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Abstract

Disclosure-based Nudges are being increasingly utilized by governments around the world to achieve policy goals related to health, safety, employment, environmental protection, retirement savings, credit, debt and more. And, yet, a critical aspect of these Nudge-type policy interventions-the mode of communication-remains unexplored. What is the best way to communicate information to individuals—by letter, by phone call (or voice message), by email, by text message or video message? We begin to answer this basic question using a real-world policy experiment on debt collection procedures. Debtors often lack adequate information about the debt, the judgment, and the enforcement and collection procedures. As a result, the process of debt collection is often harmful to the debtor and ineffective in securing repayment. We conducted a study (N = 36,362), in cooperation with the Israeli Ministry of Justice, to improve communication with debtors and to evaluate the effect of such improved communication strategies on collection procedures and outcomes. A novelty of this study is our focus on the choice of medium-telephone, regular mail, text message and video message-holding fixed the content of the communication. We found that digital communication strategies, specifically communicating via text message, were the most cost-effective, significantly improving outcomes for both debtors and creditors. Our results should inform the choice of communication mediums in the many settings in which disclosure-based Nudge policies are employed.

JEL Classification: G41, G51, K49

Keywords: Nudge, Disclosure, communication, Debt collection

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Oren Bar-Gill^{*} and Alma Cohen^{**}

ABSTRACT

Disclosure-based Nudges are being increasingly utilized by governments around the world to achieve policy goals related to health, safety, employment, environmental protection, retirement savings, credit, debt and more. And, yet, a critical aspect of these Nudge-type policy interventions-the mode of communication-remains unexplored. What is the best way to communicate information to individuals—by letter, by phone call (or voice message), by email, by text message or video message? We begin to answer this basic question using a real-world policy experiment on debt collection procedures. Debtors often lack adequate information about the debt, the judgment, and the enforcement and collection procedures. As a result, the process of debt collection is often harmful to the debtor and ineffective in securing repayment. We conducted a study (N = 36,362), in cooperation with the Israeli Ministry of Justice, to improve communication with debtors and to evaluate the effect of such improved communication strategies on collection procedures and outcomes. A novelty of this study is our focus on the choice of medium-telephone, regular mail, text message and video message—holding fixed the content of the communication. We found that digital communication strategies, specifically communicating via text message, were the most cost-effective, significantly improving outcomes for both debtors and creditors. Our results should inform the choice of communication mediums in the many settings in which disclosure-based Nudge policies are employed.

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1. Introduction

How to Communicate Nudges. Disclosure-based Nudges are being increasingly utilized by governments around the world to achieve policy goals related to health, safety, employment, environmental protection, retirement savings, credit, debt and more (see, e.g., Thaler and Sunstein 2008; Benartzi et al. 2017). The regulators and behavioral scientists designing these policies have focused largely on the important questions of content and design: what information to disclose, how to frame the disclosed information, how to make the disclosure simpler and friendlier, how to design disclosure forms—in terms of font size and type and in terms of the placement, on the form, of different disclosure statements.¹

But there is another critical aspect of these Nudge-type policy interventions—the mode of communication—that remains largely unexplored: How should the information be communicated to individuals—by phone call (or voice message), by letter, by email, by text message or video message? Does the mode of communication matter? And, if so, which medium, or mode of communication, is most effective? The numerous, prior Nudge studies have utilized different modes of communication but, to the best of our knowledge, there is no prior study that compared the effectiveness of the alternative communication mediums, while holding the content and design of the message fixed. This communication-medium question is the focus of our analysis. We believe that our empirical findings could help policymakers choose the optimal mode of communication for their disclosure-based Nudge policies, across the wide range of settings, similar to ours, in which such policies are used.

A recent meta-study, DellaVigna and Linos (2020), reviewed randomized controlled trials (RCTs) testing Nudge-type interventions. Looking at studies published in academic journals, DellaVigna and Linos (2020) found that, among the 74 Nudge treatments considered, 23% were

¹ On the content of mandated disclosures – see, e.g., Jones, Loibl and Tennyson (2015) (new disclosures mandated under the CARD Act increase the percentage of households who pay off credit card balances in full each month); Bertrand and Morse (2011) (better-designed disclosures reduced the take-up and amount of repeat payday loans). On the question of framing – see, e.g., Milkman et al (2021); Bertrand and Morse (2011). On the move towards simpler, friendlier disclosures – see, e.g., Benartzi et al. (2017) (simple, behaviorally-informed emails increased the enrollment in retirement savings plans); Carpenter et al. (2017) (research by the CFPB showing that better-designed disclosure improves consumer choice among prepaid cards). On the design of disclosure forms – see, e.g., Banerjee et al (2017); CFPB (2021). Questions of timing, i.e., when to disclose, have also been considered. See, e.g., Banerjee et al (2021) (a text-message reminder about an upcoming vaccination drive had a large effect on the demand for immunization in Haryana, India); Bar-Gill (2012) (discussing the timing of mortgage disclosures and credit card disclosures).

paper-based (letter or postcard), 12.2% used email, 12.2% were web-based, 28.4% used in-person communication and 24.3% were categorized as "Other" (see DellaVigna and Linos 2020, Fig. A3). Looking at the trials conducted by two government Nudge units, DellaVigna and Linos (2020) found that, among the 243 Nudge treatments considered, 51% were paper-based (letter or postcard), 39.5% used email, 2.9% were web-based, 0.8% used in-person communication and 11% were categorized as "Other." ² DellaVigna and Linos (2020) note the communication mediums used in the Nudge policies that they survey, but only in passing. Other recent surveys cover Nudge polices that utilized different modes of communication, but do not focus on the medium question (see, e.g., Benartzi et al. 2017; Hummel and Maedche 2019). In the related context of get-out-the-vote campaigns, Green and Gerber (2019) compare different campaign strategies, including inperson canvassing, direct mailers, phone calls and mass-media campaigns. And, yet, in the voting context, as with the other Nudge studies, the relative efficacy of different communication mediums has not been tested in a controlled, real-world policy experiment that compares the effectiveness of these alternative mediums, while holding fixed the content of the message. We present such a test, in the context of debt repayment.

Nudging Debt Repayment. Debt and debt collection are a major policy issue in many countries. In the United States, as of June 30, 2020, aggregate household debt balances stand at \$14.27 trillion; of this amount, \$512 billion of debt is delinquent (Federal Reserve Bank of New York 2020). On the litigation front, debt collection cases represent a significant percentage of a state court's docket.³ The Federal Trade Commission observed that "[t]he majority of cases on many state court dockets on a given day often are debt collection matters" (Debt Collection (Regulation F), 78 Fed. Reg. at 18). A recent study, PEW (2020), covering 12 states found that debt claims were the most common civil case in 9 out of the 12 states.⁴ And the volume of debt

² The main goal of the DellaVigna and Linos (2020) meta-study was to compare Nudge studies that were published in academic journals to Nudge trials conducted by government Nudge units. But the comparisons in DellaVigna and Linos (2020) were focused on the relative effect magnitudes—larger in academic studies and smaller in the government trials and not on the communication medium.

³ See, e.g., Bearden (2016). Civil cases, on U.S court dockets, are typically organized into five categories: Debt collection, Mortgage foreclosure, Landlord-tenant, Tort and other. The debt collection category is defined as: "Suits brought by original creditors or debt buyers claiming unpaid medical, credit card, auto, and other types of consumer debt exclusive of housing (e.g., mortgage or rent)." See PEW (2020), p. 5.

⁴ See PEW (2020), p. 10, fig. 6. See also Texas Office of Court Administration (2019), p. 5 (in Texas, of the 224,000 civil cases filed in 2019, 24% were debt-collection cases).

collection cases is only increasing.⁵ Similarly, debt and debt-collection problems are of major concern in other countries. In the EU, household debt as a percentage of GDP is rising, reaching 54.1% in December 2020 (CEIC 2021); and the corresponding rise in debt-collection cases has led policymakers to reevaluate the regulation of debt-collection practices (Stănescu 2021). And in Israel, where we conduct our policy experiment, in 2019, 1-in-10 adults had an open debt-collection case (see Section 2 below).

Disclosure mandates permeate the debt collection process. Debtors must be informed when a collections suit is filed against them. And, after a judgment, often a default judgment, is awarded, debtors must be informed about the various enforcement or collection procedures (e.g., including repossession of property, garnishment of wages, and the imposition of various restrictions and limitations on the debtor). Too often, these pre- and post-judgment notifications that are sent to debtors are ineffective, namely, they fail to inform debtors.

This is bad for debtors. They don't learn about the suit that is brought against them and thus end-up with default judgments. And, post-judgment, they are not effectively informed about enforcement procedures – their consequences and how to avoid these consequences – and thus suffer unnecessary costs: exempt property is taken, wages are garnished unnecessarily, advantageous repayment plan options are not pursued and excessive fees and interest accumulate and add to the debtor's obligations. Creditors are also harmed: it takes longer for them to get paid; and they end up with only partial repayment. For example, in a study that focused on credit card debt, the CFPB found an average cumulative recovery rate of only 24 percent, over the two-year post-judgment period – and this is for the cases that creditors chose to litigate because they thought the debtor had a higher ability to repay (Bureau of Consumer Financial Protection 2019, p. 160).

Our study, conducted in cooperation with the Israeli Ministry of Justice, investigates the effectiveness of the different modes of communication, through which disclosure-based Nudges are sent, in the debt-collection context.

⁵ See Bureau of Consumer Financial Protection (2019), p. 159 (all issuers in the survey that litigated credit card debt reported that the volume of new balances placed in the litigation channel increased significantly during the survey period, with year-over-year growth ranging from nearly 10% to 55% across issuers). See also: Texas Office of Court Administration (2019), p. 5 (showing that the number of new debt cases filed between 2014-2019 increased by 55% in the district courts, by 107% in the county courts, and by 162% in the justice courts).

Unlike in the United States, debt collection in Israel is centralized. A government agency within the Ministry of Justice, the Enforcement and Collection Authority (ECA), is in charge of collecting most debts. A creditor can open a collections case with the ECA, and the ECA magistrate judges determine which collection procedures to apply. When a case is opened, the ECA sends a notice, a letter sent by registered mail, which informs the debtor that a case has been opened, listing repayment options, as well as the possibility of challenging the debt, and warning about the consequences of non-payment. The Ministry of Justice and ECA were concerned that the standard notice is insufficiently effective in inducing debtors to either repay their debt or challenge its validity, thus causing harm to both debtors and creditors. Therefore, they initiated this study—to reassess, and potentially redesign, the notice that they send to debtors and the method or medium by which the information is communicated.

In collaboration with the ECA, we designed a policy experiment. First, concerned that the current, legally-mandated notice is difficult for debtors to understand, we composed a simple, user-friendly message that covers the main content elements. Then, to investigate the effectiveness of the different mediums, we sent this new message through different communication mediums—telephone, regular mail, text message and video message—with quasi-random assignment of debtors to the different mediums. We tested seven different communication strategies (plus a control), in over 36,000 debt-collection cases. As previously noted, the novelty of this study is our focus on the communications medium, with a uniform, more user-friendly message sent via the different mediums. For the text message and video message strategies, we also tested the effect of a reminder—a shorter version of the initial message—sent 20 days after the initial message.

