



Behavioural
Science
Aotearoa

Letter reminders to increase fine payments: evidence from four trials

APPLYING BEHAVIOURAL SCIENCE TO FINE
COLLECTIONS

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Executive summary

When people fail to pay a fine on time, they can face enforcement fees and court summonses. We (Behavioural Science Aotearoa) conducted four trials on Ministry of Justice (MoJ) fine-reminder letters. The trials aim to make the reminder letters more effective at prompting payment behaviour.

Using findings from behavioural science, on what works to increase payment behaviour, we altered three existing fine-reminder letters (Notice of Fine, reminder letter and deputy registrar summons to court) and tested the effects of the changes over four trials. In one trial we also tested changes to the envelope.

Trial 1: Notice of Fine

In Trial 1, we test the effects on payment behaviour from different messages in the Notice of Fine (NoF) letter. Using a randomised control trial (RCT), we sent NoFs to four groups of fine recipients; each group received a NoF containing one of these four messages:

- **Call to Action Message** (Control group): 'Please pay your fine now.'
- **Social Norm Message**: 'The vast majority of people pay their fines.'
- **Empathy Message**: 'No one likes getting a fine but dealing with them quickly is better for everyone.'
- **Planning Prompt**: 'Please leave this notice in a visible place until you have time to pay.'

We find no statistically significant differences in payment behaviours between any of the groups during the trial. Compared with the month before the trial, when MoJ was using a different NoF, the rates of payment behaviours during the trial are higher; however, we cannot robustly attribute these improvements to changes we made to the NoF.

Trial 2: Reminder letters

In Trial 2, we test the effects on payment behaviour from different wording in the reminder letter that MoJ sends to recipients with outstanding fines. Using an RCT, we sent reminder letters to four groups of fine recipients; each group received one of these four letters:

- **Existing Letter** (Control group).
- **Simplified Letter**: uses the Existing Letter, but adds a call to action, a prominent box containing payment information, colour and a payment deadline.
- **Simplified Letter + Social Norm Message**: uses the Simplified Letter but adds this message: 'The vast majority of people pay their fines. You are in the small minority that still has to pay.'
- **Simplified Letter + Fresh Start Message**: uses the Simplified Letter, but adds this message: 'So far we have treated this as a simple mistake, but if you fail to pay now we will treat it as an active choice.'

Compared with the Control group, the rate of Any Behaviour (person pays their fine in full or part, or sets an arrangement to pay) by people who receive the Simplified Letter + Social Norm Message is



7.2% higher. During the trial, this group paid \$26,517 more than the Control group during the payment window. When we include the payments we expect them to make through payment arrangements, this figure rises to up to \$132,583 more than the Control group.

MoJ sends approximately 90,000 reminder letters each year. If MoJ was to use the Simplified Letter + Social Norm Message, each year it could expect an additional \$300,000 within 28 days of sending reminder letters, plus up to \$1.7 million if people who make arrangements go on to pay in full.

Trial 3: Reminder letters and envelopes

In Trial 3, we build on the results of Trial 2. We test the effects on payment behaviour from different combinations of social norm messages and envelopes. Using an RCT, we sent reminder letters to four groups of fine recipients; each group received one of these four letter and envelope combinations:

- **General Social Norm Letter + Standard Envelope** (Control group): uses the Simplified Letter + Social Norm Message from Trial 2, with minor amendments, and this social norm message: 'The vast majority of people pay their fines. You are in the small minority that still has to pay.' The letter is contained in a standard envelope.
- **Specific Social Norm Letter + Standard Envelope**: uses the General Social Norm Letter with this more specific social norm message: 'Eight out of ten people pay their fines. You are in the small minority that still has to pay.' The letter is contained in a standard envelope.
- **General Social Norm Letter + Formal Envelope**: uses the same letter as the Control group but adds this printed message to the front of the standard envelope: '**OPEN IMMEDIATELY**'.
- **General Social Norm Letter + Informal Envelope**: uses the same letter as the Control group but adds this printed message in handwritten style to the front of the standard envelope: 'You really need to open this.'

Compared with the Control Group, there are no significant differences in the rate of Any Behaviour by any of the other groups. However, compared with the Control group, the group that receive the General Social Norm Letter + Formal Envelope has a significantly higher rate of Payment In Full (1.51 percentage points, or a 12.18% relative difference). During the trial period, people who received the formal envelope paid \$10,804 more in full payments than the Control group. We estimate that in one year MoJ would receive \$221,855 more by using the General Social Norm Letter + Formal Envelope.

Trial 4: Deputy registrar summons

In Trial 4, we test the effects on payment behaviour from different versions of the deputy registrar (DR) summons to court. The DR summons is sent to people with overdue fines; it is their last opportunity to resolve their fines before having to attend court. Using a quasi-experimental trial, we sent DR summonses to three groups of fine recipients; each group received one of these letters:

- **Previous Summons** (Control group): uses the current DR summons that has been in place for several years.
- **Simplified Letter + Social Norm Message**: uses the Previous Summons, but adds a prominent box containing payment information, colour, a payment deadline, a call to action and this social norm message: 'Most people pay their fines. You are in the small minority of people that has to appear in Court.'



- **Simplified Letter + Visualisation:** uses the Simplified Letter and a diagram that explains where the person is in the fine process.

This trial is not randomised. Instead, we sent the two versions of the Simplified Letter over separate periods and compare rates of payment behaviour from these letters with those achieved by the Previous Summons before the trial.

People who receive the Simplified Letter + Visualisation are significantly more likely to pay, or set up an arrangement to pay, their fine than those in the other two groups. This letter increases payment behaviour by 11 to 17%.

If MoJ was to use the Simplified Letter + Visualisation for one year, we estimate it would lead to \$600,000 to \$960,000 more in payments during the 28-day payment window. This excludes payments that are made through arrangements, so the real financial impact could be much bigger. In one year, it would also mean 6,700 to 10,200 more people would take an action to resolve their fine that prevents MoJ from taking further enforcement actions.



Introduction — behavioural insights in the justice sector

Almost everything in the justice sector involves people making decisions, whether it is supporting police to submit documents to courts, helping people stick to their bail conditions or reducing offending in the first place.

We often expect people to respond to laws, incentives or information in certain ways, without considering every factor that could influence their response. These factors include rules, social norms (what other people do) and cultural practices, as well as how information is presented. Making small changes can sometimes have a big effect. For example, simplifying documents, using checklists or sending text-message reminders can all have positive effects on how people behave.

A behavioural-insights approach involves applying realistic models of human behaviour to policies and interventions. It combines empirical evidence from social sciences (such as social psychology, behavioural economics, and anthropology) with human-centred design. In practice, behavioural insights often involve making small changes to existing processes. This is known as 'nudging'.

Using behavioural science to increase payments

There is some international evidence that applying behavioural science to letters, envelopes and text messages can increase payment of fines and taxes.

Letters

A trial in Australia finds that changing a letter by simplifying language, using a call to action, and including a callout box with payment options increases fine payments from 14.6% to 17.8% and decreases the number of people that lose their driver's licenses by 8,800 in one year¹.

Another study in the UK aimed to increase payment of speeding fines by using a flyer with a picture of flowers at the roadside and an explanation of why speeding limits are important. The study finds the flyer increases the rate of payments. It also decreases the rate of reoffending — people who receive the flyer are less likely to speed again in the following six months.²

Evidence shows that simplifying letters plays an important role in prompting behaviour.³ The Behavioural Insights Team (BIT) and the UK tax authority find that people are more likely to declare their income tax when the letter they receive includes a link that takes them directly to the form, rather than when the link takes them to the website from where they click to go to the form. Removing one mouse click increases the rate of income-tax declaration from 19.2% to 23.4%.⁴

¹ Behavioural Insights Unit New South Wales. Retrieved from: <https://www.nsw.gov.au/behavioural-insights-unit/blog/improving-domestic-violence-court-attendance>

² Behavioural Insights Team. (2017). *The Behavioural Insights Team: Update Report 2016–17*. Retrieved from: <https://www.behaviouralinsights.co.uk/publications/the-behavioural-insights-team-update-report-2016-17/>

³ Service, O., Hallsworth, M., Halpern, D., Algate, F., Gallagher, R., Nguyen, S., Ruda, S., Sanders, M., Pelenu, M., Gyani, A., Harper, H., Reinhard, J., & Kirkman, E. (n.d.). *EAST: Four Simple Ways to Apply Behavioural Insights*. The Behavioural Insights Team. Retrieved from: https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf

⁴ Ibid.



One way to simplify a letter is to include diagrams and other visual elements, which people find easier to process. In 2018, a trial of council-tax reminder letters trial used a four-step diagram to show people where they were in the enforcement process, to help them understand potential enforcement actions. The trial finds the visual letter increases council-tax payments by 6.87 percentage points compared with a control letter. However, the visual letter performs less well than a social norm letter, which increases payments by 12.72 percentage points compared with a control letter.⁵

BIT experiments on tax letters show that adding one sentence that emphasises a social norm can increase tax payments. For example, a social norm statement can point out that most people are compliant: 'Nine out of ten people in the UK pay their tax on time.' BIT finds that the more specific the social norm statement, and the smaller the relevant reference group, the bigger the impact tends to be. This message has the biggest impact on payment rates: 'The great majority of people in your local area pay their tax on time. Most people with a debt like yours have paid it by now.'⁶ This finding has been replicated in several trials and shown to improve compliance with tax^{7, 8} and fines.⁹

Social norms are effective only if the more people comply with a behaviour than people expect it to be. For example, a study in Guatemala sent a letter reminding people to pay their tax¹⁰. The study tested a message that referred to 64.5% of taxpayers who had already paid the tax. While 64.5% may seem a low rate of payment in New Zealand, it is much higher than Guatemalans would expect it to be. The study found that including this message increases the rate of payment and the average amount of tax paid.

However, this trial used another message that was even more effective. It stated: 'Previously we have considered your failure to declare an oversight. However, if you don't declare now, we will consider it an active choice.' Adding this sentence to the reminder letter results in USD 15.22 more per letter compared with a control letter; or USD 6.15 more compared with the social norm letter.¹¹ The most successful letter builds on the 'fresh start effect', which describes how people are more like to start behaving virtuously (such as going to the gym regularly) at the beginning of a time-based landmark such as New Year, a birthday or moving to a new house. Emphasising something as a new opportunity can nudge people to change their existing behaviour, especially when their existing behaviour does not align with their beliefs.^{12, 13}

⁵ Larkin, C., Sanders, M., Andresen, I., & Algate, F. (2018). Testing local descriptive norms and salience of enforcement action: a field experiment to increase tax collection. *Journal of Behavioural Public Administration*, 2(1), 1–11. <http://dx.doi.org/10.2139/ssrn.3167575>

⁶ Hallsworth, M., List, J. A., Metcalfe, R. D., & Vlaev, I. (2014). The behavioralist as tax collector: using natural field experiments to enhance tax compliance. *NBER Working Paper Series*, 200007. National Bureau of Economic Research. Retrieved from: https://www.nber.org/system/files/working_papers/w20007/w20007.pdf

⁷ Hallsworth, M., List, J., Metcalfe, R., & Vlaev, I. (2017). The behavioralist as tax collector: using natural field experiments to enhance tax compliance. *Journal of Public Economics*, 148(C), 14–31. <https://doi.org/10.1016/j.jpubeco.2017.02.003>

⁸ Larkin et al, 2018. Op. cit.

