Anchor Management: A Field Experiment Encouraging TANF Participants to Meet Program Deadlines

Katherine N. Gan, PhD*, Karissa Minnich, MPA*, Ryan T. Moore, PhD*, David Yokum, JD, PhD*

- Draft –
- October 24, 2018 -

Abstract

Many families, despite need and eligibility, have their federal cash assistance benefits terminated for failure to complete program recertification paperwork in a timely fashion. This study aimed to ease the psychological frictions by designing and sending an instructional reminder letter based on behavioral insights to families recertifying for Temporary Assistance for Needy Families (TANF). Based on a randomized controlled trial (n = 3,539) in Washington, DC, we find that sending a behaviorally-informed reminder letter increased the number of families who maintained their TANF participation by 14 percent. Further, we offer suggestive evidence that anchoring people to a deadline month may be sufficient to overcome procrastination without creating the compliance challenges of anchoring them to a specific day. Adopting the most effective letter for all recertifying families in DC would result in 766 more families continuing their TANF participation uninterrupted each year.

Evidence for Practice

- Use behavioral audits to systematically understand individuals’ real and perceived costs of the bureaucratic processes seeking public services.
- Where legal and program requirements limit the ability to revise official notices, supplement those notices with reminder letters or tools to help residents navigate program requirements and bureaucracy.
- When deciding to set a deadline (or appointments) for administrative purposes, consider when, and with what specificity, you communicate that deadline.
Social programs can be effective only when their intended beneficiaries are able to participate. Yet, evidence suggests that many people who are both eligible and needy fail to access benefits because the bureaucratic processes to enroll and stay enrolled are too cumbersome. For instance, across OECD countries, uptake of social assistance and housing programs generally ranges from 40 to 80 percent of those eligible, and uptake of unemployment compensation from 60 to 80 percent (Hernanz, Malherbet, and Pellizzari 2004).

In the case of Temporary Assistance for Needy Families (TANF) in the US, low uptake may translate into fewer resources reaching families and children experiencing poverty. TANF receipt is at a historic low. Much of the decline in TANF receipt is due to declines in uptake, rather than changes in the number of eligible families (Falk 2017). In 2014, the latest year for which data are available, 27.6 percent of families who met TANF eligibility requirements participated in the TANF program (U.S. Department of Health and Human Services 2017a). This is down from 69.2 percent at the program’s inception in 1997 and 36.0 percent in 2007.

This project aimed to address potential frictions in ongoing TANF uptake. We begin by reviewing the existing literature and its implications for the TANF operations in Washington, DC. This, and literature from behavioral science, inform our design of a letter intervention to counteract potential bottlenecks and frictions from the users perspective. We then describe a randomized control test, which found that sending our single, behaviorally-informed reminder letter increased families' likelihood of successfully recertifying for TANF by 14 percent. Finally, we discuss how these behavioral insights might be used to reduce psychological frictions and increase the update of public benefit programs more generally.
The Theory of Administrative Burden

The standard economic models traditionally attribute low uptake of social programs to the costs of learning about eligibility and application rules, the costs associated with benefit receipt, and the transaction costs of program applications (Currie 2004). Literature in public administration associates these costs with administrative burden—“an individual’s experience of policy implementation as onerous” (Burden et al. 2012). For the purposes of this study, we will follow Moynihan, Herd, and Harvey’s (2014) extended definition of administrative burden as “the learning, psychological, and compliance costs that citizens experience in their interactions with government.”

While some administrative burdens may legitimately serve public values, others may—inadvertently or intentionally—impose costs on individuals and hinder program goals. For example, requirements for individuals to re-establish their eligibility for social programs are put in place to ensure ineligible individuals do not continue receiving benefits. Indeed, requirements to reestablish eligibility more frequently have been consistently found to reduce participation in the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) (Ratcliffe, McKernan, and Finegold n.d.). However, churn—when individuals enroll in a program, exit when faced with recertification, then reenroll—suggests that the administrative burden of recertification may discourage eligible individuals from accessing social supports continuously (Herd et al 2013). National surveys illuminate the extent to which administrative burden may be responsible for families exiting TANF or its predecessor. Ten to fifteen percent of families exiting these programs cited such reasons for leaving as “Did not follow program rules” or “Didn’t want or need/too much hassle/system too frustrating” (Brodkin and Majmundar 2010).
Cognitive biases may generate disproportionate responses to administrative burdens (Kahneman 2011; Tversky and Kahneman 1981). For instance, small situational factors—how decisions are framed, the small “hassle” factors to achieving a goal, and even procrastination—may have outsized influence on program participation decisions (ibid; Bertrand, Mullainathan, and Shafir 2004). Populations experiencing poverty may be particularly susceptible to these factors. The stress of poverty can induce a scarcity mindset where cognitive bandwidth, and the attention available to negotiate complex processes, is limited (Mullainathan and Shafir 2014). Ultimately, the learning, psychological, and compliance costs associated with administrative burden can be more than a nuisance; they can have significant impacts on citizens’ access to services, well-being, and relationships to government.

**About the TANF Program**

TANF is a federal block grant that DC and states receive to provide income assistance, job training, and other supportive services to low-income families with children.¹ Federal TANF income assistance consists of up to 60 months² of direct cash assistance for eligible families. Benefit levels are based on the number of eligible household members and income. For instance, a family of three in Washington, DC, with no more than $8,016 in annual income, could receive up to $508 a month, or $6,096 a year (Lassiter 2017).

For families to be eligible for TANF in DC, heads of household must meet financial and technical eligibility requirements. They must be a DC resident; be either pregnant or responsible for a child under 19 years of age; be a US national, citizen, legal alien, or permanent resident; have low or very low income; have less than $2,000 in assets; and be either under-employed, unemployed, or about to become unemployed (U.S. Department of Health and Human Services
Additional conditions of eligibility include cooperation with child support, participation in work activities, and compliance with substance abuse provisions.