We found that, relative to the control group that continued to receive the current legallymandated notice by regular mail, the new text message and video notices, with or without the reminder, increased the likelihood that a debtor made at least some payment, or was otherwise able to close the case, by 20-30%. The likelihood of full debt repayment, or case closure, increased by 10%, but only with the reminders.⁶ The communication medium proved to be more important than the content itself, which was similar across treatments. In particular, text messages and video notices had a larger effect on repayment rates, as compared to phone calls and letters sent via

⁶ These are large effects—closer to effect magnitudes found in the academic studies reviewed by DellaVigna and Linos (2020), even though DellaVigna and Linos would have categorized our study as a government trial.

regular mail. We were surprised to find that the video message was not more effective than the text message. The optimistic bottom-line is that a low-cost Nudge – a text message – can meaningfully improve notice efficacy, to the benefit of both creditors and debtors.⁷

We emphasize that our outcome variables count both (partial or full) debt repayment and other actions that resulted in case closure, e.g., when the debtor successfully challenges the validity of the debt or demonstrates an inability to repay the debt (akin to bankruptcy). Unfortunately, our data do not allow us to distinguish debtors who should repay from those who should challenge the debt or discharge it based on their inability to repay. Therefore, we cannot rule out the possibility that the debtors who should have challenged or discharged the debt were induced by our interventions to make a payment. And we cannot rule out the possibility that the debtors who should have made a payment were able to close the collections case by challenging or discharging the debt. Still, based on our discussions with ECA officials who supervise repayment activity and approve case closures, it is unlikely that our interventions led many debtors to take the wrong action. Indeed, the effective interventions, specifically the text message and video notice, likely helped many debtors—both by increasing the number of collections cases that were closed after the debt was challenged or discharged and by inducing debtors to repay more quickly and thus avoid significant fees and interest charges (which can exceed the initial debt), as well as painful enforcement actions.

In addition to measuring repayment activity and case closures, we analyzed data on debtors' visits to the local ECA office. We found that the text messages and video notices, with or without the reminder, reduced the likelihood that a debtor would visit the ECA office by 20-30%. We interpret these results as evidence that our Nudge interventions, via text and video message, successfully conveyed information to debtors. There are two main reasons why a debtor would visit a local ECA office: (1) to obtain information, and/or (2) to make a payment (or take some other action). Since our digital interventions increased the likelihood of debt repayment, a

⁷ Given the success of text messages in our policy experiment, we note specific studies that have utilized text messages. In the UK, the FCA studied alerts and reminders that were sent via text message to checking account holders (Adams et al 2018; Hunt et al 2015) and to savings account holders (Adams et al 2016). Banerjee et al (2021) found that textmessage reminders about an upcoming vaccination drive had a large effect on the demand for immunization in Haryana, India. And, in the US, a policy experiment conducted in New York City courts, Cooke et al (2018) found that text message reminders significantly reduced the rate of failure-to-appear in court. Also in the US, recent work has been testing text-message reminders, as a way to increase Influenza and COVID-19 vaccine uptake (Dai et al 2021; Milkman et al 2021a; Milkman et al 2021b). Text message reminders, as a way to increase COVID-19 vaccine uptake, have also been tested in Israel (Berliner-Senderey et al 2021).

reduction in ECA visits must reflect debtors who were informed by the digital communications and thus did not need to seek information from the local ECA office. We note that a similar reduction in ECA visits was observed both for debtors who made a payment and for those who didn't, indicating that many debtors visit the ECA office to obtain information, not to make a payment; they can pay by phone or online (our ECA partners confirmed that such remote payments are common).

The insights from this policy experiment are already being used by the ECA in Israel. They should also inform the design, or re-design, of communications with debtors in other countries. Our findings can help lawmakers improve communication strategies and thus facilitate debt repayment, while minimizing the pain that debtors suffer from collection and enforcement procedures. Beyond debt collection, our results should inform the design and implementation of information-based, Nudge policies in the many contexts in which they are used, including health and safety, employment, retirement savings, environmental protection and more. Our findings can also inform the important effort to increase voter turnout. Across these diverse contexts, policymakers should focus on digital modes of communication and, specifically, on easy-to-implement, cost-effective text messages. Indeed, the low-cost of 'Nudging by text message' would allow policymakers to experiment with different content, framing and design of the disclosures that are sent via text message.

We are mindful of the external validity concerns that arise, when insights from a policy experiment in one country (Israel) and in one context (debt collection) are "exported" to other countries and to other policy contexts. For example, in some countries certain modes of communication may be more or less popular. We note, however, that text messages—the most promising mode of communication in our study—are widely used in many countries.⁸ Another external-validity concern involves the recipient's age. In our policy experiment, text messages were equally effective across age groups, and yet the number of older recipients in our data was relatively small. Further study is warranted, before text messages and other digital communication

⁸ In the United States, industry data shows that, at the end of 2009, 286 million cellphone users sent 152.7 billion text messages each month, for an average of 534 messages per subscriber per month (CTIA 2010). A PEW study from 2010 found that 72% of adult cellphone users send or receive text messages (PEW 2010). More recent data suggests Americans send over 66,000 text messages per second (CTIA 2021). In the United Kingdom, in 2019, 76 percent of cellphone users reported sending text messages on a daily basis (Goodwin 2020). In China, in 2020, over 1.2 trillion text messages were sent, not including messages sent via messaging apps, specifically WeChat (Statista 2021).

strategies are implemented in policy areas, such as retirement savings and health services, where the communications target elderly recipients. More generally, it would be worthwhile for future work to replicate our approach—comparing the effectiveness of alternative communication mediums, while holding fixed the content of the message—in other countries and in other legal settings.⁹

The remainder of the paper is organized as follows. Section 2 provides background on debt collection and, specifically, on debt collection in Israel. Section 3 sets-up our policy experiment, describing the experimental design, the different Nudge treatments and the model specifications. Results are presented in Section 4. Section 5 concludes.

2. Background

2.1 Debt Collection

The debt-collection process involves a series of communications that are sent to the debtor. These include pre-judgment notices – about the filing of a lawsuit, about pre-judgment remedies (e.g., attachment, garnishment and temporary restraining orders) and about the application for a default judgment. And they include post-judgment notices – about the judgment itself and about the various enforcement or collection procedures, including the confiscation and sale of property, placing a lien on the debtor's property, restraining orders, and installment payment orders. How are these notices communicated? In most cases, the relevant legal rules envision communication by paper document – via mail, personal service, leaving a copy with another person at the defendant's dwelling, affixing a copy to the door of the defendant's dwelling, or leaving a copy with the court clerk. Occasionally, electronic communications are permitted or the court is granted

⁹ We note that different mediums of communications may pose different privacy or data-security risks. For example, it is possible that registered mail protects privacy better than a text message (e.g., if a third party can look over the recipients shoulder while the recipient reads text messages on her phone). Such privacy or data-security concerns should be balanced against the efficacy benefits that this paper focuses on. Moreover, in policy context where privacy concerns are especially acute, e.g., in the health policy context, the privacy concerns may outweigh the efficacy benefits and dictate the communication medium. And yet the tradeoff between privacy and efficacy is not inevitable. Indeed, modern technology, including biometrics and encryption technology, can make the more effective digital medium also more privacy-protective.

discretion to specify the mode of communication, thus opening the door for electronic communications.¹⁰

Too often, the pre- and post-judgment notifications that are sent to debtors are ineffective. A big part of the problem lies in the way in which information – about the debt, the judgment, the enforcement and collection procedures – is communicated to the debtor.

2.2 Debt Collection in Israel

In Israel, debt collection is centralized. A government agency within the Ministry of Justice, the Enforcement and Collection Authority (ECA), is in charge of collecting most debts. (In contrast, in the United States, debt collection is decentralized, with the local sheriff in charge of most collection procedures.) After the creditor obtains a judgment and the debtor fails to pay, the creditor can open a collections case with the ECA. With the opening of a collections case, a significant fee is immediately added to the initial debt. The ECA sends a legally-mandated notice to debtors, via registered mail, informing them that they have 30 days to either repay or challenge the debt. The 30-day period begins when the ECA receives confirmation that the legally-mandated notice was received by the debtor. If a debtor fails to respond within the 30-day period, the ECA magistrate judges determine which collection procedures to apply.

On December 31, 2019, the ECA database included 608,743 active debtors with 2,223,016 collection cases. In other words, 1-in-10 Israeli adults had an open collections case. Each year, approximately 300,000 new debt-collection cases are added to the ECA system. In 2019, the average debt amount, when a case is opened, was 30,438 NIS (approximately \$8,700); and the median debt amount was 5,470 NIS (approximately \$1,500). The ECA's magistrate judges have the power to initiate various collection procedures. They can place liens, reposes property, revoke

¹⁰ Consider the following examples from the United States: Regarding the prevalence of communication by paper document – see, e.g., FED. R. CIV. PROC. 5, 77(d)(1) (Federal); TEX. R. CIV. PROC. §103, 501.2(a) (Texas); CAL. CODE. CIV. PROC. §§415.10, 415.20 (California); N.Y. C.P.L.R. 308 (New York). For the few US jurisdictions that permit electronic communications – see, e.g., TEX. R. CIV. PROC. §103, 501.2(a) (Texas); FED. R. CIV. PROC. 5, 77(d)(1) (Federal; Federal rules permit electronic communications only if the defendant consented, in writing, to this method of communication); N.Y. C.P.L.R. 308 (New York; in this jurisdiction the court's discretion to order other methods of communication arises only when the listed paper-based methods are impracticable). At the pre-judgment stage, and even before a suit is filed, creditors and debt-collectors repeatedly contact debtors – by phone, by letter, by email and by text message – in attempt to collect the debt. See, e.g., Bureau of Consumer Financial Protection (2017), p.14; Bureau of Consumer Financial Protection (2019), p. 141. Appendix C summarizes notice requirements (and enforcement and collection procedures) across multiple jurisdictions within the United States.

a debtor's driver's license, revoke a debtor's passport and restrict the debtor's ability to leave the country, restrict the debtor's use of credit cards, and more.¹¹

3. The Policy Experiment

3.1 Design: General

In cooperation with the Israeli Ministry of Justice and the Enforcement and Collection Authority (ECA), we conducted a Randomized Control Trial (RCT) to assess the effect of different communication strategies on the debtors and on debt-collection outcomes. We focused on the initial notice that debtors receive, when a collections case is opened.¹² We designed a new message that conveyed the general information from the legally-mandated notice in a simpler, more userfriendly manner. In particular, the new notice included key information, such as: (i) you should pay quickly if you can; (ii) if you don't pay, there might be unpleasant consequences (with examples of such consequences); (iii) if you can't pay, you should contact the ECA regional office, where you can get assistance (e.g., a repayment plan can be arranged); and (iv) the address of the regional ECA office was provided. The text of the new notice is provided in Appendix A. The Ministry of Justice imposed strict requirements on the content of the new notice and prohibited any personalization of this notice. In contrast, we were able to test the efficacy of the new notice when conveyed through different communication mediums. We randomly assigned debtors to different treatments, focusing on the medium of communication. In addition, when possible, we added reminders that do not convey new information, but Nudge debtors to action through a different mechanism, e.g., by helping to overcome the tendency to procrastinate (see, e.g., Sunstein 2014).

The RCT included 39,867 cases that were opened in late 2019 or early 2020. (Technically, the study covers all cases for which the standard, legally-mandated notice was delivered to the debtor between December 1, 2019 and January 16, 2020, as recorded in the ECA database.) Of these 39,867 cases, our analysis focuses on the 36,362 cases where the debtor is a private person (rather that a corporation, for example).

¹¹ Enforcement and Collection Authority (2020), pp. 31, 39, 43, 74, 79.

¹² It would have been interesting to study possible interventions before a collections case is opened. Unfortunately, we did not have access to debtors at these earlier stages.