⁹ The Behavioural Insights Team. (2016, 4 March). *How Can a Letter Encourage Us to Pay Our Parking Fines?* [blog]. Retrieved from: <https://www.behaviouralinsights.co.uk/north-america/how-can-a-letter-encourage-us-to-pay-our-parking-fines/>

¹⁰ Kettle, S., Oré, M. A. H., Ruda, S., & Sanders, M. (2017). Promoting Tax Compliance in Guatemala Using Behavioral Economics: Evidence from Two Randomized Trials. Behavioral Insights for Development: Cases from Central America.

¹¹ Behavioural Insights Team. (2015). *The Behavioural Insights Team: Update Report 2013–15*. Retrieved from: <http://www.behaviouralinsights.co.uk/publications/the-behavioural-insights-team-update-report-2013-2015/>

¹² Dai, H., Milkman, K. L., & Riis, J. (2014). The fresh start effect: temporal landmarks motivate aspirational behavior. *Management Science*, 60(10), 2563–2582. <https://doi.org/10.1287/mnsc.2014.1901>

¹³ Dai, H., Milkman, K. L., & Riis, J. (2015). Put your imperfections behind you: temporal landmarks spur goal initiation when they signal new beginnings. *Psychological science*, 26(12), 1927–1936. <https://dx.doi.org/10.1177/0956797615605818>



Envelopes

In a UK trial, HM Revenue & Customs tested the effect that a message on an envelope has on response rates. It sent a standard brown envelope, with no personal message, to a control group; and a white envelope, with a personal handwritten message, to a treatment group. The treatment group's response rate was 26%, which is significantly higher than the control group's response (21.8%).¹⁴ The Irish Revenue experimented with attaching handwritten Post-it Notes on envelopes asking people to respond to a survey. The trial finds this method of increasing the salience of the request is very effective.¹⁵

Two US trials aimed to increase payments of sewer bills. The first trial changed the language in the letter and added a 'Pay Now' stamp to the letter. These changes increased payments by 3.4 percentage points. The second follow-up trial added personalised handwritten notes (such as 'John, you really need to read this') to the envelopes containing overdue bills, which led to payment rates more than doubling, from 25% to 59%. This method is more time consuming than printed messages, but it took five people only two hours to write the note on 1,500 envelopes.¹⁶ These types of additions work primarily because they make the message more salient and clarify the desired action. Using handwritten messages also incorporates an element of reciprocity.

Text messages

A trial in the UK by BIT finds text-message reminders significantly increase the amount of unpaid fines that people pay off within a week of receiving a reminder.¹⁷ That trial compares the average amounts paid by people who receive five different messages: a standard text message (this message does not include their name or the amount they owe); a text message that includes their name; a text message that specifies the amount they owe; a combined text message (this message includes their name and the amount they owe); and no text message (Control group). The results show that, overall, people who receive a text message pay more than those who do not; and including a person's name in the text-message reminder is the most effective element.

Collecting fines in New Zealand

The Ministry of Justice (MoJ) is responsible for collecting fines owed by New Zealanders or arranging for their fines to be collected. These fines can be overdue infringement fees from other prosecuting authorities (such as parking tickets issued by local councils), or fines imposed by a judge or Justice of the Peace.

When MoJ receives authority to collect a fine, it sends a system-generated Notice of Fine (NoF) to the recipient in the mail. The NoF instructs the recipient to pay the fine by phone or online. If the recipient fails to pay, or set up an arrangement to pay, the fine, MoJ attempts to contact them again by phone, text message or letter.

¹⁴ Service et al, n.d. Op. cit.

¹⁵ Revenue: Irish Tax and Customs (2013). Survey of small and medium sized business customers 2013. Retrieved from <https://iqees.gov.ie/wp-content/uploads/2014/01/Revenue-SME-Survey-FINAL.pdf>

¹⁶ The Behavioural Insights Team. (2016, 3 May). How Can a Letter Increase Sewer Bill Payments? [blog]. Retrieved from: <https://www.bi.team/blogs/how-can-a-letter-increase-sewer-bill-payments/>

¹⁷ Haynes, L. C., Green, D. P., Gallagher, R., John, P., & Torgerson, D. J. (2013). Collection of delinquent fines: an adaptive randomized trial to assess the effectiveness of alternative text messages. *Journal of Policy Analysis and Management*, 32(4), 718–730. <https://doi.org/10.1002/pam.21717>



Attitudes to fines in New Zealand

When attempting to prompt people's behaviour, it is important to understand how they feel about the behaviour they are being asked to perform. The *Public Perceptions of Crime 2016 — Survey Report*³⁴ provides relevant, but conflicting, insights on New Zealanders' views about fines:

- Only 34% of people agree that 'fines are an appropriate way to hold people to account for their actions'¹⁸, while 19% disagree and 27% neither agree nor disagree. People who have had some contact with the criminal-justice system in the past two years are significantly more likely to disagree with this statement.
- More than half (56%) agree that 'offenders often get away without paying court fines'²⁰. This suggests that people perceive others do not pay their fines. Interestingly, in 2014 more people (62%) agreed with this statement, which could indicate people are becoming increasingly confident that fines are being enforced.

The perception that others do not pay their fines suggests that social norm messaging, which states that others do pay their fines, may be an effective way to increase payment rates.

¹⁸ Found on page 8

¹⁹ Binnie, I. (2016). *Public Perceptions of Crime 2016 — Survey Report*. Colmar Brunton: New Zealand. Retrieved from: <https://www.justice.govt.nz/assets/Documents/Publications/20161130-Final-PPS-report.pdf>

²⁰ Found on page 8



Intervention — what we did

We (Behavioural Science Aotearoa) conducted four trials of fine payments between 2018 and 2019:

- Trial 1: Notice of Fine
- Trial 2: Reminder letters
- Trial 3: Reminder letters and envelopes
- Trial 4: Deputy registrar summons

Outcome measures

The trials use administrative data, which is collated and monitored at MoJ. For each fine recipient, the data includes the type and amount of their fine, and the date their fine was issued. We used this data to identify four behaviours (outcomes) to measure. Due to differences in the context and data availability for each trial, the conditions for meeting each outcome vary between the trials (see Table 1).

Table 1. Description of behaviours

Outcome	Trial 1	Trial 2	Trial 3	Trial 4
Any Behaviour	Primary outcome measure Makes payment of any amount, has any amount remitted, or sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the letter being generated	Primary outcome measure Makes payment of any amount, or sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the final letter being generated [^]	Primary outcome measure Makes payment of any amount, has any amount remitted, or sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the final letter being generated [^]	Primary outcome measure Makes payment of any amount, or sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the final letter being sent ^{**}
Any Payment	Secondary outcome measure Makes payment of any amount greater than \$0 (including payments made through an arrangement to pay) within 28 days of the letter being generated	Not used in this trial	Not used in this trial	Secondary outcome measure Makes payment of any amount greater than \$0 (including payments made through an arrangement to pay) within 28 days of the letter being sent ^{**}
Payment In Full	Not used in this trial	Secondary outcome measure Makes exact payment in the NoF, or more, within 28 days of the final	Secondary outcome measure Makes exact payment outstanding, or more, within 28 days	Not used in this trial (amount owed was not available)



		letter being generated [^]	of the final letter being generated [^]	
Any Arrangement	Secondary outcome measure	Secondary outcome measure	Secondary outcome measure	Secondary outcome measure
	Sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the letter being generated	Sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the final letter being generated ^{^*}	Sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the final letter being generated ^{^*}	Sets up an arrangement to pay the fine (even if no money is transferred as part of the arrangement) within 28 days of the letter being sent ^{**}

[^] Letter designs include a 10-day payment deadline, but we counted behaviour if it happened within 28 days of the final letters being generated

* People who make an arrangement to pay and then pay their exact fine amount, or more, within 28 days of the final NoF being generated are excluded from Any Arrangement and included in Payment In Full.

** Letter designs include a 5-day payment deadline, but we counted behaviour if it happened within 28 days of the final letters being generated

Trial 1: Notice of Fine

In Trial 1, we tested the effect of changes to the NoF. The NoF is the first letter a person receives from MoJ if they have received a court-imposed fine or have an unpaid fine that another government agency has transferred to MoJ.

The NoF was due to be updated in June 2019, due to legislative requirements. This provided an opportune time for us to measure changes to the updated NoF, although it does mean we did not use the previous NoF as a control.

To meet legislative requirements, a NoF must warn fine recipients of the specific enforcement outcomes they may face if they do not pay their fines. While the previous NoF included enforcement outcomes, we simplified these so the outcomes were easier to understand. The updates to the NoF also include removing payment slip. This change was introduced as Westpac planned to reduce the processing of remittance cheques by 2020. We also made these small edits to improve the wording of the NoF.

- We added the recipient's PPN (personal identifier). When calling Collections, people need their PPN to make a payment.
- We added a 'call to action' to the top of the NoF, to grab the recipient's attention and encourage them to read the letter.
- We changed 'Pay your fine or pay the price' to 'It is important that you contact us. If you don't pay or arrange payment the Court can [list of consequences]:...' We hope this change will not only clarify the consequences of not paying the fine, but also encourage people to contact MoJ even if they cannot pay.
- We simplified the explanation about the consequences of not paying the fine.



- We changed 'Got a question?' to 'Got a question or struggling to pay?' and altered the text in that box to emphasise that staff are there to help and payments can be paid in instalments. This information was previously on the back of the NoF but we moved it to the front.
- We made minor edits to the back of the letter, to clarify and simplify the wording.

These edits apply to all the letters we used in Trial 1, although we varied the behaviourally informed sentence in the different 'treatments' in Trial 1. See Figure 1 for an illustration of the changes we made to the NoF.

Figure 1. Previous Notice of Fine letter, and improvements we made in 2019

NOTICE OF COURT FINE
Issued under Summary Proceedings Act 1957

Amount due
\$180.00

Please pay by
05 October 2017

WARNING – WE ADD \$102.00 IF WE TAKE ENFORCEMENT ACTION

Issued on 08 September 2017 by the Hamilton District Court

Fine details

Your Offence is:
Veh Brch A1s (Yellow)
On: Tuesday 30 May 2017 at:
16:53
At: Anglesea Street/Hamilton
Central
Vehicle Make: MERCED
Vehicle Reg: [REDACTED]
Prosecuting Authority:
New Zealand Police
CRN: [REDACTED]

Reparation	\$0.00
Fine	\$150.00
Offender levy	\$0.00
Court costs	\$30.00
Other costs	\$0.00
Total	\$180.00

Ways to pay

- Go to www.fines.govt.nz and pay by credit card
- Internet banking – select Payee: Ministry of Justice – Fines
- Call 0800 4 FINES to pay by credit card or to discuss paying your fine off over time
- Post the payment slip below
- Pay at your local PostShop, Westpac Bank or District Court (take payment slip below)

Please use PPN 166023141 as reference when you make payment.

Got a question?
Call **0800 4 FINES** (0800 434 637).
Further information is also provided over the page.

PAY YOUR FINE OR PAY THE PRICE
If you do not pay by the due date the court will take enforcement action to recover your fine and may:

- make compulsory deductions from your income or bank account
- seize and sell your property
- stop you from travelling overseas
- issue a warrant for your arrest
- report your overdue fine as part of your credit reference check
- suspend your driver's licence.

Payment slip

Amount due: \$180.00
Please pay by: 05 October 2017

Make cheque payable to: Ministry of Justice Fines
 Please write PPN 166023141 on the back of your cheque
 Post your cheque and slip to Freepost 3535, Courts Processing Centre, PO Box 3535, Wellington, 6140

DCTAC1540537140200018000

30 70: 0 19000000000: 5 40537 140: 00000 18000

Message design

We tested effects on the rate of payment behaviour by comparing three treatment groups against one Control group.



Control group: Call to Action Message

For the Control group, we used a simple call to action in the NoF: 'Please pay your fine now' (see Figure 2) This version aims to provide clarity, so recipients understand what to do, even if they do not read the NoF, and are less likely to procrastinate.