DC’s TANF program is administered by the Department of Human Service (DHS) Economic Security Administration (ESA). During the 2015 fiscal year, total TANF expenditures in the District were $266.9M (U.S. Department of Health and Human Services 2017c). That includes about $70M in basic cash assistance; $60M in child care; $52M in short-term and emergency aid; and $37M to vendors who provide work readiness, job placement, retention services, and barrier remediation assistance through the TANF Employment Program. About 5,000 families are enrolled in the DC TANF program during a typical month (U.S. Department of Health and Human Services 2017c). Forty-four percent of those without disabilities engage with case management and work activities through the TANF Employment Program (D.C. Action for Children 2016).

**TANF Recertification**

Nationally, 21 percent of families receiving TANF have their cases closed each year for failure to comply with TANF eligibility requirements (e.g., failure to appear at appointments, submit required documentation, or cooperate with requirements) (U.S. Department of Health and Human Services 2017c). Within DC, DHS began enforcing a new recertification process for households to maintain TANF eligibility starting in late 2016. After each 12 months of benefits, DC TANF recipients in DC are required to recertify their eligibility by completing a benefits application and supplying necessary documentation in-person at a DHS Service Center (D.C. Department of Human Services 2015).
Any household who fails to recertify in a timely fashion is no longer eligible for TANF and its participation is terminated. Subsequently, households seeking to access future benefits must go to a DHS Service Center to complete a new TANF application and supply necessary proofs. Some prior recipients may no longer qualify because eligibility rules related to income differ between recertification and initial application. For instance, when recertifying, eligibility is assessed on the household’s monthly earned income minus a $160 work expense deduction and disregarding two thirds of remaining earned income; eligibility for newly applying households is based on earned income minus only $160 (D.C. Department of Human Services 2017). New applicants also may be required to (re)complete the TANF orientation, comprehensive assessment, and Preliminary Individual Responsibility Plan, which details needs and plans for obtaining work (Seymour 2017). Whereas the recertification application takes approximately 45 minutes to complete, a new application takes 1 hour, and the TANF orientation and comprehensive assessment another 1.5 hours.

Mailed letters are DHS’s primary mechanism for informing customers about the recertification requirement (figure A-1). An Initial Notice is mailed at least 60 calendar days prior to a household’s recertification deadline. This notice informs customers of the requirement and the necessary proofs to be presented, and it suggests a specific “appointment” date and DHS Service Center for the customer to visit to complete recertification (appendix B). Those dates are intended to smooth staffing needs at DHS Service Centers by modulating demand and balancing DHS workload. TANF recipients can recertify their eligibility at any of DHS’s Service Centers during business hours any day and time during their recertification period and are seen on a “first come, first served” basis. If a customer does not visit a Service Center, they will receive a Termination Notice (appendix C) 15 days prior to their deadline. DHS also makes general
information about the recertification requirement available through their website and TANF program materials.

There may be room to expand current communication efforts to reach more eligible households. In the first quarter of 2017, one in two (50 percent) DC families on TANF successfully recertified their eligibility and maintained their benefits. The remaining families were removed from the TANF rolls and their participation terminated. The overwhelming majority of these families failed to comply with the recertification process: either they did not appear at a Service Center to recertify (44 percent) or they appeared but failed to bring all the necessary proofs (4 percent).

The recertification process is designed to ensure families who are eligible continue to receive benefits while terminating participation for families who no longer qualify. Through the recertification process, a minority of households (less than 1 percent) have their cases closed because they no longer meet eligibility requirements, i.e. visit a Service Center and are affirmatively denied renewal. The vast majority of families who go through the recertification process successfully renew. It is possible that those who do not visit a Service Center are self-selecting out of the process because they are no longer eligible. However, there is suggestive evidence that a significant number of otherwise eligible households have their benefits terminated simply for failing to follow the proper procedures. In the first quarter of 2017, 34 percent of families whose benefits were terminated reapplied, and were approved for, DC TANF benefits within 90 days of termination. In the absence of the requirement, they would have remained eligible and continued their participation.
Intervention Design

We designed a reminder letter to reach otherwise eligible households whose benefits would be terminated for failing to follow the recertification procedures. DHS chose to send physical letters because similar letters have proven promising in similar contexts (e.g., Farrell, Smith and Obara 2016; Bhargava and Manoli 2015), most DC TANF recipients can receive letters (as opposed to, e.g., text messages), and letters are low-cost. It was not possible to revise, legally approve, and test revisions to the official notices within the timeframe of this project.

As a first step to designing an intervention for recertifying families, we conducted a behavioral audit to better understand the potential bottlenecks from the users’ perspective (figure 1). By doing so, we sought to uncover, systematically, those administrative burdens experienced from the citizen’s perspective (Moynihan, Herd, and Harvey 2015). Specifically, we mapped out every required step and the associated challenges.14 We then identified the research-based design insights that might address the key bottlenecks and applied them.
Figure 1: Behavioral Audit

<table>
<thead>
<tr>
<th>Desired Action</th>
<th>Challenge</th>
<th>Intervention Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual opens envelope</td>
<td>Envelope may look unimportant or may be ignored</td>
<td>Use messages to prompt opening; Clearly “brand” mail as official</td>
</tr>
<tr>
<td>Individual reads and understands letter, including</td>
<td>Long or overly legalistic language may discourage reading/understanding</td>
<td>Decrease required cognitive load by reducing text, simplifying language, and reorganizing information</td>
</tr>
<tr>
<td>Implications of (non)compliance and required steps</td>
<td>Seemingly unsolvable problems may be ignored rather than addressed</td>
<td>Mitigate ostrich effect by parsing problem into discrete steps</td>
</tr>
<tr>
<td>Individual makes intention to comply</td>
<td>A long or burdensome process may discourage completion</td>
<td>Increase engagement and feeling of accomplishment through implementation prompts and checklists</td>
</tr>
<tr>
<td>Individual follows through on intentions</td>
<td>People may not follow through on their intentions or procrastinate</td>
<td>Limit the number of decisions required by anchoring respondent to a particular deadline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase feeling of urgency around response by setting an early anchor for task completion</td>
</tr>
</tbody>
</table>

