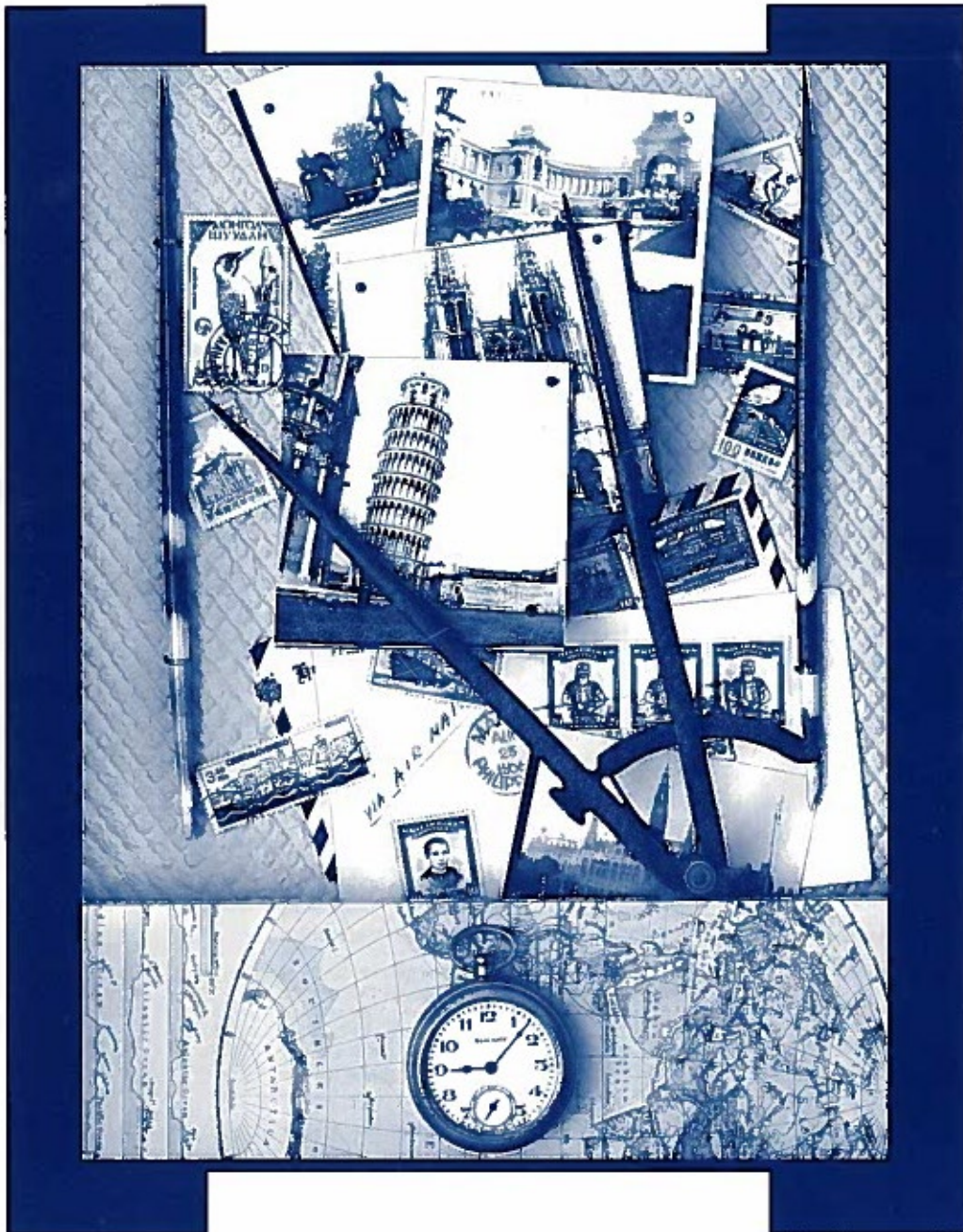


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A Common Ground?
An International Look at Corrections....7

Assessing the Impact of Religious Programs and Prison Industry on Recidivism: An Exploratory Study

By Byron R. Johnson

This exploratory study compares the recidivism rates for two Brazilian prisons considered to be exemplars in a country facing an array of correctional crises. One of the prisons is a faith-based facility run by local church volunteers who use religious programs to "kill the criminal and save the person" (Humaita). The second prison is primarily based on vocational training and the use of prison industry to better prepare inmates for release and to reduce the cost of operating the facility (Braganca). The current study compares recidivism rates for prisoners released from these two facilities during a three-year post-release window from 1996 to 1999. The findings reveal that: (1) the three-year recidivism rate of prisoners from both facilities is extremely low by any standard (16% Humaita and 36% Braganca), (2) that the recidivism rate for former Humaita prisoners was significantly lower than that found for Braganca prisoners, (3) Humaita's lower recidivism rate holds among high as well as low-risk prisoners, (4) inmates from the faith-based prison were charged with significantly fewer arrests during the three year follow-up period, and (5) where disposition data were available, former Braganca prisoners were significantly more likely to be re-incarcerated than former prisoners from Humaita.