Figure 2. Call to Action Message (Control group)

PPN [REDACTED] 5523
Issued on 01 June 2019 by the Te Kuiti District Court

Please pay your fine now

Why have you received a fine?		Ways to pay	
Your offence is: Exceeded 100km/H Posted Speed Limit On: Saturday 02 March 2019		Reparation	\$0.00
		Fine	\$80.00
		<ul style="list-style-type: none"> Call 0800 434 637 (0800 4 FINES) Go to www.fines.govt.nz and pay by credit card 	

Treatment Group 1: Social Norm Message

For Treatment Group 1, we introduced a social norm to the NoF: 'The vast majority of people pay their fines' (see Figure 3). Social norms highlight correct behaviour performed by a majority of people, which often leads more people to conform to the norm.

Figure 3. Social Norm Message (Treatment Group 1)

PPN [REDACTED] 1031
Issued on 01 June 2019 by the Rotorua District Court

The vast majority of people pay their fines

Why have you received a fine?		Ways to pay	
Your offence is: Exceeded 100km/H Posted Speed Limit On: Friday 01 March 2019 at:		Reparation	\$0.00
		Fine	\$80.00
		<ul style="list-style-type: none"> Call 0800 434 637 (0800 4 FINES) Go to www.fines.govt.nz and pay by credit card 	

Treatment Group 2: Empathy Message

For Treatment Group 2, we included a sentence empathising with the recipient: 'No one likes getting a fine but dealing with them quickly is better for everyone' (see Figure 4). The empathetic approach acknowledges that receiving a fine is an unpleasant experience, but aims to decrease procrastination by highlighting that it is better to deal with the experience straightaway.

Figure 4. Empathy Message (Treatment Group 2)

PPN [REDACTED] 06561
Issued on 01 June 2019 by the Tokoroa District Court

No one likes getting a fine but dealing with them quickly is better for everyone

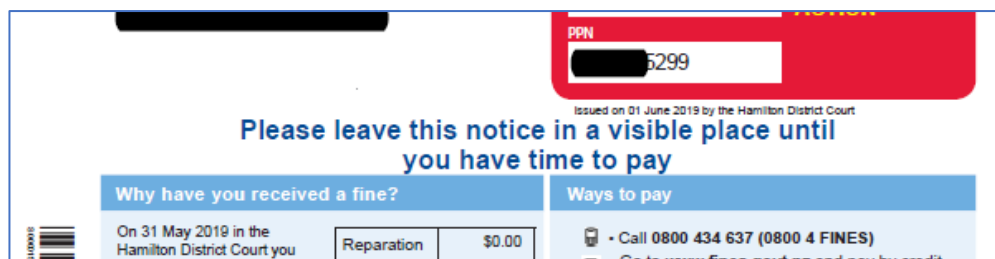
Why have you received a fine?		Ways to pay	
Your offence is: L/Lic Unaccompd On: Friday 01 March 2019 at:		Reparation	\$0.00
		Fine	\$100.00
		<ul style="list-style-type: none"> Call 0800 434 637 (0800 4 FINES) Go to www.fines.govt.nz and pay by credit card 	



Treatment Group 3: Planning Prompt

For Treatment Group 3, we included a sentence to prompt the recipient to plan to pay the fine: 'Please leave this notice in a visible place until you have time to pay' (see Figure 5). A planning prompt assumes that, initially, many recipients will procrastinate about paying their fine and eventually forget about it. Encouraging them to take a small action now (leave the notice somewhere visible) may increase the likelihood that they will subsequently complete the payment behaviour.

Figure 5. Planning Prompt (Treatment Group 3)



Trial design

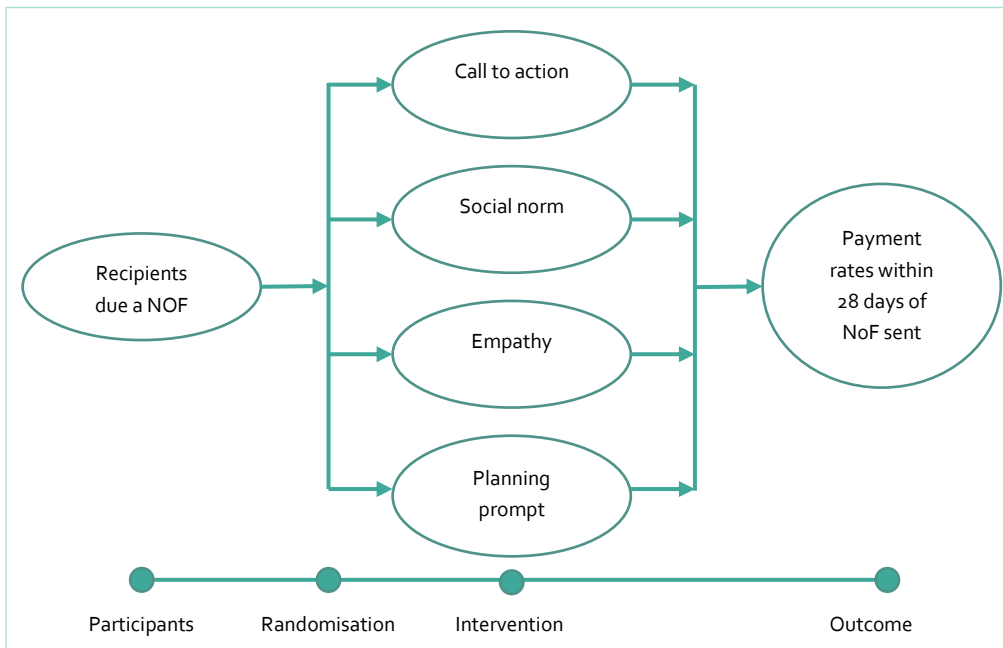
In June 2019, we used a randomised control trial (RCT) and sent 76,780 fine recipients one of the four versions of the NoF (see Figure 6). Due to the letter-sending system, we were not able to fully randomly allocate people to receive one of the four versions. Instead we used the last two digits of the PPN to assign which version of the letter the person would receive. A PPN is assigned when a person receives their first fine and is then used for each subsequent fine. PPNs are allocated sequentially, meaning smaller PPNs (e.g. starting with 14) are older than larger PPNs (starting with 16). However, we find no evidence of differences in observable characteristics by PPN. We used the following allocation, with PPNs ending on:

- 01 - 25: Call to action
- 26 - 50: Social norm
- 51-75: Empathy
- 76 - 00: Planning prompt

By using the PPN to allocate people to a condition, we randomised at an individual basis rather than at a fine basis. This means that if the person received multiple NOFs in the trial period, they always received the same letter version.



Figure 6. Trial 1 design



Results — what we found

Comparing the four groups, there are no statistically significant differences in the rates of Any Behaviour (see Figure 7) or the rates of Any Arrangement or Any Payment (see Figure 8). This means that the sentences we added to the NoF do not affect the likelihood that fine recipients will pay their fine or set up an arrangement to pay.

Figure 7. Effect of different NoF letters on Any Behaviour within 28 days

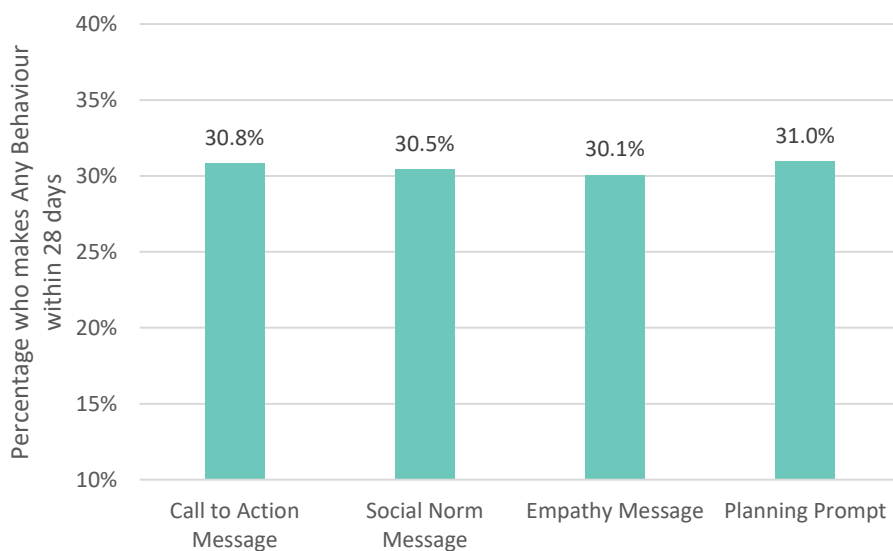
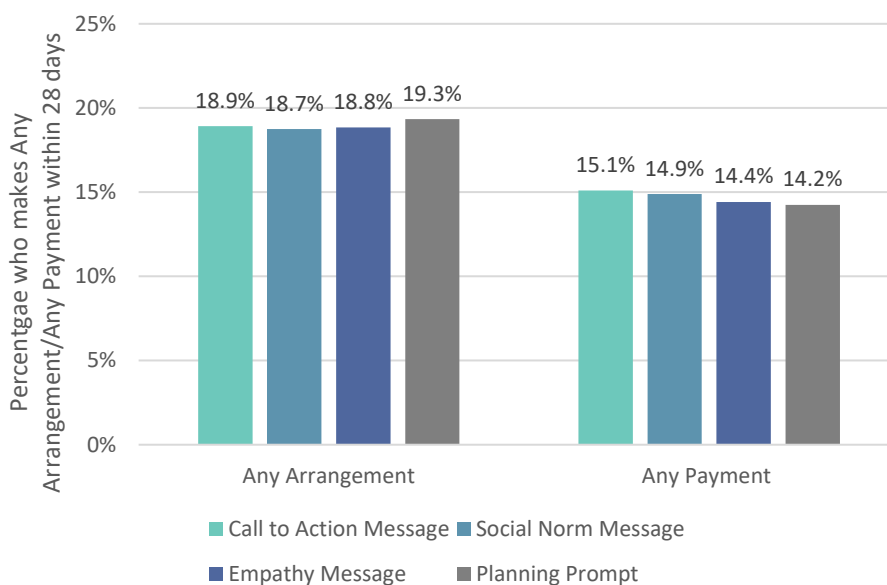


Figure 8. Effect of different NoF letters on Any Arrangement and Any Payment within 28 days



There is no statistically significant difference between the rate of Any Behaviour in May 2019 (before the trial) and June 2019 (during the trial) (30.2% in May compared with 30.6% in June, $p=0.0974$). However, compared with May 2019, a higher proportion of NoFs sent in June 2019 resulted in Any Payment. This is a small, but significant, increase (13.9% in May compared with 14.7% in June, $p<0.0001$) but it is difficult to know whether this is due to the updated letters or other factors. Although Any Payment increased, there is no statistically significant difference in the arrangements made or amounts remitted in June 2019 compared with May 2019.

Trial 2: Reminder letters

In Trial 2 we tested the effect of changes to the current letter that MoJ uses to remind fine recipients about an outstanding fine.

