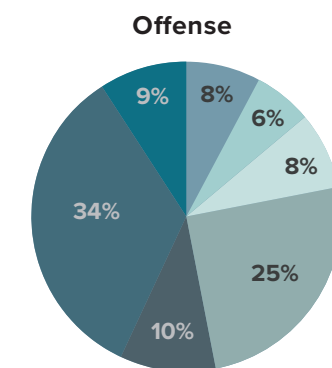
Who Receives Summonses?
Descriptive Statistics of Summons Recipients[5]

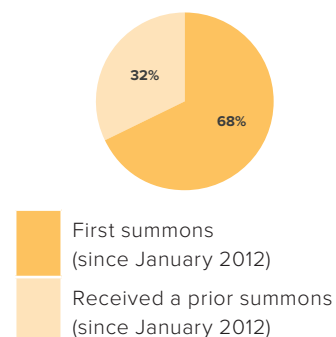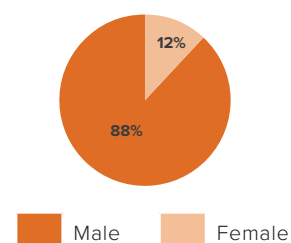*Summons recipients between January 2016 and June 2017*

Borough

- 5%
- 22%
- 24%
- 20%
- 29%

Legend:
- Bronx
- Brooklyn
- Manhattan
- Queens
- Staten Island

34 years old — *Average age of summons recipients*

Offense

- 9%
- 8%
- 6%
- 8%
- 34%
- 25%
- 10%

Legend:
- Alcohol
- Park Trespassing Violation
- Marijuana
- Disorderly Conduct
- Public Urination
- Motor Vehicle
- Other

Prior Summons Recipients

- 32%
- 68%

Legend:
- First summons (since January 2012)
- Received a prior summons (since January 2012)

Gender Breakdown

- 12%
- 88%

Legend:
- Male
- Female

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[4] The plea by mail option is available for two offenses: public consumption of alcohol and public urination.

[5] Source: New York State Unified Court System data

In NYC, hundreds of thousands of arrest warrants are currently open due to FTA, which is problematic for both civilians (who can be taken into custody upon future interaction with police officers) and for law enforcement (whose time and resources are spent taking individuals into custody who might otherwise walk away from interactions with the police). The negative consequences for recipients could include time in police custody, potential immigration issues, and disruptions to work and family life—not to mention the psychological costs of worrying about being picked up on an open warrant. Dealing with these warrants also places a burden on the police and court systems.

To uncover the psychological and contextual features contributing to FTAs, ideas42 and the Crime Lab conducted quantitative and qualitative research using our behavioral diagnosis methodology. We uncovered four main barriers contributing to FTAs.

Mental Models	First, some recipients believe that receiving a ticket for a minor offense and having to attend court for it is unfair. The crime feels misaligned with the punishment. Other recipients receiving a ticket for a minor offense did not expect a warrant to be issued for not attending court. That is, having to go to court for a seemingly minor offense (e.g., being in a park after hours) doesn't match with people's "**mental model**" of what necessitates a court appearance, much less an arrest warrant.
Present Bias	Second, the immediate financial or psychological costs of attending court, such as taking time off work or fears around what may happen at court, outweigh the (often unknown) consequences of not appearing. Many people we interviewed weren't aware that a warrant was a consequence of FTA, but even among those who were aware of the warrant, some still reported missing court because immediate costs of going loomed larger than the risk of getting arrested in the future. This focus on immediate costs over future ones, even when those future costs are objectively larger, is known as "**present bias.**"
Social Norms	Third, there is a misperception about court attendance. A majority of interviewees hold the misperception that most people do not attend their court dates, which (consciously or unconsciously) may influence their own decision to attend or not. Prior work from behavioral science shows that the perceived behavior of peers ("**social norms**") can have a strong influence on our decisions and actions.
Inattention	Fourth, the long lag time between receiving the summons and attending court leads many to forget. In NYC, the court date is typically 60 to 90 days after the ticket was issued, which is plenty of time for people to forget about their court date or the summons altogether. This forgetting can be attributed to "**inattention.**"

Behavioral Interventions to Reduce FTA

With our understanding of the contextual and psychological barriers influencing court atten-dance, we designed two simple, low-cost, scalable solutions to increase appearances.[6] Our **first** touch point was the summons form itself, which is the recipients' main source of information regarding where and when they must attend court. One reason for FTA could be that people do not take the time to carefully read the form. We redesigned it to limit the attention needed to acquire the most important information by putting the essential details near the top of the form and clearly stating the consequences of missing court.

