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Chapter

“This Place Is Going to Burn”: Measuring Prison Climate in Three Facilities

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Abstract

Despite the common adage that prison facilities often carry a unique mark of the “warden’s world,” few studies have compared characteristics among individual facilities over time. This study utilizes two waves of prison surveys (N = 525) that produce markers of perceived prison climate at the facility level; contributions fill three voids in correctional literature: facility-level comparison of prison climate; interactions of institutional characteristics; and predictors of change over time. Research is conducted within three facilities in one U.S. Midwest state, utilizing social climate instruments (primarily EssenCES) established internationally. Three main findings result: First, facilities-as-place share commonalities but also exert distinguishable and independent effects on perceived livability. Second, the study confirms several metrics that exert influence on livability, including staff support, inmate support, and inmate threat. Third, statistical models capture climate change over time and identify significant predictors, including measures of support, threat, and “assurance” (sense of belonging and purpose). Four regression models consistently capture meaningful change during a particularly volatile state-wide environment, with each facility responding somewhat differently. The authors suggest that measures of prison climate over time may indicate a conceptual tensile strength, or potential breaking point, in institutional stability.

Keywords: prison climate, corrections, inmate threat, rehabilitative environment

1. Introduction

On August 8, 2017, a Kansas correctional officer scribbled on the back of his survey, “This place is going to burn.” A few weeks later, on September 6, 2017, the *Kansas City Star* released a report entitled, “Inside Kansas prison riot where inmates ‘tried to burn the place down’” [1]. The officer’s odd prediction had been borne out. Continuing, the *Kansas City Star* wrote that “correctional officers compared the Kansas prison to ‘a Third World country’” (para. 1). The institutional or prison climate seemed to be *felt* by staff while prisoners reported business as usual. This chapter

presents a case study that measures prison climate at two points in time, assessing whether such anecdotal observations can be captured by survey data collection.

Prison climate has been defined as “the social, emotional, organizational, and physical characteristics of a correctional institution as perceived by inmates and staff” ([2], p. 447). In a recent publication on prison climate, Auty and Liebling [3] analyzed 24,508 surveys of inmates in the United Kingdom, conducted between 2009 and 2013. The authors concluded that positive prison climate (defined as moral quality of life while incarcerated) supports better outcomes for prisoners on release including lower rates of reoffending. These findings are significant with far-reaching implications for prison policy and programming. However, as the authors warn, “One of the limitations of existing prison effects research is the failure to adequately distinguish between prisons” (2020, p. 358).

The current study offers insight into the void that Auty and Liebling [3] identify. Using surveys of inmates and prison staff (n = 525), the data measure perceptions of prison climate among three facilities in the United States, all in close proximity within one midwestern state, Kansas. The research took place over a 20-month period, coinciding with a terse period in which the state was undergoing fiscal and political revisions. The initial data collection [4] established that certain social climate distinctions exist among the three facilities. The current analysis adds the second data collection point and identifies observable change over time, coinciding with environmental unrest in the state.

Employing the EssenCES social climate scale to assess two points of data collection, this chapter supports three primary objectives: (a) to reinforce reliability of an EssenCES social climate scale; (b) to assess distinguishing facility-level characteristics of prison climate; and (c) to analyze possible climate change within the three facilities, all during a particularly volatile political-economic environment. The assessment instrument focuses on inmate and staff perceptions of support, livability, and threat, factors known for measuring a rehabilitative atmosphere. The chapter closes by discussing a possible conceptual threshold to institutional function or what we refer to as the tensile strength of a social institution. While an acute tensile strength is beyond the empirical support of this research, the concept suggests theoretical consideration of diminished function of a prison facility.

2. Climate studies

Casey et al. [5] state, “[6] seminal study of U.K. prison environments revealed that staff and prisoners alike place particular value on things such as fairness, order and decency” (2015, p. 258). Historically, qualitative work has described the pains of imprisonment and what emotions are experienced in an (in)secure institution. The qualitative approach has led modern climate studies [7]. Over the past two decades, quality of life and climate studies have focused on the pains of imprisonment and understanding the rehabilitative impact of longer sentences [8, 9]. Internationally, climate studies measure indicators of perceived support and threat in prisons with implications for rehabilitation and reoffending.

While qualitative studies have identified conceptual shortcomings in prison administration, legislation efforts demand empirically replicable metrics of institutional functions. Wright’s [10] work developed around the prison environment inventory, which focused on safety, structure, and privacy. To a lesser degree, his research found that support, social stimulation, and freedom were important

predictors of internal environment, subsequently building a list of items that could be identified and measured as "climate."

While perceptions of social climate can be complex, specification is necessary for full analysis. As Wright [10] asserts, a "conceptualization that specifies a few interrelated dimensions that accurately predict some behaviors within the organization [is] particularly desirable." Underscoring such application, Toch's [11] *Living in Prison: The ecology of survival* found that privacy, activity, safety, emotional feedback, support, structure, and freedom are all major elements of prison adaptation, which, in turn, is vital to managing prison populations. However, it is important to note that during the 1980s, the administrative approach to managing prisons in the United States took a punitive turn toward what Christie has identified as crime-as-industry [12].