Letter design

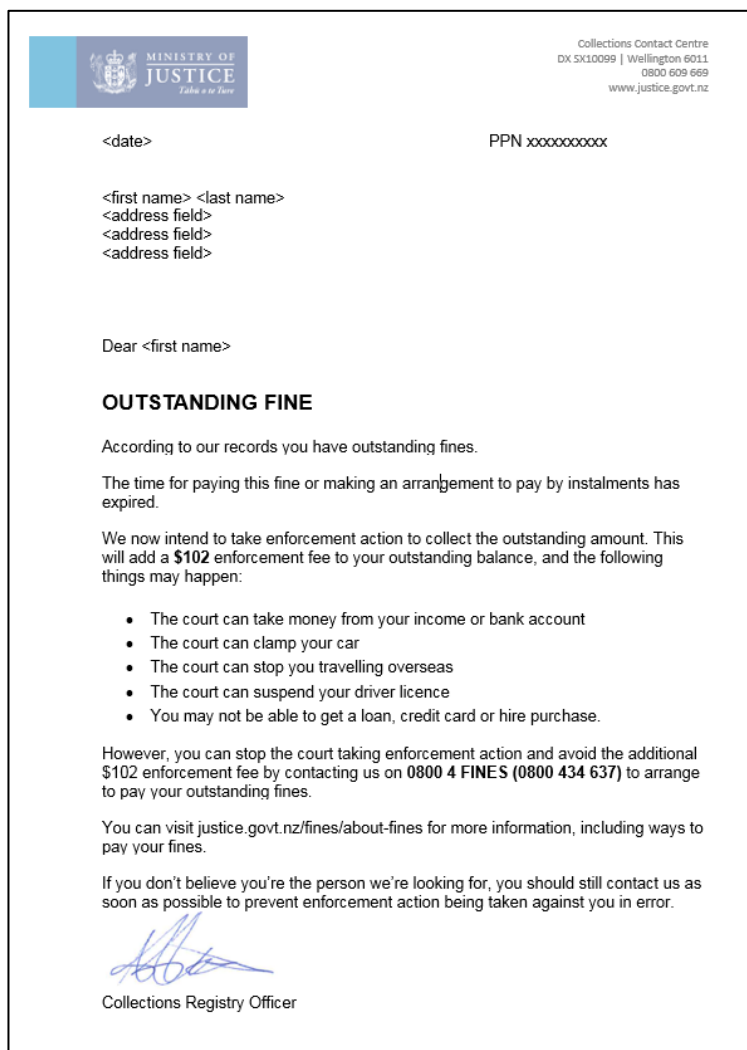
We tested effects on the rate of payment behaviour by comparing three treatment groups against one Control group.

Control group: Existing Letter

For the Control group, we used MoJ's current letter. This letter is easy to understand and has a clear subject, 'OUTSTANDING FINE' (see Figure 9).



Figure 9. Current letter reminding fine recipients about an outstanding fine (Control group)



Treatment Group 1: Simplified Letter

For Treatment Group 2, we designed a letter that differed from the Existing Letter in these ways (see Figure 10):


- **Includes call to action:** The Simplified Letter replaces 'OUTSTANDING FINE' with this call to action: 'Pay your outstanding fine now to prevent further actions.'
- **Makes payment easier:** The Simplified Letter includes a box in the top-right corner that contains all the information the recipient needs to pay their fine; it includes the amount they owe.
- **Makes key information salient:** The Simplified Letter draws attention to the call to action and payment box by using red.
- **Framing:** Our choices are influenced by the way they are framed, through different wording. The Simplified Letter replaces, 'The time for paying this fine or making an arrangement has expired,' with, '...you have missed the deadline to pay...'. It also replaces, 'We now intend to take enforcement action,' with, 'If you do not pay we can take further action...'. The Existing Letter may give people the impression that it is too late to fix the problem, which may cause



them to quickly disengage from the letter. The Simplified Letter retains the consequential tone of the Existing Letter.

- **Includes a deadline:** The Simplified Letter includes a deadline of 10 days to pay the fine. Giving people a strict deadline can prevent them from procrastinating and forgetting to pay.
- **Removes a perceived barrier and has a positive tone:** The Simplified Letter includes: 'If you have trouble paying, please call us. Our staff are here to help.' (Recipients have the option to set up a payment arrangement when they call the contact centre.) This is intended to remove from people's minds the barrier of not being able to pay right now and end the letter on a positive note.

The Simplified Letter makes these general improvements to the Existing Letter but does not apply any specific behavioural insights. This enables us to examine the effects of the behavioural insights used in Treatment Groups 2 and 3 separately to the general improvements.



MINISTRY OF JUSTICE
Tāke o te Ture

Collections Contact Centre
DX SX10099 | Wellington 6011
0800 609 669
www.justice.govt.nz

<date>

<first name> <last name>
<address field>
<address field>
<address field>

Ways to pay:
Call us: 0800 434 637 (0800 4 FINES)
Pay online: justice.govt.nz/fines

Payment details:
PPN xxxxxxxxxx
Amount due: \$<amount>

Pay your outstanding fine now to prevent further actions

Dear <first name>


According to our records you have missed the deadline to pay your \$<amount> fine.

Please pay within **10 days**. If you do not pay we can take further actions to collect the outstanding amount. This would add a \$102 fee to your fine and the following things can happen:

- Suspend your driver license or clamp your car
- Stop you travelling overseas
- Take money from your income or bank account
- You may not be able to get a loan, credit card or hire purchase.

If you are not the person we are looking for, please call us as soon as possible to prevent the above actions being taken against you in error.

If you have trouble paying, please call us. Our staff are here to help.



Collections Registry Officer

Treatment Group 2: Simplified Letter + Social Norm Message

For Treatment Group 2, we used the Simplified Letter plus this Social Norm Message: 'The vast majority of people pay their fines. You are in the small minority that still has to pay,' (see Figure 11). This is a descriptive norm that points out how most people behave. It is based on MoJ data that shows 78% of people pay their court-imposed and infringement fines within four months.



Figure 11. Social Norm Message (Treatment Group 2)

Dear <first name>

According to our records you have missed the deadline to pay your \$<amount> fine.

The vast majority of people pay their fines. You are in the small minority that still has to pay.

Please pay within **10 days**. If you do not pay we can take further actions to collect the outstanding amount. This would add a \$102 fee to your fine and the following things can happen:

Treatment Group 3: Simplified Letter + Fresh Start Message

For Treatment Group 3, we used the Simplified Letter plus this Fresh Start Message: 'So far we have treated this as a simple mistake, but if you fail to pay now we will treat it as an active choice,' (see Figure 12).

Figure 12. Fresh Start Message (Treatment Group 3)

Dear <first name>

According to our records you have missed the deadline to pay your \$<amount> fine.

So far we have treated this as a simple mistake, but if you fail to pay now we will treat it as an active choice.

Please pay within **10 days**. If you do not pay we can take further actions to collect the outstanding amount. This would add a \$102 fee to your fine and the following things can happen:

Trial design

The sample for Trial 2 is people with an overdue fine or an arrangement to pay that had been breached for more than one month. None of the participants had had any enforcement action taken against them, and all had a valid address. Some participants had multiple current addresses assigned, in which case we sent the reminder letter to each address. We included participants with an international address, but they make up less than 1% of the total sample.

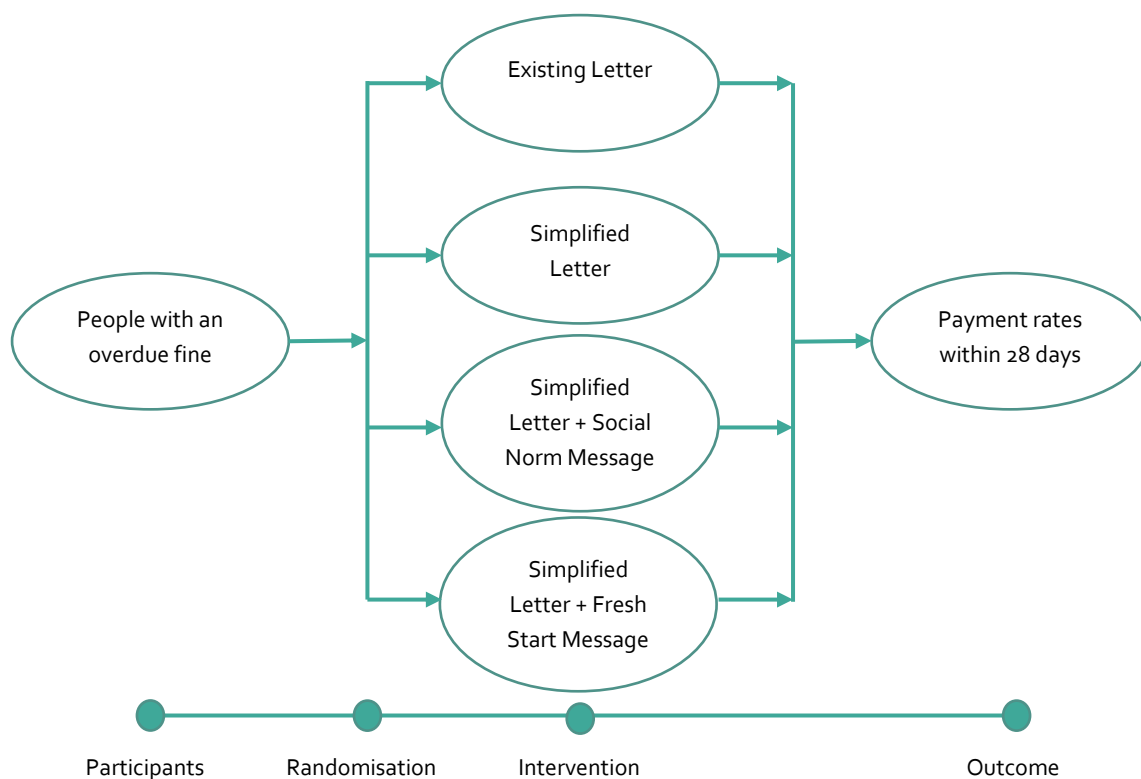
Some participants had several fines. In these cases, we stated the total amount they owed on the reminder letter. The total amounts that participants owed range from \$0.05 to \$767,520; the average amount was \$747. A small percentage (0.7%) of fines owed were over \$10,000 and we excluded these participants from our analysis.

We sent reminder letters from 11 July to 1 August 2018, and examined payment behaviour 28 days after we sent the last reminder letters. This means participants who were sent their reminder letters earlier had longer payment windows. However, this was the same for participants in each group, and, combined with people being very unlikely to still pay 28 days after receiving a reminder, does not influence the results.



We used an RCT²¹ and sent 31,847 fine recipients one of the four versions of the reminder letter (see Figure 13). We sent 500 letters of each version every day during the trial. After excluding 196 fines over \$10,000, our final sample number is 28,967.²²

Figure 13. Trial 2 design



Results — what we found

The rate of Any Behaviour by participants who receive the Simplified Letter + Social Norm Message (43.8%) is 3.1 percentage points higher than that for the Existing Letter (46.9%), which is a relative increase of 7.2% (see Figure 14). The Simplified Letter + Social Norm Message also has a significant effect on Payment In Full and Any Arrangement (see Figure 14 and Table 2).²³

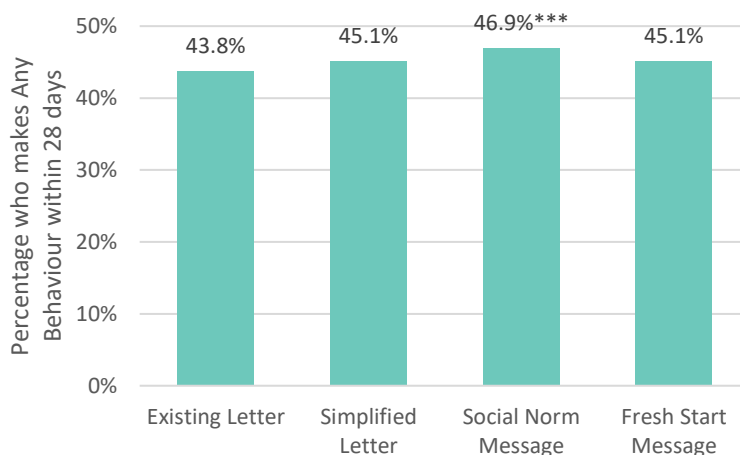
²¹ Participants were randomised at the individual level. We used pure randomisation, not stratified.