Comparing the old and new summons forms

We made several changes to the recipient copy of the summons form. Some of the main changes of the front page of the form are described in the call out boxes on the next page.[7]

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[6] Most recently, the Mayor's Office worked with four district attorneys (Bronx, Brooklyn, Manhattan and Queens) to dismiss over 644,000 outstanding summons warrants that were over 10 years old for minor offenses like drinking alcohol in public or entering a park after hours.

[7] See idea42's website for more details on the form redesign: http://www.ideas42.org/summons

OLD

①

CRC-3206 (5/12)

Complaint/Information
The People of the State of New York vs.

Name (*Last, First, MI*)

Street Address | Apt. No.

City | State | Zip Code

ID/License Number | State | Type/Class | Expires (*mm/dd/yy*) | Sex

Date of Birth (*mm/dd/yy*) | Ht | Wt | Eyes | Hair | Plate/Reg

Reg State | Expires (*mm/dd/yy*) | Plate Type | Veh Type | Make | Year | Color

The Person Described Above is Charged as Follows:

Time 24 Hour (*hh:mm*) | Date of Offense (*mm/dd/yy*) | County

Place of Occurrence | Precinct

NYC Pink Copy

In Violation of Section | Subsection | VTL ☐ | Admin Code ☐ | Penal Law ☐ | Park Rules ☐ | Other

Title of Offense:

123456

Bronx Criminal Court - 215 E 161st Street, Bronx, NY 10451

Kings Criminal Court - 346 Broadway, New York, NY 10013

Redhook Community Justice Center - 88-94 Visitation Place, Brooklyn, NY 11231

New York Criminal Court - 346 Broadway, New York, NY 10013

Midtown Community Court - 314 W 54th Street, New York, NY 10019

Queens Criminal Court - 120-55 Queens Boulevard, Kew Gardens, NY 11415

Richmond Criminal Court - 67 Targee Street, Staten Island, NY 10304

Defendant stated in my presence (*in substance*):

I personally observed the commission of the offense charged herein. False statements made herein are punishable as a Class A Misdemeanor pursuant to section 210.45 of the Penal Law. Affirmed under penalty of law.

Complainant's Full Name Printed | Rank/Full Signature of Complainant | Date Affirmed (*mm/dd/yy*)

Agency | Tax Registry # | Command Code

The person described above is summoned to appear at NYC Criminal Court located at: | Summons Part | County

Date of Appearance (*mm/dd/yy*) | At 9:30 a.m.

②

DEFENDANT'S COPY

NEW

GLUE LINE

①

CRC-3206 (1/16)

Criminal Court Appearance Ticket

Name (*Last, First, MI*) | Date of Birth (*mm/dd/yy*)

Cell Phone Number (*where court may contact you*) | Home Phone Number (*where court may contact you*)
( ) | ( )

②

Show up to court on:

Court Appearance Date (*mm/dd/yy*): | **at: 9:30 a.m.**

Your court appearance location: ○ Other (specify) _____

○ Bronx Criminal Court | ○ Kings & New York Criminal Court | ○ Midtown Community Court | ○ Redhook Community Justice Center | ○ Queens Criminal Court | ○ Richmond Criminal Court

③

To avoid a warrant for your arrest, you must show up to court.
At court, you may plead guilty or not guilty.
Please see back for exceptions for Public Consumption of Alcohol and Public Urination offenses.

Court Locations: You must appear at the court location identified above.

