Correctional Officer Training: Can a Five Minute Intervention Improve Prisoner Outcomes?

Jennifer Chalmers, Selena Ledger, Logan M. Lee, Clare Power, and Amanda Rebar*

November 14, 2023

Abstract

We test the effectiveness of training correctional officers and staff methods for improving their daily interactions with inmates. Specifically, the Five-Minute Intervention (FMI) is a two-day training program that encourages participants to see themselves as agents of positive change and offers tools for creating short, positive interactions with inmates. We explore the efficacy of FMI training when coupled with a behavioral intervention designed to improve the retention and usage of FMI skills over time. Using data from two prisons in New South Wales, Australia (NSW), we find that FMI training with the behavioral intervention may have reduced infractions while it was occurring, but did not lead to long term changes in infractions. Administrative and survey data from inmates also provide evidence that training, inclusive of the behavioral intervention, had improved inmate/staff relations. Five months after training occurred, inmates at the treated facility earned more at work, engaged with officers to ask for help more often, and reported improved responses from staff when they did ask for help. Corrections staff reported increases in their use of FMI behaviors as well as in their belief and confidence in rehabilitation four months after receiving FMI training with the behavioral intervention. Covid-19 lockdowns at both prisons limited our ability to test the long term impacts of training.

Keywords: Prison, Correctional Officer, Incarceration, Infractions, FMI
JEL Classification: K42, C83

*Chalmers (jennifer.chalmers@cusomerservice.nsw.gov.au) is a Senior Data Analyst at the New South Wales Behavioral Insights Unit. Ledger (Selena.Ledger@customerservice.nsw.gov.au) is a Senior Data Analyst at the New South Wales Behavioral Insights Unit. Lee (leelogan@grinnell.edu) is an associate professor at Grinnell College. Power (clare.power@customerservice.nsw.gov.au) is a Manager at the New South Wales Behavioural Insights Unit. Rebar (a.rebar@cqu.edu.au) is an associate professor at Central Queensland University. The authors thank Corrective Services New South Wales, Australia for providing data and vast institutional knowledge. They also thank seminar participants at the Midwest Economics Association annual meetings for helpful feedback. Any remaining errors are our own. This research was generously supported by an American Philosophical Society Franklin Research Grant.

1 Introduction

A myriad of studies have explored the impacts of programs offered to prisoners during incarceration. In general, studies set in either the United States or in New South Wales, Australia (NSW) are pessimistic about the ability of these programs to achieve meaningful improvements in prisoner outcomes (Wilson and Davis, 2006; Bouffard and Bergseth, 2008; Lee, 2019; Tran et al., 2021; Kim, 2022).[1] A different approach is to change the way in which prison staff and correctional officers are trained. This option has the potential to change a prison's culture from one in which inmates and officers sees each other as adversaries, to one in which positive relationships can be developed. Of course, this type of change could potentially benefit not only inmates, but staff as well. The current corrections model has led to widespread shortages of prison staff and "Correctional Officer" is among the most stressful and highest turnover jobs in the United States (Lambert et al., 2002; Walters, 2022; Ellison and Jaegers, 2022). Correctional Officers in Australia report similar experiences (Tounson and Pfeifer, 2017). If staff interactions with inmates could be more consistently positive, we may be able to improve outcomes for both inmates and staff.

We study whether giving corrections staff the tools to make interactions with prisoners more positive and rehabilitative leads to significant improvements. Specifically, the Five Minute Intervention (FMI) is a two-day training program that encourages prison staff to engage more positively and constructively during their brief interactions with incarcerated people. To do this, FMI training teaches corrections staff to build trust, confidence, and rapport, engage in active listening, give hope, use Socratic questioning, encourage inmates to seek reliable information, move from positive to negative, build commitment to change, roll with resistance, and both give and receive feedback. In this paper, we evaluate the impacts of this training as offered at two prisons in New South Wales, Australia in April of 2021. One of the two prisons in this study (the pilot site) was given a modified version of the

[1] Zhang et al. (2021) found that two programs targeted at domestic violence offenders in NSW were effective at reducing future instances of both domestic violence and reoffending overall.

original FMI training which used insights from psychology and behavioral economics.This was designed by the New South Wales (NSW) Behavioural Insights Unit, a team based in the NSW Government that uses behavioral science to improve the effectiveness of public services and public policy. These changes aimed to make the behaviours taught through training habitual for staff. Another prison (the comparison site) was originally expected to receive the training without this additional behavioral intervention. Unfortunately, due to lockdowns associated with the COVID-19 pandemic, FMI training was not made widely available in this prison until after our sample window had closed. While some staff at this facility did receive FMI training (without the behavioral intervention) in April of 2021, more than half did not, limiting our ability to make comparisons across sites.[2]

We use many different sources of data in order to understand more fully whether FMI training, inclusive of the behavioral intervention, significantly improved outcomes. Specifically, we use weekly infractions data, individual level administrative data, and survey responses from both prisoners and staff at both prisons. This combination of sources allows us to measure differences both in individuals' perceptions of how things had or had not changed and in observable behavior at each prison. We use a variety of methods to pull together these disparate sources of data into a single narrative, but throughout the analysis, four issues receive particular care.

First, any analysis during this period is complicated by the COVID-19 pandemic. Both prisons experienced lengthy lockdowns during or shortly after training which dramatically impacted life and attitudes in each prison. Lock downs were enforced for a longer period of time at the comparison site than at the pilot site. Where possible, we use the prison that largely did not receive the training as a comparison group to understand the impacts of pandemic related stressors on behavior. That being said, the point of FMI training is to encourage corrections staff to use short, face to face interactions with inmates to achieve positive change. To the extent that COVID-19 reduced the frequency, length, or nature of

[2]The modified version of the training that includes handouts and other techniques to improve accessibility and retention has now been adopted more broadly and is being rolled out across New South Wales.

these interactions (e.g., masked vs unmasked), the positive impacts of FMI training may be underestimated in this research.

Second, it must be noted that the existing culture at the treated prison was more amenable to the principles espoused in FMI training. To the extent that what matters is a cultural change throughout the prison, we expect that the prison treated with the behavioral intervention is somewhat more likely to experience that change given the culture.

Third, because the training was only offered to a few staff at one of the two prisons, we are limited in our ability to estimate the differential benefit of the behavioral intervention above and beyond the benefits of FMI offered alone. That being said, Corrective Services New South Wales has completed an evaluation of whether FMI training, exclusive of the behavioral intervention, improved outcomes (Barkworth et al., 2022). While the methodologies and data available in that study differ significantly from this research, some comparisons can be made which suggest at the additional impact of the behavioral intervention.

Finally, due to Covid-19 related lockdowns we were unable to collect data from either inmates or staff at the control site four months after training as we had originally intended. This prevents us from making direct comparisons between the long term impacts of FMI training with and without the behavioral intervention. Given that the primary purpose of the behavioral intervention was to make the skills learned in FMI training habitual and thus long lasting, our inability to make this comparison significantly limits our ability to make definitive statements about the efficacy of the behavioral intervention.

In the infractions data, we find suggestive evidence that FMI training, inclusive of the behavioral intervention, reduced infractions in the short term. Similarly, the administrative data suggests that inmates at the treated facility earned more "performance" hours at work than their counterparts at the untreated facility. These performance work hours are awarded when inmates are particularly productive during their shifts and may indicate improved relations between inmates and the staff in charge of the industry side of the treated prison. Inmates at the treated prison also report a significant increase in the frequency with which

they asked for help after the training occurred, and there is suggestive evidence that staff responded more positively to those requests.

When comparing staff survey responses from the pilot site with the limited responses from the comparison site, our results are largely statistically insignificant. That being said, the point estimates suggest improvements to staff job satisfaction, inmate relations, and staff belief in rehabilitation. Finally, we find increases in the frequency with which staff self-report using FMI consistent behaviors in interactions with inmates. Overall, these results suggest that FMI training has improved a broad range of outcomes for both prisoners and staff. Moreover, there is suggestive evidence that the additional behavioral intervention made the training more effective.

2 Background and Literature Review

The Australian correctional system is similar in many ways to its counterpart in the United States although there are a few key differences. First, Australia incarcerates a much lower percentage of its population than the US. Australia incarcerates 167 people per 100,000 while the United States incarcerates 629 people per 100,000 (*Incarceration Rates by Country 2023*, 2023). New South Wales is slightly below average within Australia and incarcerates 150 people per 100,000 (*Custody Statistics*, 2023). One implication of this is that the marginal prisoner in Australia has been convicted of a more severe crime than their U.S. counterpart. For example, drug offenders make up about 15% of Australia's prison population (and 15% of the NSW prison population), but they make up 45% of the US prison population (*Prisoners in Australia*, 2022; *Offenses*, 2023; *Custody Statistics*, 2023). Australia also invests more into their correctional system per prisoner than the United States. In fact, Australia has the fifth highest cost per prisoner-year in the world behind only Sweden, Norway, the Netherlands, and Luxembourg (Bushnell, 2017).[3] This investment has translated into a two-year recidi-

[3]Much of the cost of corrections comes from staffing. In NSW, staffing costs make up 80% of operating costs for prison budgets (Commission, 2021).

vism rate of 45% which is better, though not considerably better, than the US rate of 53% (*Released Prisoners Returning to Prison*, 2021; Durose and Antenangeli, 2021). News South Wales experiences less recidivism than the rest of Australia with a two-year recidivism rate of just 31% (Pisani, 2022).

Perhaps the most relevant difference between US and Australian prisons for the purposes of this study is the average tenure and job satisfaction of their correctional officers. While national turnover rates in the US are difficult to find, Texas reported a 40% turnover rate among correctional officers in 2021 and twelve states reported having more than 20% of their correctional officers positions vacant in 2020 (Collier, 2022; Santo and Neff, 2020). This has significant, negative implications for the stability, training, and quality of correctional officers in the United States. In Australia, on the other hand, correctional officers in Australia are unionized and earn about $5,000 (in US dollars) more per year than U.S. officers. The median age of correctional officers in Australia is 49 while in the United States, it is 40 (*Corrections IRC Skills Forecast: Key Findings Discussion Paper 2017*, 2017; *Correctional Guard Demographics and Statistics in the US*, 2023).

In both the United States and in Australia, correctional officers are expected to carry out a variety of functions to facilitate the smooth operation of the prison. These include managing inmates, maintaining safety and security, managing special populations within the prison and, most relevant to this research, aiding in offender rehabilitation (Burton et al., 2018; Rafter, 2022). Prisons in both the United States and in NSW struggle with issues related to staff absences. This, in turn, limits the prison's ability to provide inmate benefits like time out of cell and access to services (Rafter, 2022).