²² Due to a miscommunication, the first 10,000 letters were sent out to a draft participant list, and participants were assigned to groups by the first letter of the name, rather than pure randomisation. We included these participants in our analysis unless they did not meet one of the eligibility criteria we used to create our final participant list. This led us to exclude 2,684 people from our analysis. Our final sample included 7,316 participants who received the first batch of letters and 21,847 participants who were properly randomised and received the second batch of letters.

²³ This is statistically significant ($p=0.0002$) using a Z-Test comparing Treatment Group 1 with the Control group. This remains significant when adjusting for multiple comparisons. The effects of the Social Norm Message on Payment In Full and Any Arrangement are significant at $p<0.05$, but not when adjusting for multiple comparisons.



Figure 14. Effect of different reminder letters on Any Behaviour within 28 days of final letters sent

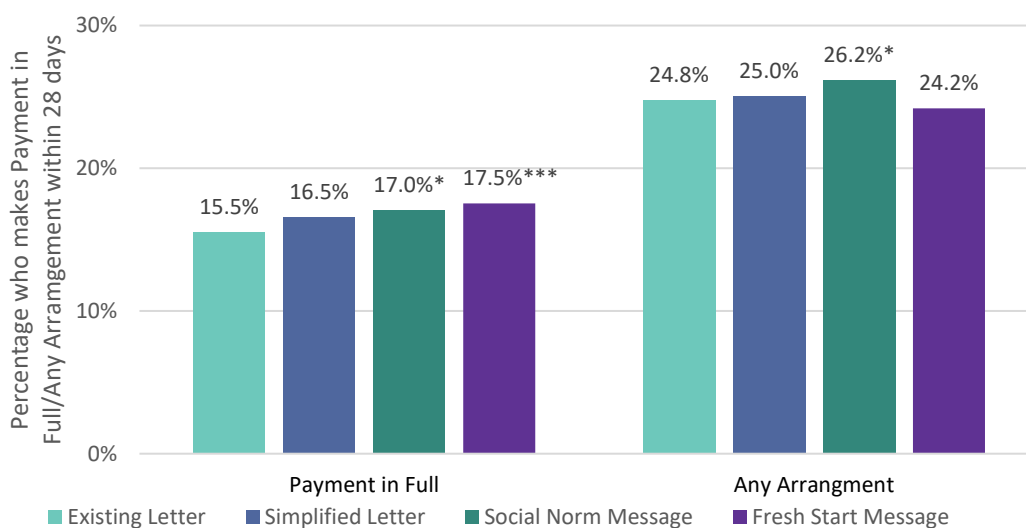


Significant difference compared to Existing Letter: *p<0.1 **p<0.05 ***p<0.01

The Simplified Letter does not have a significant effect on Any Behaviour. This suggests that including a social norm in the letter has a positive impact on payment behaviour, when added to other small improvements, such as including a call to action and payment box.

The rate of Payment In Full by participants who receive the Simplified Letter + Fresh Start Message (17.5%) is 2 percentage points higher than that for the Existing Letter (15.5%); however, the Simplified Letter + Fresh Start Message has no significant effect on Any Arrangement (see Figure 15).

Figure 15. Effect of different reminder letters on Payment In Full and Any Arrangement within 28 days of final letters sent



Significant difference compared to Existing Letter: *p<0.1 **p<0.05 ***p<0.01

When we compare the three treatment groups, we find only one significant difference. The Simplified Letter + Social Norm Message outperforms the Simplified Letter + Fresh Start Message and the Existing Letter on Any Arrangement.

Total payments

Table 2 contains our estimate of the total value of payments made during Trial 2.



- **Total amount due:** Total value of the fines in each letter group.
- **Total paid in trial:** This is the total value of payments made by recipients within 28 days of the last letters being sent.
- **Total amount expected:** This is the total paid in trial plus the total value of arrangements set up (even if not fully paid) within 28 days of the last letters being sent.

The total paid in trial is an *underestimation* of the total amount; it calculates only payments made during the trial and disregards payments that will continue to be made through payment arrangements set up during the trial.

The total amount expected is an *overestimation* of the total amount; it assumes that everyone who sets up an arrangement will pay it in full. However, in reality, arrangement breaches are common.

Table 2. Payments due and payments received by participants in different groups during Trial 2

<u>Letter received</u>	<u>Number of letters sent</u>	<u>Total amount due</u>	<u>Total paid in trial</u>	<u>Total amount expected</u>
Control group (Existing Letter)	7,172	\$4,228,473	\$290,253	\$1,544,975
Treatment Group 1 (Simplified Letter)	7,388	\$4,303,090	\$325,723	\$1,509,235
Treatment Group 2 (Simplified Letter + Social Norm Message)	7,177	\$4,283,455	\$320,032	\$1,660,067
Treatment Group 3 (Simplified Letter + Fresh Start Message)	7,230	\$4,268,240	\$318,179	\$1,577,730
Total	28,967	\$17,083,258	\$1,254,187	\$6,292,007

FINANCIAL BENEFIT OF THE SOCIAL NORM MESSAGE

People who receive the Simplified Letter + Social Norm Message are 3.1 percentage points (or 7.2%) more likely to perform Any Behaviour than people who receive the Existing Letter. If we assume that people who make arrangements to pay go on to pay in full, an increase of 3.1 percentage points would lead to \$18.46 extra per letter sent if MoJ uses the Simplified Letter + Social Norm Message.²⁴

In Trial 2, people who received the Simplified Letter + Social Norm Message paid at least \$26,517 more during the payment window than [insert text]. This amount increases to \$132,583 when arrangements to pay are included. If MoJ adopts the Simplified Letter + Social Norm for the approximate 90,000 reminder letters it sends annually, each year it could expect to receive an additional \$300,000 during the 28-day payment window, and up to an additional \$1.7 million if people who make arrangements pay in full.

²⁴ This calculation is based on the average fine amount of \$590.



Trial 3: Reminder letters and envelopes

Building on the results of Trial 2, in Trial 3 we tested the effect of different combinations of letters and envelopes. We tested a general and specific social norm message in the letters, and formal and informal wording on the envelope.

Message and envelope design

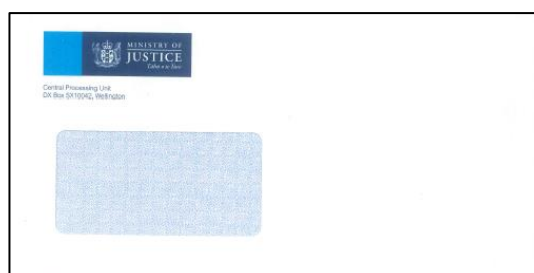
We tested effects on the rate of payment behaviour by comparing three treatment groups against one Control group.

Control group: General Social Norm Letter + Standard Envelope

For the Control group, we used:

- the letter containing the Social Norm Message assigned to Treatment Group 1 in Trial 1²⁵
- a standard envelope (see Figure 16).

Figure 16. Standard envelope (Control group and Treatment Group 1)



Treatment Group 1: Specific Social Norm Letter + Standard Envelope

For Treatment Group 1, we used:

- the letter assigned to the Control group, but with a different social norm statement: 'Eight out of ten people pay their fines. You are in the small minority that still has to pay'
- a standard envelope (see Figure 16).

International research suggests that specific social norms have more impact than generic social norms, probably because they make the norm more legitimate. In Trial 2, we used a generic norm, as we were unsure if 'eight out of ten' or 78% would be high enough to work. Social norms can be fragile, as they rely on a person feeling compelled to be part of a majority. If this majority is not large enough, or not as high as people expect it to be, the norm may not work or may even have the opposite effect.

Treatment Group 2: General Social Norm Letter + Formal Envelope

For Treatment Group 2, we used:

²⁵ For Trial 3, we removed the fine amount and the option to pay online from this letter.



- the letter assigned to the Control group
- a formal envelope. This is the standard envelope that has this printed message in large red font on the front: 'OPEN IMMEDIATELY' (see Figure 17).

Figure 17. Formal envelope (Treatment Group 2)



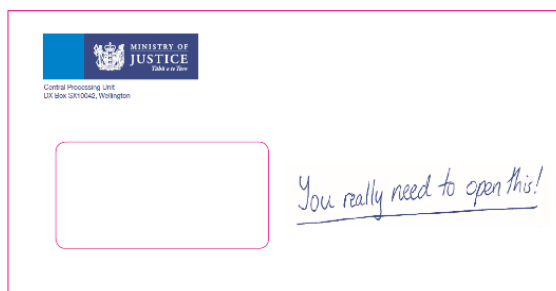
The formal envelope takes a formal, authoritative approach by using bold, capitalised, red font. These envelopes cost about 8 cents each. The aim of the formal envelope is to emphasise the importance of the letter, overcome peoples' inertia to open the letter and combat procrastination. Many people receive multiple letters from MoJ and know that they are likely to contain a fine, so they may be likely to put them aside for later, and forget about them, or ignore them altogether.

Treatment Group 3: General Social Norm Letter + Informal Envelope

For Treatment Group 3, we used:

- the letter assigned to the Control group
- an informal envelope. This is the standard envelope that has this printed message in a handwritten style: 'You really need to open this' (see Figure 18).

Figure 18. Informal envelope (Treatment Group 3)



The informal envelope contains a printed image of a scanned handwritten message in blue ink. The message does not include the recipient's name. These envelopes cost about 7 cents each. The aim of the informal envelope is not only to make the message more salient, but also to evoke the perception of personal effort and attention, which can, in turn, evoke feelings of reciprocity.

Trial design

The sample for Trial 3 is people with an overdue fine or an arrangement to pay that had been breached for more than one month. None of the participants had had any enforcement action taken against them, and all had a valid address. We included participants with an international address, but they make up less than 1% of the total sample.