Bronx Criminal Court …………………...……………….. 215 E 161st Street, Bronx, NY 10451
Kings & New York Criminal Court ……............. 1 Centre Street, 16th Floor, New York, NY 10007
Redhook Community Justice Center ……….......... 88-94 Visitation Place, Brooklyn, NY 11231
Midtown Community Court ……….................……... 314 W 54th Street, New York, NY 10019
Queens Criminal Court ……………............ 120-55 Queens Boulevard, Kew Gardens, NY 11415
Richmond Criminal Court …………………...…....... 26 Central Ave, Staten Island, NY 10301

You are Charged as Follows:

Title of Offense:

Time 24 Hour (*hh:mm*) | Date of Offense (*mm/dd/yy*) | County

Place of Occurrence | Precinct

In Violation of Section | Subsection | VTL ☐ | Admin Code ☐ | Penal Law ☐ | Park Rules ☐ | Other

For Additional Information and Questions:

Visit the website or call the number below for additional information about your court appearance and translation of this document.

www.mysummons.nyc

OR

Call 646-760-3010

4428323476

Defendant stated in my presence (*in substance*):

I personally observed the commission of the offense charged herein. False statements made herein are punishable as a Class A Misdemeanor pursuant to section 210.45 of the Penal Law. Affirmed under penalty of law.

Complainant's Full Name Printed | Rank/Full Signature of Complainant | Date Affirmed (*mm/dd/yy*)

Tax Registry # | Agency | Command Code

DEFENDANT'S COPY

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① Clear title describes the purpose and required action.

② The date, time, and location of the appearance is moved from the bottom to the top, where it is more likely to be read.

③ The consequence of missing is clearly articulated and framed to spur loss aversion, the human tendency to feel losses more severely than equivalent gains.

The **second** touch point addressed the lag time between receipt of the summons and the court date. We designed text message reminders tailored to address the bottlenecks described above. Compared to other forms of reminders, such as letters or robo-calls, text messages are inexpensive, and information is easily received and retrievable later.

We designed multiple sets of text messages to determine which messaging is most effective at reducing FTA. Some were sent before a person's scheduled court date (pre-court messages) and some were only sent if they had missed their court date (post-FTA messages). In order to test which messages were most impactful on FTA rates, recipients were randomly assigned to receive some combination of pre-court and/or post-FTA messages, or no message at all.

The pre-court message sets consist of three different texts, sent seven, three, and one day(s) before the scheduled court date. This schedule was chosen in order to prompt recipients to take preemptive action for attending court (i.e. scheduling time away from work or securing childcare) without reminding them too early, which could lead to procrastination.

Some pre-court messages emphasized the consequences of failing to appear and provided information about what to expect at court ("consequences"), while others focused on helping people develop concrete plans for appearing in court ("plan-making"). A third set combined consequences and plan-making messages. All messages helped to address inattention or forgetting the court date.

Pre-Court Messages

CONSEQUENCES MESSAGES

7 days before court	*3 days before court*	*1 day before court*
Helpful reminder: go to court Mon Jun 03 9:30AM. We'll text to help you remember. **[**Show up to avoid an arrest warrant.**]** **①** Reply STOP to end texts. www.mysummons.nyc	Remember, you have court on Mon Jun 03 at **②** 346 Broadway Manhattan. **[**Tickets could be dismissed or end in a fine (60 days to pay).**]** **[**Missing can lead to your arrest.**]** **③**	At court tomorrow at 9:30AM **[**a public defender **②** will help you through the process.**]** **[**Resolve your summons (ID#########) to avoid an arrest warrant.**]** **④**

① Makes the costs of FTA more salient to overcome present bias.

② Reduces the ambiguity and perceived costs of attending court.

③ Highlights penalties to overcome present bias and the mental model that you don't need to go to court for minor violations.

④ Repeats the consequence to keep the cost of missing court top-of mind, reinforcing that despite the mismatch between crime and punishment, you must attend to avoid a warrant.

PLAN-MAKING MESSAGES

7 days before court

Helpful reminder: go to court on Mon Jun 03 9:30AM. [Mark the date on your calendar and set an alarm on your phone.] Reply STOP to end messages. www.mysummons.nyc

1

3 days before court

You have court on Mon Jun 03 at 346 Broadway Manhattan. [What time should you leave to get there by 9:30AM? Any other arrangements to make? Write out your plan.]

2

1 day before court

You have court tomorrow for summons ID##########. [Did you look up directions to 346 Broadway Manhattan?] Know how you're getting there? Please arrive by 9:30AM.