Subsequently, Haney and Zimbardo [13] have argued that the lack of contemporary prison research has created an "ethical and intellectual void that has undermined both the quality and legitimacy of correctional practices" in the United States (p. 721). Certainly, some research exists. For example, the U.S. Federal Bureau of Prisons has administered The Prison Social Climate Survey (PSCS) to field staff since 1988; prisoners, however, do not participate. Nevertheless, research on U.S. prisons remains limited. In a recent study, Dewey and Prohaska [14] utilize rare ethnographic-like methods, including semistructured interviews in eight different facilities. The authors argue that prison educators hold the potential for shaping prison climate while also collaborating with inmates and staff within the facilities. In sum, while the United States leads the world in incarceration rates, we lag behind our international counterparts in researching prison climate.

International studies, on the other hand, use the Measuring Quality of Prison Life (MQPL) and the Staff Quality of Life (SQL) to survey both inmates and staff [15]. Relatedly, van Ginneken et al. [16], employing the Prison Climate Questionnaire, administered a robust survey of all 28 prisons in the Netherlands. They found more positive scores in minimum security and extra-care regimes. Overall, more positive climate translates into less psychological stress, which results in better rehabilitative outcomes.

Concerning rehabilitative programming, French and Gendreau [17] conducted a meta-analysis of 68 studies, concluding that prisons providing behavioral treatment programs and those supported by professional counseling staff experienced the lowest rates of prison misconduct. Such conditions are salient for inmate rehabilitative atmosphere and staff anxieties of inmate threat. Goncalves et al. [18] found that negative perceptions of correctional climate were the strongest covariates of young prisoners' declining mental health. These findings further support Beijersbergen et al. [19] longitudinal study, which established a causal relationship between procedural justice and psychological well-being.

In a comprehensive assessment, Schalast et al. [20] employed the Essen Climate Evaluation Schema (EssenCES), which measures staff perspectives on inmate progress as well as inmate perspectives on social cohesion, support, and perceived threat. Soon after, Schalast and Goenewald [21] applied the EssenCES to German prisons, approximating previous Australian results. Following, Day et al. [22] combined questions from EssenCES, Corrections Victoria Treatment Readiness Questionnaire (CVTRQ), and Working Environment Scale (WES-10) to capture a metric of perceived willingness to change toward evolving protocols—a common issue in prison environments. As a result, Day et al. research found a negative association between staff stress and inmate scores on social climate metrics. In other words, the stress on

staff translated into negative conditions for inmates. Overall, these works suggest that social climate in a prison facility is associated with facility efficiency, and that staff support creates an environment more conducive to offender rehabilitation.

3. The current study

The Williams et al. [4] conducted a pilot study on prison climate, surveying both inmates and security staff in the three facilities described herein, establishing what was to become a baseline. Early results established commonalities but also distinct traits among the three facilities; most regarded relationships among livability, inmate threat, and perceived support, supporting the notion that significant differences in prison climate could be measured at separate facilities. Multivariate analysis established that both inmate support and staff support contributed significantly to *livability*, or what is argued to be varying degrees of a supportive and rehabilitative environment. The second wave of data collection occurred somewhat serendipitously. The research team noted the volatile environment described in area news reports, then contacted the wardens for access to conduct a second wave of data collection.

It is important to note that the research includes security staff and prisoners. Both groups share a concentrated physical institution with high-stakes formal rules, together with an unstable set of informal norms. While observing state-level structural stresses—low wages, understaffing, and changing state administrations—our aim was to measure prison social climate to reflect staff well-being coupled with inmate responses to a changing environment. During the 20-month timeframe of this study, perceived climate in two of the three facilities demonstrated a significant downward trend.

The current study adopted the survey instrument validated by Day et al. [22] with minor modifications; the EssenCES instrument provides the bulk of content (see measurement section for details). While the initial collection phase established the capability of the instrument to measure significant differences at the facility level [4], the current analysis measures change and predictors in each facility, all within a particularly disruptive political-economic environment.

4. Research sites

The study takes place in Kansas, a largely rural state in the U.S. Midwest, during a period of growing tension that produced extreme economic duress for many states [23]. Amidst a national mass incarceration trend, the incarcerated population in Kansas rose dramatically; the cost burden has grown 179% since 1985, with 43% of the state's Department of Corrections budget allocated to operation of prison facilities [24]. As the budget crisis deepened, so too did conditions within facilities, including overcrowding, wage and hiring freezes, staff shortages, and what appeared to be deteriorating relationships between staff and prisoners [25]. Demographically, Kansas ranks 41 in population density among the 50 U.S. states, averaging 35.6 persons per square mile; its population is disproportionately white (86.5%) yet the state ranks 18th in disproportionate ethnic incarceration patterns, generating a 7:1 ratio for Black/White incarceration rates [26]. Research sites include three state-run adult male correctional facilities.

Among the three facilities, Winston Correctional Facility (WCF; pseudonym) represents the first research site and is a 913-capacity adult male facility, primarily medium custody; it was built in 1986 and accommodates a 68-acre open-air campus style. WCF routinely sponsors public events such as a dinner theater through volunteers and inmate-organized groups. The facility sponsors several educational, religious, work-related, and behavior therapy programs located within the central Spiritual Life Center.