Behaviorally-Informed Reminder Letters

The behavioral audit resulted in two versions of a reminder letter. The core of both letters is designed as a tri-fold 8 ½” by 11” sheet (figures 2 and A-2). The outside of the trifold (the “envelope”) is designed to attract recipients’ attention and generate sufficient interest to open the letter. While there is limited empirical consensus on what design elements are likely to drive open rates for official communications, evidence from direct mail campaigns suggests that visual design (e.g., special formats or sizes), a clear sender identity, and personalization may all affect whether recipients open mail (Feld et al 2013). We included those elements in our design.
Figure 2: Reminder Letter

The inside of each letter starts with a simple statement to motivate the head of household to recertify in a timely fashion: “Your family’s cash benefits will expire this [month] unless you renew your TANF eligibility,” then lays out the three steps required for recertification. We break the text into steps because research suggests that recipients may need signposting to engage with all key points. In an Indiana study, notices that provided parents with more detailed information and a checklist clearly explaining the required documentation led to more parents recertifying their eligibility for child care subsidies (Dechausay and Anzelone 2016). To help recipients parse the task and lower compliance costs, we divide the “ask” into discrete steps and transfer the administrative burden of figuring out the appropriate paperwork (e.g., which pay stub) from the recipient to the service provider.
Each step includes an implementation prompt to encourage follow-through and increase recipients’ engagement in the process. Implementation prompts—asking people to plan—may make them more likely to follow through because it causes them to think more deeply about accomplishing a task than otherwise. These prompts take the discrete steps described above and ask recipients to perform concrete actions immediately. In the literature, successful outreach letters from the US Department of Health and Human Services asked Federal Health Insurance Marketplace applicants to write on the letter the time and date she planned to return to an online form to complete enrollment (White House Office of Science and Technology Policy 2015). Such prompts may overcome people’s tendency to procrastinate by encouraging them to develop specific strategies to overcome logistical hurdles to following through on their intentions, mitigate forgetfulness, and cause discomfort for failing to follow through (Gollwitzer 1999).

The letters also include simplified instructions (e.g., required documents and a map to the nearest Service Center15) to limit the informational costs of compliance. The more concise text and illustrations are designed to lower the cognitive load on readers. Long and dense text may create a high cognitive load and tax readers’ limited bandwidth. Numerous studies of communications to public benefits recipients use simpler text to mitigate this effect. For example, redesigned outreach notices for child support cases in Georgia simplified language and used formatting to make the most important information prominent (Anzelone, Timm, and Kusayeva 2018). The redesigned notices, and a similar reminder letter, increased Georgia office visits by 8.2 percentage points.

While the versions are largely similar, they differ in how they emphasize the deadline for action: one has an open date and the other a specific date (figure 3). In the first step, the open date version anchors recipients on the month their benefits are scheduled to end, and asks them to
“Set a Date” to recertify. The specific date version anchors recipients on the suggested date from DHS’s Initial Notice, and asks them to “Save the Date”.

We test these versions because evidence on how deadlines address procrastination is mixed. Deadlines—even artificial or self-imposed deadlines—induce people to avoid postponing action repeatedly (Ariely and Wertenbroch 2002; Zamir, Lewinsohn-Zamir, and Ritov 2017). Deadlines can anchor people to a date for completing action. They may also spur action by signaling scarcity. Generally, anchors may influence decision makers to make judgments biased towards an initially-presented value (Furnham and Boo 2011). While the literature on anchoring is strong, particularly for judgments around knowledge, probability estimates or forecasting, legal judgments, valuations, negotiation and self-efficacy, less is known about how dates may anchor decisions on when people will act. As a result, there is an open question as to how program administrators should frame administrative deadlines.

Many studies of deadlines and reminders are based on appointments and highlight the importance of citing specific dates (and times). For example, in the Georgia study cited earlier, the success of the intervention was attributed to “(1) creating a clear deadline for action by setting an appointment and (2) orienting the rest of the mailed materials to help a parent prepare for and attend the appointment” (Anzelone, Timm, and Kusayeva 2018). Similarly, the medical literature finds consistent evidence that reminders which include the date, time, and location increase appointment attendance (McLean et al 2016).

In the absence of appointments, the evidence is mixed on whether listing a specific date, rather than a more general one, is more important for overcoming procrastination. A study asking students to voluntarily provide exam feedback at Hebrew University found that students were
more likely to respond if they were given a short, specific deadline (Tuesday, July 23 at noon) than if they were given a long, imprecise deadline (“during the coming weeks”). Unfortunately, this intervention design conflates the length and precision of the deadline (Zamir, Lewihsohn-Zamir, and Rotov 2017). A different study of deadlines provides some evidence that length of the deadline does not matter, but offers no insights into precision. In response to appeals from a known charity, most people donated immediately after the appeal was made, or a reminder sent, regardless of the length of the deadline (Damgaard and Gravert 2017). In both cases, the presence of the deadline, rather than its content, seems important.

In the context of administrative deadlines, which are often based on the end of specific time periods (months, quarters, calendar or fiscal years), it is not clear whether people are more responsive to specific deadlines (e.g., Saturday, September 30, 2017) or less precise ones (e.g., September 2017). A license plate renewal project in Denver tested the impact of a reminder postcard that emphasized the expiration month, then asked recipients to select specific dates for performing required actions. The researchers posited that part of their success in increasing timely renewal was due to the postcards setting “an early anchor—the month [the recipient’s] license expires rather than the last date to renew” (Behavioral Insights Team 2016). However, in the absence of data on the dates of renewal, it is not clear whether the anchor is an early one (e.g., by September 1) or a late one (e.g., by September 30).