3

1 Encourages people to set reminders to help them remember.

2 Aids people to think ahead and overcome potential barriers (or costs) to showing up to court.

3 Helps plan how to get there and makes the act of going more concrete.

COMBINATION MESSAGES

7 days before court

Helpful reminder: go to court Mon Jun 03 9:30AM. We'll text to help you remember. Show up to avoid an arrest warrant. Reply STOP to end texts. www.mysummons.nyc

3 days before court

You have court on Mon Jun 03 at 346 Broadway Manhattan. What time should you leave to get there by 9:30AM? Any other arrangements to make? Write out your plan.

1 day before court

Remember, you have court tomorrow at 9:30AM. Tickets could be dismissed or end in a fine (60 days to pay). Missing court for ########## can lead to your arrest.

These messages, combining elements from both sets above, address present bias, mental models, and plan-making as previously described.

In addition to the pre-court reminders, we developed two types of messages sent only if a person had missed the court appearance and a warrant had been issued. The first type focused on consequences, letting recipients know that a warrant was issued, but that they wouldn't be arrested if they clear it at the court. The second type relied on the power of social norms and informed recipients that most people actually had attended their court date. Again, both addressed inattention or forgetting.

Post-FTA Messages

CONSEQUENCE MESSAGE

1 [Since you missed court on Jun 03 (ID#########), a warrant was issued.] **2** [You won't be arrested for it if you clear it at 346 Broadway Manhattan.] www.mysummons.nyc

Sent when a warrant is triggered by an FTA

1 Notifies of the serious consequence that has occurred.

2 Encourages action to resolve the open warrant.

SOCIAL NORMS MESSAGE

1 [Most people show up to clear their tickets but records show you missed court for yours (ID#########).] Go to court at 346 Broadway Manhattan. www.mysummons.nyc

Sent when a warrant is triggered by an FTA

1 Provides feedback that their behavior goes against the norm.

Results

Solution 1: Summons Form Behavioral Redesign

The redesigned summons form was first introduced to replace old forms in March 2016 and universally adopted by July 2016. The rollout period culminated in a rapid adoption of the new form across NYC between June and July 2016. Once the new form was issued citywide, the old forms were revoked and collected for destruction.

In order to isolate the impact of the redesigned summons form from other contributing factors to FTA, we compared outcomes between people issued an old form and a new form using a quasi-experimental approach called a regression discontinuity design. We focused on the narrow time-window around new form adoption, comparing people who received summonses just before and just after their issuing officer switched to the new form. The intuition behind this research design is that within a few weeks of the switch, the form version a recipient received was as good as random: they happened to get whichever form the officer was using at that time. This means that any change in FTA is likely caused by the new forms.[8]

Those who happened to receive the new summons form have an FTA rate that is 13%, or 6.4 percentage points, lower than those who happened to receive the old summons form because their issuing officer had not switched yet. As the key variable between these two similar groups of summons recipients, we can determine that the new forms caused this reduction in FTA.

Solution 2: Behavioral Text Messages to Reduce FTA

We evaluated the effect of behavioral text messages using a randomized controlled trial. Anyone in NYC who was issued a summons and provided their cell phone number was eligible to receive text message reminders. Approximately 20,000 summons recipients were randomized to receive one of the pre-court or post-FTA message sets, or no messages (the "comparison group"). All effects seen here are in addition to the gains in court attendance already realized through the behavioral summons form redesign.

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[8] In fact, the characteristics of summons recipients were very similar just before and just after officers switched forms, in terms of the kinds of offenses they received summonses for, their age and gender composition, and their likelihood of having received summonses in the past. Thus, any difference in FTA rate between those who received the old and new forms would suggest that the new forms were responsible for the change.

