

AUGUST 2024

Stamping Out Missed Court Dates: How Mailed Reminders Boost Appearance

People miss court dates for many reasons, and reminders have been shown to help increase appearance rates. In Sacramento County, California, we tested whether reminders in the form of a letter and envelope could successfully support people charged with misdemeanors. We found that simple mail, when thoughtfully designed, can help more people make it to court, saving time, costs, and unnecessary legal penalties.

The Challenge

In the United States, small fees may be charged for missing a doctor's appointment, yet missing a court appointment results in steeper consequences: it is considered a crime in 49 states. In most jurisdictions, including Sacramento County in California, an arrest warrant is automatically issued for missed court appearances, which can lead to increased jail time for people and higher administrative costs for the government. The Sacramento Superior Court partnered with ideas42 to help more people show up at court and avoid the negative effects of even a single nonappearance.

Missed court dates are as common as missed doctor appointments, and punishment alone is not helping people overcome their struggles to appear.² By understanding the real difficulties people face, we can then create effective solutions. From a behavioral perspective, people may simply forget due to other life matters demanding more attention. They may be unaware of their obligations if information is not clear and concise. They might also be afraid of how the legal system may treat

Highlights

- Reminding people about upcoming court dates can dramatically reduce nonappearance.
- Though criminal court reminders could take the form of texts or calls, we demonstrated that mailed letters with corresponding envelopes are effective.
- Simple, inexpensive interventions like reminders save money and time for both the people appearing and for the court system.

them or the possibility of being jailed. From a resource-constraint perspective, people may lack access to childcare, live in areas with poor public transportation, or lack flexibility at work. All of these barriers mean that to make the legal system more effective and efficient, it's typically not a question of motivating people to appear but rather of making it easier for them to fulfill their obligations.

¹ National Conference of State Legislatures (2022). Statutory Responses for Failure to Appear. https://www.ncsl.org/civil-and-criminal-justice/statutory-responses-for-failure-to-appear

² Dounia Marbouh et al., "Evaluating the Impact of Patient No-Shows on Service Quality," Risk Management and Healthcare Policy Volume 13 (June 2020): 509–17, https://doi.org/10.2147/RMHP.S232114.; Crutchfield, T., Kistler, C. (2017). Getting patients in the door: medical appointment reminder preferences. Patient Prefer Adherence, 11, 141–150. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5279837/; Brian H. Bornstein et al., "Reducing Courts' Failure-to-Appear Rate by Written Reminders.," Psychology, Public Policy, and Law 19, no. 1 (February 2013): 70–80, https://doi.org/10.1037/a0026293. 7 Reaves, B (2013). Felony Defendants in Large Urban Counties, 2009 - Statistical Tables. US Bureau of Justice Statistics. Retrieved from https://bjs.ojp.gov/content/pub/pdf/fdluc09.pdf



Solution: Mailed Reminders

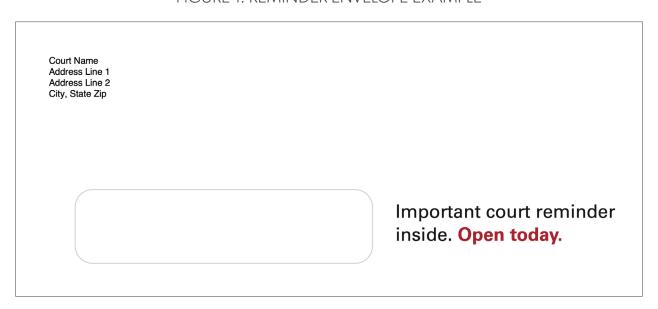
We designed a reminder letter and envelope to address some of the reasons people miss their court dates. While Sacramento is exploring a future text and email reminder system, they could begin sending reminders immediately by mail to understand the effectiveness of mailed reminders. This will help courts across the country decide the best ways to remind people about court dates, whether by text, phone, email, or mail.

Sacramento County mailed the new reminder letters and envelopes to individuals with an upcoming misdemeanor arraignment. Arraignments are the first court date of a case, where the judge informs a person of their charge, allows them to plead guilty or not guilty, and discusses options for access to counsel (most individuals request public defense).