To summarize, while a reminder of a specific date may simplify the follow-through decision for the recipient by setting a default date as an anchor for action, recipients may be discouraged from following through if they are unable to make that date. On the other hand, setting the month as an anchor (the open date) may invoke less urgency or reinforce, not an early anchor, but procrastination to the end of month.
DHS mailed all reminder letters for a given month after they had sent the Initial Notices but with at least one week before the “appointment” dates began.

**Objectives**

Our goal was to determine whether a behaviorally-informed reminder letter can impact TANF families’ likelihood of successful recertification, and, if letters were successful, which variant was more effective. That is:

- Is there a difference in successful recertification between families who are sent a behaviorally-informed reminder letter and those who are sent standard communications only?

- Among those who are sent a reminder letter, is there a difference in successful recertification between families who are sent a reminder letter emphasizing the deadline month (open date) and those emphasizing a specific date?

**Methods**

To test the effects of the behaviorally-informed reminder letters, we randomly allocated one-third of those needing to recertify each month to receive the standard communications only (no reminder letter), one-third to receive the additional letter with a specific date, and one-third to receive the additional letter with an open date.
Participants

Trial participants included all 3,539 households required by DHS to recertify their TANF eligibility by July, August, September, October, or November 2017 and eligible for reminder letters.\textsuperscript{16}

Outcomes

All data for the study is drawn from administrative data recorded in DHS’s benefits eligibility system. Individual records are updated as TANF recipients provide eligibility information, such as during their recertification visits. All recertification outcomes are measured at the end of the recertification period, that is, after the last day in which a family was able to recertify their eligibility, then first shared with the study team in late December 2017.

The primary outcome of interest is whether the household successfully recertified. We define this as a dichotomous measure of whether each trial participant’s household submitted all necessary proofs for DHS to determine their continued eligibility for TANF and were deemed eligible by DHS. We measure each household’s outcome once their recertification deadline has passed.

Randomization

Each month, a cohort of households was due to recertify and eligible for participation in our study. Within each cohort, we blocked eligible households by their nearest Service Center and assigned visit date. In particular, among those assigned to recertify at each Service Center each month, we created blocks of size three based on households' assigned appointment dates using the blockTools package in R (Moore 2012; Moore and Schnakenberg 2016; R Core Team 2018). We then randomly assigned them to no reminder letter, a reminder letter with an open visit date,
or a reminder letter with a specific visit date. Since visit dates cover the 25th of the prior month to the 14th of the recertification deadline month, there were about 21 days, and thus 15 weekdays of appointments. We exact-blocked on Service Center, and then approximately-blocked on visit date, using an optimal-greedy algorithm with dissimilarity defined by the Mahalanobis distance between participants’ randomly-assigned visit dates (Moore 2012). This blocking produced treatment conditions that are very well balanced across appointment dates. Across the 25 Service Center-by-month combinations with more than a handful of participants, the median absolute deviation (MAD) of appointment dates is about 0.15 days (about 3.5 hours) or less in 99% of the cases. In other words, the medians tend to vary by much less than a day across the months and Service Centers.

Of the 3,539 households in the sample, 1,177 were assigned to receive no letter; 1,181 to receive a reminder letter with an open visit date; and 1,181 to receive a reminder letter with a specific visit date.

**Implementation and Blinding**

There is minimal chance that knowledge of a family’s study group affected how outcomes were measured and recorded. The research team—including administrative staff at DHS—carried out the random assignment and electronic production of the reminder letters. As a result, during the study, only the research team had access to the data files identifying which participants were sent each reminder letter. DHS management staff, who printed and mailed the letters, could observe treatment status based on the individual letters but were unlikely to know experimental status systematically across the sample. None of the staff who processed or input data on recertifications were aware of the experiment, nor which families were in the study sample.
Individuals who received a reminder letter may have shown that letter to DHS staff during recertification, but because the business rules and processes for making final eligibility decisions are rigidly structured, it is highly unlikely that eligibility decisions were influenced by staff awareness of the reminder letter.

**Statistical Methods**

For each research question, we estimated the causal effect of reminder letters or letter type (open vs. specific date) with the coefficient on an indicator for letter or letter type. We used the standard error around the estimated coefficients to construct 95 percent confidence intervals around the estimates. Further, for each research question, we estimated the Bayesian posterior probability that one condition results in more successful recertifications.

**Results**

Of the randomly assigned sample, our intent-to-treat analysis included 1,172 households assigned to receive the standard communications only (and no reminder letter) and 2,348 households assigned to standard the usual communications plus either version of the reminder letter. This included 1,176 households assigned to receive a reminder letter with open date, and 1,172 households assigned to receive a reminder letter with the specific date.

Attrition was minimal and included just those households whose outcome data could not be matched to the baseline sample. For three percent of the sample with observed outcomes, participation was terminated prior to the deadline separately from the recertification process. This happened, for instance, if they had reached federal time limits for participation or DHS knew from their participation in another benefit program that they were no longer eligible for
TANF. Because it is not obvious that the terminations were independent of the treatment (e.g., whether the household was identified because the reminder letter led them to contacting DHS), we leave these cases in our sample. To be conservative in our estimates, we categorize these households as unresponsive to the recertification requirement.

Unless otherwise specified, each of the following analyses were pre-registered with the Open Science Framework following best practices for conducting and pre-registering field experiments (CONSORT 2016; Gerber and Green 2012).20

Among those who received the standard communications, 40.1 percent successfully recertified (figure 4, table A-3). Among those receiving an additional reminder letter, 45.6 percent successfully recertified, a difference of 5.5 percentage points. This represents an increase in recertifications of 14 percent over the baseline. Because the 95% confidence interval around the
difference covers (2.1, 9.0), we reject the null hypothesis that there is no difference in successful recertification between those sent a behaviorally-informed reminder letter and those who were not. Further, the Bayesian posterior probability that a behaviorally-informed letter is more effective than the standard communications only is approximately 1.