TEXT MESSAGE SETS

PRE-COURT MESSAGES

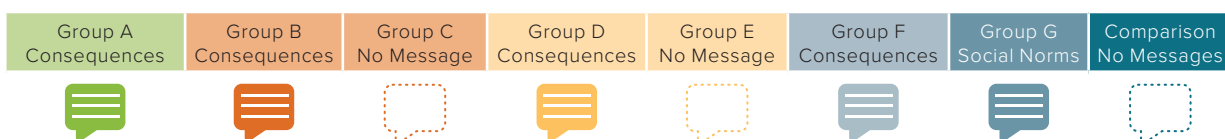| Combination Messages	Consequences Messages	Plan-making Messages	Comparison Group (No Messages)
1	1	1	
2	2	2	
3	3	3	

If FTA at initial summons court date

POST-FTA MESSAGES
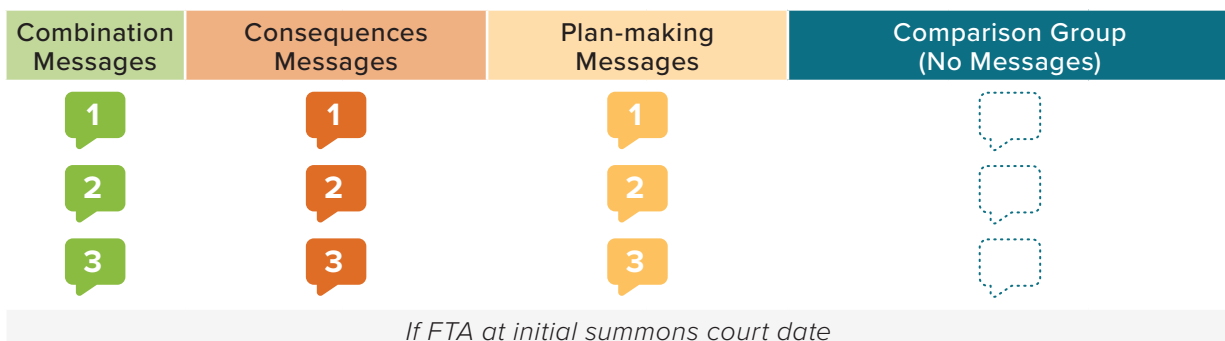
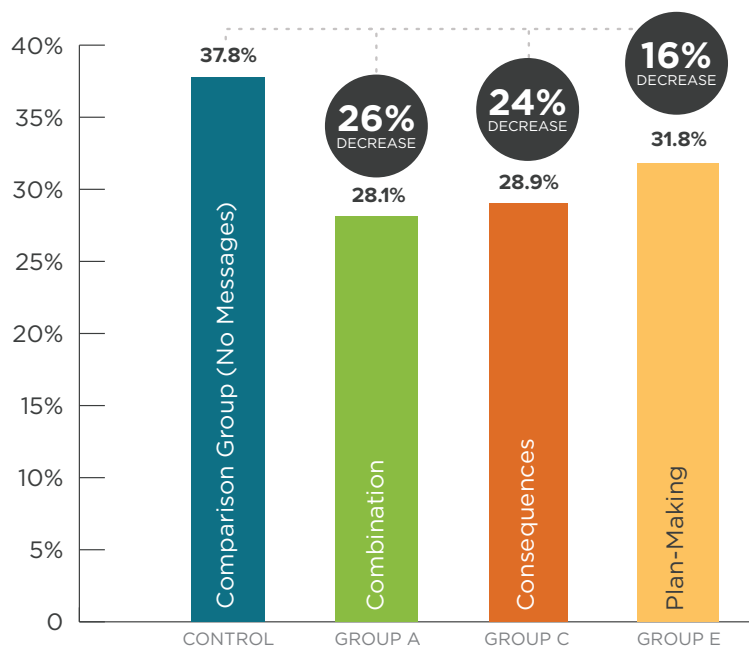| Group A Consequences	Group B Consequences	Group C No Message	Group D Consequences	Group E No Message	Group F Consequences	Group G Social Norms	Comparison No Messages

We found that receiving any pre-court message reduces FTA on the court date by 21%. **The combination messages, using elements of both the consequences and plan-making sets, were the most effective, reducing FTA by 26% (from 38% to 28%).** This 26% FTA reduction is measured on the court date, and comes after receiving the sequence of three pre-court messages.

We also looked at the impact 30 days after the court date, as some summons recipients show up to court to clear their warrants after their scheduled court date. Individuals receiving the combination messages receive a post-FTA message if they fail to appear in court on their scheduled date. Relative to receiving no text message, **we find a 32% reduction in open warrants for people who received a combination message set and a post-FTA message (from 24% to 17%).** This reflects both the change in FTA on the court date, as well as subsequent court appearances to clear warrants within 30 days of the scheduled court date.