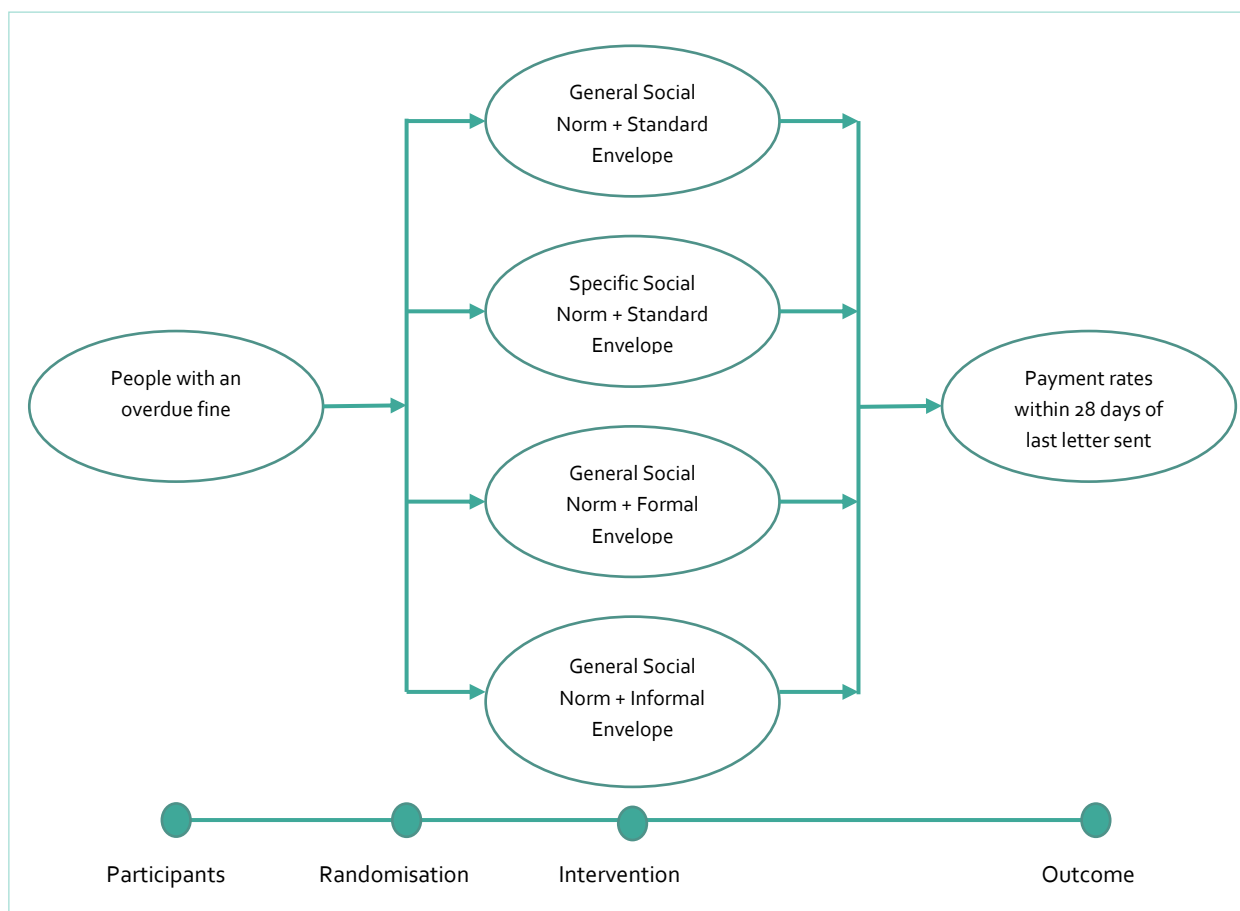


The total amounts that participants owed range from \$1 to \$1,858,170; the average amount was \$783.48. The total amount owed by the sample was \$19,701,988. We excluded, from our analysis, data from participants with a fine greater than \$10,000.

Like Trial 1, we used an RCT²⁶ and sent fine recipients one of the four combinations of reminder letter and envelope (see Figure 19). We sent 1000 letter/envelope of each version every day during the trial.²⁷ Our final sample number is 23,226.

Figure 19. Trial 3 design

Results — what we found



Effect of General Social Norm Letter

The General Social Norm Letter we sent the Control group in Trial 3 is the same as the letter we sent Treatment Group 2 in Trial 2 (Simplified Letter + Social Norm Message), except for removing the payment amount and online payment link. Therefore, we expect the results to be similar. However, all outcome measures are lower in Trial 3 than Trial 2 (see Table 3). This finding may be partially explained by the time of year, as people may be less willing, or be less able, to pay fines just before Christmas; by

²⁶ Participants were randomised at the individual level.

²⁷ This daily volume is double that of Trial 1, as we wanted to prevent sending letters out too close to Christmas.



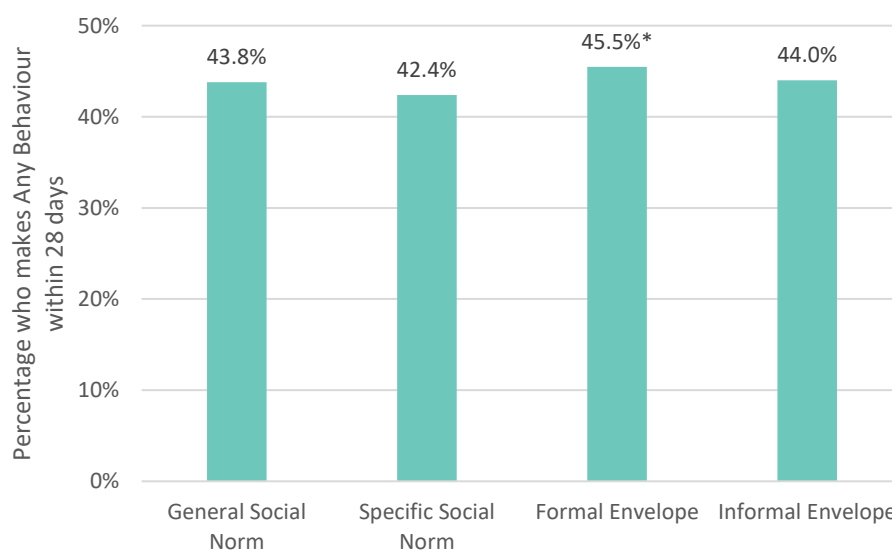
removing the link to the online payment platform from the letter; or by doubling the number of letters we sent each day, which meant the contact centre could not answer every call.

	Number of letters sent	Total paid per letter	Rate of Any Behaviour	Rate of Payment In Full	Rate of Any Arrangement
Trial 2 (Treatment Group 2)	7,177	\$44.59	46.89%	17.04%	26.18%
Trial 3 (Control group)	5,837	\$33.23	43.81%	12.40%	21.28%
Difference	1,340	\$11.36	3.08%	4.64%	4.9%

Effect of letter and envelope combinations

There is no significant difference in the rate of Any Behaviour between the Control group and any of the treatment groups. The Formal Envelope was significant at the 10% level ($p=0.07$), with a difference of 1.7 percentage points, or a relative difference of 3.8 percent.²⁸ (see Figure 20).

Figure 20. Effect of letter and envelope combinations on Any Behaviour within 28 days of last letter sent



Significant difference compared to General Social Norm: * $p<0.1$ ** $p<0.05$ *** $p<0.01$

The rate of Payment In Full by participants who receive the General Social Norm Letter + Formal Envelope is significantly higher than that of Control group (13.9% compared with 12.4%, $p=0.0156$).²⁹ The Specific Social Norm Letter has no statistically significant effect; it seems to slightly decrease all three outcomes, though none approach significance (see Figure 21). Based on this finding, we conclude that, in this context, a specific social norm performs no better than a general social norm. Perhaps this

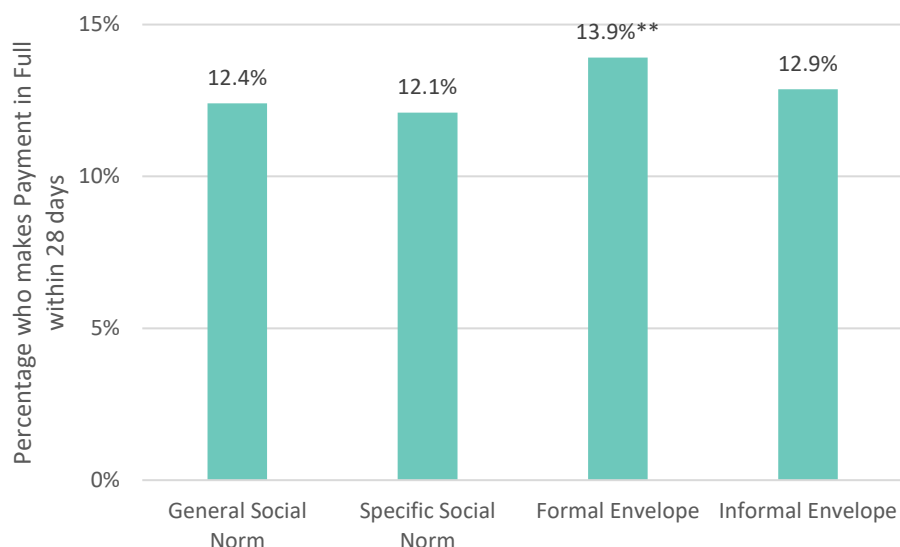
²⁸ We use a Chi-Square test to test for significant differences in the three outcome measures between the four groups. We use a Z-Test to compare data from each treatment group with the Control group, and with each other. We look at whether values are below the traditional significance cut off (0.05). We also use the conservative Bonferroni correction, which leads to an adjusted significance level of 0.0167.

²⁹ This difference between the Control group and Treatment Group 2 is statistically significant ($p=0.0156$) using a Z-Test. This remains significant when adjusting for multiple comparisons.



is because for a specific social norm to be more effective than a general social norm, the proportion of people have to be higher than was the case here (more than 8 out of 10 people have to do a behaviour).

Figure 21. Effect of letter and envelope combinations on Payment In Full within 28 days of last letter sent



Significant difference compared to General Social Norm: *p<0.1 **p<0.05 ***p<0.01

Total payments

Table 4 contains our estimate of the total value of payments made during Trial 3.

- **Total amount due:** This is the total value of fines related to the letters sent.
- **Total paid in trial:** This is the total value of payments, including payments made through arrangements, made by recipients within 28 days of the last letters being sent (\$801,439). Some people paid more than the amount on their reminder letter (see Limitations); in these cases we counted the amount stated on the letter.
- **Total paid in trial per letter:** This is the total paid in trial divided by the number of letters sent.
- **Total amount expected:** This is the total paid in trial plus the total value of arrangements made within 28 days of the last letters being sent (\$3,708,348).

The total paid in trial is an *underestimation* of the total amount; it calculates only payments made during the trial and disregards payments that will continue to be made through payment arrangements set up during the trial.

The total amount expected is an *overestimation* of the total amount; it assumes that everyone who sets up an arrangement will pay it in full. However, in reality, arrangement breaches are common.

The actual amount collected during the trial is within the total paid in trial (lower bound) and the total amount expected (upper bound).

The differences between the amounts paid by the Control group and the treatment groups are not significant.



Table 4. Payments due and payments received by participants in different groups during Trial 3

Letter received	Number of letters sent	Total amount due	Total paid in trial	Total paid in trial per letter	Proportion paid of amount due	Total amount expected	Total amount expected per letter	Expected proportion paid
Control group (General Social Norm Letter + Standard Envelope)	5,837	\$ 3,634,481.40	\$ 193,971.61	\$ 33.23	5.34%	\$ 900,222.27	\$ 154.23	24.77%
Treatment Group 1 (Specific Social Norm Letter + Standard Envelope)	5,869	\$ 3,857,415.21	\$ 199,681.56	\$ 34.02	5.18%	\$ 889,101.32	\$ 151.49	23.05%
Treatment Group 2 (General Social Norm Letter + Formal Envelope)	5,771	\$ 3,935,507.51	\$ 210,289.99	\$ 36.44	5.34%	\$ 959,381.04	\$ 166.24	24.38%
Treatment Group 3 (General Social Norm Letter + Informal Envelope)	5,749	\$ 3,742,021.09	\$ 197,496.20	\$ 34.35	5.28%	\$ 959,644.23	\$ 166.92	25.65%
Total	23,226	\$ 15,169,425.21	\$ 801,439.36	\$ 34.51	5.28%	\$ 3,708,348.86	\$ 159.72	24.46%

FINANCIAL BENEFIT OF THE FORMAL ENVELOPE

People who receive the formal envelope are 1.5 percentage points (or 12.2%) more likely to pay their fine in full than people who receive the General Social Norm Letter + Standard Envelope. If everyone in Trial 3 received the formal envelope, we estimate an additional 255 people would have paid their fine in full. This equates to an additional \$34,680 during the trial (the average amount paid in full by Treatment Group 2 was \$136 per letter). If MoJ uses the formal envelope for the approximate 90,000 reminder letters it sends annually, each year it could expect to receive an additional \$221,855 from payments made in full.

Trial 4: Deputy registrar summons

The deputy registrar (DR) summons is a letter sent to people who have failed to pay their fines over an extended period, despite MoJ's attempts to contact them through letters and phone calls. The DR summons tells a fine recipient they must now appear before a DR, and gives them a court date.