Unfortunately, in mid-March the COVID-19 pandemic led to a complete shut-down of the Israeli economy and to a cessation of all debt-collection activities. Therefore, we focus on the effects of the different treatments on debtor behavior up to mid-March. Given the profound economic implications of the pandemic, especially for financially weaker populations, any longer-term analysis (that attempts to pick-up after the economy reopened) would not be representative of normal, non-crisis effects of the examined communications strategies.

3.2 Design: Treatments

We studied the effects of seven treatments, plus the standard, legally-mandated notice as a control, using a multi-arm RCT design. These treatments, or communication strategies, are described in Table 1 below. The table also reports the treatment dates and the number of cases in each treatment.¹³

¹³ The treatment dates reported in Table 1 are the dates, as they are recorded in the ECA database, when the standard notice was delivered to the debtor (which can be different from the dates when the standard notice was actually delivered to the debtor). The last column – the comments column – indicates, for treatments 1 and 2, whether the debtor answered the phone. The main analysis includes all cases. In Table 3a (below) repeats the analysis focusing only on cases, where the debtors answered the phone.

Group/	Dates	Description	# of Cases	Comments
Treatment				
0	12/1-5	Control: Only standard notice	5,959	
		via Mail		
1	12/8	Added: New notice via Phone	1,099	294 answered the
		Call		phone
2	12/9	Added: New notice via Phone	1,022	266 answered the
		Call after 20 days		phone
3	12/15-19	Added: New notice via Mail	5,136	
4	12/22-26	Added: New notice via Text	5,545	
		Message		
5	12/29-1/2	Added: New notice via Text	5,664	
		Message + Short Text Message		
		Reminder after 20 days		
6	1/5-9	Added: New notice via Video	5,764	
		(link in text message)		
7	1/12-16	Added: New notice Video (link	6,173	
		in text message) + Short Video		
		Reminder after 20 days		

Table 1: Treatments

As shown in Table 1, the different treatments were applied according to the date when the standard, legally-mandated notice was delivered to the debtor. Generally, for all cases in which the standard notice was received in a given week, a specific treatment was applied. (The phone call treatments were applied during a 1-day, rather than 1-week period, given their high implementation costs.) Ideally, we would have chosen an intervention randomly for each collections case, but this was not feasible. We confirmed that there are no significant differences – in terms of the observed debt and debtor characteristics – across the different treatments (see Section 4.1 below). Therefore, we consider the temporal allocation of interventions to be a valid quasi-randomization.

We next describe the communication strategy in the control group and in the different treatment groups. The control group received only the standard, legally-mandated notice via regular mail. This standard notice is densely written, using technical, difficult to understand language. Since the standard notice is mandated by law, all debtors – in all groups – received it. The treatments – in groups 1-7 – were thus in addition to, and not instead of, the standard notice.

Debtors in groups 1 and 2 received phone calls from the ECA. Group 1 received the call immediately after the ECA system registered that the standard notice was delivered to the debtor. Group 2 received the call 20 days after the ECA system registered that the standard notice was delivered to the debtor. The callers followed a script that tracked the new notice. While the callers followed the script, they also answered basic questions that the debtors asked. This, in addition to other caller-specific effects, created variation among the calls.

Debtors in group 3 received the new notice by regular mail. Debtors in group 4 received the same message, but via text message. Debtors in group 5 received the new notice via text message, and also a shorter reminder notice after 20 days. The text of the shorter notice is provided in Appendix A. Debtors in group 6 received a text message with a link to a video, in which an actor followed a script based on the new notice. The video is discussed in Appendix A. Debtors in group 7 received the same video, and also a shorter reminder video after 20 days. In the shorter video, an actor followed a script based on the shorter notice. The video is discussed in Appendix A. ¹⁴ Ideally, we would have tested reminders also for the phone call and (regular) mail interventions, but this was difficult for the ECA to implement. Therefore, we ended-up with the seven treatments described above.

3.3 Model Specification

Outcome (dependent) variables. We study the effects of the different communication strategies on case outcomes two months after the intervention. We have two main outcome variables: (1) A broader outcome variable, Any Payment, that takes the value '1' if any payment activity occurred or if the case was closed after full payment or for some other reason; and zero otherwise. (2) A narrower outcome variable, Full Payment, that takes the value '1' only if the case closed after full payment or for some other reason.¹⁵ Of the 36,362 cases in our data, the debtor

¹⁴ In a recent study on the effects of different Nudges on COVID-19 vaccine take-up, Dai et al. tested a video intervention alongside a text message intervention, but the video and text interventions included completely different information. See Dai et al (2021).

¹⁵ The broader output variable is constructed from two underlying binary variable. The first is 'Full Payment' or 'case status,' i.e., whether the case is open or closed. If the case closed, then likely there was some positive activity in the

made some payment, or the case closed, post-treatment in 7,721 cases (21%). Of these 7,721 cases, in 4,778 cases (62%) the debt was paid in full or the case was closed for some other reason; in the remaining 2,943 cases (38%) there was only partial payment.

A third outcome variable, Visit ECA, tracks whether the debtor visited an ECA regional office after the treatment. We use Visit ECA to explore the mechanism through which our interventions affected case outcomes (repayment activity and case closure)—specifically, to show that only some of the interventions, and only some of the communications mediums, successfully informed debtors. Of our 36,362 cases, in 8,472 cases (23%) the debtor visited an ECA regional office post-treatment.

Given the short time-frame – from the treatment date to the end of our observation window in mid-March – it is important to account for the treatment date. Recall that treatments started in early December 2019 and ended in mid-January 2020. To ensure an apples-to-apples comparison, we define our outcome variables to measure impact within a 60-day window after the treatment date.

Control variables. Our specification includes the following control variables: (1) the debtor's age (Age) and also the age squared, (2) whether the ECA has a verified cellphone number for the debtor (Verified Cellphone), (3) the log of the debt amount when the collections case was opened (Debt), (4) the ratio the debt amount in the current collections case to the overall debt in all of the debtor's open cases (Debt/Total Debt), (5) the total number of prior collection cases, closed and open, for this debtor (Total Cases), and (6) the ratio of closed cases to total cases (Closed/Total Cases). We control for the debt amount in the current case, since debtors ability or inclination to repay may depend on the size of their debt. The ratio of current-case debt to total debt may also affect ability to repay, especially when high overall debt pulls this ratio down. Similarly, we control for the number of total cases and for the ratio of closed-to-total cases, as possible indicators of the debtors ability or inclination to repay. We also control for the age, which is the only demographic characteristic that we have for debtors. And we control for whether the ECA has a verified

case – either the debtor paid or the creditor or the ECA concluded that there was no point in keeping the case open (perhaps because the debtor successfully contested the debt or showed that s/he is unable to make further payments). The second variable is 'Any Payment', i.e., whether the debtor made a payment before mid-March. The broader output variable takes the value '1' if either the case closed or some payment was made (before mid-March); otherwise it takes the value '0'. The narrower output variable takes the value '1' only if the case closed; otherwise it takes the value '0'.

cellphone number for the debtor, since this affects the likelihood that a communication, specifically a telephone communication, reaches the debtor. In all of our specifications, we control for ECA office and case-type fixed effects.

4. Results

4.1 Summary Statistics

We begin by presenting summary statistics in Table 2. We report the mean and standard deviation (in parentheses) for our independent, control variables for all observations, as well as separately for each treatment group. For all observations, the average age of our debtors is 41.35, the average debt amount in the specific collections case is 34,949 NIS (approximately \$10,000), the average ratio of current-case debt to total debt is 0.33, the average debtor has a total of 11 collections cases (closed and open) in the ECA system, and the average ratio of closed-to-total cases is 0.48. Table 2 shows that these averages are quite similar across the different treatment groups.

Message via	Control	Phone Call	Phone Call	Regular	Text Message	Text Message	Video	Video	All
			After 20 Days	Mail		+ Reminder		+ Reminder	
Age	41.25	42.51	41.74	41.21	42.56	42.02	41.36	41.39	41.35
	(13.77)	(13.77)	(14.06)	(13.68)	(13.90)	(13.65)	(14.01)	(13.72)	(13.80)
Verified	0.73	0.72	0.68	0.72	0.62	0.60	0.59	0.61	0.65
Cellphone	(0.44)	(0.45)	(0.46)	(0.45)	(0.49)	(0.49)	(0.49)	(0.49)	(0.48)
Debt	33,097	32,207	38,442	37,113	34,066	33,254	34,637	37,489	34,949
	(263, 756)	(158, 567)	(158, 696)	(178, 123)	(106, 565)	(177, 281)	(174, 559)	(201, 726)	(182, 595)
Debt/Total Debt	0.33	0.32	0.34	0.32	0.34	0.35	0.33	0.32	0.33
	(0.33)	(0.31)	(0.31)	(0.31)	(0.32)	(0.33)	(0.30)	(0.29)	(0.31)
Total Cases	10.83	11.61	10.90	11.17	10.95	10.48	1.039	10.77	10.79
	(12.09)	(13.34)	(12.07)	(12.75)	(12.88)	(11.93)	(11.99)	(12.15)	(12.32)
Closed Cases/	0.5	0.49	0.49	0.48	0.50	0.49	0.47	0.47	0.48
Total Cases	(0.34)	(0.34)	(0.34)	(0.34)	(0.35)	(0.35)	(0.34)	(0.34)	(0.34)

Note: Standard deviation are in parenthesis.

Table 2: Summary Statistics

4.2 Case Outcomes

Our main output variables measure case outcomes. As explained above, we consider a broader outcome variable, Any Payment, that takes the value '1' if any payment activity occurred or the case was closed, and a narrower outcome variable, Full Payment, that takes the value '1' only if the case was closed (after full payment or for other reasons).

We begin with the broader outcome variable, Any Payment. Table 3 reports the results of a regression analysis that examines the effects of the different treatments or communication strategies on debt payments. Table 3 reports the results from three different regression models: Model (1) includes all cases; Model (2) includes cases opened no more that 60 days before the treatment; and Model (3) includes cases opened no more that 45 days before the treatment. In cases that were opened long before the treatment date, effects of pre-treatment actions would be larger and would dilute the treatment effects; that is why we consider Models (2) and (3) in addition to the baseline Model (1). We were surprised to learn that some cases were opened more than 60 days before the standard, legally-mandated notice was recorded as "received" in the ECA database. Our ECA partners explained that such delays are often attributed to difficulties in finding the debtor's current address and delivering the registered-mail notice, as well as delays by the postal service in forwarding the delivery confirmation to the ECA.

Across all models, we see that the first three treatments – the phone calls and the revised notice sent by regular mail – did not have a statistically significant effect. The remaining four treatments – revised notice by text message with and without a reminder and the video message with and without a reminder – had a statistically significant and economically large effect. In the most inclusive model, Model (1), we observe treatment effects of about 20%.¹⁶ Adding a well-designed notice sent via text message or video message increases the rate of debt payment by 20%. This is a large effect. Moreover, when we look at more recently opened cases, in Model (2) and Model (3), the effect is even larger, between 23% - 31%.¹⁷ These results are presented graphically in Figure 1.

The covariates included in the regressions affect the outcome variables in the expected directions. Debtors with a larger current-case debt, are less likely to make a payment. When the current debt constitutes most of the total debt, debtors are more likely to make a payment. Debtors are less likely to make a payment, when the total number of prior cases is larger. But they are more

 $^{^{16}}$ The mean value of the output variable is 0.2123, and the coefficients on the dummy variables for treatments 4-7 are between 0.039 - 0.044.

¹⁷ In Model (2), the mean value of the output variable is 0.2237, and the coefficients on the dummy variables for treatments 4-7 are between 0.051 - 0.069. In Model (3), the mean value of the output variable is 0.2225, and the coefficients on the dummy variables for treatments 4-7 are between 0.053 - 0.063.