Reminder envelope

The first thing people see in the mail is an envelope clearly stating the purpose of the communication: "Important court reminder inside." We included this message to immediately communicate the purpose of this letter from the court, thereby reducing apprehension about opening it (Figure 1). We also included a specific call to action: "Open today." This sought to grab attention and encourage people to open immediately, reducing the chances that they would forget or misplace the letter. Our original design used a yellow/orange color for "Open today" to not be overly alarming or spam-like, yet user feedback encouraged us to change it to red.

FIGURE 1: REMINDER ENVELOPE EXAMPLE



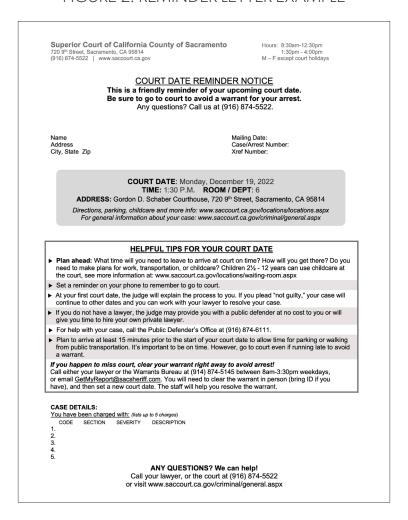


Reminder letter

The reminder letter (Figure 2) was designed to be in grayscale and easily adapted into existing technology. The letter included the following elements:

- **1.** "This is a friendly reminder" to set a positive tone.
- **2.** "Be sure to go to court to avoid a warrant for your arrest" to clearly communicate the consequences. It is framed to encourage people to take action to avoid the penalty.
- **3.** Key information (date, time, location, etc.) is highlighted front and center in a box, so people can easily find and know when and where they need to appear.
- **4.** Helpful tips to help people remember, appear, and understand what to expect at court. For example, one tip prompts people to start planning ahead of time and shares available childcare resources. Other tips explain what occurs at court and provide contact information for public lawyers, to lessen any potential anxiety around going to court.
- **5.** People are encouraged to contact the court with any questions, and this information is listed at both the top and bottom for people to easily find.

FIGURE 2: REMINDER I ETTER EXAMPLE





Study Population and Methodology

Sacramento County began mailing reminders to people with court dates on or after January 1, 2023. To measure their impact, we use a quasi-experimental design approach called regression discontinuity in time. Specifically, we compared appearance rates for the 12 months of 2022 (baseline period) to appearance rates for the twelve months of 2023. This method allows us to compare changes in appearance rates before and after the reminders were started, controlling for changes in the composition of misdemeanor cases over time, to measure the causal effect of the reminders.

In total, there were 17,257 individuals and 15,038 cases during the 24 months we studied. We defined a unique observation by individual, case, and court date given some people have multiple court dates (same or different case), some have multiple cases (sometimes with the same court date for convenience³), and some cases have multiple people charged. In our study, this led to a total of 27,211 unique observations.

Court Dates in this Study

Sacramento sends reminders for every court date on their misdemeanor arraignment calendar. For 40% of the cases, this is the very first scheduled court date for that case. These we call "first arraignments." We call the remaining cases on this calendar (60%) "returning arraignments." When people miss a court date, whether their first arraignment or a later hearing, their next scheduled court date after clearing their warrant is on the arraignment calendar. In addition, the "returning arraignments" group also includes when the court has ordered the first arraignment to be continued at a future date. While we are unable to distinguish among the reasons for returning in our sample, our understanding (based on conversations with the court) is that returning to court following a missed appearance is the primary use of this calendar—and this aligns with the higher baseline nonappearance rate for this group. Given that returning arraignments include cases that already have a missed court date, we look at results both separately and together.

Missing Address Information

While we did not collect addresses for privacy reasons, the dataset includes zip codes for most individuals with an upcoming arraignment. It is missing for 471 (1.7%) of the 27,211 observations, due to one of three reasons: there is an address but no zip code, no address information, or listed as unhoused or homeless. The first group was sent a reminder if the rest of the address was sufficient for the post office. The second and third groups were not sent reminders. We are unable to distinguish which of these reasons accounts for a missing zip code, or therefore which were sent reminders among this small group. In our main analysis, we assume everyone with a court date in 2023 received a reminder.⁴ However, we are also able to adjust the estimated effect of mailed reminders using the mail bounce-back rate (see below).