We know relatively little about the role of correctional officer training in shaping prison culture or it's interaction with a variety of important outcomes ranging from officer job satisfaction and retention to inmate infractions and recidivism. Burton et al. (2018) use a national survey to understand the training received by correctional officers in the United States. They found that training for correctional officers varies considerably across the United States with

one state requiring less than 100 hours of training while others required more than 300 hours of training. Most states also have required annual in-service training for an average of 39 hours per year. US states universally reported training their officers in things like security, use of force, and area, cell, and body searches. On the other hand, less than half included rehabilitative tasks in their training and only a third included a Risk-Needs-Responsivity (RNR) module in their training. Correctional officer training in New South Wales is more extensive than the training offered in the United States although the topics covered are similar. There, new officers are given 9 weeks (342 hours) of training that includes "Organizational Administration and Management, Safety and Security, Offender Management, Weapons and Officer Survival and Escorting of Offenders" (*Correctional Officer Training*, 2022).

Despite the lack of training in rehabilitation and de-escalation, correctional officers have long recognized their importance in achieving rehabilitation (Teske Jr and Williamson, 1979). While other prison staff have limited time and relatively few interactions with inmates, correctional officers are with prisoners for a majority of their working hours. They thus have a unique opportunity to form relationships and interact positively with inmates. Recent research has explored the individual and institutional factors that can influence the quality of relationships between inmates and staff. For example, Logan et al. (2022) find that inmates who had been victimized, received less support, and/or participated in treatment programs had more negative views of correctional officers and staff. Other research has explored the ways in which the role of correctional officers can be reformed to promote rehabilitation and reintegration and have come up with a variety of suggestions for achieving this goal (Johnson et al., 2016; Schaefer, 2018; Abdel-Salam et al., 2022). One of the most important, for the purposes of this research, is equipping officers in the use prosocial of communication techniques and encouraging them to form positive relationships with inmates (Ricciardelli and Perry, 2016; Burnett and McNeill, 2005).

FMI training incorporates this idea and encourages correctional officers and staff to use brief interactions with prisoners to inspire hope and motivate change (Tate et al., 2017). It

was originally developed in the UK and is now part of the national training program for prison staff there. The two day training gives corrections staff an opportunity to build important skills including Scoractic questioning, active listening, positive reinforcement, giving hope, and building trust, confidence, and rapport (Barkworth et al., 2022). Importantly, while the training itself only lasts two days for each participant, the goal of the program is to achieve a long-term improvement in the communication patterns between inmates and staff. Unlike programmatic interventions targeted at small groups of prisoners, which have a defined start and end date, FMI training has the potential to have a tangible effect on the entire prison population throughout each individual's sentence. An important feature of FMI training is that all staff, regardless of their role within the prison, receive the training. This helps to build a broad culture of rehabilitation throughout the prison as well as unifying all staff around a common goal.

The impacts of FMI training have been studied in both the UK and in Australia. In the UK, Kenny and Webster (2015) interviewed ten correctional officers who participated in a pilot version of the training. They observed improvements in the officers' ability to have rehabilitative conversations, improved relationships with prisoners, and increased job satisfaction. Tate et al. (2017) then interviewed ten prisoners who had interacted with FMI trained correctional officers. The prisoners reported that the FMI trained officers treated them with respect and were able to promote personal growth.

In Australia, unpublished research undertaken by the NSW Behavioural Insights Unit looked at survey data collected from staff and inmates at the pilot site over a four month period. They found that from before training to four months after training there was a statistically significant 10 per cent increase in the use of FMI behaviours by staff. At the pilot site alone, inmates did not report a change in staff behaviour four months after training, however they did report an increase in staff using sophisticated FMI skills. The study found that staff belief in rehabilitation increased by six per cent immediately after training, and then plateaued in the longer post-training period. Custodial staff only reported an increase

in motivation to rehabilitate of nine per cent. Overall, staff confidence to rehabilitate inmates did not increase.[4]

Finally, Barkworth et al. (2022) studied the roll-out of FMI training across New South Wales. They surveyed a much larger sample of staff (n=442) both before and six-weeks after FMI training in addition to a small sample of staff that did not receive training (n=26). The survey focused on staff attitudes in four key areas, attitudes towards prisoners, motivation and ability to support offender's rehabilitation, perceived reductions in job demands and stress, and overall job satisfaction. Barkworth et al. (2022) concluded that FMI training had been successful in improving staff's ability to support inmate's rehabilitative efforts. Specifically, they noted changes in staff attitudes towards prisoners and increases in motivation to help rehabilitate inmates but did not find a significant change in self-reported job satisfaction.

The study reported in this paper differs from the previous studies in a number of important ways. First, this research is the first to include objective measures of changes in prisoner behavior including infractions and performance work hours. Second, this study includes survey data from both inmates and staff in three periods: before training, two weeks after training, and four months after training. Third, in addition to directly asking staff and prisoners how they felt about a variety of questions, both groups were asked to recall details of specific, common occurrences within the prison and to report the extent to which the staff had exhibited behaviors consistent with FMI training in those instances. Fourth, while Barkworth et al. (2022) relied on group by time mixed model ANOVAs as the primary mode of analysis, we leverage the administrative data available in this case to estimate OLS regression models, employing a difference in differences identification strategy where appropriate.[5] This analytical approach allows us to control for a variety of potentially problematic confounding variables including issues related to the makeup of prisoners at each facility be-

[4]A summary of this study was presented at the Applied Research in Crime and Criminal Justice Conference 2023, the presentation can be viewed at: https://youtu.be/Db8BHpvNxUU?si=1Dbu2lCEkArgcC3G.

[5]The other two studies of FMI training, Kenny and Webster (2015) and Tate et al. (2017), were purely qualitative.

fore and after treatment and complications arising from the COVID-19 pandemic. Finally, FMI training, as given in the treated prison in this study, included a variety of behavioral interventions developed by the New South Wales Behavioral Insights Unit.

The additional interventions developed by the NSW Behavioral Insights Unit were designed to improve both the accessibility and retention of the FMI material and to encourage staff to continue using FMI skills. The ultimate aim of the interventions was to make FMI habitual. Building on the Lally and Gardner model of habit formation, the intervention promoted habit formation by showing staff exact FMI behaviors and when to use them (a cue) and then creating an environment that encouraged the repetition of these behaviors over time. Four behavioral interventions were introduced. Three of these interventions took place during the training while the fourth was introduced after training had been completed at the treated prison. The first intervention was a values affirmation exercise introduced at the beginning of training to prepare staff to learn new information which may run counter to their existing beliefs about prisoner rehabilitation. Second, habit and planning worksheets were distributed to staff throughout training. In completing these worksheets staff identified when and how they would put each FMI skill into practice. The worksheets contained prompts of common ways the skills could be used. Third, an FMI planning tool was distributed to staff at the end of training. Here, staff made a plan about how they would enact FMI next week at work. After training: an FMI commitment station was placed in the lobby of the correctional center to remind staff about FMI and show them it was an important part of center culture. On the station an identify prompt primed staff identity, which was tied to a descriptive norm about using rehabilitative behaviors. Staff were then asked to commit to how they would use FMI at work that day through voting tokens. Each of these additions sought to address a behavioral barrier that prevented staff from implementing FMI skills that the NSW Behavioral Insights Unit team identified during their fieldwork and were supported by recent research in psychology and behavioral economics. The NSW Behavioral Insights Unit also developed the staff and inmate surveys and collected much of the data

used in this research.

3 Data and Model

The data for this project come from two primary sources. First, all survey data were collected by the New South Wales Behavioral Insights Unit. Both inmates and corrections staff were surveyed at two maximum security prisons that housed exclusively male prisoners. The pre-treatment surveys were given in April and May of 2021. Staff were then surveyed again in May or June of 2021, on a rolling basis about two weeks after they had completed their training. Finally, both inmates and staff were surveyed in September of 2021, roughly four months after the training had occurred at the treated facility. The timing of survey distribution was designed to reflect when researchers hypothesized each of the behavioral interventions would be most impactful. Researchers hypothesized that the behavioral interventions would take 3-4 months to have full effect on staff. A limited number post-training surveys were collected at the comparison site as not all staff completed training there. No surveys were completed four months post training at the comparison site as researchers were unable to access the center due to Covid-19 lock-downs. Figure 1 shows the timing of the interventions and data collection at both the treated and untreated facilities.

Inmate surveys were done entirely in person on paper and were translated into digital files by either The Motivation of Health Behaviors Lab at CQ University in Rockhampton, Australia or by the New South Wales Behavioral Insights Unit. A total of 356 surveys were completed by inmates. This included 102 before treatment at the treated facility, 115 at after treatment at the treated facility, and 139 before treatment at the untreated facility.

Inmates were not surveyed after treatment in the untreated facility.[6] The staff surveys included both paper and online options. A total of 322 staff surveys were completed. Of these, 133 staff surveys were completed on paper while 189 surveys were completed online. We received 59 surveys from the treated facility before treatment occurred, 22 immediately following training, and 64 during from the follow-up survey that was given 4 months later. At the untreated facility, we have 42 surveys before treatment occurred and 26 immediately following training.[7]

Both inmate and staff surveys had a series of questions in which the respondent was asked about a specific, common situation and what happened in response. For example, prisoners were first asked how often they had asked a staff member for help over the past two weeks. If they responded that they had asked for help at least once, the survey asked them to think about the most recent time they asked for help and asked whether the officer had exhibited any or all of six specific behaviors; Gave information, told the inmate that they would speak with their manager about the issue, asked the inmate to do something to get an answer about the issue, asked a question about the issue, told the inmate it was not

[6]34 inmates either did not give an ID number or gave an ID number that could not be matched with the administrative data. These inmates could not be included in the analysis because we could not observe any control variables for them. Similarly, some prisoners failed to respond to some of the specific behaviors within situations that they had experienced. While many of these only responded with either a yes or a blank, allowing us to assume that the remaining behaviors did not occur, 5 inmates included yes, no, and blank responses within a scenario. These individuals were removed from the analysis. We also dropped the 13 inmates who had been at the prison less than two weeks at the time of the survey and the 35 inmates who indicated that none of the four situations we asked about had happened to them in the past two weeks. Finally, we drop 11 inmates that lived in a particular unit and were surveyed on May 12. These individuals were looking forward to celebrating Eid which included a BBQ feast. Survey responses among this group were overwhelmingly positive. After dropping these observations, we are left with our final analysis sample of 293 responses. Of those 84 are from the treated prison before treatment, 99 are from the treated prison after treatment, and 110 are from the untreated prison before treatment.

