

UBC-DIBS Working Paper 2021-CBI-07

Check Your Inbox: Evaluating the Impact of Email Reminders on Hearing Attendance

Alexis Gordon, Emily Medd, Lindsay Miles-Pickup, & Kirstin Appelt University of British Columbia

Knowledge Summary: This project aimed to increase attendance at tenancy dispute hearings managed by the BC Residential Tenancy Branch. New "Behavioural Insights informed" pre-hearing notification emails incorporated salient information, consequences of inaction, and actionable next steps. Due to feasibility constraints, control and BI-informed emails were compared in a quasi-experimental trial. Although the BI-informed emails did not significantly increase hearing attendance, the project team identified several useful insights, including the impact of cultural holidays, missing email addresses, and other barriers.

Keywords: behavioural insights, attendance, email reminder, nudge, tenant, landlord, dispute resolution

Suggested citation: Gordon, A., Medd, E., Miles-Pickup, L., & Appelt, K. C. (2022). *Check your inbox: Evaluating the impact of email reminders on hearing attendance.* (UBC-DIBS Working Paper 2021-CBI-07).



UBC Decision Insights for Business & Society (UBC-DIBS) is a cluster of researchers and partners building a cross-sectoral centre of excellence to shape how Behavioural Insights (BI) are used in British Columbia and beyond. CBI Working Papers are capstone projects completed by BI Practitioners graduating from UBC's Advanced Professional Certificate in Behavioural Insights.

Acknowledgements

The project team would like to thank and acknowledge the following for their assistance with the completion of this project:

Project Sponsors: Kathy Elder and Rich McLay, Residential Tenancy Branch

Project Advisor: Kirstin Appelt

Solution Architect: Mike Harlow, Hive One Collaborative Systems

Ministry of Attorney General: Mansun Lui, Georgina Nicoll

UBC Sauder Faculty: Dave Hardisty, Dale Griffin, Jiaying Zhao

BI Certificate TA: Rishad Habib

BI Certificate Pilot Cohort

Table of Contents

Executive Summary	4
A. Problem Background	5
B. Chosen Behaviour & Context	7
C. Exploratory Research	11
D. BI Solution	14
E. Research Design	19
F. Research Results	20
G. Recommendations	26
H. Discussion of BI & Research Ethics	28
I. Project Reflections	30
References	31
Appendices	33
Appendix I. Journey Map	33
Appendix II. Dispute Hearing Urgency	34
Appendix III. Feasibility of Evidence	35
Appendix IV. Exploratory Research Results	36
Appendix V. Standard RTB Reminder Emails and Updated BI Informed Reminder Emails	39
Appendix VI. Web Pages	45
Appendix VII. Additional Research Results	46

Executive Summary

The Residential Tenancy Branch (RTB) is a branch of the Province of British Columbia (the Province) that helps landlords and tenants resolve their tenancy problems. Historical data shows that nearly 15% of the approximately 11,000 annual scheduled participatory dispute resolution hearings are not fully attended. This represents approximately 1,650 missed hearings per year that could have resolved housing disputes between tenants and landlords in British Columbia (B.C.). Regardless of whether both parties attend the hearing, a legally binding decision may be issued. This can lead to serious implications for both the applicant and the respondent, such as eviction, owing money, or property damage.

Because dispute resolution services represent a cost for the Province and can be stressful for applicants and respondents, the RTB engaged the Project Team ("we") to design and test an inexpensive and scalable solution to optimize hearing attendance. To address this challenge, we tested the use of Behavioural Insights (BI) to optimize hearing attendance.

We conducted an 8-week quasi-experimental trial that sent modified, timely email reminders to tenants and landlords regarding their upcoming dispute resolution hearing. Building on a review of relevant literature and our own exploratory surveys and focus groups, existing reminder emails were modified to increase the salience of important information, emphasize the consequences of inaction, and provide clear and actionable steps to prepare for the hearing. Applicants and respondents that had an email address on file were sent either the standard emails or the updated BI informed emails.

To measure the impact of the BI informed emails, we collected data on hearing attendance and application withdrawal rates for hearings scheduled from March 27 to May 21, 2021. A total of 1,617 hearings were included for analysis. The optimal outcome behaviour is that both the applicant and the respondent attend the hearing. Hearing attendance outcomes were not significantly different between the BI and control conditions. Across conditions, where cases had an email on file for both the applicant and respondent at the time of the intervention, full attendance was 63%. This was significantly higher compared to cases where one or more parties' email addresses were initially missing, where full attendance was 33%. We discuss the possible drivers of this effect, including characteristics of the case.

In response to the findings, we offer several recommendations to support the RTB in optimizing hearing attendance. A priority recommendation is to require applicants and respondents to provide an email address early in the dispute resolution process, with a strong focus on respondents since they are shown to be the least likely to provide an email address. To improve customer service, the RTB should simplify existing email reminders using innovative methods such as Behavioural Insights, human-centred design, and best practices in user experience. Additional recommendations based on key findings from this trial include exploring high-impact touchpoints like text message reminders and identifying and addressing barriers to RTB services.

The RTB plays an important role in B.C.'s rental housing sector. We were delighted to help the RTB use a behaviourally-informed approach and encourage further evidence-based analysis on barriers to hearing attendance.

A. Problem Background

More than one-third of households in British Columbia (B.C.) rely on rental housing, an increase of 14% over the last five years (Canadian Rental Housing Index, n.d.). The rate of growth in renters is outpacing that of new homeowners (Dingman, 2018), contributing to low vacancy rates and decreased housing availability, making it challenging for tenants to find housing. A strained rental housing market can lead to increased disputes between landlords and tenants, and an increased demand for dispute resolution services.

The Residential Tenancy Branch (RTB) is a branch of the government that provides information and dispute resolution services to landlords and tenants across B.C. The RTB receives approximately 19,000 applications for dispute resolution services annually. These disputes can have lasting emotional, social, and financial impacts on both tenants and landlords, as well as put pressure on Provincial budgets. To best serve B.C. tenants and landlords, efficient and accessible processes to resolve these disputes are necessary. Poorly designed services may cause confusion, distress, and mistakes, which can lead to increased damages in properties, inappropriate or unwarranted evictions, and undue stress for parties involved in the dispute.

The dispute resolution process requires several actions from both the dispute applicant and the respondent before they attend the actual dispute resolution hearing (see Appendix I). Hearings are scheduled by the RTB, meaning applicants do not choose the date. A hearing may be rescheduled if there is written consent from both parties, however this can lead to prolonged wait times for applicants and respondents. The majority of hearings are adjudicated by an arbitrator via teleconference. After the hearing, disputants are provided with a written, legally binding decision. This process is necessary to serve both parties in a fair and impartial manner; however, the stressful nature, complexity, and wait times may create barriers that negatively impact applicants' and respondents' opportunity, capability, and motivation to attend their hearing.

Despite multiple email reminder touchpoints with applicants and respondents throughout the process, as well as resources to support individuals throughout the process, historical data has shown that one or both parties fail to attend approximately 15% of hearings (RTB, 2021). Failure to attend leads to an inefficient use of Provincial and citizen resources as well as further exacerbating challenges associated with wait times. Hearing wait times range from 4.5 and 21 weeks, with emergency hearings waiting on average 30 days (RTB, 2021). This exceeds the target wait times of 2 to 12 weeks¹ to address disputes. Longer wait times may result in ongoing and/or increased conflict between applicants and respondents, increased stress, as well as decreased motivation for landlords to continue renting, causing additional pressures on B.C.'s rental housing availability.

To reduce the number of hearings missed, a traditional policy approach might propose an economic model of incentives and penalties; however, this is not only restricted by legislation but is also based on the assumption that humans are economically rational beings who calculate opportunities through extensive cost-benefit analysis. In contrast, a Behavioural Insights (BI) perspective allows the RTB to counteract cognitive, motivational, or structural barriers that may lead people to not attend their hearing. For example, applicants or respondents may not have paid close attention to information about their hearing date, may have forgotten, or may have chosen to ignore the hearing in fear of losing. If these behavioural barriers account for some instances of failure to attend, then a BI approach may help the RTB optimize hearing attendance.

By reducing behavioural barriers to attendance, a BI intervention can help to ensure access to a fair and unbiased resolution for their tenancy dispute. By improving attendance, this may also help alleviate long hearing wait times, increasing the efficient use of Provincial resources.

¹ Optimal wait times are based on the urgency of the dispute. For more information on the types of urgency, see "Results".



² For definitions of Urgency Type, see Appendix II

B. Chosen Behaviour & Context

Non-attendance at a dispute resolution hearing can have considerable impacts on applicants and respondents. Based on historical data, in approximately 15% of hearings, one or both participants do not attend. The RTB schedules approximately 1,500 hearings per month, meaning that 225 hearings per month are affected by non-attendance.

Target behaviours

To optimize hearing attendance, the project team aimed to reduce barriers to improve attendance outcomes (see Figure 2):

- **1. Attendance:** Encouraging applicants and respondents to attend their hearing to have the opportunity to support their claim or refute the claim against them.
- 2. Appropriate withdrawals: Encouraging applicants who no longer require their hearings to withdraw their applications. Hearing slots can be used for another dispute if the application is withdrawn at least 21 days before the hearing, therefore an "appropriate" or "timely" withdrawal is defined as a withdrawal at least 21 days before the hearing. Timely withdrawals reduce wait times for hearings, increase time savings for the RTB, and increase the efficient use of Provincial resources.