San Marcus (SMCF; pseudonym) is the second facility surveyed and represents the newest facility in the state, opening in 1991 with expansions in 1995 and 2001; the current capacity is 1955, though it regularly runs over capacity. The facility is designed to house repeat violent offenders and those assigned long-term administrative segregation. Each housing unit can be locked down individually, with a central yard as well as secure exercise pens. San Marcus also houses the state’s Reception and Diagnostic Unit (RDU); RDU is not included in this study. Notably, construction of SMCF resulted from a 1988 lawsuit concerning overpopulated prison conditions.

Harlingen (HCF; pseudonym) became the third site and is the second oldest prison and second largest in the state, housing an inmate population of 1862. HCF was built in 1885, designed after the New York reformatory style, and houses four custody levels; several living pods retain the linear cell design, common in early twentieth-century design. HCF has several work programs, including a wild mustang program under Bureau of Land Management and often runs over capacity.

5. Measurement, sampling, and survey administration

Research is based primarily on the EssenCES [27, 28] survey instrument, a 17-item scale designed to measure social cohesion, which has been validated in Australia, Germany, and UK prisons [22, 29]. The current research employs a slightly revised instrument, adding items measuring work satisfaction and readiness to change, for a total of 23 items. Survey items consist of short statements accompanied by a five-point Likert-type scale (see **Appendix A**).

The dependent variable (*livability*) is represented by the composite sum of two items on the survey (v.1 “livable atmosphere” and v.17 “comfortable in facility”). Independent variables include instrumental measures such as experience, age, and time in facility, demographics (age, race/ethnicity), as well as composite measures of perceptions of support and threat by inmates and staff. These researchers constructed an additional variable (“assurance”), comprising two questions addressing community perception (“sense of belonging”) and clear goals (“sense of purpose”); these concepts emerged from an earlier qualitative study [30]. Surveys were administered to samples of staff and inmates, conducted in separate rooms for each group, typically up to six participants simultaneously; each room offered space for privacy among respondents. Consent forms were included and signed by all participants in accord with the Institutional Review Board’s recommendation. Further these consent forms were stored under lock and key and quickly entered into data sheets, then stored separately from the data key with respondent’s facility of participation, thereby maintaining confidentiality throughout the data collection process. Materials consisted of paper copies with writing tools provided; average time for survey completion was around 20 minutes per survey. In a few cases in which the participant was unable to read, researchers read the questions to the prisoner.

Stratified random sampling was utilized throughout the study. Complete lists of inmates and staff were stratified by living units and shift teams. Each cluster was then randomized for participant selection. A total of 637 participants were selected; 24 refused to participate, primarily because of access (e.g., language) or general disgruntlement, yielding a response rate of 95.43%. The high response rate, while remarkable, can be accounted for by a number of factors. First, the researchers had established a significant history of rapport with administrators involved, constructing the sampling frame which accounted for (a) inmates who were given advance notice, (b) staff who were assigned to the available shift, and (c) full support of the warden in each facility. While researchers stressed the voluntary nature of participation, we also acknowledge implicit encouragement of wardens for staff participation. Finally, researchers sensed that some respondents, both staff and prisoners, found the survey to represent a way to voice significant and ongoing concerns.

Below are the numbers and dates of each wave, each facility. Note that the number surveyed in Wave 2 (262) was significantly lower than Wave 1 (351) due to staff shortages during a particularly volatile time in two facilities; accordingly, researchers were asked to reduce the sampling frame. A total of 613 respondents participated in the study; due to missing values, a total of 525 cases were analyzed. Each facility was surveyed twice during a 20-month period. Date and times were dictated largely by wardens in each facility, as follows:

Wave 1: San Marcus 12/15/2015
Winston 12/16/2015
Harlingen 6/21/2016
Wave 2: San Marcus 10/19–20/2017
Winston 10/19/2017
Harlingen 8/8–10/2017

6. Survey data and analysis

Table 1 below summarizes numbers and demographics of respondents.

To highlight, racial makeup of the inmate sample is 42.5% White, 43.3% Black, and 14.2% other; staff sample is 90.9% White and 72.5% male. Mean age for inmates is 36.6 and for staff 40.8. Average time incarcerated ranged from 7.41 in Wave 1 to 9.26 years in Wave 2. Median age of staff decreased slightly from 41 to 40.6, and average months employed decreased from 9.26 to 8.89 years.

Using statistical software SPSS, descriptive statistics are employed in the analysis, followed by a series of multiple regression models testing for the effect of the dependent variable *livability* on sets of independent variables. Four multivariate regression analyses were conducted to further assess the effects of time and place on perceptions of environmental livability and associated independent variables.