	(1)	(2)	(3)
	All Cases	$\text{Cases} \le 60$	Cases ≤ 45
Age	0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)
Debtor Age Squared	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Age Info Missing	-0.063***	-0.070**	-0.059
	(0.017)	(0.026)	(0.036)
Verified Cellphone	0.028***	0.043***	0.045***
	(0.005)	(0.007)	(0.008)
log(Debt Amt)	-0.027***	-0.033***	-0.035***
	(0.003)	(0.003)	(0.003)
Debt / Total Debt	0.416***	0.449***	0.455***
	(0.014)	(0.025)	(0.023)
Total Cases	-0.001***	-0.000**	-0.000*
	(0.000)	(0.000)	(0.000)
Closed Cases / Total Cases	0.195^{***}	0.187***	0.173***
	(0.014)	(0.017)	(0.018)
Phone Call	0.017	0.037	0.032
	(0.017)	(0.024)	(0.029)
Phone Call after 20 Days	0.011	0.010	0.003
	(0.012)	(0.018)	(0.017)
Regular Mail	0.015^{*}	0.026***	0.026*
	(0.008)	(0.009)	(0.014)
Text Message	0.044***	0.069***	0.063***
	(0.010)	(0.012)	(0.016)
Text Message	0.041***	0.051***	0.053***
+ Reminder	(0.007)	(0.009)	(0.013)
Video	0.039***	0.057***	0.061***
	(0.012)	(0.014)	(0.018)
Video + Reminder	0.044***	0.060***	0.055***
	(0.010)	(0.011)	(0.011)
N	36,347	18,855	15,080
R^2	0.2129	0.2275	0.2285
Mean	0.2123	0.2237	0.2225

likely to make a payment, when the ratio of closed cases to total cases in higher (perhaps a higher ratio is a proxy for the type of debtor who is more inclined to repay debts).

Note: The above table reports the results of the ordinary least squares regressions predicting whether a debtor will make any payment in the first 60 days after the treatment. Column (1) includes all cases; Column (2) includes cases opened no more that 60 days before the treatment; and Column (3) includes cases opened no more that 45 days before the treatment. All specifications include ECA office and case type fixed effects. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table 3: Effects of the Different Communication Strategies on Debt Repayment

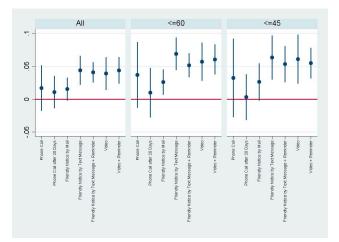


Figure 1: Effects of the Different Communication Strategies on Debt Repayment

Our failure to find statistically insignificant effects of the Phone Call interventions, as reported in Table 3 and Figure 1, may be attributed to the smaller number of cases in these interventions and to the even smaller number of cases where the ECA representative actually reached the debtor. Indeed, the debtor was reached in only about 25% of the cases. Because of this small-N problem, not only were the effects of the Phone Call interventions insignificantly different from zero, they were also insignificantly different from the effects of the other interventions (including the four digital interventions). To further explore the efficacy of the Phone Call interventions, we repeated the analysis focusing only on the 25% of debtors who actually talked to an ECA representative. (For all other interventions, we continue to include all the debtors; the available indicators for a successful communication in the other intervention categories, e.g., whether the debtor received and/or opened a text message, are much less reliable.) The results are reported in Table 3a. The effects of the phone call interventions doubled (or more) in size, but they still remain (mostly) statistically insignificant, likely because of the small number of verified phone calls. We recognize, of course, that selection is at work here: debtors who answer the phone may not be representative of the overall population of debtors. (Similarly, if we could identify the debtors who opened and read our text messages, we would expect a larger effect for those interventions, relative to the effects reported in Table 3. And, again, the larger effects would be at least partially attributed to selection.) Our main analysis, in Table 3, avoids this selection problem

	(1)	(2)	(3)
	All Cases	$\mathrm{Cases} \leq 60$	$\text{Cases} \le 45$
Phone Call	0.026	0.052	0.062
	(0.019)	(0.041)	(0.043)
Phone Call after 20 Days	0.054^{**}	0.056	0.050
	(0.024)	(0.035)	(0.042)
Regular Mail	0.014*	0.026**	0.024*
	(0.007)	(0.011)	(0.013)
Text Message	0.043***	0.063***	0.070***
	(0.010)	(0.014)	(0.015)
Text Message	0.040***	0.053***	0.031**
+ Reminder	(0.007)	(0.010)	(0.015)
Video	0.038***	0.060***	0.047**
	(0.011)	(0.015)	(0.017)
Video + Reminder	0.043***	0.054***	0.048***
	(0.008)	(0.009)	(0.012)
N	36,347	$15,\!080$	9,058
R^2	0.2130	0.2286	0.2379
Mean	0.2123	0.2225	0.2222

and focuses on the intent-to-treat effects of the different interventions, which are the most relevant for policymakers. Still, Table 3a suggests that Phone Call interventions can be effective.

> Note: The table above is similar to Table 2 except that the dummy variables for the "Phone Call" and "Phone Call after 20 days" interventions get 1 only if we know that the debtor actually answered the phone. Column (1) includes all cases; Column (2) includes cases opened no more that 60 days before the treatment; and Column (3) includes cases opened no more that 45 days before the treatment. The table above, although controlling for all the variables in Table 2, shows the coefficients only for the intervention dummy variables. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table 3a: Effects of the Different Communication Strategies on Debt Repayment; Verified Phone Calls

In Appendix B, we disaggregate the analysis and run separate regressions for (i) younger v. older debtors; (ii) debtors with lower v. higher debt, in the current collections case and across all open cases; and (iii) debtors with a larger v. smaller number of prior collections cases and a larger v. smaller ratio of closed-to-total cases. Table B.1 shows that there are no age effects for the digital interventions; the effects of all the digital interventions are similar across age groups. However, the table shows a large and statistically significant effect of the Phone Call intervention for young debtors (age 25 and below), although we note that fewer than 20 young debtors were assigned to the Phone Call intervention. From Table B.2., we see that the efficacy of all treatments (and especially of those that were found to be effective in the main, Table 3 regression) is smaller, when the overall debt burden is larger (Column (3) and (4)). The magnitude of debt in the current collections case does not seem to matter much; the differences between the treatment effects for high v. low current-debt are not statistically significant. Table B.3. shows that the efficacy of all treatments (and especially of those that were found to be effective in the main, Table 3 regression) is smaller. However, none of these differences are statistically significant.

Next, we consider the narrower outcome variable, Full Payment. Table 4 reports the results of a regression analysis that examines the effects of the different treatments or communication strategies on case status, i.e., whether the case was closed after full payment or for other reasons. Table 4 reports the results from three different regression models: Model (1) includes all cases; Model (2) includes cases opened no more than 60 days before the treatment; and Model (3) includes cases opened no more than 45 days before the treatment.

Looking at the narrower outcome variable, Full Payment, we see that, across all models, only two treatments had a statistically significant and economically large effect – these are treatments 5 and 7, where the debtor received a reminder, either a text reminder or a video reminder. In the most inclusive model, Model (1), we observe treatment effects of 16% for the text reminder and 8% for the video reminder. When we look at more recently opened cases, the effect is slightly larger, 18-19% for the text reminder and 10-12% for the video reminder.¹⁸ Interestingly, text reminders are more effective than video reminders. These results are presented graphically in Figure 2.

¹⁸ In Model (1), the mean value of the output variable is 0.1315, and the coefficients on the dummy variables for treatments 5 and 7 are between 0.021 and 0.010, respectively. In Model (2), the mean value of the output variable is 0.1411, and the coefficients on the dummy variables for treatments 5 and 7 are between 0.026 and 0.017, respectively. In Model (3), the mean value of the output variable is 0.1406, and the coefficients on the dummy variables for treatments 5 and 7 are between 0.027 and 0.014, respectively.

	(1)	(2)	(3)
	All Cases	Cases ≤ 60	$Cases \leq 45$
Phone Call	0.008	0.024	0.013
	(0.015)	(0.020)	(0.022)
Phone Call after 20 Days	-0.002	-0.007	-0.005
I none Can after 20 Days			
	(0.010)	(0.015)	(0.014)
Regular Mail	-0.003	-0.006	-0.007
	(0.006)	(0.007)	(0.009)
Text Message	0.012	0.021**	0.016
	(0.008)	(0.010)	(0.014)
Text Message	0.021***	0.026***	0.027**
+ Reminder	(0.005)	(0.007)	(0.010)
Video	0.006	0.013	0.017
	(0.009)	(0.009)	(0.014)
Video + Reminder	0.010**	0.017***	0.014**
	(0.005)	(0.006)	(0.005)
N	36,347	18,855	15,080
R^2	0.3836	0.4022	0.4052
Mean	0.1315	0.1411	0.1406

Note: The above table reports the results of the ordinary least squares regressions predicting whether the collections case was closed in the first 60 days after the treatment. Column (1) includes all cases; Column (2) includes cases opened no more that 60 days before the treatment; and Column (3) includes cases opened no more that 45 days before the treatment. All specifications include ECA office and case type fixed effects. The table above, although controlling for all the variables in Table 2, shows the coefficients only for the intervention dummy variables. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table 4: Effects of the Different Communication Strategies on Full Payment

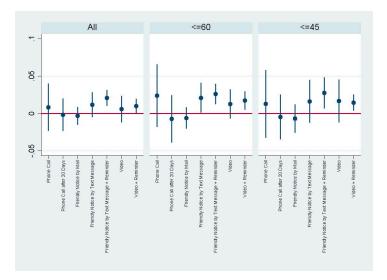


Figure 2: Effects of the Different Communication Strategies on Full Payment

Looking at Table 3 (and Figure 1) and Table 4 (and Figure 2) together, we conclude that treatments 4-7 – new notice by text message with and without a reminder and the video message with and without a reminder – lead to a significant increase in repayment activity, but only treatments 5 and 7 – those with a reminder – lead to a significant increase in full payment and case closures. Moreover, since the Table 3 effects of the with-reminder treatments are similar to those of the without-reminder treatments, it seems that the same debtors made an initial payment after receiving the first communication and then closed the case by making another payment after receiving the reminder communication.¹⁹

4.3 Better-Informed Debtors

We have identified communication strategies – new notice by text message and the video message – that increase repayment activity and case closure. We now use our third outcome variable, Visit ECA, to provide additional evidence that these communication strategies convey relevant information to debtors.

¹⁹ An alternative theory, which is not consistent with the combined results of Table 3 and Table 4, is that some debtors wait for a reminder and then make a single, large payment that closes the case.

There are two main reasons why a debtor would visit an ECA office: (i) to get information, and (ii) to take some action – repay the debt, challenge the debt or request some accommodation. If the communication strategy is effective, then fewer debtors would visit an ECA office to get information. With respect to the take-action visits, it is possible that informed debtors who appreciate the importance of taking action would visit an ECA office more often; it is also possible that these informed debtors would take the necessary action – specifically, make a debt payment – by mail or over the phone and thus visit an ECA office less often. The overall effect of our treatments on ECA visits is thus theoretically indeterminate. We add a new control, a dummy indicating whether the debtor visited an ECA office before the treatment date (Prev Visit ECA), since such a pre-treatment visit would reduce the probability of a post-treatment visit. As expected, the coefficient of this control variable is negative and statistically significant.

Table 5 reports the results of a regression analysis that examines the effects of the different treatments or communication strategies on the probability of visiting an ECA office. Table 5 reports the results from three different regression models: Model (1) includes all cases; Model (2) includes cases opened no more than 60 days before the treatment; Model (3) includes cases opened no more than 45 days before the treatment.