Although the DR summons is a summons to court, its goal is to avoid court by encouraging a fine recipient to call the contact centre to:

- pay their fine in full
- set up an arrangement to pay their fine
- partially or fully remit the fine, or any enforcement fees that have accrued
- get help to set up a court date with a judge who can, on a case-by-case basis, offer the recipient community service or other alternatives to the fine.

If the recipient fails to pay their fine or attend court, the court may issue a warrant for their arrest.

In the 2017/18 financial year, MoJ sent nearly 117,000 DR summonses, which is, on average, 2,250 each week. Around 50% of people who received a DR summons made a payment or set up an arrangement within one month. Anecdotally, we have heard that the DR summons may have lost its impact over time. One explanation for this is that approximately 13,500 people received the letter more than once during that year (some people received it up to five times), so they may have got used to the threatening tone or stopped opening the envelopes.

Increasing payment rates by fine recipients would result in fewer people having to attend court, having enforcement actions taken against them and having warrants for their arrests issued. It would also decrease the effort required by MoJ to follow-up unpaid fines and prevent court events.

Summons design

We tested effects on the rate of payment behaviour by comparing two treatment groups against one Control group.



Control group: Previous Summons

For the Control group we used the Existing DR summons (see Figure 22). This letter is complex, impersonal and includes some legal jargon, such as: 'Order that defendant be brought before a district court deputy registrar.' The letter may confuse recipients, as it is unclear whether the ideal behaviour is to pay the fine or attend court. The letter has a Flesch-Kincaid grade level of 9; this means it can be understood by someone aged 14 to 15 years old. The New Zealand Government recommends documents suited for a reading age of 12 years will be accessible for most people.

Figure 22. Existing Summons (Control group)

**ORDER THAT DEFENDANT BE BROUGHT BEFORE A
DISTRICT COURT DEPUTY REGISTRAR**
Section 88 Summary Proceedings Act 1957

District Court: Christchurch
PPN: [REDACTED]
DOB: [REDACTED]
Gender: [REDACTED]

[REDACTED]

You [REDACTED] were ordered to pay the fine/s and/or reparation specified in the Schedule to this warrant.

You have not paid these amounts.

You are ordered to appear before a Deputy Registrar at Christchurch on Thursday the 9th day of March 2017 at 02:00 PM to explain why you have not paid your fines and/or reparation.

A Warrant for your Arrest will be issued if you do not appear.
If you pay \$5,682.70 before this date, you do not need to appear in Court.

GETTING RID OF FINES IS EASY
**YOU CAN AVOID COMING TO COURT FOR THIS SUMMONS BY CALLING US TO
ARRANGE PAYMENT ON 0800 4 FINES (0800 434 637). YOU CAN ALSO MAKE PAYMENTS
THROUGH OUR WEBSITE – FINES.GOV.TZ**

NOTES

The Deputy Registrar will ask you about your income and assets (e.g., vehicles that you own) and may:

- Require immediate payment in full
- Issue a warrant for the seizure and sale of your property
- Order deductions from your benefit, wages or bank account
- Grant a time to pay arrangement
- Order you to appear before a Judge or Community Magistrate.

If you do not understand what you have to do, you should consult a lawyer, a community law centre or call us on 0800 4 FINES (0800 434 637) immediately.

Treatment Group 1 & 2: Simplified Letter

For Treatment Group 1 and 2, we designed a Simplified Letter that differed from the Existing Summons in these ways:

- **Simplifies the content:** The Simplified Letter uses less text and simpler language.
- **Includes a call to action:** The Simplified Letter includes this simple call to action: 'Call today to avoid court.'
- **Makes payment easier:** The Simplified Letter includes a box in the top-right corner that contains the most important information: the fine amount, payment options and the court date.
- **Makes key information salient:** The Simplified Letter draws attention to the important information by using red.
- **Includes a deadline:** The Simplified Letter includes a deadline of five days to pay the fine, to prevent them from procrastinating and to emphasise the urgency of the DR summons.
- **Makes the letter more personal:** The Simplified Letter starts with 'Dear <NAME>', to directly address the recipient, and is signed by a DR.



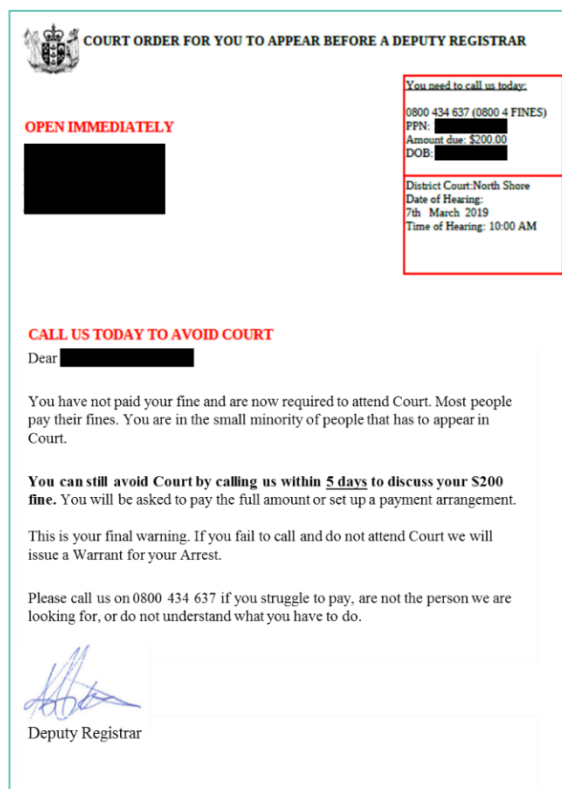
- **Encourages urgency:** The Simplified Letter includes 'OPEN IMMEDIATELY' in the address window. In Trial 4 we could not change the envelope, but included this text to encourage people to open it.

The Simplified Letter has a Flesch-Kincaid grade level of about 6; this means it can be understood by someone aged 11 to 12 years old.

TREATMENT GROUP 1: SOCIAL NORM MESSAGE

For Treatment Group 1, we used the Simplified Letter and added this social norm message: 'Most people pay their fines. You are in the small minority of people that has to appear in Court' (see Figure 23). This is a descriptive norm that points out how most people behave. The norm is correct and based on data in the Operations and Service Delivery (OSD) dashboard, which suggests that 78% of people pay their court-imposed and infringement fines within four months. Although a specific social norm message is often more effective, we did not use '8 out of 10 people' or '78% of people', as Trial 3 finds this ineffective in our context. We expect this is because the norm may be lower than people expect.

Figure 23. Simplified Letter + Social Norm Message (Treatment Group 1)



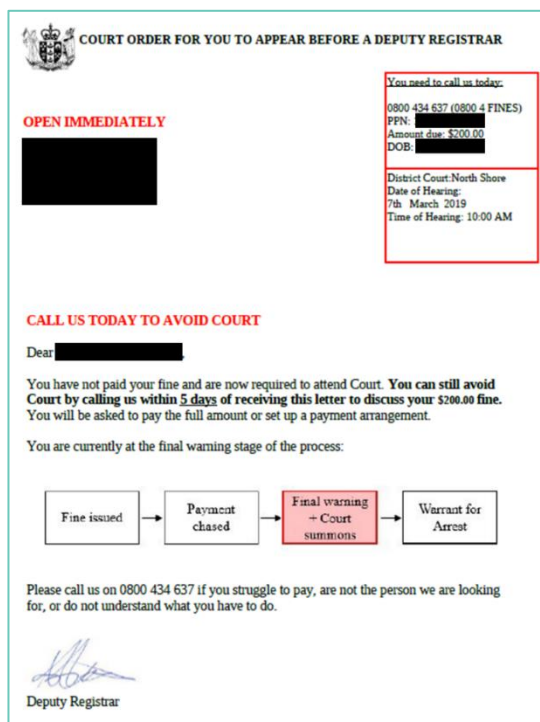
Norms work as push and pull. For norms to work, people must want to be in the majority group. They work even better when there is also a push, and people do not want to be in the minority group. The norm we use points out that the fine recipient is 'in the small minority that has to appear in Court,' and gives the person an easy way to leave that group by calling the contact centre and paying their fine.

TREATMENT GROUP 2: VISUALISATION

For Treatment Group 1, we used the Simplified Letter plus Visualisation, which gives fine recipients a salient and simple overview of where they are in the fine process (see Figure 24).



Figure 24. Simplified Letter + Visualisation (Treatment Group 2)



In this version of the summons, we use visualisation to highlight that this is the recipient's last warning, and that the next step will be a warrant for their arrest. Although visualisation was less effective than a social norm message in a UK council-tax trial,³⁰ we believe it will be more effective in our context. In the UK trial people were at the first-reminder stage, whereas our recipients are at the final-reminder stage, which means the visualisation shows that action is more urgent.

Trial design

In Trial 4 we used a quasi-experimental design. We changed the Existing Summons to the Simplified Letter + Social Norm Message for five weeks before changing it to the Simplified Letter + Visualisation for six weeks. We compare payments rates in these periods:

- Control letter: Previous Summons — 4 September 2016 to 3 September 2018
- Treatment Group 1: Simplified Letter + Social Norm Message — 4 September to 8 October 2018
- Treatment Group 2: Simplified Letter + Visualisation — 9 October to 19 November 2018

The DR summons is a template in the automated system COLLECT, which can have only one template at a time. Changing the template in COLLECT takes some time, so we needed to minimise the number of changes. We chose this design because an RCT, which tests multiple templates simultaneously and would require us to change the template frequently, was not feasible.

The sample for Trial 4 is everyone who had failed to pay their fine after multiple attempts by MoJ to collect it. Everyone in this group was, therefore, due to receive a DR summons. We sent letters to

³⁰ Larkin et al, 2018. Op. cit.



281,485 people. Of this sample, 256,771 received the Previous Summons in the two years before we sent letters to the two treatment groups (see Table 5).

Table 5. Trial 4 sample and timeframe

Group	Trial period	Number of letters sent
Control group (Previous Summons)	4 Sep 2016 to 3 Sep 2018	256,771
Treatment Group 1 (Simplified Letter + Social Norm Message)	4 Sep to 8 Oct 2018	12,098
Treatment Group 2 (Simplified Letter + Visualisation)	9 Oct to 19 Nov 2018	12,616
Total		281,485

We looked at payment data 28 days after each letter was sent, which means each recipient had the same payment window. Although the Simplified Letter includes a five-day deadline, we chose a 28-day payment window, because this is the usual payment window and also because the Existing Summons specifies only that people must pay before their court date.

Results — what we found

People who receive the Simplified Letter + Visualisation have significantly higher rates of Any Behaviour (11 to 17% higher) than those who receive the Previous Summons or the Simplified Letter + Social Norm Message, independent of other variables such as age, gender and fine amount.

This difference is equivalent to 6,700 to 10,200 more people each year taking an action that avoids further enforcement by MoJ. It also equates to an additional \$600,000 to \$960,000 in fine payments within the 28-day payment window. These amounts exclude payments that may still be made through arrangements to pay; therefore the real financial impact could be much larger.

We use two different methods to analyse Any Behaviour: Bayesian structural time series and a comparison of aggregate payment rates.

Bayesian structural time series

Using the trend of Any Behaviour during the control period (4 September 2016 to 3 September 2018), we use Bayesian structural time series analysis to estimate what rate of Any Behaviour would be, during the treatment period, without any intervention. This estimate accounts for the overall payment trend and seasonal variation. We compare this estimate with rates of Any Behaviour observed for Treatment Group 1 and 2 (see Table 6).