7. Findings

Figure 1 visually encapsulates how perceptions of environment livability differed, on average, among survey participants by facility location and time. The mean environment livability rating (y-axis) for Winston (red) appeared to increase slightly from Wave 1 to Wave 2 (by .16), indicating that overall prison climate measured slightly more positively at Wave 2. In stark contrast, average climate ratings for

Inmates				
Facility	WCF	SMCF	HCF	Total
# of Respondents				
Wave 1	54	49	67	170
Wave 2	41	55	50	146
Race				
Wave (1 + 2)	38.9% White 42.1% Black 18.9% Other	58.7% White 28.8% Black 12.5% Other	45.3% White 37.6% Black 17.1% Other	47.8% White 36.1% Black 16.1% Other
Age (Mean)				
Wave 1	34.5 (SD = 10.2)	40.0 (SD = 12.3)	35.5 (SD = 11.6)	36.5 (SD = 11.5)
Wave 2	33.0 (SD = 10.7)	40.7 (SD = 11.6)	35.4 (SD = 11.7)	36.7 (SD = 11.8)
Months Incarcerated (Mean)				
Wave 1	47.5 (SD = 46.4)	121.3 (SD = 128.1)	89.9 (SD = 115.3)	85.5 (SD = 106.6)
Wave 2	69.2 (SD = 75.6)	149.6 (SD = 112.1)	94.2 (SD = 112.9)	108.0 (SD = 108.2)
Staff				
Facility	WCF	SMCF	HCF	Total
# of Respondents				
Wave 1	28	45	57	130
Wave 2	33	15	31	79*
Gender (M/F)				
Wave 1	85.7%/14.3%	62.2%/37.8%	73.7%/26.3%	72.3%/27.7%
Wave 2	75.8%/24.2%	60.0%/40.0%*	77.4%/22.6%	73.4%/26.6%
Race				
Wave (1 + 2)	88.5% White 1.6% Black 9.8% Other	88.3% White 3.3% Black 8.3% Other	90.9% White 2.3% Black 6.8% Other	89.5% White 2.4% Black 8.1% Other
Age (Mean)				
Wave 1	43.3 (SD = 15.5)	36.9 (SD = 13.6)	42.8 (SD = 13.5)	40.9 (SD = 14.2)
Wave 2	45.7 (SD = 14.4)	36.6 (SD = 11.0)	37.7 (SD = 12.9)	40.8 (SD = 13.7)
Months Employed (Mean)				
Wave 1	80.4 (SD = 98.2)	95.8 (SD = 110.1)	142.7 (SD = 120.0)	113.1 (SD = 114.6)
Wave 2	128.2 (SD = 115.5)	88.6 (SD = 78.7)	100.8 (SD = 119.6)	109.9 (SD = 111.2)

Note. *Staff response on Wave 2 was due to lack of staff availability.

Table 1.
 Demographics of inmate and staff sample by Wave 1 and Wave 2 (N = 525).

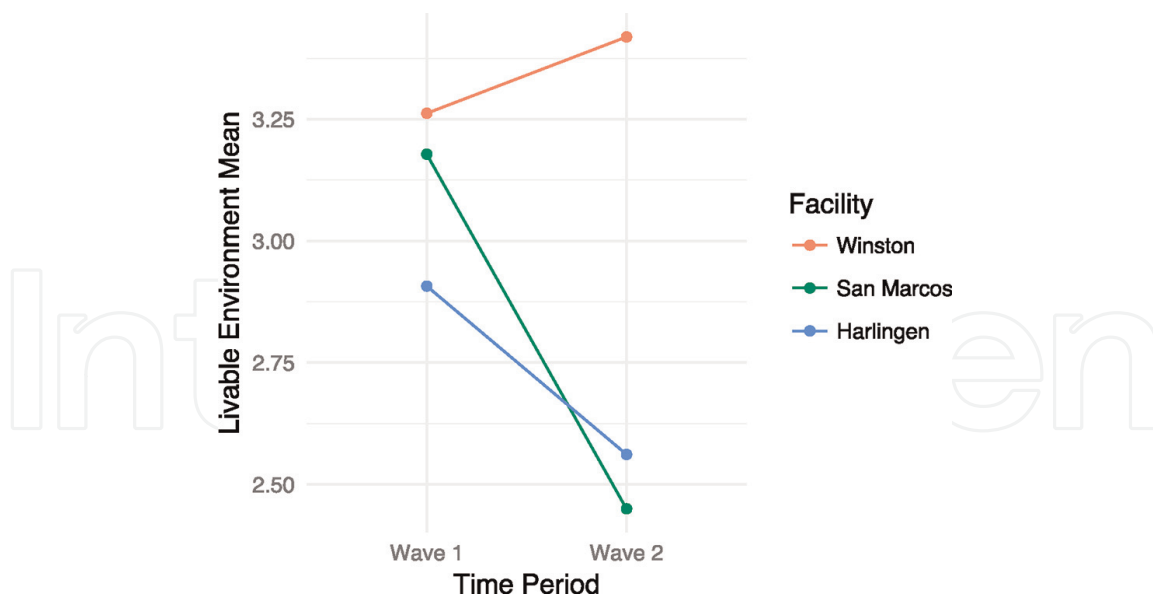


Figure 1.
Estimated marginal mean contrasts of rehabilitative environment within facility between time periods ($N = 525$).

livability at San Marcos (green) and Harlingen (blue) appeared to drop precipitously from Wave 1 to Wave 2, decreasing by .73 and .35, respectively. After adjusting for multiplicity (Sidak method), contrasts of estimated marginal means demonstrate significant decline in prison climate over time for San Marcos and Harlingen (see **Appendix B**).

