



## Reducing Burnout for 911 Dispatchers and Call Takers: A Field Experiment

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# **Reducing Burnout in Frontline Workers: A Randomised Controlled Trial**

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## **Abstract**

The rapid rise in reported front line worker burnout, as well as the WHO's recent reclassification of burnout as a syndrome, has spurred renewed interest in evidence-based strategies to reduce burnout across many mission-driven occupations. This study presents findings from a multi-site field experiment aimed at lowering burnout in 911 dispatchers and call-takers, the "forgotten victims" of law enforcement. Drawing on evidence on workplace social support and community building, treated individuals received six weeks of emails that shared stories from other dispatchers and invited participants to write about their own experience anonymously on an online platform. By the four-month follow-up, the intervention had reduced burnout by 8 points ( $p = 0.014$ ), from a control group mean of 52 (0.4 standard deviations), and significantly reduced resignations post-intervention by 3.4 percentage points, from a control group mean of 5.1 percent ( $p = 0.021$ ). We did not find an impact on any resignations occurring within the six-week intervention window, nor on sick leave taken. The findings suggest that even light-touch behavioral interventions can meaningfully reduce burnout, and they can improve employee and organisational outcomes.

## 1. Introduction

Burnout – a work-related syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, Schaufeli, and Leiter 2001) – affects a significant portion of frontline workers in various mission-driven professions. Popular press outlets have referred to the rise in burnout as a “sinister and insidious epidemic” (Sarner 2018) and health care organizations are calling burnout amongst their staff a “public health crisis” (Jha et al., 2019). Indeed, the WHO’s recent reclassification of burnout as a syndrome resulting from chronic workplace stress has spurred renewed interest in ways to address its causes as well as its consequences in a wide range of occupations. Recent studies report an alarming increase in reported burnout across various mission-driven professions including health care workers (Lemaire and Wallace 2017), social workers (Lloyd, King, and Chenoweth 2002), and police officers (Martinussen, Richardsen, and Burke 2007). At an individual level, burnout is associated with a host of negative physical and psychological outcomes, including sleep problems, misuse of painkillers, and coronary heart disease (Salvagioni et al. 2017; Kristensen et al. 2005; C. Maslach, Schaufeli, and Leiter 2001; W. Schaufeli and Enzmann 1998). At an organizational level, burnt out employees are more likely to be absent and are more likely to resign ((Salvagioni et al. 2017; Borritz et al. 2006). While the causal impacts of burnout on performance have not been studied extensively, related studies show correlations between burnout or fatigue and service delivery, including medical mistakes (Shanafelt et al. 2010) and compliance with workplace rules (Dai et al. 2015).

Despite increasing and widespread interest in the prevalence of burnout, its antecedents and its correlates (Christina Maslach and Schaufeli 2017), there is an urgent need for more causal evidence on what interventions successfully reduce burnout, or how burnout causally affects key organisational outcomes. This study addresses these questions through a multi-site randomised controlled trial of 911 dispatchers in nine US cities. Dispatchers have inherently stressful jobs: they respond to approximately 240 million calls a year (“9-1-1 Statistics - National Emergency Number Association” n.d.) and often make life-or-death decisions in seconds, while quickly and accurately relaying information to the first responders they dispatch. Others have documented the trauma that 911 dispatchers face, as well as the high levels of emotional labor required to regulate their emotions while simultaneously managing others’ emotions (Tracy and Tracy 1998). Recent studies report high levels of alcohol abuse, PTSD, and depression among this population (Lilly, London, and Mercer 2016; Muller 2017). Indeed, call dispatchers have been dubbed the “forgotten victim” when it comes to occupational stress (Sewell and Crew

1984). The goal of this study was to measure short- and medium-term effects of a virtual social support intervention on burnout, sick leave, and resignations among 911 dispatchers (n=536).

This field experiment involved sending a series of weekly emails to workers in the treatment group over a period of six weeks. Leveraging a growing literature on the importance of social support at work, email content nudged workers to consider their role in supporting each other and future 911 dispatchers by sharing their professional experiences. That is, rather than priming them to think about their impact on the residents they were serving, the emails emphasized their potential impact on their peers. With a different prompt each week, emails invited participants to anonymously share part of their experience on a common web platform, and allowed them to read anonymized stories by other participants. The aim of the intervention was to build a sense of social support among dispatchers and a stronger collective professional identity. The main outcomes of interest were self-perceived burnout, as measured by the Copenhagen Burnout Inventory (CBI), as well as key organizational outcomes, specifically leave taken and resignations, measured through administrative data over a period of six months.

Four months post-intervention, burnout was reduced by approximately 0.4 standard deviations (8 points) on the CBI scale. This is similar in magnitude to the difference in average reported burnout between social workers and administrative staff in other studies (Kristensen et al. 2005). Notably, members of the treatment group were also 3.4 percentage points less likely to resign than members of the control group from a control group mean of 5.1 percent ( $p = 0.021$ ). The intervention did not significantly affect the amount of sick leave taken. These results suggest that even this type of low-cost virtual intervention can have meaningful impacts on employee behavior.