Because each dispute includes two parties, the applicant and the respondent³, there are four potential outcomes for hearings based on these behaviours (see Figure 2 and Table 1).

Figure 2. Decision Outcomes of the Dispute Resolution Application and Hearing Process



³ Applicants and respondents are defined as the individual that applies for the dispute resolution hearing and the individual responding to the complaint. Either the applicant or respondent role can be held by a tenant or a landlord.

Table 1. Impact of Hearing Attendance Outcomes

Attendance Outcome	Withdrawal application withdrawn	Full Attendance both the applicant and respondent attend	Single No-Show either an applicant or a respondent attends	Double No-Show neither applicant nor respondent attends
Description	A hearing is no longer needed (i.e., dispute resolved outside of the formal dispute resolution process), the applicant can withdraw the application.	The arbitrator can assess evidence and testimony of both sides and make an informed and balanced decision to resolve the dispute.	Hearing continues with the non-attending party forfeiting their opportunity to provide testimony or counter evidence provided by the attending party.	The arbitrator will still provide a written decision stating that no parties attended.
Impact	If withdrawn before the hearing, in some instances the hearing slot can be reused for emergency hearings.	Ensures an efficient, balanced, and impartial service for citizens.	Can lead to an unbalanced representation of the issue and can impact parties.	The hearing slot can no longer be used for other hearings and burdens long wait times.
Preferred or Non-Preferred	Preferred behaviour (where appropriate)	Preferred behaviour	Non preferred behaviour	Non preferred behaviour

Understanding non-attendance

Going through the legislated, RTB dispute resolution process can be time-consuming and onerous. Long wait times and stress caused by the potential loss of shelter or personal property can lead to cognitive biases that impact the capability, opportunity, and motivation of individuals to attend their hearing.

Completing the process can be difficult according to our exploratory research. Feelings of being overwhelmed can lead to a sense of scarcity; the level and type of information required to complete the process can be challenging; and the long wait times can induce regret aversion throughout the process by decreasing the willingness to withdraw an application in fear that another problem may arise (see Figure 3). This is true for both landlords and tenants who face financial, physical (property or housing), and emotional losses depending on the outcome of the dispute hearing. As an example, financial stressors such as an eviction have been shown to impair the abilities of individuals as well as increase self-defeating choices (Shafir & Mullainathan, 2013). Contextual and relational barriers were also shown to be a complicating factor throughout the dispute resolution process. An individual may not attend due to such limitations as hearing hours, access to or comfort with technology (e.g., phone or computer), or language limitations. For this project, we focus on reducing cognitive barriers to attendance.

The reasons for non-attendance can be attributed in part to behavioural biases. Applying BI to address these cognitive barriers may lead to improved hearing attendance. Due to the important consequences of the dispute hearing, it is unlikely that those who need their hearing do not attend out of disdain for the process. If, however, a dispute has been resolved and the hearing is no longer necessary, it is possible that they felt they did not need to attend or withdraw the hearing application. Other reasons for applicants not withdrawing may include not being aware of the option, or not knowing how to withdraw.

INFORMATION OVERLOAD

What is it?

A phenomenon resulting from too much information or too many available choices.

Why does it happen?

Choosing and reviewing information requires cognitive effort, and information/decision fatigue can result from that demand on resources required for executive functions. A variety of factors can contribute to perceived choice overload, such as the number of options, time constraints, and/or preference uncertainty (Chernev et al., 2015).

Why is it problematic?

Too much information can decrease motivation and reduce capabilities which lead people to go with the default option, or to defer making a decision altogether, and it has been associated with unhappiness (Schwartz, 2004).

How is it relevant?

The Residential Tenancy Branch is a quasi-tribunal that can have legal implications for applicants and respondents. This process and the language used to convey information can be overwhelming for both applicants and respondents.

TUNNELLING

What is it?

Scarcity (e.g., of basic necessities such as money, food or housing) creates a similar psychology for everyone struggling to manage with less than what they need. The tendency is to "tunnel", only dealing with the "here and now" and avoiding future thinking (Mullainathan & Sharif, 2013).

Why does it happen?

People have finite "mental bandwidth," or brainpower – made up of attention, cognition, and self-control – which can become depleted.

Why is it problematic?

Reduced bandwidth impairs executive control, compromising people's ability to plan, which can result in procrastination over important tasks.

How is it relevant?

The loss of housing can create significant stress on both the tenant and landlord. The dispute resolution process is time bound which can lead to increases in stress levels and therefore push individuals to focus more on the immediate situations at hand. With finite mental bandwidth, they may lose the ability to plan appropriately for their hearing.

REGRET AVERSION

What is it?

The tendency for people to fear that their decision will turn out to be wrong in hindsight. This can lead to "status quo bias," which is the tendency to prefer things to stay the same by doing nothing or by sticking with a decision made previously (Samuelson & Zeckhauser, 1988).

Why does it happen?

Those who are regret-averse may fear the consequences of both errors of omission (e.g., not submitting an application for dispute support) and commission (e.g., concern over unintended implications of applying for dispute resolution support) (Seiler et al., 2008). People tend to feel greater regret for bad outcomes that result from new actions taken than for bad consequences resulting from inaction (Kahneman & Tversky, 1982).

Why is it problematic?

The fear that hindsight will reveal negative aspects of their decision can make people less likely to act, and fear of negative outcomes from either errors of omission or commission can lead people to make choices that are not in their best interest.

How is it relevant?

The loss of housing whether it be personal or income generating is an emotional process. Applicants may feel regret about their decision to apply and could feel concern about the consequences of this action if they were to lose the hearing.

OSTRICH EFFECT

What is it?

The ostrich effect is a cognitive bias that causes people to avoid information that they perceive as potentially unpleasant. As an example, someone may avoid looking at their bank account because they are concerned about the amount of money owing on their credit card or how late their payment is (Karlsson, Loewenstein & Seppi, 2009).

Why does it happen?

People have a tendency to avoid information that could have an unpleasant emotional impact even if this avoidance can lead to a greater emotional cost later on.

Why is it problematic?

Information and action avoidance can lead to detrimental outcomes in a variety of situations. This avoidance can often make things worse, incurring impacts that individuals might not have had to address if willing to face things head on.

How is it relevant?

The RTB dispute resolution process is both complex as well as inherently unpleasant with its roots based in conflict. Applicants and respondents may choose to avoid actions that provide them with key information about their hearing or they may avoid the hearing if they feel it could lead to an unpleasant result.

The importance of reminders

Automated email reminders were chosen as the touchpoint for the intervention as they were an existing, recurring, automatic touchpoint between the RTB and applicants and respondents. The email reminders also allowed for measurement of the intervention impact as administrative data was already being collected by the RTB.

Ensuring balanced support for both tenants and landlords

Historical RTB data shows that landlords and tenants make up a near equal proportion of individuals applying for dispute resolution (known as "the applicant"). While landlords and tenants may face slightly different challenges that may impact their behaviour, both were targeted as the best possible outcome is for both parties to attend the hearing. As only the applicant can withdraw an application, withdrawals were encouraged through email reminders to applicants of the hearings. An important ethical consideration of the target behaviour is the potential unintended consequence of encouraging inappropriate withdrawals (see "Ethical Considerations" for further discussion).

C. Exploratory Research

To understand the barriers to attendance and identify potential solutions, we conducted secondary and qualitative research. Our secondary research consisted of a literature review of previous studies focused on encouraging attendance through reminders. To identify barriers specific to dispute hearing participants and learn their perspectives on potential solutions, we conducted a public survey targeted towards individuals who have been through the dispute resolution process. Two focus groups were also conducted at the outset of the project, one with front-line RTB staff, and one with tenant and landlord advocates and representatives. Due to privacy regulations, we were unable to target our research towards hearing participants who had not attended their hearing. This limited the ability of the project team to probe the barriers to attendance. As such, development of the BI solution relied on the results of the literature review, surveys and focus groups with stakeholders who had completed the process, front line RTB staff and advocates, as well as an analysis of the dispute resolution process and challenges participants face throughout (see Appendix I). Our research revealed the following:

The dispute resolution process requires specific actions to be completed within legislated timeframes. For example, evidence must be exchanged between parties within certain deadlines and served in specified manners like registered mail. This can be daunting and confusing for applicants and respondents particularly when under financial and/or housing-related stress. Our exploratory research also showed that the dispute resolution process can be taxing on one's cognitive resources. Results of the focus groups and surveys showed that the various requirements of the dispute resolution process, the technical language used in the RTB's Notice of Dispute Resolution Proceeding package, and the difficulty of finding useful information contributed to challenges in understanding the dispute resolution process. In a survey of landlords and tenants who had recently completed the dispute resolution process (n=267), the most common rating of the process was "difficult" (36% of tenants and 50% of landlords), compared to "easy" or "neither easy nor difficult".

The exploratory research also showed evidence of the dispute resolution process impacting both the automatic and reflective behaviours of individuals, also known as "system one" and "system two" thinking. Focus group responses suggest that for many participants the key challenges are the difficult nature of the process and the multiple steps required.