Our results also suggest that open date letters, which only note the overall deadline month, generate higher recertification rates than do those listing a specific visit date (figure 4, table A-3). Among those sent the open date letter, 46.4 percent successfully recertified. Successful recertification was 44.8 percent among those sent letters listing specific dates. This represents a difference of about 1.6 percentage points, or an increase in recertifications by the open date letter of 4 percent over the specific letter.

While this difference is suggestive, we do not reject the null hypothesis because the 95 percent confidence interval around the difference of 1.6 percentage points includes 0 (-2.4, 5.7). We also calculate the Bayesian posterior probability that the open date letters are more effective than the letters with the specific date to be about 0.79. That is, there is a 79 percent chance that the letter with the open date is more effective at driving successful recertification than is the letter with the specific date.

At current TANF recertification levels and using current administrative procedures, sending the same mixture of the two additional letters could amount to 667 additional families successfully recertifying over the course of a year. Using the open letter could amount to as many as 766 additional families retaining benefits.
Supplemental Analyses

Return to Sender. The intervention relied on physical mail, in part, because addresses were available for all of the study population, while other contact information was more sparse. However, some addresses for this population were out-of-date or otherwise incorrect, undermining compliance with the intervention. Of the 2,362 letters we sent out, we know that 230 did not reach the intended recipient. The postal service returned these letters either due to an incorrect address (216) or insufficient postage (14). Letters with open appointments were slightly more likely to reach the intended recipients. Among those with open appointment letters, 9.0 percent were not delivered due to an incorrect address; an additional 0.5 percent were not delivered due to a missing stamp. The analogous figures for those with specific appointment letters was 9.4 and 0.7 percent, respectively.

While our main estimate is the intent-to-treat effect, we also calculate the effect of the letters on only those who had a chance to receive them—a complier average causal effect (Gerber and Green 2012). This estimate was not pre-registered. The non-compliers represent a relatively small proportion of the treatment group (about 10 percent of the intended recipients) and our estimate of the complier average causal effect is similar to our overall average treatment effect. Compliers were 6.1 percentage points more likely to successfully recertify and continue TANF participation than those in the control group.

Additional Outcomes. While the primary outcome of policy interest is continued participation in TANF, we also analyzed the impacts of the letters on two intermediate outcomes. Successful recertification requires both: (1) being sufficiently motivated and informed to show up at a Service Center to recertify and (2) being sufficiently informed and organized to bring the proper
Each of these are necessary, but not sufficient steps, to successful recertification.

The reminder letters’ impacts on starting and completing recertification are consistent with their impacts for successfully recertifying (tables A-2 and A-3). The behaviorally-informed reminder letter empowers recipients to initiate the recertification process, which, in turn, usually leads to those families continuing their participation in TANF. Very few households attempt to recertify and subsequently fail to retain benefits. Specifically, households sent an additional letter were 13 percent more likely to start recertification and 13 percent more likely to fully comply with recertification requirements (provided all required proofs even if they did not meet eligibility criteria) than are those sent only the standard notifications only. The letters have a statistically significant impact on all steps in the recertification process. Considering just those sent letters, those with the open date are slightly more likely to start recertification (3 percent) and fully comply with requirements (3 percent) than are those with the specific date, but these differences are not statistically significant.

Recertification Days and Dates. To better understand how households respond to the two versions of the letters and implications for DHS operations and staffing, we conducted an analysis of the specific days and dates households recertified. These analyses were not pre-registered. Figure 5 presents the cumulative distribution functions (CDF) of recertifications using two different reference time periods.23
The left graph shows when households recertified relative to the specific date they were given in their Initial Notice and, for some, in their Reminder Letter. As described earlier, the specific dates ranged over approximately a 20-day period, slightly more than midway through the recertification window. Households with the open date reminder letters were more likely to recertify prior to the specific dates in their Initial Notices (12.0%) than were those reminded of the specific date (8.5%) or who received the standard communications only (6.6%). The story shifts at the specific “appointment” date. Those reminded of a specific date were more likely to recertify on that date (8.6%), than those with the Open Date reminder (6.4%) and the standard communications (6.61%). This difference is significant enough to almost offset the early recertifications from the Open Date letter. After the specific date is passed, households that receive the Open Date and Specific Date reminder letters appear to act similarly. While anchoring individuals to specific dates may encourage a subset to act on that date, it appears that “appointments” may also discourage individuals from acting early.
The right graph shows when households recertified relative to the 60 calendar days available for recertification, from the Initial Notice to the deadline (appendix A). Of note here are how individuals act at the end of each month. At the far right, there is a sharp increase in recertification activity by all three groups as they approach the end of the deadline month (0 days). More surprising, it appears that there is a similar increase among households with the Open Date reminder as they approach the beginning of the deadline month—or end of the preceding month (~ -30 days). This suggests that some individuals may interpret the broad month (e.g. July) in the Open Date letter as an early deadline for action (e.g., before July 1). There is also suggestive evidence of that date serving as an early anchor. Among those who received the Open Letter, those whose specific dates (in the Initial Notice) were in the first month (e.g., June 25 – 30) recertified an average 6.0 days later than those dates; those whose specific dates were in the second, deadline month (e.g., July 1 – 14) recertified an average 0.3 days earlier than those dates.

**Cost-Benefit.** Finally, to inform whether the letters were worthwhile, we present a rough cost-benefit analysis. This analysis was not pre-registered. The reminder letters led to 129 more study families with low incomes keeping their TANF benefits. The reminder letters themselves cost $1,087 to send, not counting staff time costs or materials (paper, ink) DHS already owned. This translates into $8.43 per additional family that retained its benefits.