The study makes several contributions to the literature. First, this study contributes directly to our understanding of what works in reducing employee burnout. Despite increasing and widespread interest in the prevalence of burnout, its antecedents and its correlates (Christina Maslach and Schaufeli 2017), there is very limited causal evidence on what interventions successfully reduce burnout, or how burnout causally impacts key organizational outcomes. Previous reviews note that almost all studies of burnout interventions are correlational (Christina Maslach and Schaufeli 2017). Among the existing randomized controlled trials in the medical literature, the evidence is mixed: while some studies show that individually-focused and group-focused interventions can reduce burnout among physicians (West et al. 2016), there is mixed evidence on the impact on nursing staff (Westermann et al. 2014). Moreover, both the existing observational studies and RCTs involve small samples (usually less than 100 people), short interventions, and limited follow-up durations, and largely focus on self-

reported outcomes (Awa, Plaumann, and Walter 2010). Our study, therefore, contributes methodologically to, and substantively extends, our understanding of burnout interventions: we use a much larger sample (536 employees); test a virtual light-touch social support intervention; and follow employees long enough to measure both self-reported measures and actual employee behavior.

Second, our study contributes to the ongoing theoretical discussion about how job demands and job resources interact at work. The Job Demands-Resources (JD-R) model suggests that high job demands, such as a high workload, are key predictors of burnout. Job resources such as social support, on the other hand, independently predict work engagement (Bakker and Demerouti 2017; Demerouti et al. 2001). Specifically, high workload cause burnout through a mechanism of exhaustion and thus negatively affect health outcomes. Job resources, such as social support, are about employee engagement, and thus improve outcomes related to motivation and organizational commitment (Nahrgang, Morgeson, and Hofmann 2011). Per this model, high job demands should predict health-related outcomes like sick leave, and low job resources should predict motivation-related outcomes like turnover. Yet most of the correlational evidence on the impacts of burnout show sick leave and turnover moving in tandem (Borritz et al. 2006). In fact, there is an ongoing debate about whether burnout and engagement are really just the opposite sides of the same coin. This study is one of the first to provide causal evidence of the JD-R model predictions by randomly varying the amount of social support, holding job demands constant. We find that our social support intervention -- increasing job resources -- does not affect sick leave (health outcomes), but does substantially reduce turnover (motivation-related outcomes), as the model predicts. Our findings are also consistent with correlational studies that show job resources acting as a buffer against the impact of high job demands (Bakker, Demerouti, and Euwema 2005; Hakanen, Bakker, and Demerouti 2005). Indeed, there is a long literature on how social support at work impacts employee motivation (see for example Boverie and Kroth 2001; Hodson 2004; Cooper 2004). We show a clear causal link between this type of social support and a key organizational outcome: resignations.

Last, the study contributes to a separate literature on the power of storytelling and self-persuasion as mechanisms for providing meaning at work. Storytelling, which was at the heart of this intervention, has been proposed as a way for individuals to reframe their work (Grenny, 2017) and cope with workplace stress (Tracy and Tracy 1998). Written reflections about work have also been associated with decreased stress and increased well-being (Bono et al. 2013); and related self-persuasion exercises are associated with improved performance on the job (Bellé 2014). Recent studies suggest that relationships can be built through reciprocal sharing,

even online (Carpenter and Greene 2015). By nudging workers to read one another's stories, reflect on their work and on their relationship with other 911 dispatchers, this study tests the impact of this approach in a real field setting.

## **2. Methods**

### *Study Design*

The experiment was conducted in collaboration with nine US cities [1] with an average population of roughly 300,000 and 13 to 110 dispatchers per city. All dispatchers in the participating cities were included in the experiment. We used the most up-to-date biannual HR data, which included 556 individuals, twenty of whom left between March 1, 2017 and September 26, 2017. As these workers left before randomisation occurred, they have not been included in the analysis. In qualitative interviews, 911 dispatchers and their supervisors noted that burnout was commonly discussed as "part of the job," but was also a common reason why people leave the job. 56 percent of our sample were burnt out at baseline.[2]

Figure 1 outlines the trial procedures. We ran a two-arm randomised controlled trial stratified by city. To maximize statistical power, participants in each city were matched into pairs based on the amount of sick leave they had taken over the previous six months. Members of each pair were then randomised into treatment or control with equal probability by the research team. We ensured that groups were balanced across key demographics before the launch of the intervention using baseline administrative data. Table 1 includes baseline demographic characteristics and confirms that the randomization successfully created two balanced groups. Participants were blind to treatment assignment, but the main point of contact in each city (a supervisor) was not. This person was not involved in the randomisation process.