Front-line staff noted multiple instances of individuals being confused by the hearing process itself, including being unaware of the requirement to dial into the hearing. Advocates and representatives also noted physical challenges, such as lack of access to computers, and social challenges, such as language barriers. One advocate noted that due to the length of time it takes to obtain a hearing, even if the dispute has been resolved, many landlords will keep their hearing so that, if something else goes wrong, they will not have to submit a new application for a hearing.

Our survey asked landlords and tenants about their motivation to attend a hearing based on different types of consequences. As seen in Figure 4, tenants and landlords were much more motivated by individual consequences compared to societal consequences. The survey had 267 completed survey responses, however, there was a higher number of landlord responses (n=224), most likely due to the fact that a landlord support organization actively promoted the survey (see Appendix IV).

Our exploratory research results indicated that the barriers to attendance could be reduced by improving the knowledge, motivation, and opportunity of dispute hearing attendees.



Figure 4. Relative Importance of Different Motivations to Attend Hearings. Error Bars Represent Standard Error.

The notion of reducing non-attendance to scheduled appointments by way of reminders is not a new one. Many studies and trials have sought to increase attendance at appointments, especially in the medical field (Hallsworth et al., 2015) and more recently in attending legal court proceedings (Fishbane et al., 2020). Few studies were found that focus on application withdrawals or appointment cancellations. For that reason, we focused on research that targeted non-attendance but also included studies that explored the efficacy of "reminders" generally. There are studies from all over the world examining the impact of reminders including Australia, France, the Netherlands, Singapore, and the USA (Afif et al., 2019). Broadening the secondary research scope to include studies related to general reminders helped identify specific nudges that could apply to appointment reminders.

Behavioural insights tools used in reminders

A review of the literature showed that a multitude of nudges informed by BI have been used in trials to test the impact of reminders on the completion of important tasks.

Checklists and planning. Checklists and planning were identified as prominent BI tools from the preliminary research. A well-known study published in The New England Journal of Medicine showed that checklists improved surgical safety (Haynes et al., 2009). The study showed that checklists can have a beneficial qualitative impact by increasing communication, trust and job satisfaction, but this analysis was specific to the field of surgery. In the podcast "No Stupid Questions" (Douglas, 2020), hosts Angela Duckworth and Stephen Dubner state that checklists can be a causal mechanism, however using a checklist does require motivation on the part of the user, which is why checklists are not always useful for changing behaviour. As well, the efficacy of checklists is lost if the task or desired outcome is either too simple or too complex. Research has also shown that making a plan means people are more likely to achieve their intended action (Behavioural Insights Team, 2013). This is particularly true if a plan breaks down complex challenges into manageable actions. Identifying the barriers an individual may face and then supporting them to plan how they will overcome them has shown to be supportive in emotionally stressful processes such as weight loss, medical procedures and financial scenarios (Behavioural Insights Team, 2013). This tool may be effective for reducing barriers to the dispute resolution process, supporting landlords and tenants to attend their hearing.

Consequences. In a recent study undertaken by Fishbane et al. (2020), field studies were implemented to increase attendance at court hearings in New York City. The authors redesigned a summons form and text messages to make information more salient, to provide support for planning and to reinforce or inform of the consequences of not attending. The authors found that combining nudges that provided support for planmaking while also enforcing the consequences led to the highest reduction in non-attendance to court hearings. It is worth noting that there are few direct consequences for not attending a hearing at the RTB. There are no financial penalties imposed by the RTB, however not attending a hearing could result in a party losing the hearing and putting the tenancy at risk.

Active choice and enhanced active choice. Active choice, sometimes known as forced choice, requires users to choose between two options rather than opting out by default. Enhanced active choice means that the consequences for the non-preferred choice are highlighted.

Keller et al. (2011) found that making an active choice can be preferred over defaults because it can impel people to contemplate their choice and create a greater sense of responsibility to follow through on the desired behaviour. A randomized controlled trial conducted in Ontario used enhanced active choice to test whether more people would sign up for a tax filing service to get their refunds and benefits; there was a significant increase in the response rate for the active email versus the control group, but the study did not provide the rationale for using this nudge over another (Behavioural Insights Team, 2020). Implementing forced choice with dispute hearing attendees (e.g., attending a hearing or withdrawing the application) may influence applicants to pause and think about whether they still require a hearing and, if so, they may be more likely to follow through with attendance.

Social norms. Social norms are the informal rules that govern behaviour in society. Simply highlighting group behaviour can promote conformity and influence behaviour. Larkin et al. (2019) showed that using social norms of a peer group or community is more effective than using global norms for encouraging tax payments.

Hallsworth et al. (2015) conducted two randomized controlled trials that tested the impact of rephrasing appointment reminders on non-attendance rates in United Kingdom medical offices. In this study, there was no significant difference between the social norms message compared to the control group in terms of non-attendance, but it did significantly increase the level of patient cancellations. This is particularly relevant to this project as one ethical concern is the risk of influencing applicants who would benefit from attending their hearing to withdraw their application. Both Larkin et al. (2019) and Hallsworth et al. (2015) highlight the concern for backfiring or boomerang effects when using social norms. Social norms can backfire if there is a strong incidence of non-preferred behaviour. In a Behavioural Insights Team (2016) study on non-attendance of hospital outpatient appointments, the social norms message had the second highest percentage rate of non-attendance. In both trials undertaken by the Behavioural Insights Team, the specific cost message ("consequence") had the most impact.

Pre-commitment. The pre-commitment nudge requires a person to commit to future action. Similar to the active choice nudge, this increases the motivation to follow through with the action. Although we did not find any studies that use a pre-commitment nudge to reduce non-attendance, there is evidence that pre-commitment is successful in influencing people to make a preferred decision, such as attending a gym by purchasing a membership or agreeing to a financial penalty if a certain goal is not met (Swaluw et al., 2018).

Based on the results of our secondary and exploratory research, salience, planning and checklists, and consequences were identified as appropriate BI tools to apply to the RTB reminder emails to improve hearing attendance and appropriate withdrawals. While secondary research did show the potential value of active choice and pre-commitments, these were not incorporated into the solution due to technical and administrative limitations within the RTB.

D. BI Solution

The project team modified the RTB's three existing email reminders to address the barriers identified in our exploratory research and encourage hearing attendance and the appropriate withdrawal of applications (see Figure 5). These existing emails provide important reminders and recommend actions for dispute hearing participants; however, they lack salience and readability (see Figure 6).

Figure 5. Timing, Recipient, and Purpose of RTB Hearing Reminder Emails



Compared to the existing email (see Figure 6), the modified email reminders (see Figure 7) were designed with the intention that they would:

1. Be timely

Evidence has shown that reactions to reminders and prompts can vary depending on when they are communicated. Reminders are often most effective when they are sent immediately before an action has to be taken, at a moment of change, or when an issue may be top of mind (Bryan, 2011).

The RTB email schedule was already aligned with this concept; evidence submission emails are sent 7 days before the deadline (21 days before the hearing for applicants and 14 days before the hearing for respondents) and the hearing reminder email is sent 3 days before the hearing. This is particularly timely as it represents a moment of change within the process and brings the hearing to the top of mind. This schedule was appropriate based on the literature and therefore the timing of emails was not changed for the intervention.

2. Be salient, attractive, and easy to use

To address information overload and tunnelling and therefore increase the capability and opportunity of hearing parties to attend, the intervention sought to simplify the process and make key information more salient. Evidence has also shown that making actions simpler can often have a strong effect on behaviours (Bryan, 2011; Fishbane, et al, 2020). The content of the emails was edited to identify them as reminders, remove unnecessary information, and highlight the action required through the use of bold, bright hyperlinked buttons. The emails were edited to make better use of white space as well as emphasize visual cues to support the participants in their decision process. Emails were also tested across multiple platforms (e.g., different email clients on different devices) to ensure optimal display.

Simplifying the text in the emails meant that some details were no longer included. This information was instead moved to specially created web pages that were accessible via salient links in the emails. The web pages were designed taking into account BI and user design (UX). Individuals who clicked the salient links in the emails were directed to RTB web pages that provided easy to find information on evidence submission and application withdrawals. Visual cues were incorporated in both the emails and the accompanying web pages to simplify the decision processes (see Appendix V and VI).

3. Make completing the hearing process easy through checklists to help participants plan

As noted by the exploratory research, the dispute resolution process can be complicated and emotional. This can lead to information overload and tunnelling. This can cause individuals to lose motivation as a result of being overwhelmed. To address this barrier, the modified 21 and 14 day emails incorporated planning language in a checklist form that allows participants to break down the remaining steps of the dispute resolution process into easily manageable pieces.

4. Emphasize the consequences of inaction

The RTB dispute resolution process is a quasi-tribunal process that can lead to legally enforceable actions. By not attending a hearing, a decision may still be made which can impact both applicants and respondents. The threat of a loss can lead individuals to avoid critical information or make decisions that may help them avoid regret. The modified emails used evidence from the exploratory process to showcase the consequences of inaction and thereby increase motivation to attend.

5. Be scalable if proven successful

The intervention was designed in collaboration with the RTB to understand its cost and the opportunity to scale if successful. Due to the size and scope of RTB systems, it was important to design an intervention that could be realistically scaled up. The use of email reminders was a feasible intervention as they provide an existing, low-cost touchpoint that has minimal impact on RTB operations.