Four separate multivariate regression analyses were conducted to further assess the effects of time and place on perceptions of environmental livability (see **Table 2**). The first regression (Model 1) tests for differences among individual facilities; Model 2 examines independent effects of average staff versus inmate perceptions of livability; Model 3 explores effects of staff support, inmate support, inmate threat, and assurance (belonging, purpose) on livability; and the final regression (Model 4) includes the full set of variables including demographics. Together, the first two models address the effects of time, place, and inmate-staff status on reported measures of facility livability, while the second two examine effects observed after accounting for perceptions of place (such as levels of support, threat) and self (e.g., sense of belonging, purpose). The full set of regressions support earlier findings of Wave 1 [4], adding the dimension of time.

Beginning with Model 1 (see **Table 2** column 2), the analysis shows results from regressing the dependent variable “livable environment” (hereafter referred to as *livability*), on facility location (Winston is the comparison facility), time period, and interaction effects between time and place (see **Table 2**, Model 1). The omnibus F-test shows that one or more of these variables had a non-negligible effect ($\alpha = .05$) on perceptions of *livability*. The adjusted R-squared (see bottom of column 1) shows that 13.9% of the variation in *livability* was accounted for by the time/place interaction effect. Consistent with **Figure 1**, t-tests show there was sufficient evidence ($\alpha = .05$) of a joint effect between time and place on *livability*. SMCF and HCF demonstrate significant declines in *livability* in Wave 2 (posttest) (See **Appendix B** for added analysis of marginal mean contrasts).

Model 2 in **Table 2** (see column 3) extends results of regressing livability on the interaction of facility location by time period and introduces a main effect for inmate-

Independent Variables	Environment			
	Model 1 (N = 525)	Model 2 (N = 525)	Model 3 (N = 525)	Model 4 (N = 525)
SMCF (ref WCF)	-0.084 (0.122)	-0.180 (0.112)	-0.016 (0.095)	-0.045 (0.097)
HCF (ref WCF)	-0.355*** (0.115)	-0.438*** (0.105)	-0.271*** (0.089)	-0.0288*** (0.091)
Post (ref Pre)	0.157 (0.130)	0.084 (0.118)	0.094 (0.099)	0.092 (0.100)
Staff (ref Inmate)		0.699*** (0.067)	0.0205*** (0.078)	0.145* (0.085)
Staff Support			0.361*** (0.045)	0.345*** (0.046)
Inmate Support			0.0160*** (0.047)	0.170*** (0.047)
Inmate Threat			-0.090*** (0.034)	-0.093*** (0.035)
Assurance (square root)			0.542*** (0.112)	0.543*** (0.112)
Race/Ethnicity (ref White)				-0.150** (0.064)
Male (ref Female)				-0.019 (0.096)
Age (logged)				0.106 (0.099)
Months (logged)				-0.006 (0.026)
SMCF Pre (ref Post)	-0.885*** (0.182)	-0.627*** (0.168)	-0.572*** (0.142)	-0.558*** (0.142)
HCF Pre (ref Post)	-0.502*** (0.174)	-0.375** (0.159)	-0.238* (0.134)	-0.214 (0.135)
Constant	3.262*** (0.089)	3.024*** (0.084)	1.152*** (0.222)	0.924*** (0.390)
Model Adjusted R ²	0.139	0.288	0.499	0.502

Note. *** $p < .001$; ** $p < .01$; * $p < .05$.

Table 2.
 Results of OLS regressions, dependent variable rehabilitative environment regressed on independent variables (N = 525).

staff status (inmate status is the omitted category). The omnibus F-test shows sufficient evidence that one or more of the variables considered had an effect on livable environment. That is, staff reported a significantly higher average score on livability as compared with inmates. Further, SMCF and HCF each posted significantly lower scores in Wave 2 (posttest) than in Wave 1 (pre-test). Net inmate-staff status, sufficient evidence was again observed ($\alpha = .05$) of a joint effect between facility location and time period on livable environment. Comparing the fit of Model 2 to

Model 1, the ANOVA F-test shows a significant reduction in the residual sum of squares. After controlling for inmate-staff status, the adjusted R-squared more than doubled, rising from 13.9% to 28.8%, which shows an overall decrease in livability (3.262–3.024).

To further assess stability of these findings, perceptions of staff support, inmate support, inmate threat, and assurance were introduced into the model (**Table 2**, Model 3). Consistent with previous models, the omnibus F-test shows sufficient evidence ($p < .05$) that one or more of the variables considered explained perceptions of environment livability. Staff support, inmate support, and assurance (belonging, purpose) significantly increased livability scores in this model, while inmate threat is significant in a negative direction. That is, greater support and assurance corresponded with higher perceptions of environment livability, while threat exerted a downward effect on livability. Notably, with the addition of these social environment measures, the F-test comparing Model 3 with Model 2 shows significant gains in model fit. The adjusted R-squared shows that 49.9% of the variation in environment livability is explained with the introduction of the added social variables.