### *Intervention*

The experiment involved sending weekly emails to workers in the treatment group over a period of six weeks. Leveraging a growing literature on the importance of social support at work, email content nudged workers to consider their role in supporting each other and future 911

dispatchers by sharing their professional experiences. The aim of the intervention was to build a sense of social support among dispatchers and a stronger collective professional identity by priming workers to consider their potential impact on their peers, rather than the residents they served.

With a different prompt each week, emails invited participants to anonymously share their professional experiences on a common web platform and allowed them to read anonymised stories other participants had submitted in previous weeks. A supervisor, or other leader selected by the department, sent the emails to the treatment group in each city. Participants were blinded on the scope and nature of the intervention; the control group received a simplified version of the first week's email to inform them of the multi-city collaboration, but did not receive additional emails. Appendix Table 1 provides full email language for each week.

### *Outcomes*

The intervention ran for six weeks beginning in September 2017. Outcomes were selected in collaboration with partner cities. We measured the impact of the social support intervention using both survey and administrative data. The key survey outcome measured was the Copenhagen Burnout Inventory (CBI) burnout score. The CBI is a validated survey consisting of 19 questions in three categories: personal-, work-, and client-related burnout. Participants receive a score ranging from 0 to 100 based on a Likert scale for each question. We report on all three sub-categories, as well as on total score immediately following the six-week intervention and four months after the intervention had ended.[3] We measured leave use and turnover over the six-week treatment period and full six-month (24 weeks) period through March 2018 using administrative data from each city.

### *Statistical Analysis*

Our sample was constrained by the total number of dispatchers in the nine participating cities. With this sample, we were powered to detect an effect size of 4.8 points on the burnout scale in a two-sided test with treatment probability across the nine cities of 0.50.



All statistical analyses were conducted using Ordinary Least Squares. For each individual  $i$  in city  $c$  at time  $t$ , we measured the effect of the intervention on burnout and resignations,  $y_{ict}$  as:

$$y_{ict} = \beta_i \text{treat}_{ic} + x'_{ic} \theta + \delta_c + \varepsilon_{ict}$$

$\text{treat}_{ic}$  is a binary variable equal to one if the individual was assigned treatment;  $x'_{ic}$  is a vector of baseline demographic characteristics: race, gender, tenure, and pre-period leave;  $\delta_c$  is a vector of city fixed effects;  $\varepsilon_{ict}$  is an i.i.d. error term. All inference is conducted using Eicker-  
Huber-White robust standard errors.

### 3. Results

Table 1, Panel A shows the mean baseline characteristics of all participants, separated by treatment and control group (columns 1-4). More than three quarters of the sample is female, and nearly 80 percent is white. Our sample is more female than the national average (54 percent), but similar on racial composition. On average, participants had nearly 10 years of tenure and took an average of 1.5 hours of sick leave a week in the six months before the trial began. Chi-squared tests on each variable confirm that treatment and control are balanced across these characteristics. Columns (5-8) show treatment and control group members who remained employed for the full six-week intervention period are balanced across all characteristics. Importantly, both treatment and control members who left while the trial was occurring are observationally similar to dispatchers who remained employed, providing suggestive evidence that differential attrition is not the primary explanation for the significant findings at follow-up.

The average response rate across the interim and final burnout surveys was 28.6 percent. We compare the demographic characteristics of treatment and control respondents for each wave in Table 1, Panel B. Given that treatment and control groups look similar across demographics in both survey waves, as well as to the full participant sample, we believe the change in reported burnout is not due to systematic differences in who takes the survey, but reflects change in underlying burnout in the treatment group.

Table 2 presents the main burnout findings. Immediately after the trial ended, treated employees reported lower levels of burnout, although differences are not statistically significant (panel A). Six months after the first email was sent, however, the intervention appears to have caused a significant reduction in burnout for each of the sub-categories, as well as for the total

burnout score (panel B). These coefficients are large in magnitude and statistically significant; the intervention reduced personal-related burnout by about 9 points, work-related burnout by 7 points, and client-related burnout by approximately 9 points. The composite burnout index fell more than 8 points, or more than 0.4 standard deviations. This is similar in magnitude to the difference in average reported burnout between social workers and administrative staff in other studies (Kristensen et al. 2005).

Table 3 presents the key findings on employee turnover. We find the intervention reduced resignations among employees who remained employed throughout the intervention (i.e. those exposed to the full treatment) by 3.4 percentage points in the four months post-intervention, relative to a control group mean of 5.1 percent. When we include resignations that happened during the intervention, we cannot reject the null hypothesis of no difference in resignations between groups. Figure 2 presents a Kaplan-Meier curve illustrating that treatment group resignations exceeded those of the control group in the first few weeks of the trial (although not significantly), but in the four months post-intervention resignations remained relatively flat for the treatment group, but continued to increase among control group members.