[7]As with the prisoner surveys, many of the staff surveys had to be dropped for a variety of reasons. Specifically, a total of 9 staff members indicated that they had not worked with prisoners in the previous 2 weeks. An additional 53 observations had to be dropped because the staff member indicated that they had not experienced any of the scenarios we asked about, did not give a usable response, or had not completed the training in the post-training period. After these drops, we have 40 usable responses at the treated prison before treatment, 19 at the treated prison immediately after treatment, 38 at the treated prison four month after treatment, 39 at the untreated facility before treatment, and 16 at the untreated facility immediately after treatment.

the officer's responsibility, and/or told the inmate they would follow up about the issue.[8] There are two important things to note about this example. First, two of the possible staff responses, "Escalate the request to your manager" and "Explain that the issue isn't your responsibility", were decoy responses that indicated behavior that was not consistent with FMI training. When calculating results, we reverse code responses to these questions such that staff that do not perform these behaviors will have a higher score than those that do them. Second, many of the behaviors measured here are not immediately recognizable as FMI skills. This was particularly important in the staff survey to prevent staff from simply responding in the ways they thought researchers wanted them to. The scenario portion of the staff survey was identical to the inmate survey except that questions were presented from the officer's perspective. In addition, officers were asked how frequently they had used each behavior over the past two weeks rather than whether they had used each behavior in the most recent incident.

In addition to the scenario questions, staff were asked a range of questions in four broad categories: job satisfaction, their belief in rehabilitation, their motivation to help rehabilitate inmates, and their confidence in their ability to encourage rehabilitation. The questions in each of these categories were gathered from well-established survey instruments. Specifically, the job satisfaction measure was constructed from the Brayfield and Rothe (1951) index. The belief in rehabilitation questions were borrowed from Cullen et al. (1989) while the motivation questions were drawn from Barkworth et al. (2022). Finally, the confidence scale questions were drawn from Bruner II (2019). Staff were also asked a series of questions establishing their level of experience both overall and at this facility and their role within the facility.

In addition to the survey data, information on inmate infractions as well as inmate characteristics were provided by Corrections Research Evaluation and Statistics (CRES), a branch of the News South Wales Correctional system. The administrative data included

[8]Some prisoners indicated that a particular scenario had occurred, but then answered neither yes nor no to some of the followup officer behavior questions. In these cases, we interpret a missing response to be a no. We have also done the analysis excluding these missing responses and the results are not meaningfully different.

information about all maximum security prisoners at either prison during the two week period leading up to the survey date for those prisoners (April 5, April 12, and September 13).[9] The infractions data indicated the number of maximum security prisoners at each facility each week as well as the total number of infractions committed during that week. Infractions were broken into four broad categories; violent, contraband, order, and property.

3.1 Empirical Model

Much of the analysis in this research can be done visually using bar graphs and other data visualizations. That being said, it is useful to know whether the differences that appear in those graphs are statistically significant, particularly after controlling for potentially confounding variables. For these results, we estimate a few different regression models with differences across models largely dictated by the available data.

Specifically, we first model the number of infractions per inmate each week. Because these data are only available at the prison by week level, we cannot include any individual level controls. Instead, we estimate the following regression model:

$$Infractions_{pw} = \beta_0 + \beta_1 * Treated_p + \beta_2 * Post_w + \beta_3 * Treated * Post_{pw} + X'_{pw}\Gamma + \epsilon_{pw} \quad (1)$$

Where $Infractions_pw$ represents the number of infractions per prisoner committed at prison p in week w. The key coefficient is β_3 which reports the interaction between the period after treatment ($Post_w$) and the treated prison ($Treated_p$). We control for a range of variables in X'_{pw} including the beginning of the COVID19 lockdowns in the prisons, the number of prisoners in each prison during each week, and flexible date controls.[10] Standard errors in this and all regression models are robust to heteroskedasticity.

We also test for significant differences in the activities of inmates at each facility before

[9] A few inmates at the treated prison were surveyed later, on May 13.

[10] The COVID 19 lockdown was still in effect in October of 2021, the end of our infractions data.

and after the training occurred. These data improve upon the infractions data by allowing me to have detailed, prisoner level information. On the other hand, we only have snapshots of the individual level prisoner data from two time periods, one in early April, and one in September. This makes it impossible to include time controls in the model or to fully account for the Pandemic lockdowns which were in place in both prisons during the second round of surveys. Instead, here we rely heavily on a difference in differences style approach. Essentially, we must assume that the impact of the pandemic (and other changes that may have occurred between April and September) affected both prisons equally and that both prisons were trending in similar directions before training began. Given these assumptions, we can estimate the effect of FMI training with the behavioral intervention by looking at the change in responses at the treated prison, relative to the change in responses at the untreated prison.[11] Note that this identification strategy does not require that relations between prisoners and staff are similar at the two prisons, only that that the interactions between prisoners and staff is not changing differently at each prison during the period leading up to treatment. Formally then, we estimate:

$$Activities_{it} = \alpha_0 + \alpha_1 * Treated_i + \alpha_2 * Post_t + \alpha_3 * Treated * Post_{it} + X_{it}^{'}\Gamma + \upsilon_{it} \qquad (2)$$

In this model, $Activities_{it}$ represents the number of hours spent on a particular activity during the previous two weeks. These activities include work hours and performance work hours (earned by inmates who are particularly productive during their work hours). $Treated_i$, $Post_t$, and $Treated * Post_{it}$ are similar to Equation 1 and reflect whether the inmate was in the treated prison, whether the survey was completed after treatment had occurred at the treated prison, and the interaction of these two variables. In this model we are able

[11]Recall, a few staff in the untreated prison were given FMI training, without the behavioral intervention, between April and September. In addition, at least one staff trained at the treated prison had moved to the untreated prison by September. In both cases, the impacts of this exposure to training should cause our results to underestimate the true benefit of FMI training.

to control for a variety of inmate characteristics in $X_{it}^{'}$. Specifically, we control for each participant's age, length of time in custody, instances of prior custody, length of time at this facility, race, and whether they participated in our survey.[12]

We also have information from inmates' responses to surveys given before and after training at the pilot prison. The survey questions fall under two broad categories. First, we estimate whether FMI training with the behavioral intervention caused inmates to have more interactions with staff. To do this, we simply took the number of times each inmate had asked a staff member for help over the past two weeks. Similarly, we estimate changes in the number of times in the prior two weeks an inmate had been annoyed with another inmate and a staff member asked them about it. In addition to these counts, we also look at the number of FMI consistent behaviors from staff during the most recent interaction of each type.[13] Unfortunately, because the inmate survey was given in both prisons in April, but only in the treated facility in September, we cannot leverage a difference in differences identification strategy to estimate the impacts of the training on prisoner perceptions. As such, while we present the results of the surveys in Figures, we do not attempt to estimate the changes formally with regression models. Essentially, the survey data give us no opportunity to account for the impacts of the pandemic lockdowns so we cannot be certain whether the observed changes are due to the training or to other factors.

Fortunately, staff were surveyed in at least a limited capacity both before and after training at both facilities.[14] Recall, there were a few staff at the untreated prison who participated in FMI training before the program was paused due to COVID-19. As with the staff at the treated facility, these staff were surveyed approximately two weeks after they

[12]The racial control in this model simply a dummy variable equal to one if the inmate is an Aboriginal or Torres Straight Islander. This is included because Aboriginal or Torres Straight Islanders are over represented in Australian prisons and they are commonly examined as a specific cohort for whom factors influencing incarceration and experience while incarcerated may be different.

[13]Inmates who reported no instances of a particular type were dropped from these models because they could not observe officer behaviors in this setting.

[14]Staff at the treated prison were surveyed three times. Before training, shortly after training, and four months after training. Staff at the untreated facility were surveyed only before and shortly after receiving the training.

had completed their training. Unlike the staff at the treated facility, staff at the untreated facility received the standard FMI training without the behavioral interventions.

Staff surveys were more detailed than inmate surveys. In addition to asking staff the frequency with which they dealt with a variety of specific situations and how they responded. The staff survey also included a number of questions dealing with job satisfaction, relationships with inmates, staff belief in rehabilitation, and the staff member's confidence in their ability to encourage rehabilitation. As such, we are able to formally estimate whether FMI training with the behavioral intervention impacted staff's self-reported interactions with inmates. On the other had, only staff who had completed the training at the untreated facility were included in the post-treatment surveys. Given this, the difference in differences estimates in this section do not represent the impact of training directly, but instead reflect the differential increase in performance caused by the behavioral intervention that was added to the FMI training at the treated facility. We estimate:

$$\begin{aligned} Response_{spt} = \lambda_0 + \lambda_1 Treated_{sp} + \lambda_2 Post_t + \lambda_3 Treated * Post_{spt} + \\ \lambda_4 Treated * Followup_{st} + \lambda_5 Hours_{st} + Z_s\Gamma + \upsilon_{spt} \end{aligned} \tag{3}$$

Where $Response_{st}$ is the response of staff member s in prison p at time t. The additional term, $Treated{*}Followup_{st}$ controls for responses on the follow-up survey at the treated facility, conducted four months after training had occurred. Importantly, this coefficient cannot be interpreted causally because we do not have similar survey results from the untreated facility during this period. As such, there is no way to know whether the observed changes are due to the training or due to other factors that have changed at the prisons over time. That being said, the coefficients on this term are still potentially interesting and may suggest long term benefits of FMI training that includes the behavioral intervention. Because we have repeated observations across surveys for some, but not all staff members, we include a

control for the number of hours each staff member had spent with inmates over the previous two weeks ($\lambda_5 Hours_{st}$) as well as a staff specific random effect ($Z_s\Gamma$).

4 Results

4.1 Administrative Data

We first consider whether FMI training with the behavioral intervention had any impact on inmate infractions, using weekly, facility level administrative infractions and population data. In Figure 2, we plot the average number of people incarcerated in each facility during each week from December 31, 2018 to October 31, 2021. Populations in both prisons shifted during this period with the most dramatic change being the significant reduction in the number of people at the treated facility near the end of 2020. During this period, the average weekly population at the treated facility fell nearly 40% as a results of the broader impact of Covid-19 on the criminal justice system. Importantly, these prisoners were not sent from the treated to the non-treated facility. Instead, the non-treated facility experienced a similar, though less dramatic population decrease at the same time.