Even after controlling for relevant variables, sufficient evidence was observed of a joint effect between facility location and time period. Contrasts adjusting for the false positive rate (**Appendix B**) show there was a statistically significant difference for San Marcus regarding average environment livability between the first and second time periods. The direction of the effect observed suggests that perception of environment livability at San Marcus was lower, on average, at Wave 2 than at Wave 1, after controls. That is, the decrease in livability within HCF, which approaches significance ($p < .10$), was largely explained by the addition of perceptions of place factors in Model 3.

Finally, effects of the study variables were assessed by introducing the demographic variables race (white is the omitted binary category), gender, age, and months of correctional involvement (**Table 2**, Model 4). The omnibus F-test for the full model, consisting of the time by place interaction, perceptions of self and place, as well as demographic variables, shows sufficient evidence that not all effects were equal to zero. Relevant variables continue to hold explanatory power in Model 4, although the decrease over time at HCF continued to fail to demonstrate significance, net controls.

A statistically significant ($\alpha = 0.05$) effect was again observed for facility and time period on environment livability, net of the full set of controls, and demographic variables. Adjusting for multiplicity, a statistically significant difference in average perception of environment livability was observed between Wave 1 and Wave 2 at San Marcus, all else held constant. The direction of the effect again supports the claim that perception of livability at San Marcus (net relevant control variables) decreased significantly at Wave 2; a portion of the decrease remains unexplained by these models.

Notably, racial/ethnic status posted a significant and negative effect on the dependent variable, net other variables, suggesting that, as a body, racial minorities hold lower perceptions of livability than whites.

An improvement ($\alpha = .05$) in the residual sum of squares was also observed, favoring Model 4 over Model 3. However, the adjusted R-squared showed only a small improvement. The independent variables in Model 4 accounted for 50.2% of the variation in average environment livability, compared with 49.9%, as shown in Model 3.

The findings presented suggest it is possible that respondents at Winston maintained a consistent perception of livability between the first and second survey

waves. Harlingen experienced a decline in livability, and it was explained by accounting for the perception of place variables in Model 4. For San Marcus, however, perception of environment livability decreased substantially and could not be fully explained by the models; these findings underscore clear distinctions among individual facilities. Further, staff support, inmate support, inmate threat, assurance, and race/ethnicity were observed to affect perception of environmental livability in the expected directions.

8. Discussion

The overarching goal of the current study was to provide replicable measures of prison social climate at the facility level over time, amidst notable episodes of disturbance. Employing a revised instrument utilized by a host of studies in at least four other countries and validated in an earlier pilot study in the United States [4], we were able to administer a measure of prison climate as reported by inmates and staff at two points in time. While we consider this research a modest case study, results provide evidence that prison climate measures can reflect significant change in perceptions of livability. Observable change occurred as threat exerted a negative effect on livability, including increased staff stress.

Several noteworthy incidents occurred during the period of data collection that likely affects prison climate. As the state continued in a state of fiscal crisis, budget cuts affected day-to-day operations of state prisons, including non-replacement of security staff departures. Further, the oldest prison in the state was vacated for renovation, and inmate movement escalated dramatically. A number of disorderly events—some described as riots—occurred in state facilities, including within San Marcus, approximately 12 months following the Wave 1 data collection. Problems cited by news media included extended use of lockdown, double bunking of inmates, large numbers of inmate movement between facilities, and reported curtailment of recreational time [31].

As facilities experienced budget cuts, staff shortages, and constant movement and overcrowding, makeshift tactics surfaced; some were predicted, as in the previous statement, “This place is going to burn.” In July of 2018, inmates organized a riot at San Marcus, causing a fire and resulting standoff, with damages estimated at \$177,000 [32]. Another concern was described as “the brown flu,” referring to correctional staff (who wore brown uniforms) calling in “sick” as facility conditions worsened. Administrators attributed the phenomenon to a decline in mentorship between veteran and younger staff, while others described it as “contagious.” This series of events prompted the Wave 2 collection.

This study has several limitations. The subjective nature of responses concerning environmental perceptions is subject to an array of conditions beyond the scope of a 23-item survey. Further, the nature of threat and support are based on many unseen or unaddressed experiences of both prisoners and correctional staff. Prison environments, as harsh or humane as they are conceptualized, built or administrated, could be measured more meaningfully if centered on the human experience through longer, individualized interviews, observation, and group study. Yet, deeply derived qualitative methods are also challenged due to issues of generalizability. Further, panel-type studies are impractical with moving prison populations, and multi-wave research is very expensive. Even with large-scale data collection, comparing cross-sectional data

captures only a thin and linear image of the complex nature of operating a prison facility.

Nonetheless, the current study documents change in perceived livability during an unstable state-level environment. Results demonstrate distinctive responses within three separate prison facilities and identify distinguishable and independent effects within each. Such findings provide rare insight into the shifting climate of prison environments. These differences are not inconsequential. Social climate matters and is measurable, including the influence of environmental stress, inmate threat, and staff anxieties on livability. Concurrently, several measures show positive influence on prison climate, including staff support, inmate support, and assurance (purpose and belonging). Importantly, these variables are shown consistently in the literature as conducive to rehabilitative efforts.