³ It is rare for an individual to appear for some cases but not others when they are all scheduled on the same day. They tend to appear or not appear for all cases scheduled on the same day.

⁴ We use zip codes to estimate median household incomes as a proxy for income level for each individual in the dataset. In our analysis examining whether the effect of reminders varies by approximated income, the observations without zip code information are dropped. Given the small number of observations, we do not expect this to affect the impact estimates presented below.



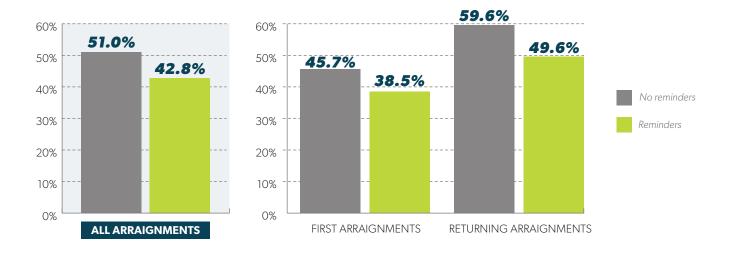
Bounce Back Rate

Sacramento Superior Court reported that out of 15,455 mailers sent in 2023, 6,415 were returned, which represents a bounce-back rate of 41.5%. Though 58.5% of the mailers were successfully delivered, it doesn't mean the letters were opened or read, or even sent to the correct current address. Therefore, the bounce-back rate provides a floor in which to situate results.

Mailed Reminders Are Effective

Overall, mailed reminders reduced nonappearance by 8.2 percentage points, or a 16% decrease from a baseline rate of 51%.⁵ For first arraignments, reminders reduced nonappearance by 7.2 percentage points, or 15.7% from a baseline rate of 45.7%. Returning arraignments saw nonappearance reduced by 10 percentage points, or a 16.8% decrease from a baseline rate of 59.6%.

MAILED REMINDERS REDUCE MISSED COURT DATES: EFFECT BY ARRAIGNMENT TYPE



The data provided by Sacramento Superior Court also included several demographic characteristics that allowed us to examine differences across groups, including race/ethnicity, estimated income, and age.

⁵ The results presented in this section are based on a regression discontinuity model that controlled for the following variables: race, gender, whether the individual had a California zip code, income (derived from zip code), age, whether the case is for Driving Under the Influence (DUI), and whether upon arrest the person was booked in jail and subsequently released before arraignment (as opposed to being ticketed and not booked in jail upon arrest).



Race and Ethnicity

We find that baseline court appearance rates vary by race and ethnicity. Among all hearings on the arraignment calendar, white/Caucasian and Black individuals missed court at rates of 56% and 54%, while Hispanic/Latin/Mexican and Asian/Pacific Islander⁶ individuals had a lower nonappearance rate of 42% and 33%, respectively. We find relatively similar rates at first arraignment, however, for returning arraignments, nonappearance rates increase for all except Black individuals.

BASELINE NONAPPEARANCE RATES BY RACE AND ETHNICITY

Race and Ethnicity	First Arraignment	Returning Arraignment
Asian / Pacific Islander	30%	41%
Black	54%	53%
Hispanic / Latin / Mexican	37%	50%
White / Caucasian	51%	64%

While the nonappearance rates varied, the effectiveness of the mailed reminders was similar across each group. We did not find the effect to statistically differ across racial and ethnic groups for either first or returning arraignments.

Income

We created a useful yet imperfect proxy for individual-level income by categorizing people into income levels by zip code. Specifically, we obtained the median household income for each zip code from the U.S. Census Bureau and sorted them into quintiles. At baseline, observations from higher-income zip codes had lower nonappearance rates (from 38% to 56%) compared to observations from the bottom quintile, which has a baseline nonappearance rate of 64% across all hearings on the arraignment calendar.

The impact of the mailed reminders is similar (did not statistically differ) across income quintiles for first arraignments. For returning arraignments, the reminders were more effective for people living in the top 60% than those living in the bottom 40%.