Additional modifications were made using behaviourally informed design to increase the likelihood of an email being opened and for a better user experience. This includes:

- Updating the email subject line using clear language. By clearly indicating that the email is an important reminder, we hoped to increase the likelihood that the email would be opened.
- Updating the email pre-text that an individual would see in their inbox to include the number of days until the hearing, key action items, and consequences.

Constraints

It is important to point out the limitations imposed on the RTB through policy or legislation. The RTB is unable to impose financial penalties or refuse service to parties who fail to appear at their scheduled dispute resolution hearing. The RTB also cannot offer rebates or incentives to influence parties to appear at the hearing.

The complexity of the dispute management system used to schedule and manage administrative data provided limits and constraints of the feasibility and types of nudges that could be used. As such, we selected nudges based on their evidence and feasibility (see Appendix III). For example, adding an email reminder prior to the withdrawal deadline may have encouraged appropriate withdrawals but based on the project timeline, it was not feasible to add a new email to the sequence. The addition of personalized hearing or participant information to the emails was also limited to certain, already included data fields. As a result, it was not possible to include additional personalized information, such as participants' first names or the phone number and dial-in code for the hearing. In addition, while exploratory and secondary research support the use of a reminder text (SMS), this was not feasible for the RTB data system to implement. Addressing these constraints has been included as a recommendation for the RTB.

Figure 6. Original Email Reminder Sent to Applicants 21 Days Prior to the Hearing

BRITISH COLUMBIA Residential Tenancies
Automatic dispute notification - do not reply
Evidence Deadline Reminder
File number: {file_number}
Dispute access code: {recipient_access_code}
Date filed: {initial_submission_date}
Rental address: {rental_unit_address}
Hearing date: {hearing_start_date}
Hearing time: {hearing_start_time}
This is a reminder that the deadline for applicants submitting evidence for File Number {file_number} is not less than 14 days prior to the hearing. Evidence must be received by each respondent and the Residential Tenancy Branch before the deadline. Evidence submitted after the deadline is considered late and may not be considered at the dispute resolution proceeding. Visit the Residential Tenancy Branch website for more information on how to prepare and upload your evidence.
Deadlines for submitting evidence are critical
For methods of <u>serving evidence</u> to the respondent(s) including calculating timelines based on the method of service, you can review the Applicant Instructions document provided with the Notice of Dispute Resolution Proceeding.
Serving evidence to each respondent
You must serve identical copies of evidence to each respondent as soon as possible. Copies of all evidence must be received by each respondent not less than 14 days before the proceeding. How you serve your evidence may affect the date the evidence is considered received. You cannot serve evidence to the respondent electronically. Evidence that is served via email may not be considered at your dispute resolution proceeding.
Serving evidence to the Residential Tenancy Branch
You can submit evidence to the Residential Tenancy Branch by uploading it to the <u>Dispute Access Site</u> using your Dispute Access Code listed at the top of this notification. Anyone can upload evidence on your behalf as long as they have your Dispute Access Code. You can also submit evidence in person by bringing your evidence, file number and Dispute Access Code to any <u>Service</u> <u>BC Office</u> or to the Residential Tenancy Branch office in Burnaby located at: #400 - 5021 Kingsway.
This is an automatically generated email. Please do not reply to this message. If you have received this email in error, please contact the Residential Tenancy Branch using the contact information at the bottom of this email.

British Columbia Residential Tenancy Branch

- hsrto@gov.bc.ca- Evidence cannot be sent by email
- 1-800-665-8779 Do not call this number for your dispute resolution hearing
- Residential tenancy web site
- Service BC Locations
- ① Dispute Access Site

Figure 7. Behaviourally Informed Email Reminder Sent to Applicants 21 Days Prior to the Hearing

COLUMBIA Residential Tenancies
Automatic dispute notification - do not reply
Hearing date: {hearing_start_date} Hearing time: {hearing_start_time} Rental address: {rental_unit_address} File number: {file_number} Dispute access code: {recipient_access_code}
Helpful Reminder - Your hearing is 21 days away
Your dispute resolution hearing for File Number {file_number} is in 21 days. Plan your next steps and prepare for key timelines.
Prepare Now -> Prepare Now
Clear your schedule - If you miss your hearing you could lose your case. Put your hearing date and time in your calendar as a reminder.
Provide all evidence in time - Late evidence might not be considered. Serve your evidence to the respondent(s) and to the Residential Tenancy Branch no less than 14 days before your hearing.
Be ready to dial in to the hearing - If you call in late, there will be less time for you to make your case. Check your notice package provided by the Residential Tenancy Branch for details.
You could lose your case if you do not attend.
If you no longer need your hearing, withdraw your application.
Withdraw Now ->
This is an automatically generated email. Please do not reply to this message.
British Columbia Residential Tenancy Branch <u>hsrto@gov.bc.ca</u> - Evidence cannot be sent by email 1-800-665-8779 - Do not call this number for your dispute resolution hearing <u>Residential tenancy web site</u> <u>Service BC Locations</u> <u>Dispute Access Site</u>

E. Research Design

Research methods

To evaluate the impact of the updated, behaviourally informed email reminders (BI email reminders) on dispute hearing attendance, an 8-week, quasi-experimental trial was conducted with applicants and respondents of participatory dispute resolution hearings. Dispute hearings filed under either the Residential Tenancy Act or the Manufactured Home Park Tenancy Act were included unless they were non-participatory hearings, or no email addresses were on file. All cases received emails 21 days (applicants only), 14 days (respondents only), and 3 days (applicants and respondents) before their hearing date, but the content of the emails differed between the intervention and the control conditions, as described above.

As part of the trial, emails were sent March 6 to May 18, 2021, and data was collected for corresponding hearings scheduled from March 27 to May 21, 2021. The RTB has 95 hearing appointments available per day, 4 days per week. For 8 weeks of data collection, with one statutory holiday landing in each condition, and an estimated 19% of hearings not meeting the inclusion criteria (based on preliminary evaluation of RTB hearings), the sample size was expected to be approximately 2,154 hearings. Considering applicant and respondent behaviour is being monitored for each hearing, this equals a total of at least 4,308 participants. RTB historical data indicates that an average of 15% of hearings have less than full attendance; this translates to a target population of approximately 323 hearings or 646 participants.

The trial is considered quasi-experimental due to the method of randomization: Hearings were grouped by week into alternating conditions. The method of randomization was chosen due to the limitations of the dispute management system within the time limit of this trial; it was not possible to develop and test a software product to randomize participants by hearing based on the project timeline. The inclusion of a control condition improves the trial design rigour, increasing the internal validity of the results. The trial is considered blind as participants were not aware of the condition they were in.

Rationale: Appropriateness, rigorousness, & feasibility

This design is appropriate to evaluate the BI solution because the target behaviour of improved attendance is easily observed and already being tracked by the Dispute Management System. The trial design is also appropriate as ethical implications are easily managed to ensure the best outcome for participants. All data received was de-identified by the RTB and stored on secure Provincial servers. The RTB had already conducted an impact assessment on privacy and had the appropriate consent procedures in place to allow for data collection that was required for this trial. For more information on ethical considerations, see "Ethical Considerations".

The trial design was feasible based on the current email systems in place, available data, and the capacity of the RTB to implement the changes given the project timeline.

Data measurement & collection

The key independent variable is the intervention condition. As described above, hearings were assigned to the BI email condition or the control email condition based on the week of their dispute hearing date. Applicants and respondents from the same hearing were in the same condition.

The key dependent variables were: withdrawn (whether the case was withdrawn or not), level of attendance (full = both applicant AND respondent attended, partial = applicant OR respondent attended, or none = neither applicant nor respondent attended), and number of parties attended (0-2). Other variables collected included

the number of days before the hearing the application was withdrawn, whether the applicant was a landlord or a tenant, whether the application fee was waived, hearing wait times, dispute urgency, and whether the application was submitted online or by mail.

The RTB held this data in two separate datasets (email condition data and attendance data). We combined the datasets using an anonymous dispute hearing ID code that was included in both datasets.

Traffic to the web pages linked in the BI Email condition was also monitored using web page analytics software already employed by the RTB. While only 2 web page designs were required, 4 individual web pages were created to allow for data collection on the use of links in the different emails:

- Applicant Prepare Now web page 21-day email
- Applicant Withdraw web page 21-day email
- Respondent Prepare Now web page 14-day email
- Applicant Withdraw web page 3-day email

Metrics included unique visits, average session duration, page views and page views per session.

Potential drawbacks

One potential drawback of the research design was that because hearings were randomized by week, a relevant event (e.g., holidays, new COVID-19 orders) could disproportionately impact one condition and influence the trial results. Another limitation was attendance data availability. Arbitrators must manually indicate which parties attended or did not attend the hearing. Before the trial launched, attendance data entry compliance was approximately 65%. Fortunately, targeted communication improved attendance data entry rates which increased to an average of 86% throughout the trial. Importantly, arbitrators were blind to the email condition trials were in.

F. Research Results

The following results are based on the analysis data from 8 weeks of hearings (n=1,617), 4 weeks of hearings that received the control email reminders (n=746) and 4 weeks of hearings that received the Behavioural Insights informed email (BI Email) (n=871). While it was not guaranteed that there would be an equal number of hearings each day, contributing factors such as days reserved for the professional development of arbitrators resulted in a larger than expected discrepancy between conditions with fewer hearings in the control condition.