In the most inclusive model, Model (1), we see that none of the interventions had a statistically significant effect on the probability of visiting an ECA office. The treatment effects were likely diluted by activity that occurred before the treatment. When we focus on more recently opened cases – in Model (2) and Model (3) – we see that treatments 4-7 had a statistically significant, and economically large, negative effect. In Model (2), we observe a treatment effect of 21% - 29%; in Model (3) we observe a treatment effect of 26% - 33%.²⁰ A well-designed notice sent via text message or video message effectively informs debtors and thus reduces the need to visit an ECA office for the purpose of getting information.²¹ Moreover, at least some of these

 $^{^{20}}$ In Model (2), the mean value of the output variable is 0.2438, and the coefficients on the dummy variables for treatments 4-7 are between -0.051 and -0.071. In Model (3), the mean value of the output variable is 0.2572, and the coefficients on the dummy variables for treatments 4-7 are between -0.068 and -0.086.

²¹ There was another engagement variable: Call ECA, the probability that the debtor called the ECA customer service center in the first 60 days after a treatment. Of our 36,362 cases, in 5,025 cases (14%) the debtor called the ECA post-treatment. We examined the effects of the different treatments or communication strategies on the probability of calling the ECA, using three different regression models: Model (1) includes all cases; Model (2) includes cases opened no more that 60 days before the treatment; Model (3) includes cases opened no more that 45 days before the treatment. In Model (1), treatments 3-7 had statistically significant positive effects (as compared to the negative effects for Visiting the ECA), but these effects disappear when we look at more recently opened cases in Models (2) and (3).

informed debtors decide to pay their debt by mail or by phone, namely, without visiting an ECA office. Table 6 reports visits to the ECA by intervention, comparing debtors who made a payment versus those who did not. A similar reduction in ECA visits was observed both for debtors who made a payment and for those who didn't. Indeed, we see that treatments 4 and 5 had a larger effect on debtors who made a payment.

	(1)	(2)	(3)
	All Cases	Cases ≤ 60	Cases ≤ 45
Prev Visit ECA	-0.288***	-0.309***	-0.329***
	(0.010)	(0.010)	(0.009)
Phone Call	0.034	0.031	0.019
	(0.033)	(0.054)	(0.056)
Phone Call after 20 Days	0.013	-0.013	-0.036
	(0.017)	(0.022)	(0.024)
Regular Mail	0.018	-0.002	-0.030
	(0.011)	(0.023)	(0.029)
Text Message	-0.006	-0.051**	-0.076***
	(0.009)	(0.019)	(0.024)
Text Message	0.002	-0.070***	-0.079***
+ Reminder	(0.010)	(0.021)	(0.027)
Video	0.000	-0.061***	-0.068**
	(0.009)	(0.019)	(0.025)
Video + Reminder	-0.011	-0.071***	-0.086***
	(0.010)	(0.019)	(0.022)
N	36,347	18,855	15,080
R^2	0.0618	0.0848	0.0938
Mean	0.2329	0.2438	0.2572

Note: The above table reports the results of the ordinary least squares regressions predicting whether the debtor visited an ECA regional office in the first 60 days after the treatment. Column (1) includes all cases; Column (2) includes cases opened no more that 60 days before the treatment; and Column (3) includes cases opened no more that 45 days before the treatment. All specifications include ECA office and case type fixed effects. The table above, although controlling for all the variables in Table 2, shows the coefficients only for the intervention dummy variables and the "Prev Visit ECA" dummy variable. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table 5: Effects of the Different Communication Strategies on Visits to the ECA

Overall, it seems that we get no treatment effects (or weak effects). Why did we get significant negative effects for Visit ECA, but not for Call ECA? One possible explanation is that the cost of calling is so low, relative to visiting the ECA office, that even with a treatment that effectively conveyed some information, debtors were induced to call the ECA office to get more complete information.

Intervention	No Payment	Any Payment
Control	0.32	0.31
Phone Call	0.35	0.228
Phone Call after 20 Days	0.32	0.21
Regular Mail	0.31	0.32
Text Message	0.25	0.21
Text Message $+$ Reminder	0.23	0.18
Video	0.22	0.21
Video + Reminder	0.21	0.21

Table 6: Visits to the ECA by Intervention and Payment

4.4 Summary

Well-designed text messages and video notices significantly increase debt repayment and case closure. Specifically, they increase the likelihood of making some payment by 20-30%; and, with reminders, they increase the likelihood of full repayment or case closure by 10-20%. In addition, the 20-30% reduction in visits to an ECA office suggests that the improved communications strategy actually informs debtors, so that they don't have to visit the ECA office. (The results reported in Table 3a suggest that Phone Call interventions may be effective, but also that there is no reason to use such expensive communication strategies, when equal or better results can be obtained much more cheaply—by text message.) These are large effects. DellaVigna and Linos (2020) found similar effects for Nudge studies published in academic journals, and much smaller effects for Nudge interventions implemented, on a large scale, by government agencies. Our policy experiment fits into the government-agency category in DellaVigna and Linos (2020), with all the design and implementation restrictions imposed by the Ministry of Justice. And yet we obtain results in the magnitude of the unrestricted academic studies.

Our outcome variables, Any Payment and Full Payment, actually include the possibility that the collections case was closed for other reasons, e.g., after the debtor successfully challenged the

debt or had it discharged based on inability to repay.²² And yet we do not know whether a debtor who repaid should have repaid or rather discharged the debt; and we do not know whether a debtor who discharged the debt should have discharged or rather repaid the debt. Specifically, we cannot rule out the possibility that some of the debtors who were induced to repay by our interventions should have actually challenged the debt or sought to discharge it. For this reason, our results provide only one input into the larger policy debate.

5. Concluding Remarks

5.1 Reforming Debt-Collection Nudges

The lessons from the Israeli policy experiment can help policymakers improve communications with defendant-debtors in the United States and in other countries. Our results suggest that notices should be short and simple, without unnecessary legal jargon. But, more importantly, the notices should be sent digitally, by text message, and not by regular mail. This basic insight should spur wide-ranging, but easy-to-implement, reforms in the legal rules that govern communications with defendant-debtors. Current rules, in most US jurisdictions, envision paper-based communication. These rules should be changed. Digital communication should be required. The digital notices need not replace the traditional, paper notices; they can be required in addition to the traditional notices. Importantly, low-cost text messages are as effective as the more costly video messages. This result came as a surprise; we expected the video message to have a larger effect, especially among younger debtors. The upshot is that simple and easy-to-implement text messages are the best option, at least in this context. (The low-cost text messages are also as good as, or better than, the much more expensive Phone Call interventions.)

Our results concerning the importance of reminders suggest further legal reforms. For the numerous pre- and post-judgment notices that defendant-debtors receive, the law (by and large) envisions one-shot communications. Here too the rules should be changed. Reminders, specifically digital reminders, should be required.

²² The ECA's objective function is multi-dimensional. The ECA wants to successfully collect valid debts. The ECA also wants to help struggling debtors. And the ECA may also want to reduce the number of open cases."

The proposed digitization reforms are wide-ranging. They apply to pre-judgment notices – to communications sent by creditors (or debt collectors) before a lawsuit is filed, to notice that a suite had been filed, to notice that a pre-judgment remedy has been ordered and to notice of an application for a default judgment. And they apply to post-judgment notices – to notice that a judgment has been issued against the defendant-debtor, to notice that the plaintiff-creditor has applied for a certain enforcement order and to notice that an enforcement order has been issued. But, while the scope of the reforms is admittedly broad, the implementation of these reforms should be quite easy and entail minimal costs – minimal costs for policymakers and minimal costs for creditors. After all, designing and sending text messages should not impose a significant burden. And it promises significant benefits to both debtors and creditors.

5.2 Beyond Debt Collection: How to Communicate the Nudge

Whereas the growing Nudge literature has made great strides in optimizing the content, framing and design of disclosure mandates, it has largely ignored another, important dimension of Nudging—the medium of communication. This article highlighted the importance of choosing the right communication medium and provided policymakers with evidence that should inform such choices. Specifically, we conducted a real-world policy experiment, in which we examined the effectiveness of alternative mediums of communication, while holding the content of the message fixed. We found that digital communications via text-message should be preferred over more expensive, and less effective, non-digital (letters and phone calls) or digital (video) communications.

We believe that our results should inform the design and implementation of Nudges across a broad range of policy contexts. To be sure, we are mindful of external validity concerns. It would be worthwhile to replicate our study in other settings, comparing in each of them the effectiveness of alternative communication mediums. In the meantime, however, we believe that low-cost digital communications should be utilized as the default absent a significant context-specific argument to the contrary.

One issue that future work should further explore concerns the applicability of our findings to individuals in the very high end of the age distribution. In our policy experiment, text messages were effective for both younger and older message-recipients, but we had few message-recipients who were at the very high end of the age distribution. With Nudges that target older populations, e.g., in the retirement or health contexts, further study is required before a fully digital communication strategy is adopted. In addition, future work should compare the effects, including age-sensitive effects, of different digital communication strategies. Communication by text message, the most successful strategy in our policy experiment, is likely more effective with older disclosure recipients, than digital communication via social media. Our study provides the basis on which such future work may build.

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Appendix A

This Appendix provides additional information about the communication strategies used in the different treatments. In Section A1, we provide the script used by the callers in Treatments 1-2. In Section A2, we provide the new notice used in Treatments 3-5. In Section A3, we provide the shorter notice used in Treatment 5. In Sections A4 and A5, we discuss the scripts used in the video and shorter video, in Treatments 6-7. (The text of all notices and scripts has been translated from the Hebrew original.)

In Treatments 4-7, the notices and videos were sent by text message, with a link to the notice or video. The language of the text message was:

"So you received a letter from the enforcement and collections agency. What should you do? Click [hyperlink] for user-friendly information and assistance."

A1. Treatments 1-2: Phone Calls

This is the script used by the callers:

Hi, this is [name] from the enforcement and collections agency. Can I speak with [name of debtor]?

I know that you have recently received a debt notice.

If you can pay your debt, you should do so quickly.

If you don't pay within 20/30 days, interest and fees will be added and your overall debt will increase significantly.

Other enforcement actions might also be taken. The creditor can levy against your property (e.g., car, apartment, bank account). Your driver's license and passport could be revoked.

If you cannot pay your debt quickly, then come to the regional office of the enforcement and collections agency. We can help. For example, we can discuss a payments plan. [Address of regional office provided.]

A2. Treatments 3-5: New Notice

In Treatment 3, the notice was sent via regular mail. In Treatments 4-5, it was sent via text message. The new notice is:

So you received a letter from the enforcement and collections agency. What should you do?

It is obviously unpleasant to have a debt in the enforcement and collections agency.

But forget the unpleasantness and ask yourself what is better - to pay the debt or to ignore it?

Don't answer now. You have 30 days to decide.

If you pay, then you can put all of this behind you and start anew.

If you ignore the debt, then you'll have to deal with interest charges and the creditor can levy against your property.

The first 30 days provide a window of opportunity

If you pay within this window – that's it. No more debt. You're done.

After the 30 days, things get complicated.

Any delay leads to more interest charges and fees.

And if that's not bad enough, the creditor can levy against your property (e.g., car, apartment, bank account). Also, your driver's license and passport could be revoked.

So what should you do?

First of all – don't wait.

You received a debt notice? Take a breath, and pay-off the debt seamlessly through the website, by phone or at the regional office.

And if there is a problem?

The enforcement and collections agency is here for you.

Yes, yes, you've heard us right.

If you have trouble paying, contact the enforcement and collections agency to discuss payment options. We will be happy to help.