In results available upon request, we find these results are not driven by any single city. Additional results also do not indicate resignation rates are mediated by the amount of leave taken: the treatment had no significant effect on the number of hours or spells of sick leave.

#### **4. Discussion**

Our field experiment found that offering a low-cost social support intervention substantially reduced burnout and resignations among 911 dispatchers four months post-intervention. Training a new dispatcher involves over a year of training; partner cities estimated that a single resignation costs up to sixteen months of salary. By these estimates, scaling this nearly zero-cost intervention to all employees could save a city with 100 dispatchers more than \$170,000, or approximately three full-time equivalent staff, per year.

Lower burnout rates may provide additional savings that are not captured in this estimate. An interesting extension of this research, for example, would be to measure the causal impact of this type of intervention on employee decision-making and performance. Specifically, more social support at work could increase productivity, but -- depending on the nature of the work -- could also reduce variability in decision-making. It is plausible that employees with higher levels of burnout and/or fatigue are less able to comply with rules (Dai et al. 2015). They may also face the kind of scarcity in cognitive bandwidth that leads to greater

cognitive bias (Mullainathan and Shafir 2013). More broadly, if increasing social support also increases organizational commitment, as this study suggests, this type of intervention should also cause other forms of changes to both in-role and extra-role employee performance (Podsakoff et al. 2008). These analyses were not possible with the given sample, and are a limitation of the study.

Another limitation of the study is that we do not capture potential spillovers of the intervention on control group members. That is, improving the work environment for half of a dispatch center likely benefits others in the center as well. If this is the case, our estimates of the impact of this program understate the full effect of introducing such an intervention city-wide, and give reason to be optimistic about the influence of these programs at full scale. Last, to maintain anonymity, we do not know whether more active participation in the program (e.g., by sharing stories) provided larger benefits than passive participation (e.g., receiving emails). What we can measure is click-throughs onto the web platform which ranged from 2% to 16% depending on the week. Still, given that the emails themselves all included a personal story, we expect that much of the treatment effect came from reading the email, rather than from actively participating. From a managerial perspective, however, intention-to-treat (ITT) estimates – the ones we use throughout this study – are arguably the parameter of interest when deciding whether to implement a similar, voluntary program.

Moreover, while we find clear reductions of burnout over time, the effect of our intervention on resignations is only clear in the post-intervention period. There are several explanations for this finding. First, as employees are required to give at least two weeks advance notice on resignations, it is likely that the resignations that occurred in the first weeks of the intervention reflect decisions that happened pre-intervention, and so we expect to not observe a treatment effect in early weeks. However, it is also possible that multiple emails are required for the treatment to alter perceived social support, and therefore, resignations. Future studies will need to further explore the relationship between burnout and resignations to disentangle these explanations.

Ultimately, this study joins others in making the case for the power and the feasibility of running field experiments in real organizations on real organizational outcomes (Hauser, Linos, and Rogers 2017; Pfeffer et al. 2000). Our results suggest that even low-cost approaches to improving employees' experience at work can meaningfully benefit both employees and their organizations, and that these benefits can persist over time.

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**Table 1. Demographic and baseline characteristics by treatment group**

<i>Panel A: All trial participants</i>								
	Trial participants				Full trial participants			
	(1) All	(2) Control	(3) Treatment	(4) p	(5) All	(6) Control	(7) Treatment	(8) p
Female	0.776 (0.417)	0.797 (0.404)	0.757 (0.430)	0.355	0.772 (0.420)	0.787 (0.410)	0.757 (0.430)	0.500
White	0.799 (0.402)	0.794 (0.407)	0.804 (0.399)	0.860	0.806 (0.396)	0.802 (0.401)	0.810 (0.394)	0.889
Years employed	9.140 (8.369)	8.710 (8.054)	9.555 (8.662)	0.324	9.177 (8.426)	8.860 (8.102)	9.490 (8.745)	0.476
Average pre-trial weekly sick hours	1.484	1.473	1.494	0.878	1.492	1.488	1.496	0.953
Observations	536	265	271	536	511	256	255	511
<i>Panel B: Burnout survey</i>								
	Interim survey				Final survey			
	All	Control	Treatment	p	All	Control	Treatment	p
Female	0.844 (0.365)	0.832 (0.376)	0.865 (0.345)	0.583	0.815 (0.390)	0.814 (0.391)	0.815 (0.391)	0.982
White	0.714 (0.453)	0.716 (0.453)	0.712 (0.457)	0.957	0.730 (0.445)	0.724 (0.450)	0.738 (0.443)	0.845
Years employed	11.220 (8.189)	10.800 (8.196)	12.010 (8.199)	0.397	11.900 (8.492)	11.000 (7.823)	13.090 (9.231)	0.144
Observations	147	95	52	147	152	87	65	152

Notes: This table reports means and standard deviations of the full sample in Panel A, and burnout survey respondents in Panel B. Columns (1)-(4) describe trial participants -- the full ITT sample. Columns (5)-(8) describe those who remained employed through the full trial. Columns (1) and (4) summarize the full sample, and columns (2 and 5) and (3 and 6) describe the control and treatment groups, respectively. Columns (4) and (8) report p-values for the null hypothesis of perfect randomisation.