Assurance represents a concept unique to this study. Previously, Green [30] explored the idea of liminality as it pertains to prisoner identities over the course of a long prison sentence. That analysis discovered that an absence of purpose and belonging created an elongated suspension of adaptation or change in personhood and prison identity. The added questions concerning purpose and belonging constitute the measure called assurance, which is shown in the current study to be significantly associated with increased social cohesion.

Overall, results of the study capture meaningful change over time at the facility level. Regression models consistently demonstrated evidence of a joint effect between facility location and time period. Specifically, results reveal stressors that contribute to negative perceptions of livability over time. Further, the research contributes to the growing literature on general effects of prison climate, including potential predictors of environmental effects on eventual reoffending [3, 33].

Prison facilities are often described as a “world apart” for good reason; those who work and reside behind the walls are quite literally segregated from the “outside” for much of their lives. In reality, state-level actions influence day-to-day activities within facilities and vice versa. It is also true that administrative discretion within facilities prompts effects felt by those on the unit floor. Anxieties are generated among officers and inmates, each attuned to their own plight with a keen eye to effects on the other population. Each group is attuned to conflicts between administrators and staff, without a full understanding of challenges each faces. While the two groups interact physically every day, the prison as institution revokes meaningful exchanges.

At the same time, it is notable that each facility maintained some unique responses to the larger state milieu. That is, individual facilities may respond to similar structural conditions differently over time. Winston maintained a fairly consistent level of livability over the study time frame, while San Marcus and Harlingen declined significantly. Winston is a smaller facility, maintaining a population of just under 1000 prisoners and is a lower custody facility. Winston also experienced fewer prisoner transfers than did Harlingen and San Marcus. Further, Winston consistently offers more programming and employs public events such as dinners and theatrical productions. As this research team has been doing work within Winston for some time, we have consistently corroborated a different “feeling” about the facility. One such example is a centralized programming location where coordinated efforts of counselors, educators, and spiritual leaders coalesce. While these factors remain unmeasured, the current data provide hints for future exploration.

Harlingen and San Marcus data also are instructive for future research. The two facilities are similar in size, structure, population, and custody level. Yet, data presented in the final regression model (4) explain the declining climate change

between Wave 1 and Wave 2 for Harlingen, while a significant degree of change for San Marcos remains unexplained by our model. Certainly, much work remains.

9. Conclusion

Like prisons all across the United States, facilities in the current study are at or above capacity, spurred by expanding prison population growth largely due to longer prison sentences. Yet, according to previously cited meta-analysis, long prison sentences do not increase public safety [17, 34, 35]. Nevertheless, the state government in this study has sided with increased punitivity over the past three decades. One piece of legislative evidence came in August 2013, when the then-sitting governor, against congressional claims of unconstitutionality (*Alleyne v. United States*, 2013), doubled down on the “hard fifty” sentences for first-time offenders with aggravating circumstances [36]. Ignoring Federal level designations of unconstitutional sentencing practices at the state level, this case study represents a clear example of cultural punitivity and a move toward increasingly punitive reforms coupled with decreasing correctional budgets.

Since collecting these data (between years 2015 and 2017) much has continued to challenge this Midwest Department of Corrections. Staffing concerns are persistent but also the COVID-19 pandemic has further interrupted operations. Yet falling recidivism (17% decline over the past two and a half years) has stemmed some staffing issues. Tidd [37] reported that Kansas Department of Corrections spokesperson, Carol Pitts stated that staffing, “continues to be a challenge in this competitive job market” (para. 2). Tidd also reported, however, that extensive lockdown has been employed, which resulted in prisoners receiving less programming time over the past 3 years. An incident was reported on April 14, 2020 in Winston, which maintained a fairly consistent liveability between our samples, wherein some 125–250 men were involved in a brief incident [38]. Fortunately no staff or prisoners were injured and minimal property damage was reported.

At the facility level, an official Department of Corrections report published on July, 7, 2022, (Kansas Department of Corrections, Population Report, 2022) [39] noted that there has been a total of 23 deaths state-wide due to COVID-19 [40]. San Marcus has reported cumulative 419 staff and 1234 prisoner cases of COVID-19 and, as of June 28, 2022, is holding 1832 prisoners. Harlingen has reported cumulative 178 staff and 651 prisoners that have had COVID-19 and, as of June 28, 2022, is holding 1788 prisoners. Winston has reported a cumulative 178 staff and 651 prisoners that have had COVID-19 and, as of June 28, 2022, is holding 899 prisoners. All three facilities have less (SMCF 123; HCF 74; WCF 14, respectively) prisoners now than when we surveyed each facility.

As illustrated in this chapter, measurable predictors revealed in this study are associated with a decline in livability for prisoners and increase in anxiety for staff, thereby taxing the institutional functionality of a rehabilitative facility. Punitivity and austerity measures seem to work in opposite directions regarding institutional operations, one calling for more lengthy punishments and the other for less operational resources. Together, however, both are harsh and rigid for staff and prisoners. Working in tandem, the two ideologies test the *tensile strength* of social institutions. Tensile strength is a metallurgical term indicating a structural breaking point. The unforeseen opportunity of measuring climate before and after hostile events presented itself as a potential test of institutional fortitude, one which was felt by both staff and prisoners.