Paying your debt on time is something that you owe to yourself.

[Contact information provided.]

A3. Treatment 5: New Notice + Reminder with Shorter Notice

The new notice itself was provided above. Here we include the text of the shorter notice that accompanied the reminder:

So you received a letter from the enforcement and collections agency. What should you do?

It is obviously unpleasant to have a debt in the enforcement and collections agency.

But forget the unpleasantness and ask yourself what is better - to pay the debt or to ignore it?

And if there is a problem?

The enforcement and collections agency is here for you.

Yes, yes, you've heard us right.

If you have trouble paying, contact the enforcement and collections agency to discuss payment options. We will be happy to help.

[Contact information provided.]

A4. Treatment 6: Video

The script followed in the video was based on the language in the new notice (provided above). The video itself (in Hebrew) is available at: <u>https://youtu.be/UwZnRW77ylE</u>.

A5. Treatment 7: Video + Reminder with Shorter Video

The script followed in the shorter video was based on the language in the shorter notice (provided above), excluding the following:

If you pay, then you can put all of this behind you and start anew.

If you ignore the debt, then you'll have to deal with interest charges and the creditor can levy against your property.

Appendix B

This Appendix further investigates the effects of the different communication strategies on debt repayment (Table 3), asking whether the effects identified in the main regression (Table 3) can be attributed to specific subsets of debtors. Table B.1 parses the debtors in our policy experiment by age, looking at three age groups: below 25, between 25 and 55, and above 55. The four treatments that were found to be effective in the main regression—text message (with and without a reminder) and video (with and without a reminder)—exhibit similar effect magnitudes across the three age groups. The table also shows a large and statistically significant effect of the Phone Call intervention for young debtors (age 25 and below), although we note that fewer than 20 young debtors who were assigned to the Phone Call intervention.

Table B.2 parses the debtors by debt amount, comparing four sub-groups: (1) debtors with below median debt in the current collections case and below median debt in all other open cases; (2) debtors with above median debt in the current collections case and below median debt in all other open cases; (3) debtors with below median debt in the current collections case and above median debt in all other open cases; and (4) debtors with above median debt in the current collections case and above median debt in all other open cases. The efficacy of all treatments (and especially of those that were found to be effective in the main regression) is smaller, when the overall debt burden is larger. The magnitude of debt in the current collections case has a smaller effect, although it seems that the treatments have a somewhat larger effect when the current debt amount is larger.

Finally, Table B.3 parses the debtors by the number of prior collections cases and the ratio of closed cases to total cases, comparing four sub-groups: (1) debtors with a below-median number of prior cases and an above median closed-to-total ratio; (2) debtors with a below-median number of prior cases and a below median closed-to-total ratio; (3) debtors with an above-median number of prior cases and a below median closed-to-total ratio; and (4) debtors with an above-median number of prior cases and a below median closed-to-total ratio. The efficacy of all treatments (and especially of those that were found to be effective in the main regression) is smaller, when the number of prior cases is larger and when the closed-to-total ratio is smaller. Indeed, in sub-group (4), where the number of prior cases is above median and the closed-to-total ration is below median, the treatments have no statistically significant effect.

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0.024)
051***
0.017)
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0.2215

Note: The above table reports the results of the ordinary least squares regressions predicting whether the debtor made any payment in the first 60 days after the treatment. Column (1) includes all cases where the debtor is under 25 years of age; Column (2) includes all cases where the debtor is over the age of 25 and under the age of 55; and Column (3) includes all cases where the debtor is over 55 years of age. All specifications include ECA office and case type fixed effects. The table above, although controlling for all the variables in Table 2, shows the coefficients only for the intervention dummy variables. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table B.1: Any Payment by Age

	(1)	(2)	(3)	(4)
	Prev Debt $\leq 45,000$	Prev Debt $\leq 45,000$	${\rm Prev \ Debt} > 45{,}000$	Prev Debt $> 45,000$
	$Debt \leq 6000$	Debt > 6000	$Debt \leq 6000$	Debt > 6000
Phone Call	0.050	0.037	0.014	-0.016
	(0.035)	(0.029)	(0.029)	(0.013)
Phone Call after 20 Days	-0.000	-0.021	0.041	0.029**
	(0.030)	(0.023)	(0.045)	(0.013)
Regular Mail	0.008	0.009	0.022*	0.026*
	(0.014)	(0.013)	(0.013)	(0.014)
Text Message	0.042**	0.060***	0.028	0.038***
	(0.019)	(0.020)	(0.016)	(0.011)
Text Message	0.048***	0.050***	0.030**	0.028**
+ Reminder	(0.012)	(0.017)	(0.011)	(0.011)
Video	0.033	0.051***	0.033**	0.045***
	(0.021)	(0.018)	(0.014)	(0.010)
Video + Reminder	0.060***	0.075***	0.019	0.034**
	(0.017)	(0.015)	(0.022)	(0.012)
N	11,872	6,365	6,072	12,034
R^2	0.3066	0.2410	0.0684	0.0298
Mean	0.3334	0.2393	0.1214	0.1245

Note: The above table reports the results of the ordinary least squares regressions predicting whether the debtor made any payment in the first 60 days after the treatment. Column (1) includes all cases where "Total Debt" and "Debt" are below their median; Column (2) includes all cases where the "Total Debt" is below its median and "Debt" is above its median; Column (3) includes all cases where the "Total Debt" is above its median and "Debt" is below its median; and Column (4) includes all cases where "Total Debt" are above their median. All specifications include ECA office and case type fixed effects. The table above, although controlling for all the variables in Table 2, shows the coefficients only for the intervention dummy variables. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table B.2: Any Payment by Debt Size

	(1)	(2)	(3)	(4)
	Prev No. Cases ≤ 7	Prev No. Cases ≤ 7	Prev No. Cases > 7	Prev No. Cases > 7
	Ratio Closed > 0.25	Ratio Closed ≤ 0.25	Ratio Closed > 0.25	Ratio Closed ≤ 0.25
Phone Call	0.044	0.028	0.011	-0.019
	(0.053)	(0.022)	(0.010)	(0.019)
Phone Call after 20 Days	-0.016	0.010	0.018	0.058**
	(0.022)	(0.018)	(0.018)	(0.027)
Regular Mail	0.015	0.037***	0.015	-0.007
	(0.021)	(0.012)	(0.011)	(0.008)
Text Message	0.044*	0.047***	0.039**	0.028*
	(0.022)	(0.010)	(0.015)	(0.015)
Text Message	0.064***	0.025	0.036***	0.015
+ Reminder	(0.012)	(0.018)	(0.008)	(0.027)
Video	0.052**	0.035**	0.041***	0.027
	(0.021)	(0.014)	(0.013)	(0.021)
Video + Reminder	0.068***	0.042**	0.043***	0.019
	(0.022)	(0.015)	(0.010)	(0.018)
N	10,301	6,912	$14,\!564$	4,565
R^2	0.2804	0.0391	0.1148	0.0423
Mean	0.3882	0.1027	0.1776	0.0924

Note: The above table reports the results of the ordinary least squares regressions predicting whether the debtor made any payment in the first 60 days after the treatment. Column (1) includes all cases where "Total Cases" and "Closed Cases/Total Cases" are below their median; Column (2) includes all cases where the "Total Cases" is below its median and "Closed Cases/Total Cases" is above its median; Column (3) includes all cases where the "Total Cases" is above its median; and "Closed Cases/Total Cases" is below its median; and Column (4) includes all cases where "Total Cases" are below their median. All specifications include ECA office and case type fixed effects. The table above, although controlling for all the variables in Table 2, shows the coefficients only for the intervention dummy variables. Standard errors (in parenthesis) are clustered at the ECA office. Stars denote the level of statistical significance * p < 0.1, ** p < 0.05, *** p < 0.01.

Table B.3: Any Payment by Prior Cases

Appendix C

This Appendix describes the legally-required notices in the debt-collection context in the United States. We start, in Section 1, with pre-judgment notices; and then continue, in Section 2, with post-judgment notices.

1. Pre-Judgment Notices

Pre-judgment notices can be divided into four categories: (1) Various letters, notices and other communications sent by creditors (or debt collectors) to debtors before a lawsuit is filed. (2) Notice that a suite had been filed against the defendant-debtor. (3) Notice that a pre-judgment remedy has been ordered. And (4) Notice of an application for a default judgment. We discuss each category of notices in turn.

Pre-suit letters, notices and other communications. As of 2017, the CFPB estimated that about one-third of consumers with credit files – or about 70 million Americans – were contacted by a creditor or third-party debt collector attempting to collect a debt in the past year.²³ The CFPB's 2019 Credit Card Market Report details the frequency with which credit card companies' debt collectors (typically in-house agents) contact debtors using various methods of communication: an average of 1.42 to 3.50 calls per account per day; 0.06 to 0.77 voicemails per account per day; and 0.21 to 2.16 postal letters per month.²⁴ In addition, many issuers use email and text messaging.²⁵

²³ Consumer Financial Protection Bureau. CONSUMER EXPERIENCES WITH DEBT COLLECTION, p.14 (2017). While it is not entirely clear from the report, and from the survey on which the report is based, most of these contacts with creditors and debt collectors appear to be pre-suit communications. The relevant survey question is: "In the past year, since January 2014, have you been contacted by a creditor or debt collector trying to collect a past-due debt from you?" There is a separate question about litigation: "In the past year, since January 2014, have you been sued by someone trying to collect a debt (for example, you received or were served with a complaint)?" And in the report itself, the CFPB notes that "[t]he greater prevalence of reported email contact by creditors may reflect among other things differences in the availability of valid email addresses for consumers, consent obtained to communicate by email, and concerns on collectors' part that using e-mail *may lead to litigation*" – suggesting that the referenced communications.

²⁴ BUREAU OF CONSUMER FIN. PROT., THE CONSUMER CREDIT CARD MARKET, p. 141 (2019) (<u>https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2019.pdf</u>). Issuers reported that their call intensity strategies depended on an account's stage of delinquency and risk level, among other factors.

²⁵ BUREAU OF CONSUMER FIN. PROT., THE CONSUMER CREDIT CARD MARKET, p. 141 (2019) (<u>https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2019.pdf</u>) (the reported percentage of e-mail eligible accounts, defined as accounts for which the consumer provided a valid e-mail address and agreed to be contacted at that address, ranged from 10.3 to 92.6 percent, across surveyed issuers; less than two thirds of surveyed issuers reported using text messages, but the number is growing).

The federal Fair Debt Collection Practices Act (FDCPA) imposes notification requirements on professional debt collectors.²⁶ Under section 1962e(11) of the FDCPA, when a debt collector initially contacts the debtor, orally or in writing, they must provide the following information (the so-called mini-Miranda warning): 1) The contact is from a debt collector; 2) The purpose of the communication is to collect a debt; and 3) Any information disclosed by the consumer will be used to collect the debt. In addition, under section 1962g of the FDCPA, within five days after the initial communication with the debtor, the debt collector must send a written notice to the debtor, containing the following three statements: 1) "a statement that unless the consumer, within thirty days after receipt of the notice, disputes the validity of the debt, or any portion thereof, the debt will be assumed to be valid by the debt collector"; 2) "a statement that if the consumer notifies the debt collector in writing within the thirty-day period that the debt, or any portion thereof, is disputed, the debt collector will obtain verification of the debt or a copy of a judgment against the consumer and a copy of such verification or judgment will be mailed to the consumer by the debt collector;" and 3) a "statement that, upon the consumer's written request within the thirty-day period, the debt collector will provide the consumer with the name and address of the original creditor, if different from the current creditor."