**Table 2. Final burnout survey, Copenhagen Burnout Index**

	(1) Own	(2) Work	(3) Client	(4) Total
<i>Panel A: Interim (after all emails sent)</i>				
Treatment	-5.815 (3.782)	-3.908 (3.998)	-0.976 (4.114)	-3.566 (3.621)
Observations (treatment)	52	52	52	52
Observations (control)	95	95	95	95
Observations	147	147	147	147
Control group mean	55.8596	50.708	42.675	49.748
Effect size	-0.279	-0.167	-0.042	-0.178
R-squared	0.211	0.196	0.213	0.236
<i>Panel B: Final (4 months after all emails sent)</i>				
Treatment	-8.935** (3.448)	-7.008* (3.724)	-9.194** (4.150)	-8.379** (3.368)
Observations (treatment)	65	65	65	65
Observations (control)	87	87	87	87
Observations	152	152	152	152
Control group mean	56.734	55.049	44.109	51.964
Effect size	-0.429	-0.300	-0.395	-0.418
R-squared	0.356	0.337	0.318	0.345

Notes: This table reports ITT OLS coefficient estimates robust standard errors in parentheses). The dependent variable is the burnout score, either by subindex (columns (1) - (3)) or overall (column (4)). Burnout score ranges from 0 to 100. Panel (A) reports scores immediately after the final email was sent; Panel (B) reports scores 4 months after the final email was sent. Treatment is a dummy for the social support treatment. All specifications include demographic controls for race, gender, tenure, as well as city fixed effects. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Table 3. Resignations**

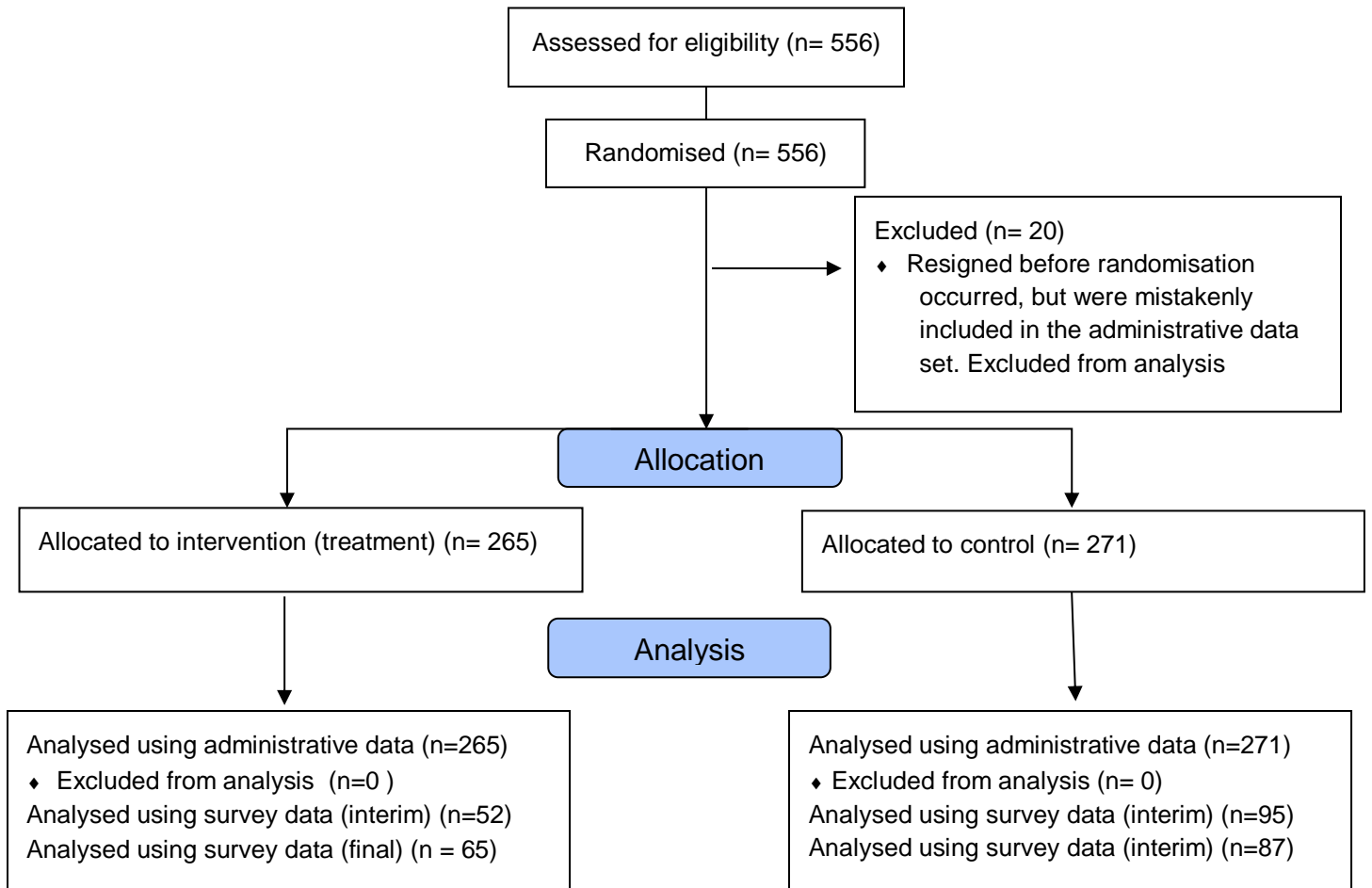
VARIABLES	(1) Resigned	(2) Resigned	(3) Resigned	(4) Resigned
Treat	-0.0194 [0.0188]	-0.0170 [0.0189]	-0.0344** [0.0155]	-0.0338** [0.0156]
Observations (treatment)	271	271	255	255
Observations (control)	265	265	256	256
Observations (total)	536	536	511	511
Sample	Trial participants	Trial participants	Full trial participants	Full trial participants
R-squared	0.026	0.036	0.054	0.059
City FE	No	Yes	No	Yes
Additional demographic controls	No	Yes	No	Yes
Control group mean	0.0604	0.0604	0.0508	0.0508