Stated differently, the $6,000 annual cost of sending the letters to all recertifying families in DC represents less than 0.005 percent of what DC spends on TANF each year.
Limitations

This test is one of addition rather than substitution. The supplementary reminder letter was designed to be simple, with clear action steps for a reader who is presumably overwhelmed with many other things. It is worth noting, however, that strictly speaking, we still have added another communication from the government, as opposed to replacing the original notifications. This reflects the pragmatic fact that we could not, for legal reasons, gain clearance to change the original letter to for the study cohorts. This additional volume may potentially decrease communication effectiveness, if recipients were to become overwhelmed or annoyed by the volume of mail. However, the variation in impacts across reminder letters suggests that the content, not just the volume, of the communications matters.

Relatedly, our finding that recipients are more responsive to the letter with the deadline month, rather than a specific date, may be limited because this is a reminder letter. The comparison of the Specific Date and Open Date letters is meant to provide a window into whether it is better to give personalized, specific visit date or instead provide more flexibility. However, all recipients are sent a specific visit date in their Initial Notice. Thus, the test here is not strictly of anchoring to no visit date versus to a visit date, but rather of whether or not the supplementary letter re-anchors recipients to a specific visit date. As a result, our estimates are likely to underestimate the benefits of the Open Date.

Discussion

This study rigorously demonstrates that administrative burdens do influence access to public services in the context of DC’s TANF program. Moreover, governments can apply behavioral insights to reduce the influence of administrative burdens on residents. Behaviorally-designed
reminder letters may prove to be a cost-effective means for reducing administrative burdens, particularly in cases where governments (or researchers) are constrained from enacting more sweeping changes.

While the reminder letters tested here were created for a specific population within a particular context, the larger behavioral insights may apply more broadly. Adding to the numerous studies that have shown the promise of simplified reminder letters and deadlines to spur action, this study adds nuance to the evidence on how deadlines should be used. In cases with administrative deadlines, we offer suggestive evidence that anchoring people to a deadline month may (1) be sufficient to overcome procrastination and (2) do so while avoiding the downsides of anchoring people to a specific day that does not work for them. Even if open dates are only marginally more effective than specific dates, they may be administratively or operationally preferable. Specific appointment dates may be more logistically challenging to schedule than establishing a walk-in policy.

Ultimately, the practice of conducting behavioral audits, designing customized and research-informed interventions, and then testing their efficacy should be applied to a wide range of program communications and policy issues. This test showed that, for relatively minimal costs—under $9 per additional family—well-designed reminder letters can help ensure that eligible families experiencing poverty retain access to needed public resources and, ultimately, can help public programs meet their anti-poverty goals.
References


U.S. Department of Health and Human Services, Office of Human Services Policy, Office of the Assistant Secretary for Planning and Evaluation.


Appendix A: Supplemental Figures and Tables

Figure A-1: Example TANF Recertification Communications and Process (July 31, 2017 Deadline)

- May 29: DHS sends Initial Notice
- June 1: TANF benefits distributed to eligible households
- July 1: TANF benefits distributed to eligible households
- July 14: DHS sends Termination Notice
- July 31: Recertification deadline
- August 1: TANF benefits distributed to households that did recertify; TANF benefits terminated for households that failed to recertify

DHS sends Initial Notice
June 1: TANF benefits distributed to eligible households
Recertification "appointments" (June 25 – July 14)
Recertification Window
Head of Household brings Proof of Residency & other eligibility documentation to a DHS Service Center for in-person
Figure A-2: View of "envelope" (Front and Back)

- Logos prompt brand recognition
- Tri-fold design is
- Color helps the letter stick out in a stack of mail
- Envelope message includes the key ask

We need to meet with you

- Economic Security Administration
  64 New York Ave, NE
  Washington, DC 20002

\{head hh\}
\{address\}
\{city_state\}

Figure A-3: Participant Flow

Eligible for Reminder Letter
July - November 2017 Deadlines

Randomized (n=3,539)

- Standard Communications (n=1,177)
  - Lost to follow-up (n=5)
  - Analyzed (n=1,172)

- +Letter: Specific Date (n=1,181)
  - Lost to follow-up (n=9)
  - Analyzed (n=1,172)

- +Letter: Open Date (n=1,181)
  - Lost to follow-up (n=5)
  - Analyzed (n=1,176)
### Table A-1: Sample Composition and Timing

<table>
<thead>
<tr>
<th></th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Random Assignment Sample</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Letter</td>
<td>242</td>
<td>257</td>
<td>242</td>
<td>177</td>
<td>259</td>
</tr>
<tr>
<td>Specific Date</td>
<td>243</td>
<td>258</td>
<td>242</td>
<td>178</td>
<td>260</td>
</tr>
<tr>
<td>Open Date</td>
<td>241</td>
<td>259</td>
<td>242</td>
<td>178</td>
<td>261</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>726</td>
<td>774</td>
<td>726</td>
<td>533</td>
<td>780</td>
</tr>
<tr>
<td><strong>Timelines</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Notices mailed</td>
<td>5/31</td>
<td>7/1</td>
<td>7/30</td>
<td>8/30</td>
<td>9/30</td>
</tr>
<tr>
<td>Data pulled for sample</td>
<td>6/12</td>
<td>7/10</td>
<td>8/15</td>
<td>9/12</td>
<td>10/6</td>
</tr>
<tr>
<td>Reminder letters mailed (if applicable)</td>
<td>6/19</td>
<td>7/18</td>
<td>8/18</td>
<td>9/15</td>
<td>10/13</td>
</tr>
<tr>
<td>Deadline to Recertify</td>
<td>7/31</td>
<td>8/31</td>
<td>9/29</td>
<td>10/31</td>
<td>11/30</td>
</tr>
</tbody>
</table>
### Table A-2: Percentage Achieving Each Outcome, by experimental condition (no letter vs. any letter)

<table>
<thead>
<tr>
<th></th>
<th>No Letter n = 1,172</th>
<th>Any Letter n = 2,348</th>
<th>Difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started Recertification</td>
<td>41.8%</td>
<td>47.4%</td>
<td>5.6pp* (2.1, 9.0pp)</td>
</tr>
<tr>
<td>Complied with Requirements</td>
<td>40.7%</td>
<td>45.9%</td>
<td>5.2pp* (1.7, 8.7pp)</td>
</tr>
<tr>
<td>Successful Recertification</td>
<td>40.1%</td>
<td>45.6%</td>
<td>5.5pp* (2.1, 9.0pp)</td>
</tr>
</tbody>
</table>

* Statistically significant at the 95 percent confidence level
Note: All percentages listed are from the total number assigned to that condition.