4.1.1 Infractions

In an effort to mitigate the impact of prison populations over time, all analyses using infractions considers the number of infractions per prisoner-week.[15] For example, In Figure 3, we plot the number of monthly infractions per prisoner. This number is demeaned by month of the year to deal with the significant seasonality we observe in infractions data. Figure 3 shows that infractions fell in the treated facility during the training. In addition to falling relative to the baseline infraction rate at the treated facility, we also see a large spike in

[15] Of course, simply dividing the number of infractions by the number of prisoners does not fully account for impacts such as reduced crowding or an improved staff/inmate ratio. Fortunately, as can be seen in both Figures 2 and 3, the population decreases happened well before treatment began and the population of both prisons was relatively stable during and immediately following the training.

infractions during that month at the untreated facility. This spike is likely unrelated to FMI training and instead represents a single, significant event at the control prison. Unfortunately, this makes it more difficult to estimate the impact of FMI training on infractions. In any case, any reductions in infractions at the pilot prison appear to have been short lived. Shortly after training ended, COVID-19 related lock-downs were introduced and infractions at both facilities returned to their long-term levels.

This finding is broadly supported by Table 1. There, we see that, even with careful controls for dates generally and the COVID-19 lockdown specifically, the training at the treated facility appears to have significantly reduced infractions for a short time. Of course, much of this estimated decrease is coming from the absence of an increase in infractions during a time when infractions were increasing dramatically at the untreated prison. This is highlighted in Column 5 of Table 1 where we exclude the untreated prison entirely and estimate results using only the treated facility. This implies we are identifying the impact of training using only variation in infractions over time. Using this methodology, we find no evidence that FMI training impacted infractions.

One goal of FMI training is to increase engagement between correctional officers and inmates. This should be expected to reduce some types of infractions, such as order infractions, more than others. Improvements in staff/inmate relationships due to the training may even lead to more effective policing and a short term increase in things like contraband infractions as a higher fraction of those infractions are caught. To examine this possibility, in Table 2 we break out infractions into 4 categories; Assault, Contraband, Order, and Property. There are at least two important takeaways from the Table. First, Order infractions are much more common than the other types of infractions. In fact, order infractions make up more than 50% of total infractions at each facility. Second, as expected, the overall decrease in infractions observed in Table 1 was almost entirely caused by decreases in order infractions. We do not observe significant changes in any other type of infractions.[16]

[16]Figure A1 in the Appendix reproduces Figure 1 for each of the four types of infractions.

4.1.2 Work Hours

Infractions are sufficiently rare that they may not capture even relatively large improvements in prison culture. To explore whether prison culture might be improving in ways that are not observable through infraction data, we next consider other administrative data that may speak to the impacts of FMI training. Recall, these administrative data represent snapshots in time. Specifically, we observe the number of hours each inmate spent working during two weeks in April and two weeks in September of 2021. We also observe "performance" work hours during these periods. Performance work hours are hours of work in which the inmate performed well enough, in the opinion of the supervising staff, to earn additional pay for that hour.

The results of this analysis can be found in Figure 4. In Panel A, we see that inmates at both the treated and untreated facilities increased their work hours in the aftermath of FMI training. Perhaps more importantly, Panel B of Figure 4 demonstrates that performance work hours (work hours during which the inmate was performing above expectations) increased in the treated facility after training but were largely unchanged in the untreated facility. Because the staff supervising workers were also required to participate in FMI training, this may indicate that the training helped inmates and staff maintain positive relations even during a difficult and stressful period of incarceration as COVID-19 lockdowns had been implemented by this time.

Once again, the visual results match our conclusions even when carefully controlling for a wide variety of potentially confounding variables. In Table 3, we find that both work and performance hours increased substantially between April and September. Moreover despite work hours increasing three times as much at the untreated facility as they did at the treated facility, the treated facility actually experienced an increase in performance hours that was nearly twice as large as that experienced in the untreated facility though this result is only statistically significant at the 10% level. As in Table 1, we also estimate our results while using data only from the treated prison. Specifically, In Columns 3 and 4 of Table 3 we

estimate whether work and performance hours increase at the treated facility after FMI training. As in Columns 1 and 2, we find strong evidence that both total work hours and performance work hours increased following FMI training.

4.2 Inmate Survey

Another place to look for changes in culture is in the survey responses of both prisoners and staff. We first turn to the prisoner surveys. Importantly, due to COVID-19 lockdowns and other complications at the untreated prison, we do not have post-treatment survey results from inmates at the untreated facility. This makes a direct comparison with changes in the treated prison difficult. Panel A of Figure 5 illustrates the number of times the average respondent reported asking for help from a correctional officer or staff member in the previous two weeks. The first column represents responses from the treated prison before treatment in April, the second column is responses from the treated prison after treatment in September, and the third column is responses from the untreated prison in April. Encouragingly, FMI training appears to have increased engagement between inmates and staff with the number of requests for help per week increasing by 32%.

Recall, if inmates had asked a staff member for help at least one time in the previous two weeks, they were then asked whether correctional officers and staff displayed any of six behaviors during the interaction. Of these behaviors, four were considered positive and were part of FMI training while the other two were negative behaviors. In Panel B of Figure 5, we reverse code the negative responses (so that a "no" response is coded as 1 and a "yes" response is coded as a 0) and plot the average value of the summed responses during subjects' most recent interaction. We find that staff were 10% more likely to use positive behaviors when dealing with inmate requests for help after receiving FMI training with the behavioral intervention. It is worth highlighting that this finding comes from the perceptions of inmates and thus is not driven by staff simply responding to surveys in the ways they expect researchers want them to after receiving the training.

4.3 Staff Survey

Finally, we turn to the staff survey results. While there is significant value in seeing the ways in which staff training filtered though to inmates, no analysis of staff training would be complete if it ignored the direct impact of the training on the actions and opinions of the staff. Staff were asked two broad categories of questions. First, staff were given a series of scenarios, similar to those presented in the inmate surveys, and were asked to indicate how often they performed each of six unique behaviors in those scenarios. For each scenario, four of the six behaviors were consistent with FMI training, while the other two were not. Second, staff were directly asked a number of questions in four broad categories. These categories were; 1) job satisfaction, 2) belief in rehabilitation, 3) motivation to rehabilitate inmates, and 4) confidence in their ability to rehabilitate.

4.3.1 Staff use of FMI Behaviors

Staff surveys were given three times at the treated facility and twice at the untreated facility. Staff at both facilities took a pre-treatment survey in April. Then, staff at both facilities took the survey again about two weeks after they had completed their training. These surveys were taken in late April or May. Importantly, because training was not completed at the untreated facility, we observe this second round of surveys for only a selected sample of staff who were given the training relatively early in the process at the untreated facility. To the extent that these staff are not representative of staff at the untreated facility as a whole, this may bias our estimates of the impacts of training. Finally, staff at the treated facility were surveyed a third time in September.

Each staff member was given three distinct scenarios that commonly occur in prisons. Of these, two scenarios were common across all staff and one specifically dealt with an issue related to that staff member's role within the prison.[17] After explaining each scenario, staff

[17]There was one additional scenario in the first round of the survey. It was dropped on subsequent surveys because few staff indicated that they had experienced a similar situation. Responses from the dropped scenario are not included in this analysis because we do not observe responses after training had occurred.

were asked the number of times they had encountered a similar situation in the previous two weeks. If staff indicated that they had experienced a similar situation at least once, they were asked how frequently they used each of six possible responses. Importantly, the possible responses did not overlap or contradict each other. Said differently, it would be reasonable for an officer to indicate they had used none of the six responses, all of them, or anything in between.

In order to consider staff behavior cumulatively, we calculate the sum of the six possible responses for each scenario weighted by the fraction of situations in which prison staff indicated they had used FMI behaviors.[18] We reverse code the two possible responses in each scenario that are not consistent with FMI training and include them. As such, a "perfect" score for a particular scenario would be six. This would indicate that the officer used all four FMI behaviors every time they were confronted with the described situation and that the officer never used either of the two non-FMI behaviors in the described situation. Figure 6 presents the average score for each survey group across scenarios. We observe some evidence that the FMI training increased self reported staff usage of FMI behaviors immediately after training at both the treated and untreated facilities. Even more encouraging, these improvements appear to have been long lasting with staff at the treated facility reporting statistically significant increases four months after training had occurred.

Column 1 of Table 4 mirrors Figure 6, but includes staff level random effects as well as a control for whether the staff took the survey online.[19] We find weak evidence that FMI training, inclusive of the behavioral intervention, improved staff interactions with inmates in the long run. Unfortunately, we do not have survey results from four months after training at

[18]For example, if an officer indicated that they had used a particular behavior every time they were faced with a specific scenario, their value for that behavior in that scenario would be 1. If, one the other hand, the officer answered that they used this behavior most of the time, their value was entered as 0.67.

[19]It may be the case that certain staff members respond to these questions differently due to unobservable factors that are not associated with training. Unfortunately, the vast majority of staff in our survey did not complete all three surveys at the treated facility. Of the 69 staff members at the treated facility that completed at least one survey, only 5 completed all three. Similarly, of the 51 staff members at the untreated facility that completed at least one survey, only 4 completed both surveys. This prevents us from doing any sort of analysis that examines how individual staff members' answers changed over time or from including staff level fixed effects in our analysis.

the untreated facility. As such, we are unable to observe whether the impacts of FMI training continued to increase (or even remained) at that facility in the long run. Given the focus on retention and follow up measures that were unique to the version of FMI training offered at the treated facility, it is reasonable to believe that the treated and untreated facilities may have substantially diverged four months after treatment. In Columns 2 and 3, we break out staff responses by scenario for the two scenarios that applied to all staff.[20]

As in previous tables, we also estimate results using only the treated facility. In Columns 4, 5, and 6 of Table 4, we estimate the impacts of FMI training on the treated facility only. As in Column 1, we find weak evidence that the training improved staff and inmate relations.

4.3.2 Enablers of staff use of FMI behaviors

We expect that staff confidence, belief and motivation towards rehabilitation are all factors that predict staff would be better able and more likely to use FMI at work. This would also impact their job satisfaction as a safer work environment would be created. To assess how staff feel about their jobs before and after receiving FMI training, in Figure 7, we sum the responses of each staff member across all questions in each of the indicated categories. For example, the "Job Satisfaction" category is made up of five questions including; "I definitely dislike my job at the moment", "Most days I am enthusiastic about my job", "I like my job better than the average worker does", "I find real enjoyment in my job", and "I feel fairly well satisfied with my job". For each statement, staff were prompted to respond "Strongly disagree", "Disagree", "Uncertain", "Agree", or "Strongly Agree". Each of these responses was assigned a value of 1-5 respectively, and the five responses for each subject were summed. As in the staff and inmate scenarios, negatively framed questions (eg. "I definitely dislike my job at the moment") were reverse coded.