Notice that a suit had been filed. Typically, the notice, sent by the clerk of the court, directs the defendant-debtor to respond to the suit, and states that, if a response is not filed, the plaintiffcreditor can get a default judgment and apply for enforcement actions.²⁷ In some jurisdictions, the notice must include certain warnings in boldface type,²⁸ suggesting that policymakers are at least somewhat aware of the importance of design and presentation choices.

Notice that a pre-judgment remedy has been ordered. In certain cases, the plaintiff-creditor can get pre-judgment remedies, e.g., a writ of sequestration, a writ of attachment, a writ of

²⁶ 15 U.S.C.A. § 1692. These requirements do not apply to original creditors who use their own names to collect on their own debts or retain others to do so. See 15 U.S.C.A. § 1692a.

²⁷ See, e.g., CAL. CODE. CIV. PROC. § 412.20 (California) (A summons directed to the defendant, issued by the clerk of the court, shall contain, among the others: (1) A direction that the defendant file with the court a written pleading in response to the complaint within 30 days after summons; (2) A notice that, unless the defendant so responds, his default will be entered upon application by the plaintiff, and the plaintiff may apply to the court for the relief demanded in the complaint, which could result in garnishment of wages, taking of money or property, or other relief; (3) The following statement in *boldface type*: "You may seek the advice of an attorney in any matter connected with the complaint or this summons. Such attorney should be consulted promptly so that your pleading may be filed or entered within the time required by this summons"; (4) The following introductory legend at the top of the summons above all other matter, in boldface type, in English and Spanish: "Notice! You have been sued. The court may decide against you without your being heard unless you respond within 30 days. Read information below".) See also TEX. R. CIV. PROC. §§ 99, 501.1(b)-(c) (including a detailed notice template).

²⁸ CAL. CODE. CIV. PROC. § 412.20 (California); TEX. R. CIV. PROC. §§ 501.1(c) (Texas).

garnishment and a temporary restraining order. The defendant-debtor must be notified when such a remedy has been ordered.²⁹

Notice of an application for a default judgment. If the defendant-debtor fails to appear in court or to answer the complaint, the plaintiff-creditor can apply for a default judgment.³⁰ In the CFPB's 2019 Consumer Credit Card Market report, surveyed creditors reported that more than 70% of all judgments were default judgments.³¹ Non-survey-based figures are available for only certain states and only for earlier years. For example, of the 134,423 consumer debt cases which were filed in New York City in 2011, 70,371 (52%) resulted in default judgments.³² These numbers are in line with the Federal Trade Commission estimate that 90% or more of consumers sued in debt collection actions do not appear in court to defend against these actions.³³ The defendant-debtor must be notified of an application for a default judgment.³⁴

³² New York City Civil Court Filing Statistics 2006-2011 (on file with author).

²⁹ TEX. R. CIV. PROC. §700a (Texas); N.J. CT. R. 4:60-9 (New Jersey); N.Y. C.P.L.R. 6210 (New York); 28 U.S.C. §§ 3101(d) (Federal). In addition, some states require a notice of an application for such pre-judgment remedies. See, e.g., 28 U.S.C. § 3101(d); N.J. Ct. R. 4:60-5(a); LA. Code. Civ. Pro. 3602; Tex. R. Civ. Proc. §681; Cal. Code. Civ. Proc. §484.040, 1005(b). The notices are sent by the plaintiff or her attorney or by a law enforcement official, e.g., sheriff or U.S. marshal. See, e.g., TEX. R. CIV. PROC. §700a (the plaintiff, his attorney, a sheriff or constable); N.J. CT. R. 4:60-9 (the plaintiff); 28 U.S.C. § 3102d(5)(A) (the U.S. marshal).

³⁰ In many jurisdictions, if the defendant-debtor failed to appear/answer, the court's clerk can enter a default judgment without a court hearing or judicial action of any kind, when the plaintiff's claim is for a sum certain or for a sum which can be made certain by computation. See, e.g., N.Y. C.P.L.R. 3215(a); CAL. CODE. CIV. PROC. §585(a); FED. R. CIV. P. 55(b)(1).

³¹ BUREAU OF CONSUMER FIN. PROT., THE CONSUMER CREDIT CARD MARKET, at 159 (2019). [The remaining 30% of judgments likely include regular (i.e., non-default) judgments in favor of the creditor as well as judgments in favor of the debtor.] This ratio was consistent with the Bureau's previous report and remained relatively flat between 2017 and 2018. Id. See also ANNUAL STATISTICAL REPORT FOR THE TEXAS JUDICIARY FISCAL YEAR (2019) (among the 291,912 debt collection cases filed in Texas, 69,784 ended in default judgments); CENTER FOR RESPONSIBLE LENDING, DEBT BY DEFAULT: DEBT COLLECTION PRACTICES IN WASHINGTON 2012–2016 at 6 (2019) (reporting that, from 2012 to 2016, one large law firm filed 21,354 collection cases in Washington's Superior Courts, with 79.1% resulting in a default judgment); Victoria Haneman, The Ethical Exploitation of the Unrepresented Consumer, 73 MO. L. REV. 707, 722 (2008) (reporting that "[d]efault is by far the most common action [in suits involving time-barred debts], occurring in 70% to 90% of all cases").

³³ FED. TRADE COMM'N, STRUCTURE AND PRACTICES OF THE DEBT BUYING INDUSTRY, 21, 45 (2013). The low rate of appearance contributes to the large volume of debt collection suits, as minimal attorney involvement and very little documentation is needed. See Consumer Fin. Prot. Bureau v. Frederick J. Hanna & Assocs., P.C., 114 F. Supp. 3d 1342, 1366 (N.D. Ga. 2015) (describing "litigation mills" as law firms with very little attorney involvement in each case).

³⁴ CAL. CODE. CIV. PROC. §587 (California law provides that the creditor must serve the application for entry of default judgment to the defendant attorney or to the defendant himself (if none) by mail); N.Y. C.P.L.R. 3215(g) (Under New York law notice should be served to the defendant only if he, or his representative, appeared); FED. R. CIV. P. 55(b)(2) (Under federal law notice should be served to the defendant only if he, or his representative, appeared); N.D. R. Civ. P. 55(a)(3); Ala. R. Civ. P. 55(b); PA. CODE. CIV. PROC. §237.1(a)(2) (Under Pennsylvania law, no default judgment shall be entered unless a written notice of intention to file an application for a default judgment is mailed to the debtor by the plaintiff, at least ten days prior to the date of filing, i.e., the notice must be provided even before application. The notice shall be substantially in the following form: "**IMPORTANT NOTICE:** YOU ARE IN DEFAULT BECAUSE YOU HAVE FAILED TO ENTER A WRITTEN APPEARANCE PERSONALLY OR BY ATTORNEY AND FILE IN WRITING WITH THE COURT YOUR DEFENSES OR OBJECTIONS TO THE CLAIMS SET

2. Post-Judgment Notices

Post-judgment notices can be divided into four categories: (1) Notice that a judgment has been issued against the defendant-debtor. (2) Notice that the plaintiff-creditor has applied for certain enforcement order or writ against the defendant-debtor. (3) Notice that an enforcement writ or order has been issued. And (4) An exemptions notice. We discuss each category of notices in turn.

But first we summarize the main enforcement or collection procedures that are available to the plaintiff-creditor.³⁵ The main enforcement action is the writ of execution, which directs the sheriff to levy against the judgment debtor's non-exempt property, sell it, and deliver the proceeds to the creditor.³⁶ (The property subject to execution may include the debtor's wages.³⁷) Other enforcement or collection actions include judgment liens (on real or personal property),³⁸ restraining orders,³⁹ and installment payment orders.⁴⁰ Courts enjoy significant discretion in fashioning enforcement and collection procedures.⁴¹ The money collected under these procedures

FORTH AGAINST YOU. UNLESS YOU ACT WITHIN TEN DAYS FROM THE DATE OF THIS NOTICE, A JUDGMENT MAY BE ENTERED AGAINST YOU WITHOUT A HEARING AND YOU MAY LOSE YOUR PROPERTY OR OTHER IMPORTANT RIGHTS. YOU SHOULD TAKE THIS PAPER TO YOUR LAWYER AT ONCE. IF YOU DO NOT HAVE A LAWYER, GO TO OR TELEPHONE THE OFFICE SET FORTH BELOW. THIS OFFICE CAN PROVIDE YOU WITH INFORMATION ABOUT HIRING A LAWYER. IF YOU CANNOT AFFORD TO HIRE A LAWYER, THIS OFFICE MAY BE ABLE TO PROVIDE YOU WITH INFORMATION ABOUT AGENCIES THAT MAY OFFER LEGAL SERVICES TO ELIGIBLE PERSONS AT A REDUCED FEE OR NO FEE." See PA. R. CIV. PROC. §237.5. The notices are sent by the plaintiff or her attorney or by the clerk of the court. See, e.g., CAL. CODE. CIV. PROC. §587 (the plaintiff or his attorney); TEX. R. CIV. PROC. §99 (the clerk of the court); PA. CODE. CIV. PROC. §237.1(a)(2) (the plaintiff or his attorney).

³⁵ The chief enforcement agency for money judgments is the sheriff. As for the relevant sheriff – it seems that it almost always the sheriff of the judgment debtor's residence county. See, e.g., N.Y. C.P.L.R. 5231(b), 5236 (New York). However, Under Texas law, it could be any sheriff within the State of Texas. See TEX. R. CIV. PROC. §622, 629. Most jurisdictions also allow for the appointment of a third-party "receiver." See, e.g., N.Y. C.P.L.R. 5228; CAL. CODE. CIV. PROC. §699.070.

³⁶ See, e.g., FED. R. CIV. P. 69(a)(1); TEX. R. CIV. PROC. §637.

³⁷ Some states provide a separate writ for wage or income execution. Conn. Gen. Stat § 52-361a; N.Y. C.P.L.R. 5231. The law limits the amount that can be withheld from the judgment debtor's aggregate weekly earnings pursuant to an income execution. See: Conn. Gen. Stat. § 52-361a(f); N.Y. C.P.L.R. 5231(b)(ii); CAL. CODE. CIV. PROC. § 706.050; 15 U.S.C.A. § 1673.

³⁸ N.Y. C.P.L.R. 5203, 5204; CAL. CODE. CIV. PROC. §§697.010 – 697.920; 28 U.S.C. § 3201; Conn. Gen. Stat §§52-355a, 52-380a; Tex. Prop. Code. Ann. §§52.001 – 52.007; Iowa. Code. Ann. §624.23.

³⁹ TEX. R. CIV. PROC. §§680, 686; N.Y. C.P.L.R. 5222, 5229; CAL. CODE. CIV. PROC. §708.520(a); Fed. R. Civ. P. 65. ⁴⁰ 28 U.S.C. §3204 (federal); N.Y. C.P.L.R. 5226; Conn. Gen. Stat. § 582.5. The installment payments are based on the judgment debtor's ability to pay, where it is shown that the judgment debtor is receiving or will receive money (or is attempting to impede the judgment creditor by rendering services without adequate compensation). Connecticut law provides that if a judgment debtor fails to comply with an installment payment order, the judgment creditor may apply to the court for a wage execution. See Conn. Gen. Stat §52-361a.