Sample characteristics

Descriptive statistics were conducted to examine the general characteristics of dispute hearings included in this trial. Across both conditions:

- More tenants (60%) applied for dispute resolution services than landlords (40%) (n=1,617).
- More applications were completed online (83%) than by paper (17%) (n=1,617).
- Thirty percent of applications had the application fee waived, with fees for the majority of the applications being paid (70%) (n=1,614⁴).
- The majority of hearings were regular urgency (64%), with 8% emergency, and 28% deferred (longest wait time) (n=1,587⁴).

There were no significant differences between the BI Email and control conditions for these variables.

Hearing outcomes

We included two measures of attendance outcomes, the number of parties in attendance at a hearing and the hearing attendance outcome.

⁴ The reported sample size varies because some dispute hearings were missing sample characteristic data.

The possible outcomes for the number of attending parties were:

- 2 (representatives from the applicant and respondent sides attended)
- 1 (a representative from either the applicant or the respondent side did not attend)
- 0 (no representatives from either the applicant or the respondent side attended)

The possible hearing attendance outcomes were:

- full attendance (the applicant and respondent attended)
- single no show (either the applicant or the respondent attended)
- double no show (neither the applicant nor respondent attended)
- withdrawn (the applicant withdrew the hearing application before the hearing date)

Impact of behaviourally informed emails

To evaluate the impact of the intervention on the average number of attending parties at dispute resolution hearings, an independent t-test was conducted. The average number of parties attending hearings was not significantly different between the BI Email group (mean = 1.35, SD = 0.73) compared to the control group (mean = 1.40, SD = 0.70), t(1493) = -1.13, p = .26.

Follow up t-tests⁵ were conducted for each attendance outcome (see Figure 9).

- A greater percentage of hearings were withdrawn in the BI Email condition (9%) compared to the control condition (6%), but this difference was only marginally significant, t(1615) = 1.75, p = .08.
- The percentage of hearings that were fully attended was not significantly different between the BI Email condition (46%) compared to the control condition (49%), *t*(1615) = -1.1, *p* = .27.
- There was no significant difference in the percentage of single no show hearings between the BI Email condition (31%) and the control condition (33%), t(1615) = -.66, p = .51.
- There was no significant difference in the percentage of double no show hearings between the BI Email (14%) and control (12%) conditions, *t*(1615) = 1.19, *p* = .24.

⁵ Chi square tests were also performed and showed the same pattern of results.





Hearing Attendance Outcomes

Impact of emails on file

In some cases, participants of a hearing were not sent all email reminders. This is because not all dispute hearing applications had all email addresses on file at the beginning of the intervention. Fifty-two percent of hearings did not have emails on file for both parties. The proportion of hearings with all emails on file was not significantly different between conditions, BI Email = 0.48(0.50), Control = 0.48(0.50), t(1615)= -.30, p = 0.77. Considering reminders can have an impact on behaviour (Hallsworth et al., 2015), we were interested in exploring whether having emails on file for both parties (applicants and respondents) of a dispute hearing had an impact on hearing attendance.

Impact of all emails on file and the intervention condition

We conducted an ANOVA to understand if having all emails on file impacted hearing attendance outcomes and whether these impacts were different between intervention conditions.

There was no main effect for the intervention condition, F(1, 1491) = 1.29, p = .26, and no interaction, F(1, 1491) = 2.71, p = .10, but there was a significant main effect of all emails on file, F(1, 1491) = 65.02, p < .001. Hearings with emails on file for both parties had better attendance outcomes (mean = 1.59, SD = 0.75) compared to hearings that did not have emails on file for both parties (mean = 1.16, SD = 0.62).

There were no significant differences between applicant type, application type, or payment type for hearings with all emails on file compared to hearings without all emails on file.

Figure 10. Average Number of Attending Parties for Control and BI Email Hearings with Some Emails Missing (Control n = 344, BI Email n = 396) Compared to Hearings with All Emails on File (Control n = 355, BI Email n = 400). Errors Bars Represent Standard Error.



Table 2. Correlations (Spearman's rho) Between Four Dispute Hearing Case Characteristics

Case	Characteristic	All emails on file	Applicant role	Application creation method	Application payment method
1	All emails on file	-			
2	Applicant role	0.6*	-		
3	Application creation method	-0.5	.14***	-	
4	Application payment method	-0.1***	.47***	.11***	-

*p<.05, ***p<.001

Impact of a non-statutory holiday on attendance outcomes

In analyzing hearing outcomes and attendance outcomes over time, we observed a series of days that experienced an exceptional decrease in full attendance and increase in double no show outcomes (see Figure 11). These days had approximately double the number of double no show hearings compared to the average double no show rate for a hearing day. Upon investigation, we found that these outliers occurred over a non-statutory holiday, which could feasibly result in parties withdrawing and/or not attending their scheduled hearings. As hearings were randomized by week, and the affected hearing dates were in the same week, the abnormally high volume of double no show hearings disproportionately affected the BI Email condition. Due to the large sample size, removing the non-statutory holiday hearings from analysis did not impact attendance outcomes across all weeks. Because of this, hearings that were scheduled on the non-statutory holiday dates

were included in final analyses. The impacts of non-statutory holidays on attendance outcomes are discussed below.





Key findings

The results of this trial found that the BI solution did not influence hearing attendance, but hearing attendance varies based on case characteristics. The strongest driver of hearing attendance behaviour, regardless of condition, appears to be whether there are email addresses on file for both the applicant and respondent at the time of the intervention. When this condition is met, the average number of parties attending a hearing is greater, the rate of full attendance is higher. Because the characteristic of "all emails on file" cannot be disentangled from other hearing characteristics (applicant role, application creation method, application payment method) it is not possible to determine whether attendance is improved by sending more emails or whether having emails on file reflects other key differences between cases.

The BI solution also did not influence the rate of withdrawals. A greater percentage of hearing applications were withdrawn in the BI Email condition compared to the control condition, but this difference was only marginally significant.

Other findings

Our results demonstrate that non-attendance rates are higher than RTB initially thought. Historical data from the RTB estimates non-attendance⁶ to affect approximately 15% of cases; however, trial results show that for the control condition, non-attendance is an issue in 45% of cases, with 32% of hearings resulting in a single no show and 13% of hearings resulting in a double no show. Historical data was based on a retired case management system that may not have captured complete data. Before this trial, hearing participation data

⁶ Inclusive of single and double no-shows.

entered into the dispute management system by arbitrators had a completion rate of 65%. With system improvements and enhanced data management, arbitrator data entry during this trial increased to 86%. By capturing more data, it is likely that our results more accurately represent the issue of non-attendance.

For hearings between March 27 and May 21, more tenants (60%) than landlords (40%) applied for dispute resolution services. This is different from historical trends, where dispute applicants were a 50% split of tenants and landlords. This could be a result of the unique circumstances of COVID-19 including job loss and the introduction of provisions including a moratorium on rent increases and evictions. These unique circumstances may limit the application of our results beyond the COVID-19 pandemic.

There are a number of other possible drivers of attendance. For example, RTB may want to explore the impact of the day of the week (e.g., payday, common move out days) on hearing attendance outcomes. Our results found that a non-statutory holiday may have influenced attendance outcomes. While addressing these types of barriers is recommended, this may be challenging since the RTB does not collect disaggregated data on participant characteristics such as race, gender, ethnicity, religion or other intersectional information due to concerns of real or perceived bias through the arbitration process.

Time of day may also influence attendance behaviours, but this is confounded by the hearing priority level because the RTB schedules more urgent hearings in the mornings and less urgent hearings in the afternoons. Wait times could influence attendance behaviour, however overall wait times and wait times of withdrawn hearings for this trial were not significantly different between conditions.

Web Page Analytics

Per privacy legislation, the RTB is unable to track which emails are opened. We assumed that emails would meet a standard government open rate of 29% with an average click-through rate of 4% (Mailchimp, 2021). For more information on the web page analytics, see Appendix VII. We recommend that RTB conduct further analyses to determine if including salient links are an effective nudge in reminder emails.

G. Recommendations

We offer three recommendations to the RTB based on our results. We also present recommendations stemming from our exploratory research including a survey and focus groups. These recommendations do not include the assessment of capital or operational expenditures.

Recommendation 1: Apply a behavioural insights lens to reminder emails

Although the BI Emails did not have a significant impact on attendance outcomes, we recommend that the RTB apply a BI lens to improve reminder emails.

We recommend that the RTB:

- Strongly encourage or require applicants and respondents to provide an email address early in the dispute resolution process, with strong focus on respondents since they are shown to be the least likely to provide an email address.
- Simplify email reminders. To improve customer service, we recommend a review of all RTB email reminder templates using human-centered designs and best practices. Current email reminders include large blocks of text with quasi-legal language.

The survey results showed that including integrated calendar reminders into the email templates would be helpful. Other considerations include adding recipients' first name to make the email more personal and including the dispute resolution hearing dial-in codes so parties have quick access to this information.

Recommendation 2: Explore other high impact touchpoints

The use of email reminders was a feasible intervention as they provide an existing, low-cost touchpoint with minimal impact on RTB operations. However, there are other touchpoints that the RTB should explore. Secondary research shows success using text messages as reminders (Fishbane et al., 2020; Hallsworth et al., 2015). Other Ministries and branches in the Province have successfully implemented text message services using open source software.