### Table A-3: Percentage Achieving Each Outcome, by experimental condition (Specific date vs. Open date)

<table>
<thead>
<tr>
<th></th>
<th>Letter: Specific Date n = 1,172</th>
<th>Letter: Open Date n = 1,176</th>
<th>Difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started Recertification</td>
<td>46.8%</td>
<td>48.0%</td>
<td>1.2pp (-2.8, 5.2pp)</td>
</tr>
<tr>
<td>Complied with Requirements</td>
<td>45.1%</td>
<td>46.7%</td>
<td>1.5pp (-2.5, 5.6pp)</td>
</tr>
<tr>
<td>Successful Recertification</td>
<td>44.8%</td>
<td>46.4%</td>
<td>1.6pp (-2.4, 5.7pp)</td>
</tr>
</tbody>
</table>

Note: All percentages listed are from the total number assigned to that condition.
Figure A-4: Relative to Calendar Day, Number of Recertifications Daily, by experimental condition

Figure A-5: Relative to “Appointment Day”, Percentage of Households that Recertify Daily, by experimental condition
Appendix B: Initial Notice

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF HUMAN SERVICES

DC Link

Notice Date: 10/29/2016
Account ID: [Redacted]
Person ID: [Redacted]

FORT DAVIS SERVICE CENTER (671)
3651, Alabama Avenue, SE
Washington, DC 20020
Phone number: (202) 645-4500
Fax Number: (202) 645-5205

Subject: Cash Assistance Renewal

Dear [Redacted],

Your eligibility for Temporary Assistance for Needy Families needs to be reviewed. Without this review your benefits will be terminated. We need the information listed below so that we can determine whether you are still eligible to get benefits:

- We need proof that you are still a District resident
- We need to verify school attendance for 18 and 19 year old household members.
- We need to verify if anyone moved-in to your household.

Please bring the information to FORT DAVIS SERVICE CENTER (671) on [Redacted] 2016. If you cannot go to this Service Center you may go to any of the Service Centers on the attached Service Center Address sheet.

If You Cannot Keep the Appointment

If you cannot keep the appointment, please contact (202) 727-5355 or before 12/2016 or you may go to any of the Service Centers listed on the attached form. If you fail to keep your scheduled appointment, we cannot determine if you are eligible for benefits. Without this review your benefits may be terminated.

ESA Manual Citation: Part II, Chapter 2, Section 2.3

If You Think We Made a Mistake

If you do not agree with the decision we made, the household may request a fair hearing within 90 days of the date of this notice. Read the attached Hearing Rights to learn how to request a hearing and for a list of organizations that may provide free legal representation. You may request a hearing orally or in writing.

If you have questions, please call (202) 727-5355. If you are Hearing Impaired, you may call TTY/TDD 711 (855) 532-5465.
Appendix C: Termination Notice

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF HUMAN SERVICES

Subject: Cash Assistance Termination

Dear [Name]

Your Temporary Assistance for Needy Families (TANF) benefits will terminate because <Insert reason>.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disqualified Recipient for IPV</td>
<td>you were found to have committed public assistance fraud and this is your third offense, so your needs will be permanently removed from your household’s TANF benefit. (D.C. Official Code § 4-218.01(c))</td>
</tr>
<tr>
<td>Institutionalized</td>
<td>your benefits have been terminated because you are in a hospital, group home, or nursing home and no longer meet the standard to be included in the TANF assistance unit because you are not living in the same household as the dependent child. (45 C.F.R. § 293.20(a); 42 U.S.C.S. § 603(a)(1); D.C. Official Code § 4-205.15)</td>
</tr>
<tr>
<td>No longer living in the same household as the dependent child</td>
<td>Your benefits have been terminated because you no longer meet the standard to be included in the TANF assistance unit because you are not living in the same household as the dependent child. (45 C.F.R. § 293.20(a); 42 U.S.C.S. § 603(a)(1); D.C. Official Code § 4-205.15)</td>
</tr>
<tr>
<td>If gross income exceeds max allowable</td>
<td>your gross income exceeds the maximum allowable limit. (D.C. Official Code § 4-205.10(a))</td>
</tr>
<tr>
<td>If not a D.C. resident</td>
<td>you are no longer a District resident. (D.C. Official Code §§ 4-205.03-.04, 4-205.59)</td>
</tr>
<tr>
<td>If disqualified misrepresented residency</td>
<td>you were found to have misrepresented your residency to get benefits from two or more States, so your needs are removed from your household’s TANF benefit for ten (10) years. (D.C. Official Code § 4-205.59)</td>
</tr>
<tr>
<td>If loss of contact / no response from client</td>
<td>we could not establish contact with you. 7 CFR 273.13</td>
</tr>
<tr>
<td>Verifications not provided</td>
<td>part of the application process is providing requested information and we did not receive the information we requested from you (for example: living with statement(s), proof of citizenship status, income, etc.) ESA Policy Manual Part III, Chapter 1, Section 1.1 and Part III, Chapter 2, Section 2.1 and D.C. Official Code §§ 4-205.19(a), and .31(a)</td>
</tr>
<tr>
<td>Failure to provide requested information</td>
<td>you have not provided all the information we requested from you. ESA Policy Manual Part III, Chapter 1, Section 1.1 and Part III, Chapter 2, Section 2.1 and D.C. Official Code §§ 4-205.05(a), .19(a), and .31(a)</td>
</tr>
</tbody>
</table>

If You Think We Made a Mistake

If you do not agree with the decision we made, the household may request a fair hearing within 90 days of the date of this notice. Read the attached Hearing Rights to learn how to request a hearing and for a list of organizations that may provide free legal representation. You may request a hearing orally or in writing.