Notes: This table reports ITT OLS coefficient estimates (robust standard errors in brackets). The dependent variable is a binary variable equal to 1 if the employee resigned his or her position. Columns (1) and (2) includes all employees assigned treatment or control; columns (3) and (4) limit the sample to those who remained employed throughout the trial (week 7 post-randomisation). All specifications include controls for pre-period leave; columns 2 and 4 additionally include city fixed effects and demographic controls for race, gender, and tenure. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

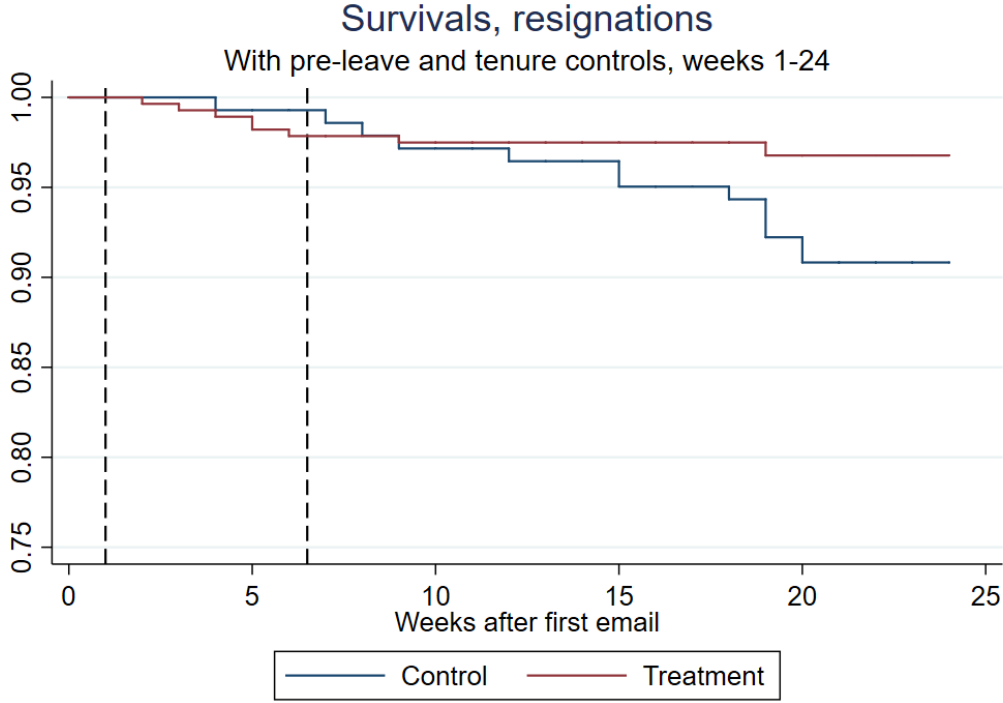


## Figures

Figure 1. Randomisation Process.



**Figure 2. Kaplan-Meier Survival Plot for number of employees resigning their position by treatment assignment.**



Notes: The first dashed line denotes the first week of the trial; the second dashed line denotes the end of the email intervention. Resignations are recorded for 24 weeks following the start of the trial.