Panel A of Figure 7 presents results for Job Satisfaction. We see some evidence that

[20] A few staff members took the same survey more than once. In these cases, the most complete response was included while the other was dropped. Where both surveys were complete, the first survey response was taken.

FMI training improved job satisfaction immediately following training at the treated facility. Encouragingly, Panels B and C show that staff are more interested in developing and maintaining positive relationship with inmates and that they have more belief in rehabilitation after receiving FMI training, particularly immediately after training. In Panel D, we see a similar pattern for staff confidence in their ability to encourage rehabilitation. As a final takeaway, it appears that the behavioral intervention did not have a significant impact on the short term impacts of FMI training on staff attitudes. We observe similar changes in staff attitudes in three of the four categories in the short term in both prisons.

Once again, we formalize the visual evidence in Table 5. In Panel A, we present a model identified using a difference in differences framework that estimates whether FMI training with the behavioral intervention influenced staff attitudes differently that FMI training without the behavioral intervention. In general, the behavioral intervention does not appear to have differentially improved staff attitudes. On the other hand, coefficient estimates in three of the four columns indicated larger changes in staff attitudes in the short term and the point estimates in all four columns suggest that staff attitudes continued to improve over time in the prison with the behavioral intervention. In Panel B, we present results for the treated prison alone. Here, we find marginally significant evidence that the training increased staff belief in and confidence to encourage rehabilitation.

5 Discussion and Conclusion

Overall, the results paint an encouraging picture of the potential for FMI training to improve inmate/staff relationships and potentially even reduce infractions. Moreover, both the staff and inmate survey results suggest long lasting improvements in inmate/staff interactions at the prison that also received the behavioral intervention. Given that these changes are being observed among staff after just two days of training, FMI, and perhaps corrections staff training more generally appear to be a promising avenue to improve inmate outcomes

while reducing staff frustration and turnover.

We also find suggestive evidence that the behavioral intervention developed by the NSW Behavioral Insights Unit was effective in improving the usability and retention of the training, as well as promoting its long-term use. The results observed at the treated facility here compare favorably with the results from a broader study of FMI training completed by Corrective Services NSW. Specifically, Barkworth et al. (2022) surveyed corrections staff both before and six weeks following training and found that exposure to the training improved self reported staff attitudes towards prisoners by 7%, staff motivation to support offender rehabilitation by 5%, and staff ability to support offender rehabilitation by 12%. While neither the questions available in our survey nor the timing of the surveys are identical to Barkworth et al. (2022), our results suggests that exposure to FMI training including the behavioral intervention immediately improved staff's self reported job satisfaction by 10%, motivation to rehabilitate by 3%, belief in rehabilitation by 5%, and staff confidence in their ability to encourage rehabilitation by 11%. More importantly, four months after training had occurred, staff reported an increase relative to baseline of 11% for job satisfaction, 6% for motivation to rehabilitate, 7% for belief in rehabilitation, and 13% for confidence in their ability encourage rehabilitation. While it must be noted that these observed changes are not all statistically significant, it is also worth highlighting that the long run changes are consistently as large if not larger than the improvements observed when training was offered without the behavioral intervention.

This is an area ripe for future research. At the moment, there are many unanswered questions about the role of correctional officer and staff training in improving inmate outcomes. This includes the eventual impacts of FMI training on recidivism rates, whether deescalation and rehabilitation training can be effective if incorporated more fully into each officer's basic training, and the extent to which training can change prison culture in a way that reinforces and promotes positive interactions with prisoners. Future researchers should look for opportunities to work closely with correctional facilities over extended periods in

order to fully assess the impacts of training on a wide spectrum of important outcomes.

References

Abdel-Salam, Sami, Michael E Antonio, Michele P Bratina, and Ashley Kilmer, "Rapport and relationship building in a therapeutic community: Examining the dynamic between correctional officers and incarcerated persons," *Criminal Justice Policy Review*, 2022, p. 08874034211069097.

Barkworth, Julie, Jude Lobo, Yatin Mahajan, and Mark Howard, "Five Minute Interventions (FMI): Short-term effects of training on staff attitudes towards prisoners, motivation and ability to support rehabilitation, and job stress and satisfaction," *NSW Government Research Bulletin*, 2022.

Bouffard, Jeffrey A and Kathleen J Bergseth, "The impact of reentry services on juvenile offenders' recidivism," *Youth Violence and Juvenile Justice*, 2008, *6* (3), 295–318.

Brayfield, Arthur H and Harold F Rothe, "An index of job satisfaction.," *Journal of applied psychology*, 1951, *35* (5), 307.

Burnett, Ros and Fergus McNeill, "The place of the officer-offender relationship in assisting offenders to desist from crime," *Probation journal*, 2005, *52* (3), 221–242.

Burton, Alexander L, Jennifer L Lux, Francis T Cullen, William T Miller, and Velmer S Burton Jr, "Creating a model correctional officer training academy: Implications from a national survey," *Fed. Probation*, 2018, *82*, 26.

Bushnell, Andrew, "Australia's Criminal Justice Costs: An International Comparison," *Institute of Public Affairs*, 2017.

Collier, Lisa R., "An Annual Report on Classified Employee Turnover for Fiscal Year 2021," Technical Report 2022.

Commission, Australia Government Productivity, "Australia's prison dilemma," 2021.
Correctional Guard Demographics and Statistics in the US

***Correctional Guard Demographics and Statistics in the US**, Zippia, 2023.*
Correctional Officer Training

Correctional Officer Training, Technical Report 2022.
Corrections IRC Skills Forecast: Key Findings Discussion Paper 2017

***Corrections IRC Skills Forecast: Key Findings Discussion Paper 2017**, Australian Industry Standards, 2017.*

Cullen, Francis T, Faith E Lutze, Bruce G Link, and Nancy Travis Wolfe, *"The correctional orientation of prison guards: Do officers support rehabilitation," Fed. Probation, 1989, 53, 33.*
Custody Statistics

Custody Statistics, March 2023.

Durose, Matthew R. and Leonardo Antenangeli, "Recidivism of Prisoners Released in 34 States in 2012: A 5-Year Follow-Up Period (2012-2017)," *U.S. Dpartment of Justice Special Report*, 2021.

Ellison, Jared M and Lisa A Jaegers, "Suffering in silence: violence exposure and post-traumatic stress disorder among jail correctional officers," *Journal of Occupational and Environmental Medicine*, 2022, *64* (1), e28–e35.

II, Gordon C. Bruner, *Marketing Scales Handbook: Multi-Item Measures for Consumer Insight Research, Volume 10*, Vol. 10 2019.
Incarceration Rates by Country 2023

***Incarceration Rates by Country 2023**, World Population Review, 2023.*

Johnson, Robert, Ann Marie Rocheleau, and Alison B Martin, *Hard time: A fresh look at understanding and reforming the prison, John Wiley & Sons, 2016.*

Jr, Raymond HC Teske and Harold E Williamson, *"Correctional officers' attitudes toward selected treatment programs," 1979.*

Kenny, Tom and Stephen Webster, *"Experiences of prison officers delivering Five Minute Interventions at HMP/YOI Portland," NOMS Analytical Summary, 2015.*

Kim, M.T., *"Estimating the effectiveness of the High Intensity Program Units on reoffending," Crime and Justice Bulletin No. 250, 2022.*

Lambert, Eric G, Nancy Lynne Hogan, and Shannon M Barton, *"Satisfied correctional staff: A review of the literature on the correlates of correctional staff job satisfaction," Criminal Justice and Behavior, 2002, 29 (2), 115–143.*

Lee, Logan M, *"The impact of prison programming on recidivism," Corrections, 2019, 4 (4), 252–271.*

Logan, Matthew W, Cheryl Lero Jonson, Shelley Johnson, and Francis T Cullen, *"Agents of change or control? Correlates of positive and negative staff-inmate relationships among a sample of formerly incarcerated inmates," Corrections, 2022, 7 (3), 175–195.*
Offenses

***Offenses**, Federal Bureau of Prisons*, 2023.

Pisani, Amy, *Long-term re-offending rates of adults and young people in NSW*, Vol. 162 2022.
Prisoners in Australia

***Prisoners in Australia**, Australian Bureau of Statistics, 2022.*

Rafter, Fiona, *"Inspector of Custodial Services: Inspection fo Lithgow Correctional Centre 2021," NSW Government, 2022.*
Released Prisoners Returning to Prison

Released Prisoners Returning to Prison, *Sentencing Advisory Council*, 2021.

Ricciardelli, Rose and Kelsea Perry, "Responsivity in practice: Prison officer to prisoner communication in Canadian provincial prisons," *Journal of Contemporary Criminal Justice*, 2016, *32* (4), 401–425.

Santo, Alysia and Joseph Neff, "Mississippi Prisons: No One's Safe, Not Even the Guards," *The Marchall Project*, 2020.

Schaefer, Lacey, "Correcting the "correctional" component of the corrections officer role: How offender custodians can contribute to rehabilitation and reintegration," *Corrections*, 2018, *3* (1), 38–55.

Tate, Hayley, Nicholas Blagden, and Ruth Mann, "Prisoners' perceptions of care and rehabilitation from prison officers trained as Five Minute Interventionists," *HM Prison & Probation Service*, 2017.

Tounson, Justin S. and Jefferey E. Pfeifer, "Corrections officer wellbeing: Training challenges and opportunities," *Practice: The New Zealand Corrections Journal*, 2017, *5.*

Tran, Nhat Le, Zhigang Wei, and Mark Howard, "Impact Evaluation of the Gurnang Life Challenge Specialised Program for Young Adult Male Offenders in NSW," *Research Publication*, 2021.

Walters, Glenn D, "Getting to the source: How inmates and other staff contribute to correctional officer stress," *Journal of Crime and Justice*, 2022, *45* (1), 73–86.

Wilson, James A and Robert C Davis, "Good intentions meet hard realities: An evaluation of the Project Greenlight reentry program," *Criminology & Public Policy*, 2006, *5* (2), 303–338.

Zhang, Yun, Zhigang Wei, Mark Howard, and Jennifer Galouzis, "Evaluation of EQUIPS treatement pathways for domestic violence offenders in New South Wales," *Research Publication*, 2021.