If you have any questions please call (202)724-5506. If you are Hearing Impaired, you may call TTY/TDD 711 (855) 532 5465
Endnotes

1 Federal guidelines allow states to use federal TANF funding on programs or services that meet one of the four main purposes: assist needy families so that children can be cared for in their own homes; reduce dependency by promoting job preparation, work, and marriage; prevent out-of-wedlock pregnancies; and encourage the formation and maintenance of two-parent families.

In order to receive federal TANF funds, DC and the states are required to spend a set amount of their own funds on programs for TANF-eligible families. This is referred to as a maintenance of effort (MOE) requirement. Most of the TANF and MOE funds spent in the District are used to support DC’s welfare-to-work program. Some TANF block grant funds are used for other services, such as homeless services and family preservation.

2 Over the course of the lifetime for federal funds. DC (and states) can continue issuing TANF benefits after 60 months from their own local funds.

3 In 2014, 27.1 percent of households on TANF nationally had at least one adult working full time; 16.7% had at least one adult working part time (and none full time); 12.4% with at least one looking for work (and none working); and 43.8 percent with no adults in the labor force.


5 This corresponds to approximately 12,300 adults and children. Because TANF cases are defined as all eligible members in eligible households, we use the terms recipient, household, and families interchangeably unless otherwise noted.

6 For the prior four years, DC TANF cases were closed manually and recipients were not systematically required to recertify their eligibility. Beginning December 31, 2016, cases are automatically terminated if eligibility is not recertified by the deadline.

7 Technically, eligibility may vary month-to-month. However, there is little incentive for households proactively to establish eligibility independent of the 12 month recertification requirement.

8 Service Centers process eligibility for TANF, SNAP, Interim Disability Assistance, Medicaid, Healthcare Alliance/Immigrant Child Program. Program services are provided at other locations by different staff.

9 For each of the Service Centers, DHS evenly divides recertifying clients among the business days between the 25th of the month prior to the deadline and the 14th of the month of the deadline (e.g., Monday, June 26, 2017 - Friday, July 14, 2017 for those whose eligibility expires July 31, 2017).

10 The Initial Notice from DHS recommends a specific date (and DHS Service Center) for recertification: “Please bring the information to [Service Center] on [scheduled date of renewal appointment].” Regardless of the “appointment” date provided, recipients have until the end of the month to recertify and the recommended date does not guarantee that they will be seen by DHS staff that day.

11 The Termination Notice states that “your Temporary Assistance for Needy Families benefits will terminate on <termination date> because <reason>.” While not explicitly stated in the notice, all customers who recertify in advance of the deadline—even if they have received a Termination Notice—can maintain their TANF eligibility.

12 The January 31, 2017 cohort received an automatic extension to February 28, 2017 because the second required notification (Termination Notice) was not sent to the original January cohort 15 days in advance of the deadline.

13 Between January and May, less than one percent of families attempted to recertify but were no longer eligible.

14 Figure 1 excludes factors not easily addressed by a letter, such as the customer having moved and become ineligible for DC TANF benefits, or time and transportation costs.
The Service Center DHS determined is closest to the census block of the client’s home address.

In our pre-analysis plan, we had initially planned to assess whether there were differences in outcomes after three and four months of intervention (July, August, and September cohorts, and October cohort) and stop if there were at least a ten percentage point difference between the letter and no letter conditions. Because we did not receive outcomes data at those times, we did not do any interim analyses.

Similarly, the average across Service Center-months of the MAD of other statistics (the earliest, latest, and median appointment dates) across conditions are on the scale of hours or minutes.

Three households were each due to recertify two separate times during the study period. They were randomized in each month they were due to recertify, regardless of their prior experimental condition. As a robustness check, we re-ran the analysis excluding these three households (six cases). There were no changes to our conclusions. This is not surprising since they represent less than 0.2 percent of cases and the outcomes are binary.

The research team sent DHS a single PDF file each month containing all of that month’s reminder letters. Each file was approximately 1,000 pages.

Registration: https://osf.io/ae6n5/

In 2017, 12,106 households were required to recertify.

The outcomes are defined as follows:

- **Complied with Requirement**: In addition to the households who remained eligible for TANF, this includes both households who submitted all necessary proofs for DHS to determine that it is no longer eligible for TANF benefits and whose benefits are discontinued and those who did so and are determined to be eligible. This outcome measures full compliance with the requirements of the recertification process.

- **Started Recertification**: In addition to the households who complied with the requirement (above), this includes households that visited a Service Center to recertify but did not bring all necessary proofs for DHS to make an eligibility determination and whose benefits are discontinued. This outcome measures attempted compliance with the requirements of the recertification process.

The CDFs are trimmed to include only those households whose recertification dates are within the relevant recertification window (between the Initial 60 day notice and the recertification deadline). Approximately 14.6 percent of households that recertify have recertification dates outside of that range. A sensitivity test that excludes those households does not substantively change our main findings.

2,362 letters at $0.46/letter in postage. For a commercial comparison, the cost of commercial production and mailing of the same number of pieces is approximately double. That is, 2,362 letters would cost $0.878 per piece, for a total cost of $2,073.84 (Price estimated from click2mail.com on December 13, 2017 and assumed 8.5x11 letter in #10 open window envelope with picture and address on first page; printed in full color on both sides; and mailed first class).