There is also a question of whether timing of messages matters for reducing FTA—are messages more effective when they are sent before missing a court date or after? We find that post-FTA messages alone are helpful, leading to a 15% reduction in failures to return to court within 30 days, but not as helpful as pre-court messages. Among post-FTA messages, the consequences message (16% reduction) was more effective than the social norms message (14% reduction).[9]
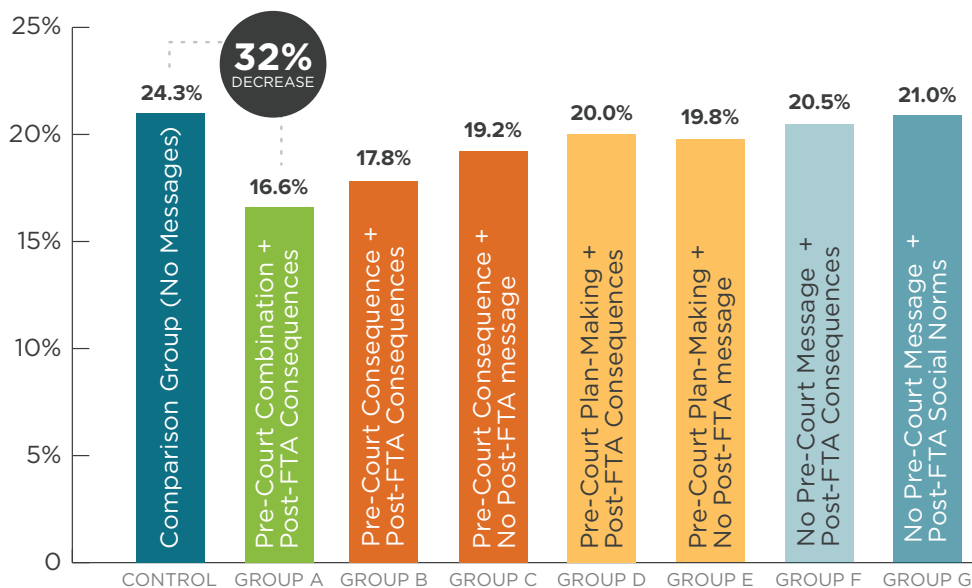
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[9] We also compared sending just the pre-court messages vs. pre-court *plus* post-FTA messages. Here, we find that for people who received pre-FTA messages the effect of receiving an additional post-FTA message is encouragingly in the right direction, but not yet statistically significant at the typical 5% level.

FTA Rate by Type of Message

37.8%	**26% DECREASE**	**24% DECREASE**	**16% DECREASE**
	28.1%	28.9%	31.8%

Comparison Group (No Messages) — CONTROL
Combination — GROUP A
Consequences — GROUP C
Plan-Making — GROUP E

*The difference in FTA rates between the comparison group
and any treatment arm is significant at the 1% level (p<0.01)*

Open Warrant Rate 30 Days After Court Dates

24.3% — Comparison Group (No Messages) — CONTROL
32% DECREASE — 16.6% — Pre-Court Combination + Post-FTA Consequences — GROUP A
17.8% — Pre-Court Consequence + Post-FTA Consequences — GROUP B
19.2% — Pre-Court Consequence + No Post-FTA message — GROUP C
20.0% — Pre-Court Plan-Making + Post-FTA Consequences — GROUP D
19.8% — Pre-Court Plan-Making + No Post-FTA message — GROUP E
20.5% — No Pre-Court Message + Post-FTA Consequences — GROUP F
21.0% — No Pre-Court Message + Post-FTA Social Norms — GROUP G

*The difference in FTA rates between the comparison group
and any treatment arm is significant at the 1% level (p<0.01)*

WARRANTS THAT COULD HAVE BEEN AVOIDED IN 2014

320,000
scheduled arraignments

41% FTA RATE

WITH OLD FORM
131,200 FTAs

WITH NEW FORM
114,100 FTAs

17,100 WARRANTS AVOIDED

WITH NO TEXTS
114,100 FTAs

WITH COMBO TEXTS
110,400 FTAs
13% PHONE COLLECTION (ACTUAL)

WITH COMBO TEXTS
99,900 FTAs
50% PHONE COLLECTION (HYPOTHETICAL)

3,700-14,300 WARRANTS AVOIDED

20,800-31,300
Total Warrants Avoided Per Year (APPROXIMATE)

Cost-Benefit Analysis

Both the redesign and text message interventions are inexpensive and scalable. Using the redesigned form has exactly the same cost as using the old form, and the only cost is incurred during a one-time change. The text messages are also inexpensive, at less than one cent ($0.0075) per message. For example, sending all 2014 summons recipients three messages would have cost less than $7,500.