RTB should continue to consider how vulnerable populations access their services. Vulnerable populations who require RTB's services may have limited access to technology or may experience challenges in comprehending email reminders. Access to publicly available services like computers and internet at libraries was reduced by the pandemic. This could impede the ability for citizens to access email reminders. The RTB may consider broadening access by sending reminders via text message which may be easier to use.

We recommend that the RTB:

- Explore the viability of using other high impact touchpoints like SMS text messaging services to remind applicants and respondents of important actions and deadlines. The RTB should reach out to other government organizations that are using text messages as a service to understand challenges, successes, limitations, privacy and ethical concerns, support model, and cost profiles.
- If viable, consider testing various behaviorally informed nudges to determine which text message has the greatest impact.

Recommendation 3: Identify and address barriers to access and use of services

The survey and focus group responses show that there are several barriers to accessing RTB's services. These barriers cannot be addressed through email reminders. The RTB assists landlords and tenants from various socio-economic statuses, cognitive levels, and cultural backgrounds and should ensure equitable access to services. Based on our findings related to the non-statutory holiday, we recommend that the RTB explore whether allowing applicants to select their hearing date would impact hearing attendance outcomes.

Language was another barrier that surfaced from the exploratory research. Focus group responses showed that oral and written communication offered only in English poses a barrier for a segment of the population; however, without the collection of personal information, it is challenging to quantify this impact. Much of RTB's communication is written using quasi-legal language that may be challenging to understand for some people.

The RTB does not collect disaggregated data regarding applicant or respondent race, gender, ethnicity, religion or other intersectional information. Despite efforts by the Province to reduce bias across services and supports, the collection of this information could introduce concern over bias in hearing outcomes. As such, it is recommended that the RTB review policies and procedures with a GBA+ lens to minimize any barriers that may exist.

We recommend that the RTB:

- Explore potential benefits of allowing applicants to select their hearing date. This may accommodate applicants' schedules including important commitments and potentially increase the rate of applicant attendance.
- Conduct further analysis on the impact of language barriers to consumers of RTB's services. The RTB should conduct analysis on which languages serve the population and ensure critical tenancy information can be communicated accordingly.

H. Discussion of BI & Research Ethics

The RTB manages the dispute resolution hearing process, therefore they are inherently engaged in creating a choice architecture, which impacts the decisions and behaviours of disputants. We worked to ensure that the intentional interventions are defensible and promote the health, wealth, and happiness of others. Transparency and accountability were paramount throughout the process to ensure that the trial was not seen as the Province manipulating individuals throughout the dispute resolution process or creating unfairness to a particular party.

All project team members adhered to ethical guidelines and codes of conduct through all phases of the project. We completed the Tri-Council Policy Statement CORE 2 ethical training and adhered to the terms of the University of British Columbia Behavioural Research Ethics Board research ethics protocol. We also worked closely with the RTB to ensure that throughout the process there was adherence to privacy regulations under the Freedom of Information and Protection of Privacy Act (FOIPPA). To avoid any conflicts of interest with a member of the project team also being a staff member of the RTB, all project materials were reviewed and approved as a team.

In assessing ethical considerations, we identified the following pertinent elements to consider throughout the project lifecycle and in any future scaling of the intervention:

Privacy and confidentiality during research, intervention and scaling

Ensuring privacy and confidentiality throughout the research and intervention were paramount and will continue to be a central focus in any scaling that takes place. As dispute resolution hearings are a result of a negative interaction between two parties, it is expected that tensions exist throughout the process. Failing to keep data private could result in negative impacts on the health, well-being, or finances of one or both parties going through this challenging process. To minimize any potential impacts the following strategies were employed:

- Personal identifiable data was not collected in the exploratory phase. In circumstances in which the data included potentially identifiable information regarding themselves or the other party, the information was discarded in a manner appropriate to *FOIPPA*.
- During the exploratory research process, informed consent was obtained for the survey (written) and focus group (verbal). The informed consent included a discussion of the voluntary process and rules of engagement with respect to privacy and confidentiality.
- Participants were provided with instructions on how to safeguard privacy during the focus group, including avoiding the use of names or other identifiable information such as organizations and locations.
- All data collected was stored under a secure password on government servers and only de-identified data was shared with the project team and reported at an aggregate level.

Causing unintended harm to participant well-being

The process of undertaking a hearing can often be stressful and have serious impacts on both the tenant and landlord's well-being. Throughout the project stages (scoping, research, innovation, data collection, evaluation and scaling), we were careful to evaluate any potential unintended harm to participant well-being. During our exploratory research, we ensured:

- In the recruitment of participants through third-party associations, in addition to at the outset of the questionnaire, it was stated that participation is voluntary, and that disclosure of information was optional and anonymous.
- The questionnaire provided contact information for any follow-up questions regarding the survey.

By including nudges to increase appropriate withdrawals, the intervention may have unintentionally encouraged participants who would benefit from attending their hearing to withdraw, risking financial consequences or loss of home. To mitigate this potential harm, encouraging attendance was emphasized over withdrawal in the email design, and language was included to target those who no longer required a hearing for withdrawal. Data was also spot checked throughout the intervention to ensure there were no unintended consequences of the intervention.

We also sought to ensure that the substitution of a checklist for information did not inhibit participants from accessing information necessary for their hearing. The websites allowed individuals to receive additional, more in-depth information. The websites were made salient in the emails by the use of large, colourful buttons that would navigate to easily understood web pages on the requirements for evidence.

Benefit vs. harm throughout the intervention

It is important to consider the benefit and harm of an intervention for the target population as well as other groups that could be impacted. The intervention was considered unlikely to be harmful to participants and the benefit those in the intervention condition may receive is not great enough to consider that those in the control condition are at a disadvantage. Other considerations of benefit vs. harm throughout the intervention included:

- Freedom of choice was maintained throughout the entire project. Participants in the intervention condition had the same options as those in the control condition with respect to attending or not attending their hearing. There were no consequences if they did not withdraw their application or did not attend their hearing.
- Vulnerable populations could be at risk if an application is withdrawn, and the respondent does not get a chance to make their case in front of an arbitrator. Many landlords and tenants do not know the breadth of their obligations and responsibilities so parties who address disputes outside of the RTB after a decision is rendered could be breaking the law. For this reason, it was important to include the consequences of not attending the hearing. Careful consideration was given to the tone and language used in portraying the consequences to ensure that it did not provide additional stress through the use of harsh punitive language.

I. Project Reflections

Limitations

It is important to consider the limitations of the project and their impacts on any conclusions we draw.

Proxy behaviour. A hearing may include multiple applicants and respondents, but this trial could not confirm that the participants who received the email reminders were the same individuals who withdrew the application or attended the hearing. Additionally, this trial did not exclude adjourned hearings which could have influenced attendance outcomes. An adjourned hearing occurs when the initial hearing is not completed in its allotted time, therefore a second hearing is scheduled for a future date. This means that some trial participants may be familiar with the hearing process by the time they received the treatment or control email reminder. This may affect the internal validity of the study.

Multiple BI solutions. Each reminder email contained multiple nudges and therefore we cannot evaluate or isolate the individual or combined effects to understand the greatest impact on the desired behaviour. The treatment group reminder emails included salience buttons, checklists, consequence language and various behaviourally informed design improvements. We can only make general conclusions about the efficacy of the BI informed reminder emails.

Implementation of nudges. The BI intervention only applies to emails and therefore does not address barriers faced by those who have not provided an email or for those who do not have reliable access to the internet. This could apply to low-income or rural tenants and/or to respondents who are not aware they are part of a dispute resolution process. Emails are sent to the primary applicant and all respondents on the dispute hearing file with an email address, however, it is the responsibility of the applicant to notify the respondent of the dispute application. If a respondent is not informed and their information is not linked to the dispute file, they will not receive the emails.

We were limited in the types of nudges we could include in the BI emails because of system, time and cost constraints. The email templates are designed to auto-populate with certain information extracted from RTB's dispute management system. Information such as first names, teleconference details and integrated calendar reminders could not be included in the emails. This meant that many of our initial nudge ideas could not be implemented. However, we were able to incorporate other nudges supported by secondary and exploratory research.

Project timelines. This trial was a capstone project as part of the University of British Columbia's Advanced Professional Certificate in Behavioural Insights program and constrained by timelines that would not ordinarily be imposed by the RTB. This limited our ability to include a larger sample size in the study.

Project methodology. We were not able to conduct a true randomized controlled trial due to limitations of the RTB's automated email notification system. This meant trial participants were assigned to control and treatment conditions on alternating weeks based on the date of their hearing. This could affect the validity of the results because an event could occur that impacts conditions differently. This was evident in our interim analysis where we saw a significant increase in non-attendance over an important non-statutory religious holiday.