6 Tables and Figures

Figure 1: Project Timeline

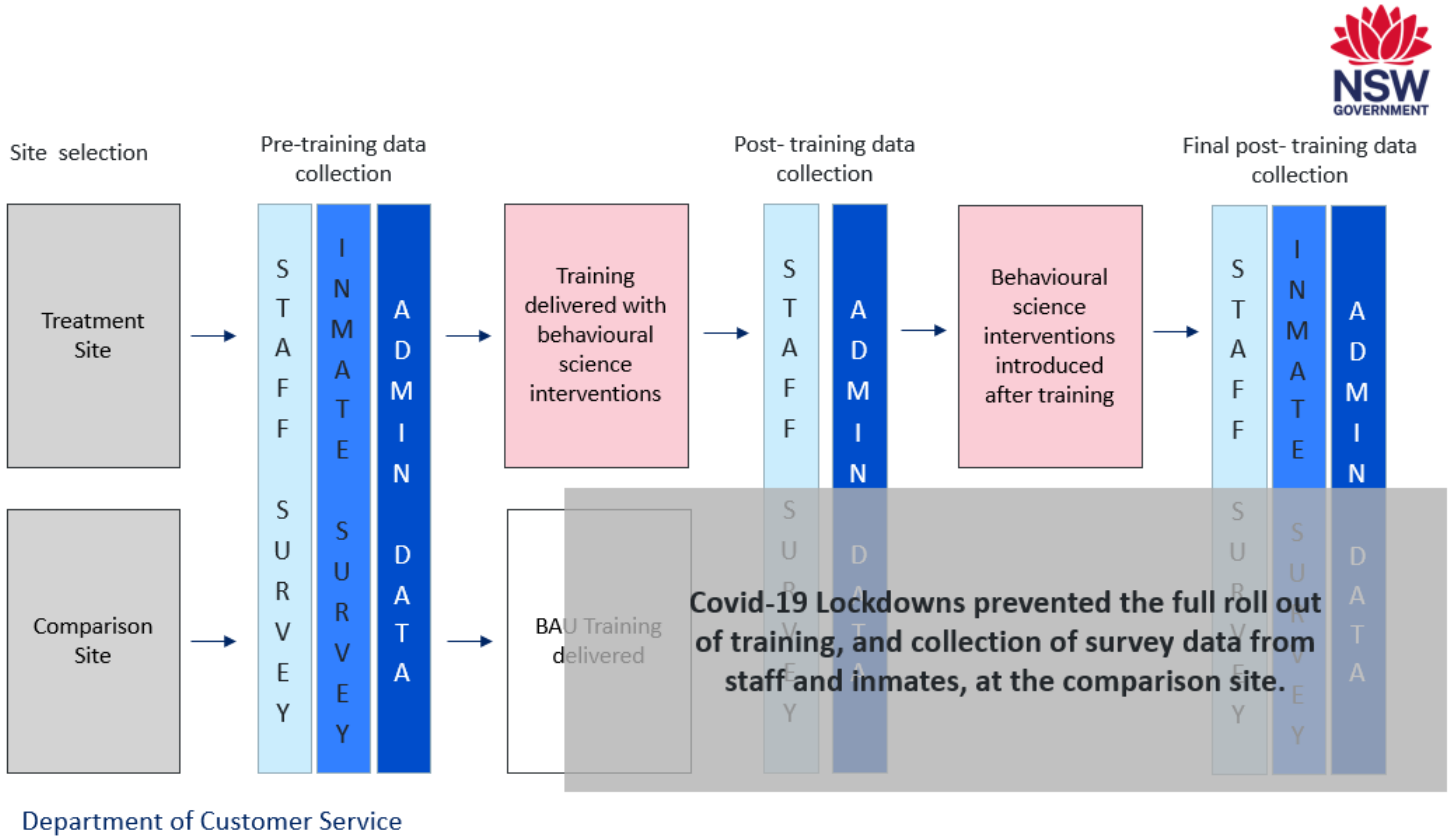
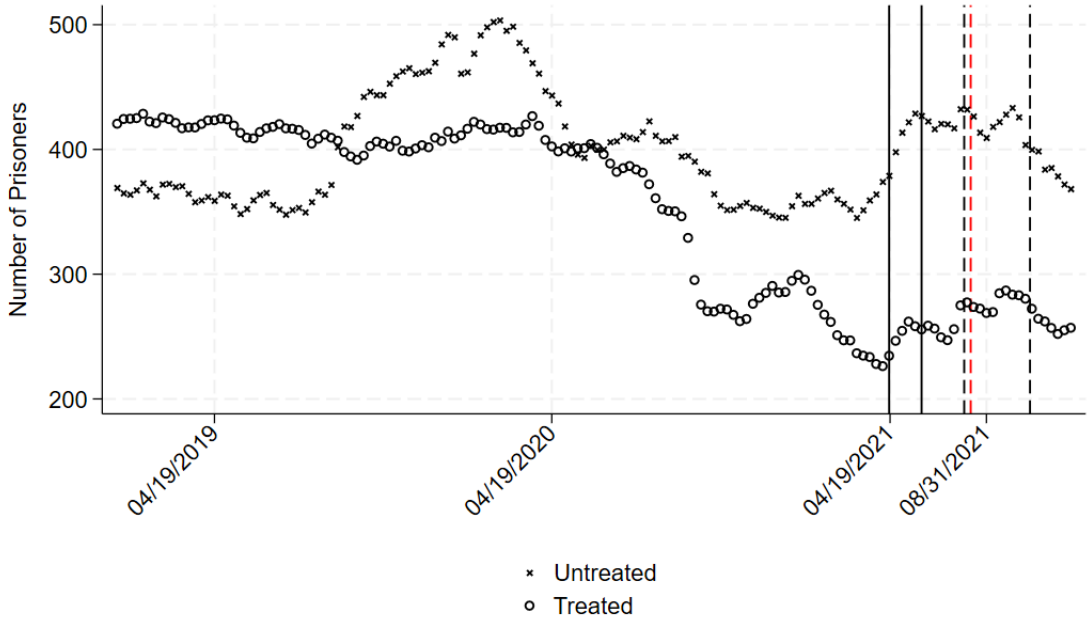
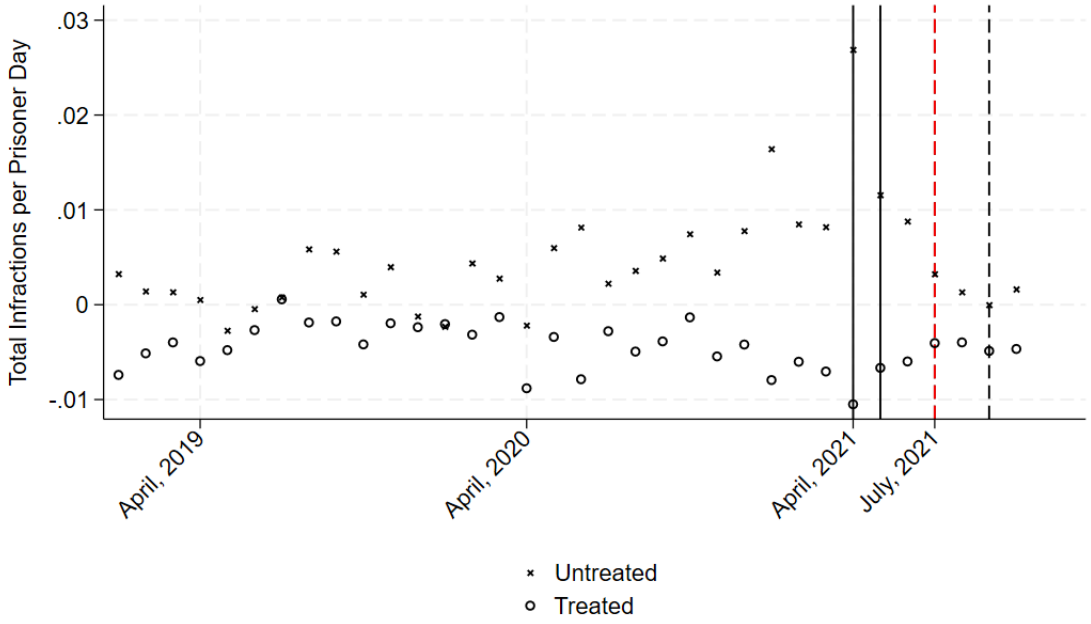


Figure 2: Number of Prisoners Over Time



Notes: Each point is the average number of maximum security prisoners in the indicated prison in a particular week. The two solid vertical lines represent the start and end of FMI training at the treated facility. The untreated facility also began training on April 19th, but takeup rates were generally low and the training was still incomplete when it was halted in June. The dashed black lines represent the start and end dates of the post training intervention. The dashed red line indicates the beginning of widespread COVID-19 lock-downs in New South Wales. These lock-downs included a temporary pause on all in-person visitation and inmate programming.

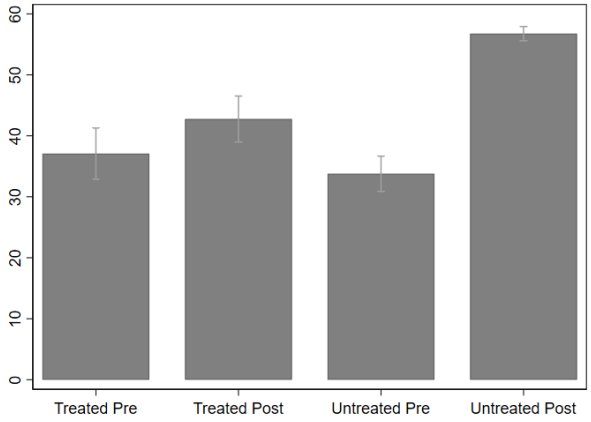
Figure 3: Infractions By Month



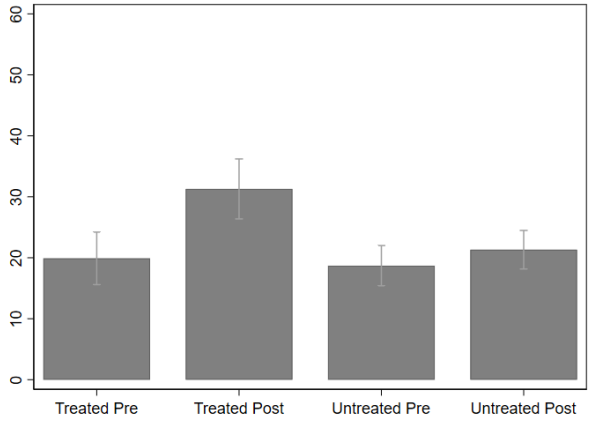
Notes: Each point is the number total number of infractions per prisoner-day committed in the indicated prison in a particular month. All values have been scaled by the average number of infractions in that month across years. The two solid vertical lines represent the start and end of FMI training respectively. The dashed red line indicates both the beginning of widespread COVID-19 lock-downs in New South Wales and the beginning of the post training intervention as both started in July of 2021. The lock-downs included a temporary pause on all in-person visitation and inmate programming. The dashed black line represents the end date of the post training intervention.