By contrast, the costs of failing to appear in court are much higher. Entry into the criminal justice system—as would be the case if a person was arrested for having an FTA warrant—can have major adverse impacts on people's lives, regardless of the severity of the initial offense. Failures to appear in court also divert time and resources in both courts and policing. The benefits could be even larger if these kinds of messages also reduce FTA for more severe offenses, since this could result in a lesser use of pre-trial detention. By reducing FTA rates,[10] behavioral interventions might make it possible to allow more people to await trial outside of jail—an important goal for NYC and other U.S. jurisdictions that are concerned about the racial and social disparities of pre-trial detention. Because they are so inexpensive and easy to replicate, both interventions could easily be adapted for other locations and for other types of courts and offenses.

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[10] Prior failures to appear in court are among the strongest predictors of future missed court appearances, and similarly the most heavily weighted factors in considering pre-trial release https://www.bjs.gov/content/pub/pdf/prfdsc.pdf http://www.nycja.org/lwdcms/doc-view.php?module=reports&module_id=678&doc_name=doc

Next Steps

The interventions described here are among the first applications of behavioral science to criminal justice policy.[11] Promisingly, not only are these solutions impactful, their effects are as large or larger than some of the most successful similar behavioral interventions in other domains. We see these interventions as an encouraging first step toward incorporating insights from behavioral science into criminal justice reform.

An immediate next step is to build off of the results and continue to scale the most effective interventions to reach more people. As a measure of the potential for future growth, a recent survey found that 87% of adults nationwide own a cell phone, with ownership reaching nearly 96% in NYC.[12] While text messages are very effective, only about 13% of summons recipients in NYC currently provide a cell phone number, which represents a significant opportunity to expand reach. Enabling more recipients to get these messages would increase the potential impact of this intervention.

Another promising avenue we are exploring is "personalized reminders." The usual approach in behavioral science is to identify the intervention with the largest average effect and administer the same "nudge" to everyone. We might achieve larger gains by tailoring reminders to individuals, so that a given individual receives messages specific to the barriers that they are experiencing. For instance, busy people may be particularly responsive to plan-making messages, while first-time summons recipients may be more responsive to consequences messages.

Our findings have the potential for impact beyond low-level offenses and beyond NYC. Another aim is to scale both the redesign of other complex forms that recipients receive and text message reminders across different court systems and cities. Future work could specifically investigate the gains to behavioral enhancements at criminal courts that handle more serious misdemeanors and felonies in jurisdictions across the country.

The work we describe here represents an early success in using behavioral science to improve the criminal justice system. Because behavioral approaches to criminal justice reform have been largely overlooked, we believe that there are many "easy wins" to be had. Of course, effective nudges are not substitutes for substantial policy change, but they could be an effective complement and can be more readily implemented and scaled than broad policy changes. A concerted effort toward low-cost, incremental benefits could add up to make a significant difference both for the criminal justice system and for people's lives.

This research by ideas42 and the University of Chicago Crime Lab, in collaboration with MOCJ, NYPD, and OCA, is a promising step toward incorporating behavioral science in criminal justice. We are eager to continue efforts to better understand how novel, low-cost strategies could be used by NYC and other jurisdictions to make progress on persistent policy challenges.

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[11] Another early example is the work of Bornstein et al (2013)." http://ppc.unl.edu/wp-content/uploads/2012/08/Bornstein-et-al-Reducing-courts-failure-to-appear-rate-by-written-reminders-Psychology-Public-Policy-and-the-Law-2013.pdf

[12] https://www1.nyc.gov/assets/dca/MobileServicesStudy/Research-Brief.pdf