APPENDIX

Table 1. Treatment and control email text

<p>Initial Survey Email - Control</p>	<p>Hi,          We're partnering with a group of cities across the country who want to learn more about what it's like to work as a 911 call taker or dispatcher. As a first step in this process, please respond to <a href="#">this short survey</a> to tell us a little more about your experiences. The survey should take about 10 minutes to complete, please complete this today. Your response will help cities across the country better reach out and support their staff so please take the time to fill it out.          Thanks,          &lt;&lt;&gt;&gt;</p>
<p>Initial Survey Email - Treatment</p>	<p>Hi,          We're partnering with a group of cities across the country who want to learn more about what it's like to work as a 911 call taker or dispatcher. As a first step in this process, please respond to <a href="#">this short survey</a> to tell us a little more about your experiences. The survey should take about 10 minutes to complete, please complete this today. Your response will help cities across the country better reach out and support their staff so please take the time to fill it out.          Thanks,          &lt;&lt;&gt;&gt;</p>
<p>Week 1 - Control</p>	<p>Hi,          We're collecting stories and thoughts about what makes for a good 911 call taker or dispatcher. If you want to share your thoughts and stories, you can do so <a href="#">here</a>. Your writing may be shared with new recruits.          Thanks,          &lt;&lt;&gt;&gt;          [Note: You've been selected to receive this email because &lt;&lt;&gt;&gt; is looking for better ways to reach out and support its staff. You will receive one more email. If you want to unsubscribe, please click <a href="#">here</a>.]</p>
<p>Week 1 - Treatment</p>	<p>Hi,          We've joined a group of cities focused on learning from 911 call takers and dispatchers across the country. Call takers and dispatchers save lives. I was inspired by a story that a colleague in West Palm Beach shared recently. A dispatcher in West Palm Beach was assisting officers in the pursuit of armed suspects fleeing in a stolen vehicle. This dispatcher remained calm and collected, helping keep the situation under control. She anticipated the needs of responders, was resourceful and dedicated, and communicated clearly with everyone involved. (All of this while training a trainee!) We have a lot of stories like this in our own department.          Over the next six weeks, we'll ask you to share some of your stories that could help new recruits feel more comfortable in their jobs and gain confidence. We'll also send you stories that other call takers and dispatchers send in.  <b>This week, please tell us about a time one of your coworkers was able to make a difference in someone's life because of their actions at work.</b>          Thanks,          &lt;&lt;&gt;&gt;          [Note: You've been selected to receive emails like this because &lt;&lt;&gt;&gt; is looking for better ways to support its staff. We'll be sending you emails like this once a week for the next six weeks. At the end of the six weeks, we'll ask you about the process and how we can improve it. If you want to unsubscribe from receiving these emails, click <a href="#">here</a>.]</p> <hr/> <p>Amended first paragraph for West Palm Beach:</p> <p>We've joined a group of cities focused on learning from 911 call takers and dispatchers across the country. Call takers and dispatchers save lives. I was inspired by a story of</p>

	<p>one of our dispatchers. This dispatcher was assisting officers in the pursuit of armed suspects fleeing in a stolen vehicle. They remained calm and collected, helping keep the situation under control. They anticipated the needs of responders, were resourceful and dedicated, and communicated clearly with everyone involved. (All of this while training a trainee!) We have a lot more stories like this in our own department.</p>
<p>Week 2 - Treatment</p>	<p>Hi,  Here is an amazing story that was submitted last week about a call taker and dispatcher who worked together to make a difference in someone's life:  <i>"My co-worker had just an open line with a woman who never once spoke to the phone, but my co-worker was able to relay enough information to me that when my officers went on scene they had enough to go on to kick in the door at the unit we had researched and thought belonged to that cell phone. What they found when they entered was truly terrifying, but they were able to save that woman's life. The officer thanked me later, this woman had been beaten and when they entered the woman was cowering in a corner and the boyfriend was standing over her with a baseball bat raised over his head. All of his thanks were immediately passed on and shared with my co-worker. <b>Yes, what we do can be very stressful, sad, and some calls are seemingly unbearable, but what other job allows you to just listen, type, and save a life? Not many.</b>"</i>  -Renee</p> <p>Stories like this can help new recruits understand how important the role of call taker or dispatcher can be. To read more amazing stories submitted last week, click <a href="#">here</a>. This week, instead of submitting a story, we'd like you to think about a coworker that you think would be (or already is!) a great mentor for a new recruit. <b>Please <u>let us know who you would recommend as a mentor and why you think they would be great.</u></b></p> <p>Thanks,  &lt;&lt;&gt;&gt;</p> <p>[Note: You've been selected to receive emails like this because &lt;&lt;&gt;&gt; is looking for better ways to support its staff. If you want to unsubscribe from receiving these emails, click <a href="#">here</a>.]</p>
<p>Week 3 - Treatment</p>	<p>Hi,  Last week we heard about what makes a great mentor for new recruits. Here is one of the quotes.  <i>"I'm always happy to see when new trainees are placed with Sarah*. She is very dependable - always here to work her shift. She is professional and shows care for each caller. She has a lot of knowledge that she always imparts in a positive way, although we deal with so much negativity in our line of work."</i>  -Jenna</p> <p>To read more about what makes for a good mentor, click <a href="#">here</a>.  In addition to all the serious, emergency calls we receive, we get some weird and hilarious ones too. There are a lot of funny 911 calls you can read about online, like the woman who called 911 to report gunfire. Turns out she had forgot eggs boiling on the stove, which had exploded. <b>This week, <u>tell us about one of your funniest calls and how you find humor even in this really tough job.</u></b></p> <p>Thanks,  &lt;&lt;&gt;&gt;</p> <p>[Note: You've been selected to receive emails like this because &lt;&lt;&gt;&gt; is looking for better ways to support its staff. If you want to unsubscribe from receiving these emails, click <a href="#">here</a>.]</p>
<p>Week 4 - Treatment</p>	<p>Hi,  New call takers and dispatchers should be ready for the incredible range of calls they are going to receive. To read stories submitted by fellow call takers and dispatchers, click <a href="#">here</a>.  This week, we would like to know what skills, characteristics or attitudes that people need to have to be good at this challenging job. <b>Please <u>send us a short description of what you think makes for a great call taker or dispatcher.</u></b></p> <p>Thanks,  &lt;&lt;&gt;&gt;</p>