References

- Afif, Z., Islan, W., Calvo-Gonzalez, O., Dalton, A. (2019). Behavioral science around the world: Profiles of 10 countries. eMBeD brief. Washington, D.C.: World Bank Group. Retrieved from http://documents1.worldbank.org/curated/en/710771543609067500/pdf/132610-REVISED-00-COUNTRY-PROFILES-dig.pdf
- Behavioural Insights Team. (2013). *Test, learn, adapt: Developing public policy with randomised controlled trials* [White paper]. Retrieved from https://www.bi.team/publications/test-learn-adapt-developing-public-policy-with-randomised-controlled-trials/
- Behavioural Insights Team (2016). A zero cost way to reduce missed hospital appointments. Retrieved from https://www.gov.uk/government/publications/reducing-missed-hospital-appointments-using-text-messages/a-zero-cost-way-to-reduce-missed-hospital-appointments
- Behavioural Insights Team (2020). *How behavioural insights helped Canadians access their tax benefits.* Retrieved from https://www.bi.team/blogs/how-behavioural-insights-helped-canadians-access-their-tax-benefits/
- Bryan, C.J., Walton, G.M., Rogers, T., & Dweck, C.S. (2011). Motivating voter turnout by invoking the self. *Proceedings of the National Academy of Sciences, 108*(31),12653-12656. https://doi.org/10.1073/pnas.1103343108
- Canadian Rental Housing Index. (n.d.) A snapshot of Renters in British Columbia & Canada. Retrieved from http://rentalhousingindex.ca/en/#comp_prov
- Chernev, A., Böckenholt, U., & Goodman, J. (2015). Choice overload: A conceptual review and meta-analysis. *Journal of Consumer Psychology, 25*, 333-358. https://10.1016/j.jcps.2014.08.002
- Cialdini, R.B. (2008). Influence: Science and practice, 5th ed. Boston: Pearson.
- Dingman, S. (2018, May 7). Canada's rental housing growth outstrips home ownership. *Globe and Mail.* Retrieved from: https://www.theglobeandmail.com/real-estate/the-market/article-demand-for-rentalhousing-in-canada-now-outpacing-home-ownership/.
- Dolan, P., Hallsworth, M., Halpern, D., King, D., & Vlaev, I. (2010). *MINDSPACE: Influencing behaviour through public policy*. London, UK: Cabinet Office.
- Douglas, R.L., (Producer). (November 8, 2020). No Stupid Questions [audio podcast]. Retrieved from https://freakonomics.com/podcast/nsq-checklist-cities/
- Fishbane, A., et al (2020). Behavioural nudges reduce failure to appear for court. *Science*, *370*(2517). https://doi.org/10.1126/science.abb6591
- Hallsworth, M., Berry, D., Sanders, M., Sallis, A., King, D., Vlaev, I., Darzi, A. (2015). *Stating appointment costs in SMS reminders reduces missed hospital appointments: Findings from two randomised controlled trials.* Public Library of Science One, *10*(9): e0137306. https://doi.org/10.1371/journal.pone.0137306

- Haynes, A., et al. (2009) Surgical safety checklist to reduce morbidity and mortality in a global population. *New England Journal of Medicine, 260,* 491-499. https://doi.org/10.1056/NEJMsa0810119
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.
- Kahneman, D., & Tversky, A. (1982). The psychology of preference. Scientific American, 246, 160-173.
- Karlsson, N., Loewenstein, G. & Seppi, D. The ostrich effect: Selective attention to information. *Journal of Risk* and Uncertainty, 38, 95–115 (2009). https://doi.org/10.1007/s11166-009-9060-6
- Keller, P., Harlam, B., Loewenstein, G., and Volpp, K. (2011). Enhanced active choice: A new method to motivate behavior change. Journal of Consumer Psychology, 21, 376-383. https://doi.org/10.1016/j.jcps.2011.06.003
- Larkin, C., Sanders, M., Andresen, I., & Algate, F. (2019). Testing local descriptive norms and salience of enforcement action: A field experiment to increase tax collection. *Journal of Behavioral Public Administration, 2*(1). https://doi.org/10.30636/jbpa.21.54
- Mailchimp (2021), Email Marketing Benchmarking. Accessed May 2021. https://mailchimp.com/resources/email-marketing-benchmarks/
- Mullainathan, S., & Sharif, E. (2013). Scarcity: Why having too little means so much. London: Allen Lane.
- Residential Tenancy Branch Dispute Management System Operational Dashboard, Power BI (2021). Retrieved from https://app.powerbi.com/groups/me/reports/f1bafd05-11f5-4756-b3fd-bab064572251/ReportSection16489a1d89cabc961c02
- Samuelson, W., & Zeckhauser, R. J. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty, 1*, 7-59. https://doi.org/10.1007/BF00055564
- Schwartz, B. (2004). The paradox of choice: Why more is less. New York: Ecco.
- Swaluw, K., Mattjis, L., Mathijssen, J., Schipper, M., Zeelenberg, M., Berkhour, S., Polder, J., Prast, H. (2018).
 Physical activity after commitment lotteries: examining long-term results in a cluster randomized trial.
 Journal of Behavioural Medicine, 41(4), 483-493. https://doi.org/10.1007/s10865-018-9915-x

Appendix I. Journey Map

Figure 12. Journey Map



Appendix II. Dispute Hearing Urgency

Table 3. Dispute Hearing Urgency Levels, Target Wait times, and Current Wait Times

Urgency Type	Target Wait Time	Current Wait Time ⁷
An emergency hearing includes a claim where:	2 weeks	4.5 weeks
 there is an immediate risk to a person or property emergency repairs are required 		
 the tenant is seeking possession of their rental unit 		
Examples include repairing heat or hot water, or a tenant has been locked out of their unit by their landlord.		
A deferred hearing includes claims where:	12 weeks	21 weeks
 the landlord or tenant is seeking monetary compensation the tenant is requesting that the landlord comply with the tenancy agreement and/or tenancy laws 		
Examples include seeking unpaid rent from a tenant, or a tenant seeking money for repairs to the rental unit that they paid for.		
A standard hearing includes claims that do not meet the criteria of emergency or deferred hearing types.	6 weeks	9.8 weeks
Examples include a tenant disputing an eviction notice, or a landlord seeking an order of possession.		

⁷ RTB Data, DRS Overview Report 1.0, January 1, 2020 to October 21, 2021

Appendix III. Feasibility of Evidence

Table 4. Feasibility and Evidence of Impact of	Nudges to Combat Cognitive Barriers to Attendance
--	---

Nudge	Intervention	Estimate of Impact	Feasibility
Checklists and Planning	Checklists and planning language can help people complete a process correctly, particularly in stressful situations.	High High degree of evidence that shows success of checklists used in stressful situations and planning to increase attendance rates.	Medium Limited ability to create a checklist that applicants and respondents can actually click as completed. Easy to implement a list of steps that use planning language.
Consequences (Loss Aversion)	People dislike losses more than gains of an equivalent amount (Kahneman & Tversky, 1979).	High Evidence from literature and surveys that emphasize motivation to avoid losses.	High Easy to implement however care is required to use language that does not increase the stress and concern for applicants and respondents.
Active and Enhanced Choice	Active and enhanced choice positions an individual to make a choice between alternatives that can be enhanced to highlight the relevant advantages compared to the losses in the alternative.	Medium Has shown success in creating a greater sense of responsibility and ownership in decisions.	Low <i>Limited ability to implement based</i> <i>on limitations of the dispute</i> <i>management system capabilities.</i>
Social Norms	Social norms signal appropriate behavior and are classed as behavioral expectations or rules within a group of people (Dolan et al., 2010).	Low <i>Limited evidence of success in using social</i> <i>norms to increase attendance rates.</i>	High Easy to implement however due to the difference in each hearing, implementation would require ethical review.
Pre- Commitment	In an effort to align future behavior, being consistent is best achieved by making a commitment (Cialdini, 2008).	Medium High degree of evidence that shows the impact of pre-commitment on completing future actions however limited evidence on its success in increasing attendance rates.	Low <i>Limited ability to implement based</i> <i>on limitations of the dispute</i> <i>management system capabilities.</i>
Salience and Simplification	People's attention is drawn to what is new and/or seems relevant (BIT, 2014). People are more likely to complete a task that is considered easy.	High Evidence from literature has shown that simplifying processes and drawing attention to the required behaviour has been successful across different tasks and situations.	High Easy to implement however care must be used when removing complex legal information from reminders and ensuring that information is easily accessible.
Reminders	People's attention is limited and taxed. Providing reminders can reduce forgetfulness and increase timely responses.	High <i>Reminders have been shown to increase</i> <i>attendance as well as completion of</i> <i>specific actions.</i>	High Two reminder emails are sent already to applicants and respondents to remind them of their hearing and key deadlines. No ability to add calendar reminders or SMS messaging due to dispute management system limitations.

Appendix IV. Exploratory Research Results

A survey targeting landlords and tenants across B.C. was undertaken between January 29 and February 15 of 2021. The survey resulted in a higher number of landlords respondents due to outreach initiatives of a local landlord support organization. At the outset of the survey, individuals were asked to focus on the dispute resolution process as opposed to the result of the arbitration. This proved challenging with many results having a focus on dissatisfaction with the hearing results. We believe that this speaks to the importance of ensuring fair, transparent and citizen centred service from the Residential Tenancy Branch.

Figure 13. Respondent Role in the Dispute Resolution Process



Figure 14. Relative Difficulty in Understanding Process Steps in the Dispute Resolution Process. Error Bars represent Standard Error.



Figure 15. Relative Difficulty in Understanding the Overall Process for Dispute Resolution by Applicant Type. Error Bars represent Standard Error.



Figure 16. Relative Helpfulness of Possible Supports Offered. Error Bars represent Standard Error.