⁴¹ For example, New York law provides: "The court may at any time, on its own initiative or the motion of any interested person, and upon such notice, as it may require, make an order denying, limiting, conditioning, regulating, extending or modifying the use of any enforcement procedure of money judgment". N.Y. C.P.L.R. 5240.

includes, in addition to the money judgment itself, all statutory costs and fees, interest, and the costs incurred in obtaining the judgment.⁴²

Notice that a judgment has been issued. Upon the signing of a default judgment, or a regular judgment, the defendant-debtor must be notified.⁴³ In addition to any legally-mandated notice, attorneys for plaintiff-creditors routinely send written notices (letters) to defendant-debtors, informing them that a judgment was entered against them and that, if they do not pay the judgment amount promptly, enforcement actions will be initiated; noting that such actions may include seizure and sale of personal property, garnishment of wages, etc'.⁴⁴ Some legal practice guides suggest that the attorney telephone the defendant-debtor.⁴⁵ The suggestion is that telephone communication can be more effective than communication by letter. Some practice guides also suggest that the attorney remind the debtor – either in the letter or in the telephone communication

⁴²Conn. Gen. Stat. § 52-350f; 28 U.S.C. §3102, 3104, 3105, 3203; TEX. R. CIV. PROC. §646; FED. R. CIV. P. 54(d). ⁴³ TEX. R. CIV. PROC. §239(a); Fed. R. Civ. P. 77(d); La. C.C.P. art. 1702(C) (Louisiana); CAL. CODE. CIV. PROC. § 473.5; PA. CODE. CIV. PROC. §236. For both default and non-default judgments, interest often accrues on the judgment amount until it is paid. See, e.g., 28 U.S.C. § 1961 ("Interest shall be allowed on any money judgment in a civil case recovered in a district court"); CAL. CODE. CIV. PROC. §§ 685.010-680.030, 695.210. The judgment itself must include a reference to interest. See, e.g., Tex. Fin. Code § 304.001 ("A money judgment must provide for postjudgment interest"); Ala. R. Civ. P. 58.2 (saying that a judgment for the payment of money must include, among other things, "the portion of the principal that accrues prejudgment interest and the prejudgment interest rate" and "the postjudgment interest rate"); CAL. CODE. CIV. PROC. § 699.520). Thus, when the defendant-debtor is notified of the

judgment, and receives the judgment itself, she is also notified about the interest. ⁴⁴ See, e.g., Texas Legal Practice Forms § 68:42 (2d ed.) (including the following language: "I am writing to inform you that a Default Judgment was entered against you on [date of judgment], for \$[dollar amount of judgment]. Since this judgment was signed over 30 days ago, the judgment has now been abstracted and filed in the County Clerk's office in [name of county], Texas. My client, [name of client], desires to resolve this matter. I therefore request that you contact me within [number of days] days of receipt of this letter to work out a payment arrangement. If I do not hear from you within the above-described time period, post judgment collection procedures may be initiated against vou. This can include, but is not limited to, post judgment depositions and or interrogatories. My client can also request the constable to attach all of your non-exempt property to satisfy the debt. As you can see, this is a serious situation. To avoid added cost and inconvenience, please contact me immediately concerning this matter. A copy of the abstracted judgment is enclosed."); Tenn. Practice, Debtor-Creditor Law and Practice § 16:2 (3d ed.). Tenn. Practice, Debtor-Creditor Law and Practice § 16:2, 16:4 (3d ed.) (including drafts of letters and follow-up letters); 17 Louisiana Civil Practice Forms § 9:17 (3d ed.) (including the following language: "The judgment rendered against you in this case has not been paid within the time provided for by law and will now be forwarded to the sheriff's office with instructions from the court to seize wages or property in an amount sufficient to pay and satisfy the entire amount of the judgment, plus all court costs and expenses of seizure, storage, and public sale of the seized property. The judgment is recorded and operates as a legal mortgage against all your property until released. Although we are not required to give you any further notice or opportunity before the sheriff makes a seizure, we are extending you the courtesy of this additional notice because the court costs involved in making a seizure of an automobile, furniture, house, or other property may add several hundred dollars (or more) to the amount of court costs that you must pay. Additionally, there is an amount of inconvenience to us and embarrassment to you in having the sheriff, seize your property and offer it up for sale at public auction. In the event that you wish to avoid enforcement of this judgment by the sheriff's office, you must make arrangements with me immediately for the payment of this judgment. The amount due at present, excluding any future court costs and future interest, is as follows [each row for each cost, e.g., interest, attorney's fees, Court costs to date, and total].").

⁴⁵ See, e.g., Tenn. Practice, Debtor-Creditor Law and Practice § 16:2 (3d ed.).

- that additional court procedures add costs to the total amount owed and encourage the debtor to make even partial payment.⁴⁶

Notice that the plaintiff-creditor has applied for an enforcement order or writ. When the plaintiff-creditor applies for an enforcement order or writ, the defendant-debtor must be notified.⁴⁷

Notice that an enforcement order or writ has been issued. The defendant-debtor must be notified when a court issues an enforcement order or writ.⁴⁸ (In some states, the notice specifies that payment of the debt would void the enforcement writ.⁴⁹)

Exemptions notice. A money judgment may be enforced against any property of the judgment debtor, unless the property is exempt.⁵⁰ Accordingly, any writ or order issued by the court to enforce a judgment served to the debtor is accompanied with a notice of exemptions.⁵¹ The exemptions typically include pension and retirement accounts, social security benefits (including disability payments), private disability payments, some of the debtor's wages (the

⁴⁶ See, e.g., 17 Louisiana Civil Practice Forms § 9:17 (3d ed.).

⁴⁷ 28 U.S.C. §3202(b) (the notice is sent by the clerk of the court); Conn. Gen. Stat. § 52-356b; M.S.A. § 550.136 (Minnesota); N.J. Ct. R. 4:59(e) (the notice of application for wage execution shall state (1) that the application will be made for an order directing a wage execution to be served on the defendant's named employer, (2) the limitations on the amount of defendant's salary that may be levied upon, (3) that defendant may notify the court and the plaintiff in writing within ten days after service of the notice of reasons why the order should not be entered, (4) if defendant so notifies the clerk, the application will be set down for hearing of which the parties will receive notice as to time and place, and if defendant fails to give such notice, the order will be entered as of course, and (5) that defendant may object to the wage execution or apply for a reduction in the amount withheld at any time after the order is issued by filing a written statement of the objection or reasons for a reduction with the clerk and sending a copy to the creditor's attorney or directly to the creditor if there is no attorney, and that a hearing will be held within seven days after filing the objection or application).

⁴⁸ CAL. CODE. CIV. PROC. §§708.520(d), 700.010; N.Y. C.P.L.R. 5222(d); 28 U.S.C. §3204; Conn. Gen. Stat. § 52-351a; TEX. R. CIV. PROC. § 700a; PA. CODE. CIV. PROC. §3252. The notice is sent by the clerk of the court or by the plaintiff's attorney (e.g., N.Y. C.P.L.R. 5222(d)) or by the levying officer (e.g., CAL. CODE. CIV. PROC. §§708.520(d), 700.010).

⁴⁹ See, e.g., California Judicial Council EJ-150 (the notice served with a writ of execution: "You may obtain the release of your property by paying the amount of money judgment with interest and costs remaining unpaid.")

⁵⁰ Conn. Gen. Stat. § 52-350f; CAL. CODE. CIV. PROC. §695.010 ("Except as otherwise provided by law, all property of the judgment debtor is subject to enforcement of a money judgment"); N.Y. C.P.L.R. 5201 (any property which could be assigned or transferred, vested or not, or consisting of a present or future right, can be the proper subject of the enforcement of a money judgment. The [...] property must not be exempt from application to the satisfaction of the judgment).

⁵¹ The notice typically lists the major exemptions and informs the debtor about the procedure for claiming them. See Conn. Gen. Stat § 52-361b(a)-(b). Nevada state law provides that the notice served to the debtor after issuing the writ must be substantially in the following form: "NOTICE OF EXECUTION. YOUR PROPERTY IS BEING ATTACHED OR YOUR WAGES ARE BEING GARNISHED. A court has determined that you owe money to

⁽name of person), the judgment creditor. The judgment creditor has begun the procedure to collect that money by garnishing your wages, bank account and other personal property held by third persons or by taking money or other property in your possession [+ a list of exempt property]." Nev. Rev. Stat. § 21.075. In some jurisdictions, a notice must be provided before an income/wage execution writ is served; this notice provides a list of exemptions and urges the debtor "to arrange for a settlement of the debt." See, e.g., Minn. Stat. Ann. § 540-552.

amount varies between states), veterans' benefits, private residence, some of the aggregate equity of motor vehicles, and a wedding ring.⁵²

For some of these pre- and post-judgment communications, in some jurisdictions, legal rules only describe the information that must be included in the notices.⁵³ But for many other communications, legal rules, at least in some jurisdictions, require that the notices use precise, pre-designed templates.⁵⁴ And, in some cases, the rules even specify the font and require the use of boldface or ALL CAPS.⁵⁵

⁵² See: N.Y. C.P.L.R. 5222(e), 5205; CAL. CODE. CIV. PROC. §704.010, 704.080, 704.110, 704.115, 704.130; 5 U.S.C. § 8436; 42 U.S.C. §407(a) (social security benefits); 10 U.S.C. § 1450 (veterans' benefits). With respect to exempt wages – see, e.g., N.Y. C.P.L.R. 5222(e)(10) (Ninety percent of the debtor wage or salary earned in the last sixty days); CAL. CODE. CIV. PROC §704.070 (75% of the debtors' wage after tax). With respect to the debtor's private residence – see, e.g., N.Y. C.P.L.R. 5206; CAL. CODE. CIV. PROC. §§ 704.710-704.850; Conn. Gen. Stat. § 52-352b(t); 11 U.S.C. § 522(d)(1).

⁵³ For notice that a suit has been filed – see, e.g., CAL. CODE. CIV. PROC. § 412.20 (California). For notice that a prejudgment remedy has been ordered – see, e.g., N.J. Ct. R. 4:60-9 (New Jersey). For notice of an application for a default judgment – see, e.g., CAL. CODE. CIV. PROC. §587 (California). For notice of an application for an enforcement order or writ – see, e.g., M.S.A. § 550.136 (Minnesota); For notice that an enforcement order or writ has been issued – see, e.g., CAL. CODE. CIV. PROC. § 699.540 (California).

⁵⁴ For notice that a suit has been filed – see, e.g., TEX. R. CIV. PROC. §99 (A detailed notice template is provided in Texas); CAL. CODE. CIV. PROC. § 412.20) (In California, two phrases must be included "as is": "Notice! You have been sued. The court may decide against you without your being heard unless you respond within 30 days. Read information below" And another phrase about seeking the advice of an attorney.). For notice that a pre-judgment remedy has been ordered – see, e.g., TEX. R. CIV. PROC. §700a (A detailed notice template is provided in Texas); 28 U.S.C. § 3102d(5)(A) (A detailed notice template is provided under federal law). For notice of an application for a default judgment – see, e.g., PA. R. CIV. PROC. §237.1(a)(2) (A detailed template is provided in Pennsylvania). For notice that the plaintiff-creditor has applied for an enforcement order or writ – see, e.g., 28 U.S.C. § 3202(b) (A detailed template is provided in New York); CAL. CODE. CIV. PROC. § 699.540 (The Judicial Council of California approved Form EJ-150 for optional use). For an exemptions notice – see, e.g., N.Y. C.P.L.R. 5201 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in New York); CAL. CODE. CIV. PROC. §695.010 (A detailed template is provided in California); Nev. Rev. Stat. § 21.075 (A detailed template is provided in Newada).

⁵⁵ For notice that a pre-judgment remedy has been ordered – see, e.g., TEX. R. CIV. PROC. §700a (parts of the notice must be in ALL CAPS, "ten-point type and in a manner calculated to advise a reasonably attentive person of its contents."). For notice of an application for a default judgment – see, e.g., PA. R. CIV. PROC. §237.1(a)(2) (the notice must be in ALL CAPS and the heading must be in boldface).