	<p>[Note: You've been selected to receive emails like this because &lt;&lt;&gt;&gt; is looking for better ways to support its staff. If you want to unsubscribe from receiving these emails, click <a href="#">here</a>.]</p>
Week 5 - Treatment	<p>Hi,  Here is an example of the traits that our colleagues are saying make call takers and dispatchers good at what they do.  <i>"Doesn't take things personally, is unbothered by yelling [...] follows policy and procedure, remains courteous and patient with difficult callers as well as all callers, can think critically [...] knows that when a call doesn't make sense, it's important to ask "Why?""</i> - Nicole  Sharing these traits can help recruits understand which of their strengths might be helpful in their new jobs. To read more, click <a href="#">here</a>.  <b>This week, we would like you to <u>give advice</u> to a new recruit who asks "I just got signed off on my own and I'm excited, but also nervous. Do you have any suggestions for a newbie?"</b>  Thanks,  &lt;&lt;&gt;&gt;  [Note: You've been selected to receive emails like this because &lt;&lt;&gt;&gt; is looking for better ways to support its staff. If you want to unsubscribe from receiving these emails, click <a href="#">here</a>.]</p>
Week 6 - Treatment	<p>Hi,  There are a lot of reasons people work as a dispatcher or call taker and it takes a lot to do the work well. Over the last several weeks we have asked you and other call takers and dispatchers in cities across the US to share stories and advice. Thank you for participating.  If you want to read more of what we heard, click <a href="#">here</a>.  <b>This week, the final week of this pilot, please <u>tell us</u> a bit about why you took this job and what it means to you.</b> Reading these comments could help new recruits find their own purpose in the job.  Thanks,  &lt;&lt;&gt;&gt;  [Note: You've been selected to receive this email because &lt;&lt;&gt;&gt; is looking for better ways to reach out and support its staff. You will receive one more email. If you want to unsubscribe, please click <a href="#">here</a>.]</p>
Intermediate Survey Email - Control	<p>Hi,  As you know, we've been working with a group of cities across the country to learn more about what it's like to work as a 911 call taker or dispatcher. As a next step in this process, please respond to <a href="#">this short survey</a> to tell us a little more about your experiences. Please complete the survey today, it should take less than 10 minutes.  Thank you for your participation in this project, your responses will help cities all over the country better support their staff.  Thanks,  &lt;&lt;messenger&gt;&gt;</p>
Intermediate Survey Email - Treatment	<p>Hi,  As you know, we've been working with a group of cities across the country to learn more about what it's like to work as a 911 call taker or dispatcher. As a next step in this process, please respond to <a href="#">this short survey</a> to tell us a little more about your experiences. Please complete the survey today, it should take less than 10 minutes.  Thank you for your participation in this project, your responses will help cities all over the country better support their staff.  Thanks,  &lt;&lt;messenger&gt;&gt;</p>

[1] Albuquerque, Cambridge, Glendale, Greensboro, Mesa, Portland, Salt Lake City, Tempe, and West Palm Beach.

[2] Following CBI scoring, being burnt out is defined as having a personal burnout score greater than 50 on the Copenhagen Burnout Index.

<sup>[3]</sup> In order to maintain anonymity, we were not able to link survey scores for a given individual between baseline and endline. The treatment effect we show is the difference between treatment and control group at endline.