Figure 17. Relative Importance of Different Motivations to Withdraw a Hearing that is No Longer Necessary. Error Bars Represent Standard Error.



Appendix V. Standard RTB Reminder Emails and Updated BI Informed Reminder Emails

Figure 18. Standard 21-Day Applicant Evidence Deadline Reminder Email

Burret	
BRITISH COLUMBIA Residentia	al Tenancies
Automatic dispute notification	on - do not reply
Evidence Deadline Ren	ninder
File number: {file_num	nber}
Dispute access code:	{recipient_access_code}
Date filed: {initial_subn	nission_date}
Rental address: {rental	I_unit_address}
Hearing date: {hearing	_start_date}
Hearing time: {hearing	_start_time}
to the hearing. Evidence Evidence submitted after	ne deadline for applicants submitting evidence for File Number {file_number} is not less than 14 days prior must be received by each respondent and the Residential Tenancy Branch before the deadline. r the deadline is considered late and may not be considered at the dispute resolution proceeding. Visit the nch website for more information on how to prepare and upload your evidence.

Deadlines for submitting evidence are critical

For methods of <u>serving evidence</u> to the respondent(s) including calculating timelines based on the method of service, you can review the Applicant Instructions document provided with the Notice of Dispute Resolution Proceeding.

Serving evidence to each respondent

You must serve identical copies of evidence to each respondent as soon as possible. Copies of all evidence must be received by each respondent not less than 14 days before the proceeding. How you serve your evidence may affect the date the evidence is considered received. You cannot serve evidence to the respondent electronically. Evidence that is served via email may not be considered at your dispute resolution proceeding.

Serving evidence to the Residential Tenancy Branch

You can submit evidence to the Residential Tenancy Branch by uploading it to the <u>Dispute Access Site</u> using your Dispute Access Code listed at the top of this notification. Anyone can upload evidence on your behalf as long as they have your Dispute Access Code. You can also submit evidence in person by bringing your evidence, file number and Dispute Access Code to any <u>Service</u> <u>BC Office</u> or to the Residential Tenancy Branch office in Burnaby located at: #400 - 5021 Kingsway.

This is an automatically generated email. Please do not reply to this message. If you have received this email in error, please contact the Residential Tenancy Branch using the contact information at the bottom of this email.

British Columbia Residential Tenancy Branch

- hsrto@gov.bc.ca- Evidence cannot be sent by email
- 1-800-665-8779 Do not call this number for your dispute resolution hearing
- Residential tenancy web site
- Service BC Locations
- Dispute Access Site



Residential Tenancies

Automatic dispute notification - do not reply

Evidence Deadline Reminder

File number: {file_number} Dispute access code: {recipient_access_code} Date filed: {initial_submission_date} Rental address: {rental_unit_address} Hearing date: {hearing_start_date} Hearing time: {hearing_start_time}

This is a reminder that the deadline for respondents submitting evidence for File Number {file_number} is not less than 7 days prior to the hearing. Evidence must be received by each applicant and the Residential Tenancy Branch before the deadline. Evidence submitted after the deadline is considered late and may not be considered at the dispute resolution proceeding. Visit the Residential Tenancy Branch website for more information on how to prepare and upload your evidence.

Deadlines for submitting evidence are critical

For methods of <u>serving evidence</u> to the applicant(s) including calculating timelines based on the method of service, you can review the Respondent Instructions document provided with the Notice of Dispute Resolution Proceeding.

Serving evidence to each applicant

You must serve identical copies of evidence to each applicant as soon as possible. Copies of all evidence must be received by each applicant not less than 7 days before the proceeding. How you serve your evidence may affect the date the evidence is considered received. You cannot serve evidence to the respondent electronically. Evidence that is served via email may not be considered at your dispute resolution proceeding.

Serving evidence to the Residential Tenancy Branch

You can submit evidence to the Residential Tenancy Branch by uploading it to the <u>Dispute Access Site</u> using your Dispute Access Code listed at the top of this notification. Anyone can upload evidence on your behalf as long as they have your Dispute Access Code. You can also submit evidence in person by bringing your evidence, file number and Dispute Access Code to any <u>Service</u> <u>BC Office</u> or to the Residential Tenancy Branch office in Burnaby located at: #400 - 5021 Kingsway.

This is an automatically generated email. Please do not reply to this message. If you have received this email in error, please contact the Residential Tenancy Branch using the contact information at the bottom of this email.

British Columbia Residential Tenancy Branch

- hsrto@gov.bc.ca Evidence cannot be sent by email
- 1-800-665-8779 Do not call this number for your dispute resolution hearing
- Residential tenancy web site
- Service BC Locations
- Dispute Access Site

Figure 20. Standard 3-Day Hearing Reminder Email



Figure 21. BI Informed 21-day applicant reminder email

BRITISH COLUMBIA Residential Tenancies
Automatic dispute notification - do not reply
Hearing date: {hearing_start_date} Hearing time: {hearing_start_time} Rental address: {rental_unit_address} File number: {file_number} Dispute access code: {recipient_access_code}
Helpful Reminder - Your hearing is 21 days away
Your dispute resolution hearing for File Number {file_number} is in 21 days. Plan your next steps and prepare for key timelines.
Prepare Now -> Prepare Now
Clear your schedule - If you miss your hearing you could lose your case. Put your hearing date and time in your calendar as a reminder.
Provide all evidence in time - Late evidence might not be considered. Serve your evidence to the respondent(s) and to the Residential Tenancy Branch no less than 14 days before your hearing.
Be ready to dial in to the hearing - If you call in late, there will be less time for you to make your case. Check your notice package provided by the Residential Tenancy Branch for details.
You could lose your case if you do not attend.
If you no longer need your hearing, withdraw your application.
Withdraw Now -> <u>Withdraw Now</u>
This is an automatically generated email. Please do not reply to this message.
British Columbia Residential Tenancy Branch <u>hsrto@gov.bc.ca</u> - Evidence cannot be sent by email <u>1-800-665-8779 - Do not call this number for your dispute resolution hearing <u>Residential tenancy web site</u> <u>Service BC Locations</u> <u>Dispute Access Site</u> </u>

Figure 22. BI Informed 14-Day Respondent Reminder Email

BRITISH COLUMBIA Residential Tenancies
Automatic dispute notification - do not reply
Hearing date: {hearing_start_date} Hearing time: {hearing_start_time} Rental address: {rental_unit_address} File number: {file_number} Recipient access code: {recipient_access_code}
Helpful Reminder - Your hearing is 14 days away
Your dispute resolution hearing for File Number {file_number} is in 14 days. Plan your next steps and prepare for key timelines.
Prepare Now -> Prepare Now
Clear your schedule - If you miss your hearing you could lose your case. Put your hearing date and time in your calendar as a reminder.
Provide all evidence in time - Late evidence might not be considered. Serve your evidence to the primary applicant and to the Residential Tenancy Branch no less than 7 days before your hearing.
Be ready to dial in to the hearing - If you call in late, there will be less time for you to make your case. Check your notice package provided by the Residential Tenancy Branch for details.
You could lose your case if you do not attend.
If you no longer need your hearing, contact the applicant about withdrawing the application.
This is an automatically generated email. Please do not reply to this message.
British Columbia Residential Tenancy Branch



Appendix VI. Web Pages

Figure 24. Prepare Now Web Page



Figure 25. Withdraw Now Web Page



Appendix VII. Additional Research Results

Impact of intervention condition and all emails sent on withdrawals (ANOVA)

There was a main effect of whether all emails were sent, F(1, 969) = 58.14, p < .001, and a marginally significant main effect for the BI Email condition, F(1, 969) = 3.71, p = .05. There was no interaction between the intervention condition and whether all emails were sent, F(1,969) = 2.44, p = .12. Hearings whose participants were sent all emails had fewer withdrawals (mean = 0.02, SD = 0.14) compared to hearings whose participant did not get sent all emails (mean = 0.13, SD = 0.33). There were more hearing withdrawals in the BI Email condition (mean = 0.09, SD = 0.29) compared to the control condition (mean = 0.06, SD = 0.24).

Web page analytics for first six weeks of intervention

- During the first 3 waves (6 weeks) of data collection, the Prepare Now web pages had more unique visits than the Withdraw Now web pages⁸.
- The maximum number of page visits was 211.
- The Withdraw Now web page from the 21-day email reminder had the lowest interaction in all four categories.
- The Prepare Now web page was visited 21% more from the 21-day email reminder link than the 14-day email reminder link. This means more applicants accessed the Prepare Now web page compared to respondents.
- The Withdraw Now web page was visited 45% more in the 3-day email reminder than in the 21-day email. This means applicants used the links in the emails closer to the date of their hearing.

BI Email Web Page	21 Day Email Prepare Now (Applicants)	21 Day Email Withdraw Now (Applicants)	14 Day Email Prepare Now (Respondents)	3 Day Email Withdraw Now (Applicants and Respondents)
Unique Visits	211	75	174	109
Average Session Duration (M:SS)	1:13	0:29	1:43	1:17
Page Views	269	84	220	129
Page Views per Session	1.27	1.12	1.26	1.18

Table 5. Salient BI Email Link Web Page Analytics

⁸ At the time of publication of the Working Paper, only the first six weeks of data were available for the website analytics.