Figure 4: Inmate Administrative Results

Panel A: Hours Worked



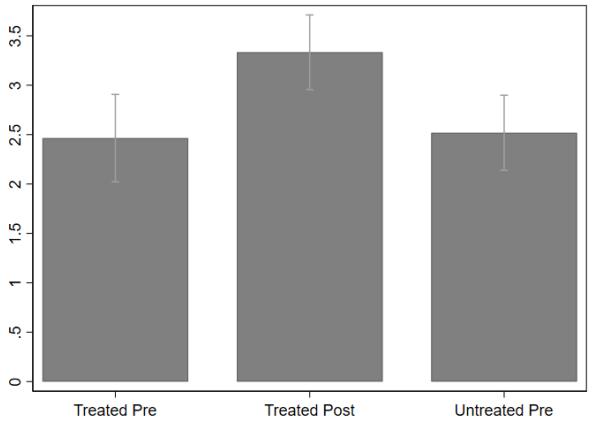
Panel A: Performance Work Hours



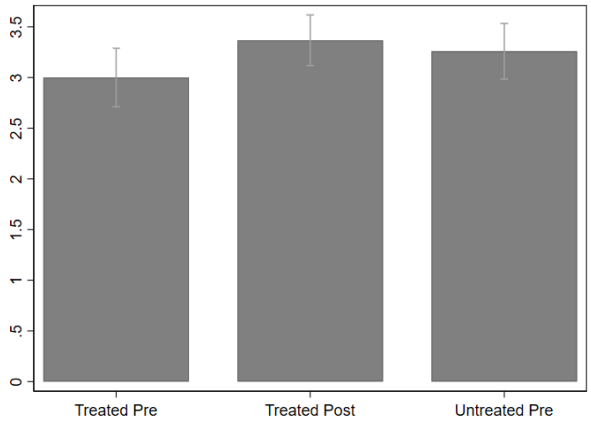
Notes: Each panel presents the total number of hours that an inmate spent in a particular activity or place during the two weeks preceding the survey. Column 1 shows the hours in the treated facility before treatment, Column 2 shows the number of hours in the treated facility after treatment, Column 3 shows the number of hours in the untreated treated facility in the pre-treatment period, and Column 4 shows the number of hours in the untreated facility in the post-treatment period. The vertical lines accompanying each bar indicate 95% confidence intervals.

Figure 5: Inmate Survey Results

Panel A: Requests for Help

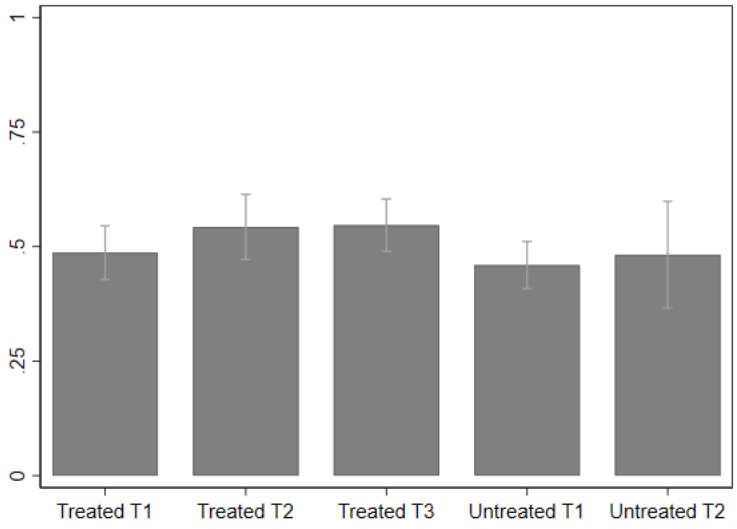


Panel B: Number of Good Responses



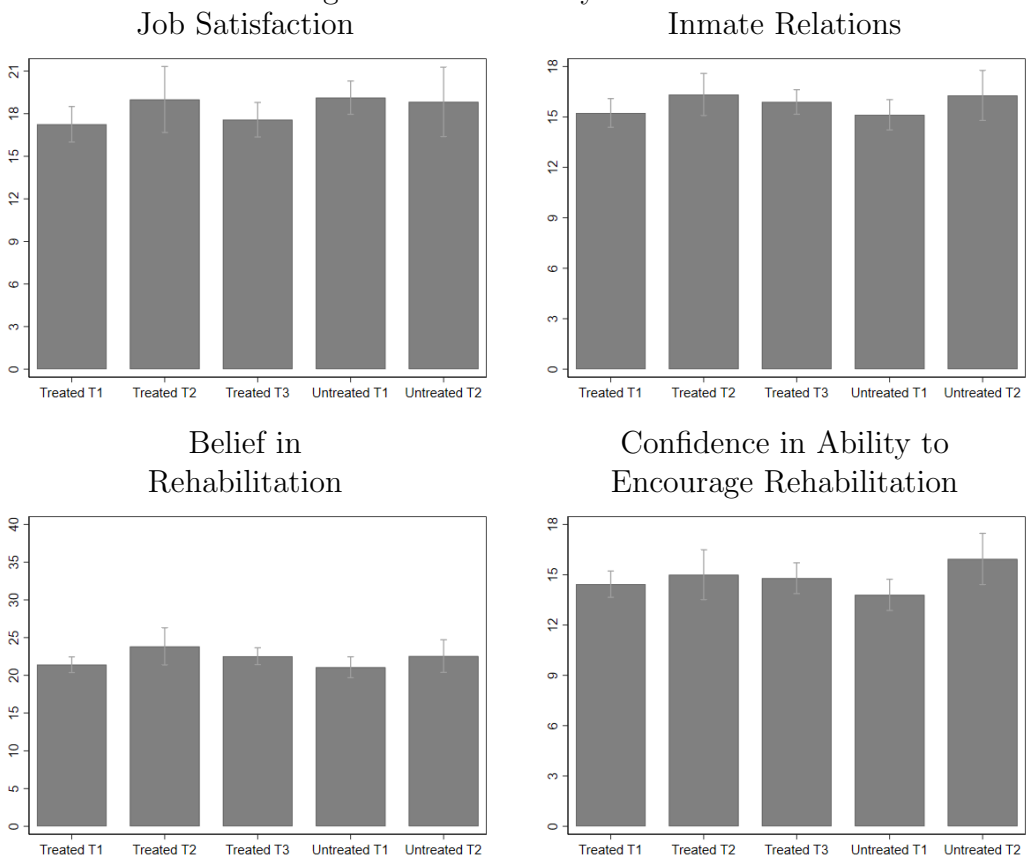
Notes: Each panel presents the average number of interactions of a particular type between inmates and staff during the two weeks preceding the survey. In Panel A, we present the number of times the average inmate asked for help from a staff member. Column 1 shows the number of these requests in the treated facility before treatment took place, Column 2 shows the number of requests in the treated facility after treatment had occurred, and Column 3 shows the number of requests in the untreated facility. Panel B indicates the number of positive responses given by staff in the most recent interaction, conditional on the inmate having asked for help at least once in the previous two weeks. The vertical lines accompanying each bar indicate 95% confidence intervals.

Figure 6: Staff Survey Actions
FMI Behavior Score



Notes: Each bar indicates the fraction of self reported FMI consistent behaviors used by staff during interactions with inmates. There were a total of five scenarios on the survey, but staff members were asked to respond only to the scenarios that were relevant to their role for a maximum of three scenarios per subject. Each scenario offered six possible behaviors and asked staff to indicate how frequently they used each behavior. Of these six behaviors, two were not consistent with FMI training. These behaviors were reverse coded before being added to the rest. Each vertical bar shows results for a different group (treated or untreated) and time period. The vertical lines accompanying each bar indicate 95% confidence intervals.

Figure 7: Staff Survey Attitudes



Notes: This Figure presents survey results from four survey instruments given to staff at both the treated and untreated facilities shortly before training, two weeks after training, and, for the treated facility only, four months after training. Staff were asked to indicate the extent to which they agreed with a variety of statements. Responses had five possible values including strongly disagree, disagree, uncertain, agree, and strongly agree. Each response was given a score of 1-5 respectively. Negatively worded questions were reverse coded. The total value of all responses within each survey instrument were then summed for each respondent to create a total score in each category. The vertical lines accompanying each bar indicate 95% confidence intervals.

Table 1: Infraction Results

	Treated and Untreated Prisons				Treated Prison
	(1)	(2)	(3)	(4)	(5)
Treated?	-0.428***	-0.431***	-0.377***	-0.376***	
	(0.045)	(0.045)	(0.042)	(0.041)	
FMI Training	-0.093	0.218	0.075	-0.023	0.034
	(0.132)	(0.179)	(0.322)	(0.397)	(0.124)
FMI x Treated	0.033	-0.440***	-0.537**	-0.651**	
	(0.094)	(0.167)	(0.253)	(0.326)	
Covid Lockdown	-0.227***	-0.079	-0.034	0.010	-0.102
	(0.085)	(0.106)	(0.104)	(0.090)	(0.094)
Date Trend	0.000***	0.000***	0.003***	0.005***	-0.002
	(0.000)	(0.000)	(0.001)	(0.002)	(0.001)
Prisoners per Day	0.001**	0.001*	0.003***	0.003***	-0.002
	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
FMI x Date		-0.004**	-0.017***	-0.019*	0.006
		(0.002)	(0.005)	(0.011)	(0.004)
Treated X FMI X Date		0.005***	0.015***	0.021*	
		(0.001)	(0.004)	(0.011)	
$Date^2$			0.000***	0.000**	-0.000
			(0.000)	(0.000)	(0.000)
FMI x $Date^2$			0.000**	0.000	-0.000
			(0.000)	(0.000)	(0.000)
Treated X FMI X $Date^2$			-0.000***	-0.000	
			(0.000)	(0.000)	
$Date^3$				0.000*	0.000
				(0.000)	(0.000)
FMI x $Date^3$				0.000	-0.000
				(0.000)	(0.000)
Treated X FMI X $Date^3$				0.000	
				(0.000)	
Observations	296	296	296	296	148
Dependent Variable Mean	0.543	0.543	0.543	0.543	0.311
Month Fixed Effects	Yes	Yes	Yes	Yes	Yes

Outcome variable is the number of infractions per prisoner-week in the treated and untreated prisons. Standard errors are robust to heteroskedasticity. * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$.