Table 6. Estimated and observed rates of Any Behaviour during Trial 4

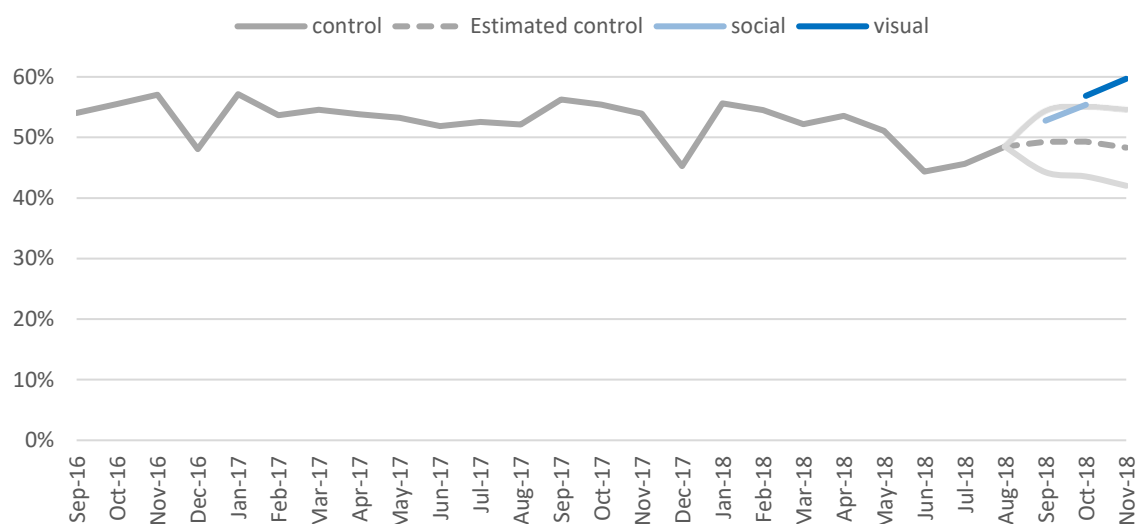
	Trial period	
	Simplified Letter + Social Norm Message	Simplified Letter + Visualisation
Estimated rate of Any Behaviour using Existing Summons (95% confidence interval)	49.7% (42.4–56.9%)	49.6% (42.3–56.9%)
Observed rate of Any Behaviour	53.4%	58.1%***

Significant difference compared to Existing Summons: *p<0.1 **p<0.05 ***p<0.01



The rate of Any Behaviour by people who receive the Simplified Letter + Visualisation (58.1%) is significantly higher than the estimated rate of Any Behaviour during the same period without any intervention (49.6%). This is a difference of 8.5 percentage points, or a relative increase of 17% (see Figure 25).

Figure 25. Observed and estimated rates of Any Behaviour during Trial 4



COMPARISON OF AGGREGATE PAYMENT RATES

We compare the average rates of Any Behaviour, Any Payment and Any Arrangement between the three groups using a Chi-Square test. If the Chi-Square is significant, we conduct a Z-Test to determine the difference between the groups we are comparing. For the Z-Test, we use the aggregated rate of Any Behaviour by the Control group during the period of Trial 4 (4 September 2016 to 19 Nov 2018).

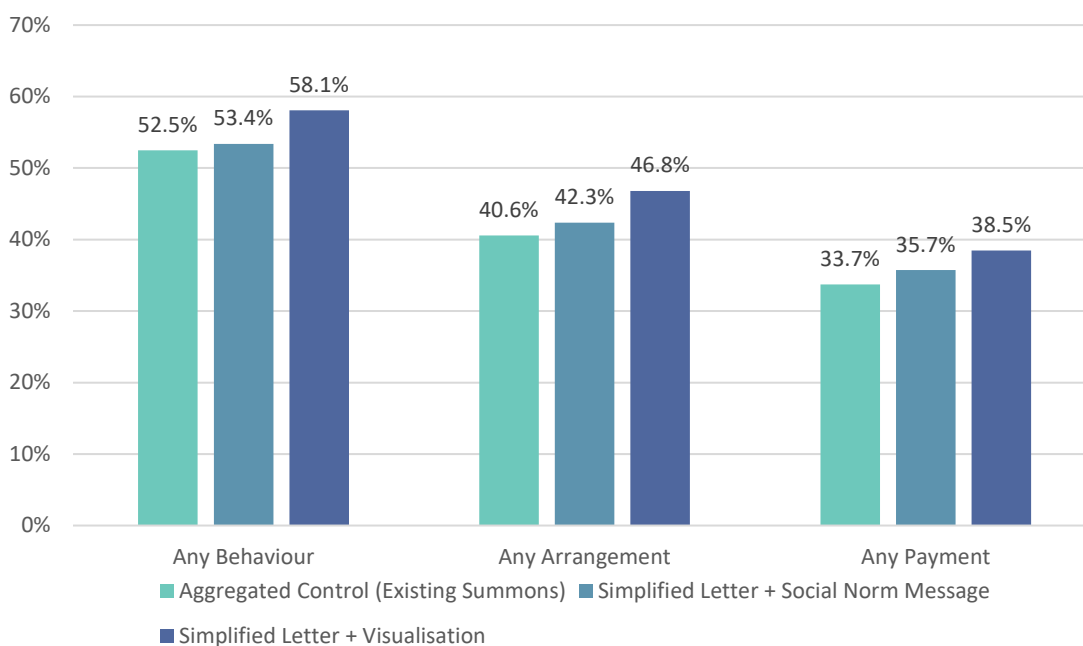
Comparing the aggregate payment rates reaches the same conclusion as the Bayesian structural time series. The rate of Any Behaviour by recipients who receive the Simplified Letter + Visualisation letter (58.1%) is significantly higher than the aggregated rate by the Control group (52.5%) ($p < 0.001$). This is a difference of 5.6 percentage points or a relative increase of 11% (see Figure 26).

The Simplified Letter + Visualisation also results in a significantly higher rate of Any Payment during the 28-day payment window compared with people who receive the Existing Summons (38.5% versus 33.7%, $p < 0.0001$), a 4.8 percentage point increase, or a relative increase of 14%. People who receive the Simplified Letter + Visualisation are also 15% more likely to set up an arrangement than people who receive the Existing Summons (46.8% versus 40.6%, $p < 0.0001$) (see Figure 26).

The rates of Any Payment and Any Arrangement by people who receive the Simplified Letter + Social Norm Message are significantly higher than those by people who receive the Existing Summons. However, the Simplified Letter + Social Norm Message has no significant effect on rates of Any Behaviour (see Figure 26).



Figure 26. Effect of different summonses on payment behaviours during Trial 4



Significant difference compared to Existing Summonses * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Effect of visualisation

People who receive a DR summons have an average fine of \$1,631, which means DR summons target fines worth almost \$200 million each year.

In 2017 and 2018, MoJ sent an average of 120,000 DR summonses each year, which resulted in an average payment of \$46.79 per summons sent. This equates to \$5.6 million paid each year within the 28-day payment window. This trial shows that the Simplified Letter + Visualisation increases the rate of Any Behaviour by 11 to 17%, which is equivalent to additional payments within the 28-day payment window worth \$600,000 to \$960,000 per year. This is a big difference, especially when we consider the changes to the Previous Summons are relatively simple and cost-free changes.

These calculations do not include payments made through arrangements, which may be made outside the 28-day payment window. Considering the positive effect of the Simplified Letter + Visualisation on Any Arrangement, it is possible that the financial impact of using this summons could be much larger.

An 11 to 17% increase in Any Behaviour equates to 6,700 to 10,200 more people each year paying, or setting up an arrangement to pay, their fine each year, which means they avoid a court appearance and further enforcement actions.

Despite challenges evaluating this trial, we find that relatively simple changes to the summons can have a significant impact on payment behaviour. The Simplified Letter + Visualisation outperformed the other two letters, independent of gender, age and fine amount.

Our previous trials of reminder letters find that including a social norm is the most successful approach to increase payment rates, while a UK study of council-tax payments, which compares a visualisation letter with a social norm letter, also finds that a social norm letter has a greater impact on payment rates. Our main finding — including visualisation outperforms including a social norm message — is somewhat surprising. This difference is likely to be due to differences in the situation. In the previous



trials, people receive reminder letters as an early reminder, while in this trial people who receive a DR summons receive it as a final warning. The Simplified Letter + Visualisation makes this aspect of the summons very salient. This finding reconfirms the importance of evaluating what works best in each situation.

Discussion

Taking the four trials together, we find mixed evidence that changing fine-reminder letters affects fine payments. While Trial 2 demonstrates that a social norm message can be effective, it is not effective in the other trials. This may be due to the different populations who receive each intervention: Trial 1 focuses on communicating with people when they first receive their fine, while the other trials, especially Trial 4, focus on communicating with people who are already displaying non-payment behaviour.

Trial 4 provides good evidence for visualisation. This finding is worthwhile researching more, to understand during which stages in the fines process it is most effective. We recommend that testing different messages in letters continues, to gain further insights of what prompts fine-payment behaviour.

Limitations

Trials 1, 2 and 3 face similar limitations. Their participants may have had several unpaid fines and, when people make a payment, we cannot see which fine they are paying. This situation may explain why there are some instances when people pay much more than the reported fine amount, during the payment window.

The envelopes in Trial 3 have specific limitations, which may reduce the effect of the reminder letters and explain the differences in payment behaviour compared with Trial 1.

- **Call to action visible.** This part of the call to action — ‘Pay your outstanding fine now...’ — was visible through the envelope window. This did not occur in Trial 1. It resulted from a formatting change when we removed the amount due from payment box in the top-right corner of the letter. This meant an important message was now visible through the envelope window for all letters, regardless of the control or treatment group. This will have reduced the differences in results between the groups.
- **Amount owing removed.** Removing the amount due from the letter makes it unlikely people will pay online, because the website requires you to enter a payment amount. Removing this possibility means that some people may not have paid or were forced to call a contact centre to pay, which would have put more pressure on contact centres.
- **Demand on contact centres higher.** In addition to removing the option to pay online, we also doubled the number of letters we sent each day, which resulted in more incoming calls to contact centres. Contact-centre data shows the proportion of unanswered calls increased during the trial period. In the three weeks before we sent the first reminder letters, 97.58% of calls were answered compared with 92.43% in the three weeks after we sent the first letter (this equates to 3,281 missed calls during the trial). Although some people may have called back, this increase in unanswered calls is likely to have affected the number of people who paid their fines.



- **Trial close to Christmas.** The proximity to Christmas may mean people were hesitant to spend money (Christmas is often expensive and, for some people, means reduced income). While we attempted to send the reminder letters well before Christmas period, a delay ordering the letters meant the last were sent 10 December. This may have been close enough to Christmas to mean some people were more likely to spend money on Christmas than prioritise paying outstanding fines.

Trial 4 has other limitations. Most importantly, it evaluates change over time rather than being an RCT. This means we cannot be certain that any change in payment behaviour is due to changes in the summonses, or whether it is due to other factors that may have happened at the same time and that are outside our control. This limitation is highlighted by variation in Any Behaviour over time by the Control group (see Figure 25). The rate of Any Behaviour decreases before Christmas and in the months before our trial. Industrial action by contact centre staff in the second half of 2018 may have affected payment behaviour: contact centres had less capacity, which may mean some people's calls were not answered.

Assumptions

We make several assumptions. Most importantly, we assume that everyone who makes a payment during the payment window does so because of the letter we sent them. Of course, it is possible that people pay for other reasons, such as suddenly having money available or setting up a direct debit.

We also do not know if people were targeted by another collection effort, such as another fine-reminder letter or phone call. It is impossible to untangle the impact of the letters from these other possible payment prompts.

Despite the limitations and assumptions, we are confident in the primary outcomes we report and our finding that the Simplified Letter + Visualisation performs significantly better than the Previous Summons. However, as it is difficult to extrapolate the amounts people paid per letter, and the effect of the social norm letter on payments, these results should be used carefully.