The only statistically significant difference was between the reduction of 6.3 percentage points among people living in zip codes in the bottom 20% of median household income and a 13.1 percentage point reduction among those living in the middle of the income distribution (41% to 60%). We hypothesize that because the returning arraignments are older cases, it could be that addresses become outdated faster for people living in

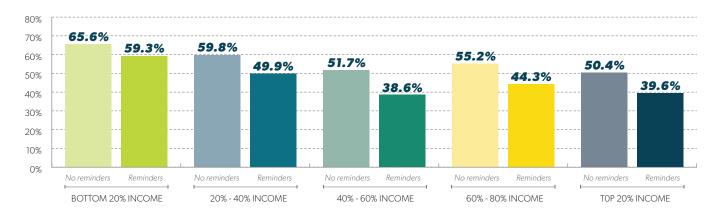
⁶ These are the predominant demographic categories for race and ethnicity as listed in Sacramento County's database. While we recognize that demographic terms are imperfect, we have chosen to keep them as they originally appear to make it easier to connect these results with Sacramento's own data.



zip codes with lower median household incomes, and therefore people in these quintiles may be less likely to receive them.

Across 2022 and 2023, a median of 562 days lapsed between the original violation date and the court hearing date for returning arraignments, compared to 91 days for first arraignments. The difference between median days is likely due to the time lapse to clear warrants and get back on arraignment calendars (in some cases more than once), and potentially exacerbated by the unexpected disruptions and resulting backlogs due to COVID.

EFFECT OF MAILED REMINDERS BY INCOME LEVEL: NONAPPEARANCE RATES AMONG **RETURNING** ARRAIGNMENTS



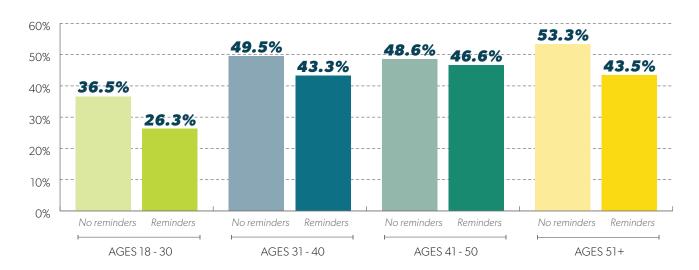
Age

Finally, we explore whether the effectiveness of mailed reminders varies across age groups. To do so, we split observations into the following groups based on age at their violation date: 18-30, 31-40, 41-50, and 51+. Those aged 18-30 at time of violation have a comparatively lower baseline nonappearance rate of 39.7%, while for all other age groups it is approximately 54% across both types of arraignments.

The impact of mailed reminders differs by age group among the first arraignments: they are most effective among the youngest and oldest age groups. Specifically, they reduced nonappearance by 10 percentage points for people aged 18-30 and for people 51+ at time of violation, while only 6 percentage points for ages 31-40 and 2 percentage points for ages 41-50. Among returning arraignments, we observed no differential impact by age group.



EFFECT OF MAILED REMINDERS BY AGE GROUP: NONAPPEARANCE RATES AMONG **FIRST** ARRAIGNMENTS



Cost-Benefit of Reminders

Mailed reminders prevented 1,115 nonappearances for Sacramento County in 2023, and their impact is expected to continue over time. To achieve this, Sacramento County invested in the following per mailing: envelopes (\$0.07), paper (\$0.01), and postage (\$0.63).

With 15,455 reminders sent in 2023,8 the total implementation cost was \$10,973.05 or \$9.84 per nonappearance avoided.9

From previous literature and conversations with courts across the United States, we estimate that each prevented nonappearance benefits legal stakeholders (the court, attorneys, and law enforcement) \$1,496. It benefits individuals \$1,354 (e.g., this accounts for lost income, fines and fees, and other costs). Together, these reminders lead to a benefit of \$2,850. For 2023, this translates to \$3.2 million in total benefits or roughly \$290 benefit for each \$1 spent on mailed reminders.

⁷ Sacramento Superior Court has a large in-house, automated mail operation, and therefore reported no labor costs to maintain these reminders.