Table 2: Infraction Results by Type

	(1) Assault	(2) Contraband	(3) Order	(4) Property
Treated?	-0.090***	-0.056***	-0.183***	-0.049***
	(0.013)	(0.009)	(0.026)	(0.009)
FMI Training	-0.085	-0.022	0.036	0.047
	(0.071)	(0.060)	(0.290)	(0.067)
FMI x Treated	0.006	0.002	-0.565**	-0.092
	(0.076)	(0.049)	(0.223)	(0.069)
Covid Lockdown	0.018	0.001	-0.052	0.042
	(0.048)	(0.033)	(0.059)	(0.027)
Date Trend	0.000	0.000	0.004***	0.000*
	(0.000)	(0.000)	(0.001)	(0.000)
$Date^2$	0.000	0.000	0.000***	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
$Date^3$	0.000	0.000*	0.000**	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
FMI x Date	0.002	0.004	-0.019***	-0.006***
	(0.003)	(0.002)	(0.007)	(0.002)
FMI x $Date^2$	-0.000	-0.000*	0.000	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
FMI x $Date^3$	0.000	0.000*	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Treated X FMI X Date	-0.000	-0.003	0.019***	0.005***
	(0.004)	(0.003)	(0.007)	(0.002)
Treated X FMI X $Date^2$	0.000	0.000	-0.000*	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
Treated X FMI X $Date^3$	-0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Prisoners per Day	0.000	-0.000	0.002***	0.000**
	(0.000)	(0.000)	(0.001)	(0.000)
Observations	296	296	296	296
Dependent Variable Mean	0.125	0.073	0.290	0.053
Month Fixed Effects	Yes	Yes	Yes	Yes

Outcome variable is the number of infractions of the indicated type per prisoner-week in the treated and untreated prisons. Standard errors are robust to heteroskedasticity. * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$.

Table 3: Inmate Activities

	Treated and Untreated Prisons		Treated Prison	
	Hours Worked	Performance Hours	Hours Worked	Performance Hours
	(1)	(2)	(3)	(4)
FMI	24.510***	8.216***	8.154***	13.175***
	(1.741)	(2.253)	(2.997)	(3.198)
Treated	-0.048	-3.415		
	(2.596)	(2.547)		
FMI X Treated	-16.024***	7.061*		
	(3.412)	(4.018)		
Age at Survey	0.125*	0.448***	0.292**	0.485***
	(0.073)	(0.092)	(0.144)	(0.169)
Length of Time in Custody	0.002***	0.002**	0.002***	0.002
	(0.000)	(0.001)	(0.001)	(0.001)
Instances of Prior Custody	-0.074	-0.398***	0.342	-0.674*
	(0.118)	(0.148)	(0.344)	(0.357)
Length of Time at Center	0.008***	0.011***	0.006***	0.006*
	(0.002)	(0.004)	(0.002)	(0.003)
Aboriginal or Torres Strait Islander	-0.332	-3.123*	-1.167	-2.215
	(1.583)	(1.782)	(3.007)	(3.143)
Took Survey	4.884**	14.698***	1.816	10.740***
	(2.110)	(2.637)	(2.852)	(3.530)
Constant	25.274***	-3.010	18.344***	-3.205
	(3.017)	(3.392)	(5.173)	(5.460)
Observations	1270	1270	512	512
Dependent Variable Mean	43.39	22.48	40.16	26.08

Outcome variable is the number of hours each inmate spent on the indicated activity over the previous two weeks. Performance Hours represent hours of work in which the inmate earned a bonus for high productivity. Standard errors are robust to heteroskedasticity. * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$.

Table 4: Staff Survey Results - Scenarios

	Treated and Untreated Prisons			Treated Prison		
	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	Unactioned Request	Inmate In Trouble	Overall	Unactioned Request	Inmate In Trouble
Treated	0.023	0.034	-0.063			
	(0.038)	(0.040)	(0.070)			
Post	0.037	-0.004	0.115	0.092*	0.077	0.144
	(0.066)	(0.062)	(0.115)	(0.053)	(0.047)	(0.105)
Post X Treated	0.026	0.052	0.035			
	(0.074)	(0.068)	(0.135)			
Follow-up	0.061*	0.051	0.122	0.067*	0.058	0.117
	(0.036)	(0.037)	(0.082)	(0.036)	(0.038)	(0.082)
Online	-0.010	-0.006	-0.001	-0.049	-0.041	0.006
	(0.033)	(0.034)	(0.057)	(0.040)	(0.040)	(0.083)
Observations	152	144	60	97	91	41
Dependent Variable Mean	0.501	0.490	0.535	0.521	0.515	0.527
Staff Random Effects	Yes	Yes	Yes	Yes	Yes	Yes

Outcome variable comes from aggregating staff responses from six behaviors for each indicated scenario. Behaviors not consistent with FMI training were reverse coded and added to the total score. Standard errors are robust to heteroskedasticity. * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$.

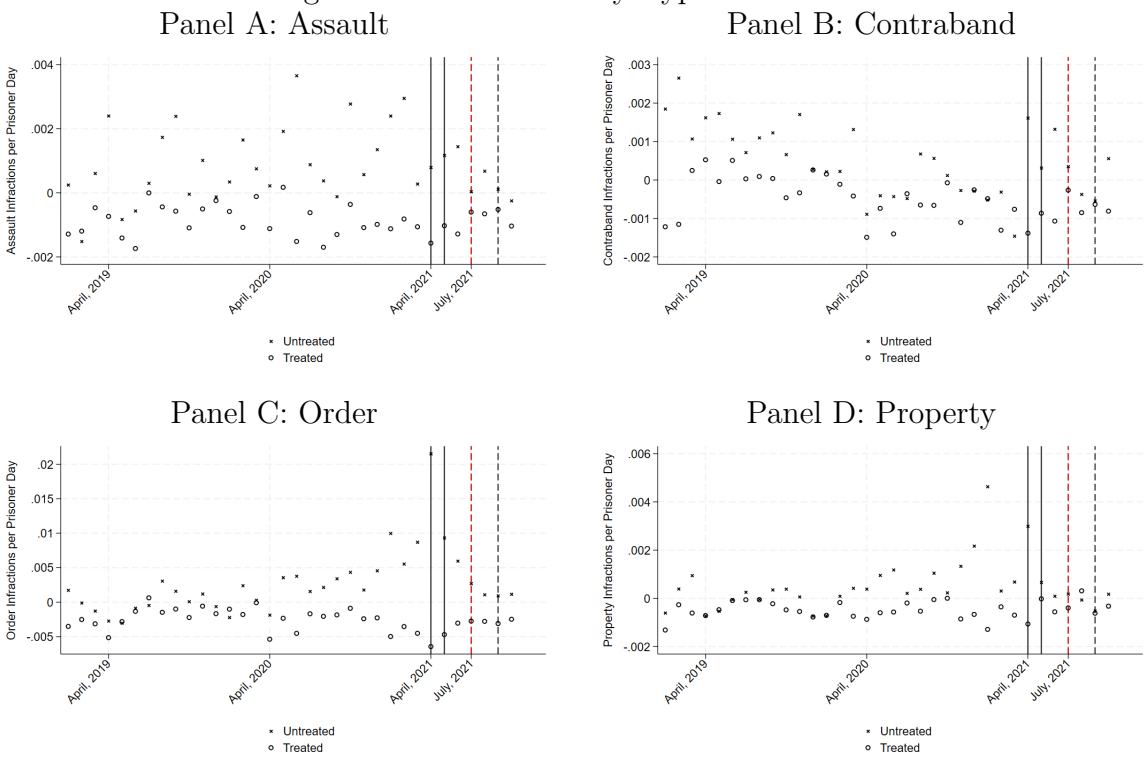
Table 5: Staff Survey Results

	(1) Job Satisfaction	(2) Rehabilitation Motivation	(3) Belief in Rehabilitation	(4) Confidence in Ability to Encourage Rehabilitation
Panel A: Treated and Untreated Prisons				
Treated	-2.545***	0.003	-0.447	0.122
	(0.757)	(0.570)	(0.725)	(0.581)
Post	-0.499	0.088	0.540	1.870**
	(1.080)	(0.843)	(0.948)	(0.734)
Post X Treated	1.662	0.294	1.125	-0.549
	(1.405)	(0.809)	(1.161)	(0.861)
Follow-up	0.341	0.482	0.749*	0.432
	(0.743)	(0.390)	(0.455)	(0.603)
Online	-1.039	-0.147	-0.349	-1.346***
	(0.644)	(0.478)	(0.576)	(0.487)
Observations	197	200	201	198
Dependent Variable Mean	18.17	15.58	32.92	14.54
Staff Random Effects	Yes	Yes	Yes	Yes
Panel B: Treated Prison				
Post	1.699	0.498	1.593*	1.605*
	(1.048)	(0.577)	(0.888)	(0.863)
Follow-up	0.276	0.511	0.681	0.239
	(0.734)	(0.372)	(0.433)	(0.589)
Online	-0.700	0.037	0.278	-1.060*
	(0.809)	(0.541)	(0.613)	(0.594)
Observations	125	127	128	126
Dependent Variable Mean	17.65	15.67	33.42	14.67
Staff Random Effects	Yes	Yes	Yes	Yes

Outcome variable comes from aggregating staff responses from 4-6 questions in each indicated category. Negatively worded questions were reverse coded and added to the total score. Standard errors are robust to heteroskedasticity. * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$.

7 Appendix

Figure A1: Infractions By Type and Month



Notes: Each point is the number total number of infractions of the indicated type per prisoner-day committed in the indicated prison in a particular month. All values have been scaled by the average number of infractions in that month across years. The two solid vertical lines represent the start and end of FMI training respectively. The red dashed line represents both the start date of the post training intervention and the beginning of widespread COVID-19 lock-downs in New South Wales. The lock-downs included a temporary pause on all in-person visitation and inmate programming. The black dashed line indicates the end of the post training intervention. Note that the scale of the Y axis changes across panels. This is a result of order infractions being much more common than the other types of infractions.