While the absolute meaning of tensile strength—which would have required total institutional failure as a metric—was not observed, the study does offer the concept of observing fractures in the rehabilitative environment of a correctional facility. These suggestions must be interpreted, of course, in accordance with limitations of the study.

It is the position of these authors that critiques from outside of prisons should be coupled with independent research conducted within correctional facilities. The most experienced voices (administrators, staff, correctional educators, and prisoners) in correctional facilities are rarely included for critique or reform at the legislative level. More research is needed to understand the human consequences of current correctional practices, if for no other reason to stave off the continued expansion of the worst parts of current correctional practice and politicized punitivity. Further research needs to be conducted concerning a number of foci and populations. In no particular order, minority populations (as found in this work), female inmates, and transgender or gender-fluid populations require more focused attention regarding rehabilitative environments, assurance, and the livability of court-ordered confinement at the facility level.

Punishment as a function of the state operates through several parts of the criminal justice apparatus. Understanding requires transparency. Since the 1980s, the United States has experienced (arguably) an intellectual and operational drift from rehabilitative assessment research to increasingly punitive sentencing trends. If we, as a society, are to marshal resources to humanely contain and correct offenders, then the justice system must meet with commensurate reform. Returning to the seemingly odd prediction by a Kansas correctional officer—“This place is going to burn”—such indicators stand as a reminder that we must include those on the ground who can provide valuable insight toward supportive environments in correctional institutions. Measuring prison climate at the facility level, including both correctional staff and prisoner participation, provides one tool to that end.

It is our hope that correctional research continues the scientific task of understanding empirically the impact of how we punish and a glimpse of prison climate within a growing rift between ideologies and realities of state institutions. Ideally, case studies such as this would instigate a reconsideration of who, why, and to what extent we use prisons toward social correction.

Acknowledgements

The authors would like to thank all participants, especially facility wardens who gave us access when collecting data and the anonymous reviewers for invaluable feedback during the review process.

Appendix A

Inmate Survey**

Survey ID# _____

Your participation is voluntary. This survey helps researchers at Kansas State University to better understand the environment within correctional facilities. In turn, we hope to provide other researchers and the Department of Corrections with ideas about how to improve the climate in which inmates and correctional staff both live and work. In no way will the information you provide here be attached to your name or personal identification.

Thank you very much for your feedback.

Date of Birth _____

Gender _____

Race/Ethnicity _____

	Not at all	Little	Somewhat	Quite a lot	Very much
1. This facility has a livable atmosphere.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The inmates here care for each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Really threatening situations can occur here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. In this unit, inmates can openly talk to staff about all their problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Even the weakest inmate finds support from his/her fellow inmates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. There are some really aggressive inmates in this facility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Staff take a personal interest in the progress of inmates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Inmates care about their fellow inmates' problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Some inmates are afraid of other inmates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Staff members take a lot of time to deal with inmates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. When inmates have a genuine concern, they find support from their fellow inmates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. At times, members of staff feel threatened by some of the inmates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Often, staff seem not to care if inmates succeed or fail in daily routine/program.
14. There is good peer support among inmates.
15. Some inmates are so excitable that one deals very cautiously with them.
16. Staff know inmates and their personal histories very well
17. Both inmates and staff are comfortable in this facility.
18. Generally, I can trust other people.
19. I want to change.
20. Treatment programs don't work.
21. I am well organized.
22. Inmates here have a sense of belonging.
23. Inmates here maintain a sense of purpose.

Additional comments or concerns: _____

Thank you very much for your time.

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**In a separate process, we will ascertain the following information about inmate participants. Only the PI and associate will have access to the matching information, and it will be used only in summary fashion.
Length of sentence
Total time served
Time served at current facility

Appendix B

Controls	Contrast	Estimate	DF
None	WCF W1 v. W2	-0.157 (0.130)	519
	SMCF W1 v. W2	0.728*** (0.128)	519
	HCF W1 v. W2	0.346** (0.116)	519
Inmate-Staff Status	WCF W1 v. W2	-0.837 (0.118)	518
	SMCF W1 v. W2	0.543*** (0.118)	518
	HCF W1 v. W2	0.292* (0.105)	518
Inmate-Staff Status	WCF W1 v. W2	-0.094 (0.099)	514
Staff Support			
Inmate Support	SMCF W1 v. W2	0.478*** (0.102)	514
Inmate Threat			
Assurance	HCF W1 v. W2	0.144 (0.090)	514
Inmate-Staff Status	WCF W1 v. W2	-0.092 (0.100)	510
Staff Support			
Inmate Support	SMCF W1 v. W2	0.466*** (0.102)	510
Inmate Threat			
Assurance	HCF W1 v. W2	0.122 (0.091)	510
Demographics			

Note. *** $p < .001$; ** $p < .01$; * $p < .05$.
 Note. P. value adjustment: Sidak method.
 Note. Results averaged over interaction effects and control variables.

Table B1.

Estimated marginal mean contrasts of livable environment within facility between Wave 1 and Wave 2 (N = 525).

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