While the total number of reminders sent in 2023 is 15,455, the total number of unique individual-case-court date observations is 13,597. We observe a difference because court dates are sometimes changed after a reminder is sent, either by request by the individual (or their attorney) or due to the progression of the case. If the updated court date stays on the arraignment calendar, then another reminder is sent for the new date.

⁹ The implementation cost reflects ongoing marginal costs per reminder for Sacramento Superior Court's current mail operation. Separately, If we look at the startup (design, set up) and evaluation costs for both ideas42 (majority of costs) and Sacramento, we estimate a cost of \$189 per nonappearance avoided for 2023, or \$37.80 per nonappearance over 5 years (assuming similar caseloads over time). This translates to \$15 benefit in 2023 for every \$1 spent on set up and evaluation costs, or \$75 benefit per \$1 spent over 5 years.



Effectiveness Adjusted for Undelivered Reminders

Although we do not know who received reminders, 58.5% of mailed reminders were delivered (not returned).¹⁰ To estimate the treatment effect when mail was delivered, we adjust the treatment effect by the 58.5% delivery rate. This results in an adjusted treatment effect of 14 percentage points, or a 27.5% decrease from a baseline rate of 51% overall.¹¹ For first arraignments, the reduction is 12.3 percentage points, or 27%. For returning arraignments, the reduction is 17 percentage points, or 28.7%.

These adjustments generate a treatment effect on the treated (TOT), which estimates the effect generated where reminders were delivered (not returned). This suggests that mailed reminders are even more effective than the results suggest on their face. What's more, there's huge potential to make them even more effective by ensuring courts have accurate mailing addresses for more people. This includes collecting good contact information at time of arrest, and then confirming (and updating as needed) at each point of contact with the court.

Takeaways

Mailed reminders are an effective tool to improve court appearance rates and prevent the costly consequences for individuals, the court, and other legal agencies. Overall, mailed reminders reduced the court nonappearance rate by a large and significant margin and are a very low-cost intervention to run. To underscore this benefit, each dollar spent on reminders collectively benefitted courts and individuals \$290.

The results also had equity implications across income and age groups:

- **1.** For people with first arraignments, the impact of mailed reminders is strong and similar across all income quintiles. For people with returning arraignments, the impact of the reminders is felt differently across different income quintiles, with those in the middle of the income distribution benefitting more than the bottom 20%.
 - This finding differs from our results in NYC, where text messages sent for first arraignments (using recently collected phone numbers) were most effective among people in the bottom 20%. One hypothesis is that mailing addresses may be more outdated for people in the bottom 20%, and especially for those with returning arraignments who are further from their original violation date.
 - While we used an imperfect proxy for income, the results suggest that for people with returning arraignments, additional methods are needed to equitably support individuals with the lowest incomes, who are more affected by snowballing negative impacts from warrants.
- **2.** For people with first arraignments, younger people benefit more from mailed reminders. This is important, as preventing further interaction with the legal system can help people avoid ongoing entanglement and its propagating effects on education, employment, and other areas.

¹⁰ This allows us to adjust our estimated treatment effects to account for undelivered mail. To make this adjustment, the only required assumption is that the estimated treatment effect among those not receiving mail reminders is zero. With that assumption, we know that the full treatment effect of 8.2 percentage points comes from where mail was delivered.

¹¹ We would prefer to present these results in terms of baseline nonappearance for only those with delivered mail reminders, since we do not have that data we use the nonappearance rate for all people in the baseline period.



Based on these results, we continue to highly recommend reminders as one of the most impactful and costeffective ways to increase court appearance, reduce harm to involved individuals, and decrease government
costs and inefficiency. While text messages are typically more cost-effective than mailed reminders,¹² often
courts have more addresses on file than phone numbers. Therefore, we recommend sending reminders by
text (or email) where possible (or the person's method of choice, if available), and to use mailed reminders
whenever phone numbers (or emails) are unavailable. These results add to the growing evidence that cheap,
easy interventions can dramatically improve the outcomes and efficiency of our legal system.

¹² While the per-message cost of text reminders is typically lower than mailed reminders, cost comparisons will depend on the systems available to each court.