Introduction

For decades Brazil's well-documented correctional problems have included: severe overcrowding, prison riots and violence, mass escapes, and a host of court problems that allowed convicted prisoners to be housed with minor offenders as well as those who have yet to be convicted.¹ In response to these conditions, two prisons have been singled-out for very different reasons as potential models for correctional reform in Brazil. One is a faith-based prison (Humaita) and the other based on prison industry and contracting with the private sector (Braganca). While still popular with many, Humaita has experienced obstacles with certain local politicians, and based on recent field interviews, indications are that the government deems Braganca's model as the most appropriate model to be replicated throughout the country for reasons of economic efficiency.

Contributing to the past as well as the present popularity of these two prisons is the widely held belief that both prisons have much lower rates of recidivism than other Brazilian correctional facilities.² Humaita volunteers boast a recidivism rate as low as four percent and workers at Braganca have estimated their recidivism rate to be around 13%. A search of government documents as well as a host of interviews with public officials revealed no published

research or government sponsored reports that breakdown recidivism by facility. Indeed, officials interviewed in law enforcement, corrections, and the courts, indicated that no one knows precisely the recidivism rate, though many of these same officials indicated that recidivism rates in Brazil, like many countries, likely fall within the 50% to 70% range.

Humaita

In 1974, an unusual correctional experiment was born in Sao Jose dos Campos, Brazil, bringing prison reform to a new level. Named Humaita, this prison became the first known correctional facility in the world to adopt a completely faith-based approach to all aspects of prison administration, security, and programming. Humaita has received national and international recognition for a number of correctional innovations such as: (1) turning over completely the day-to-day operations of the prison to religious volunteers rather than paid correctional staff, (2) saturating the prison environment with religious programming and instruction, and (3) promoting family visits, spiritual mentoring, and work-release. Over the years many associated with the prison have proclaimed Humaita's success in both reforming prisoners and dramatically reducing recidivism. However, the current exploratory study is the first known attempt to complete an empirical

assessment of recidivism at Humaita.

Braganca

In 1993, in an effort to rescue the Braganca prison from a corrupt and violence-ridden environment, a local judge proposed a plan to form a nonprofit corporation to turn the prison into a more humane, clean, and self-sustaining facility. The result has been a public-private partnership where local companies contract with the prison for prison labor, with the inmates paying part of their wages into the coffers of the nonprofit corporation. Impressed with the efficiency and improved conditions, as well as the belief that recidivism had been reduced at Braganca, the government has recently reported that the Braganca facility will be a model for massive penitentiary expansion in Brazil over the next several years.

The goal of the current study, therefore, was to conduct an exploratory analysis of these two prisons in order to determine an empirically informed rate of recidivism rather than the subjective estimates or non-systematic accounts of recidivism typically relied upon.

Methodology

These analyses are based on post-prison data from the population of prisoners released from the two study prisons during the calendar year of 1996. The research

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case files as well as computer records and recorded relevant data on these 1996 prison releasees. Utilizing criminal history information provided by the Department of Criminal Identification³ in Sao Paulo, a total of 148 prisoners from Humaita and 247 prisoners from Braganca were tracked through December 22nd of 1999.⁴

Four types of variables were used: (1) type of offense (original arrest offense), (2) dates (sentence start date, release date, and re-arrest date), and (3) recidivism (rearrest charges, number of re-arrests and disposition).

The purpose of these analyses is to compare these two model prisons and to determine which of these is most likely to reduce recidivism. Consequently, this exploratory study seeks to address the following questions:

1. What was the recidivism rate (defined as the percentage of prisoners rearrested since release) for inmates from both Humaita and Braganca?
2. What was the time to rearrest (defined as the number of months from release from prison to date of first rearrest) for inmates from both Humaita and Braganca?
3. Was the rearrests rate lower among inmates from Humaita or Braganca?
4. Was the reincarceration rate lower among inmates from Humaita or Braganca?
5. Were recidivist offenses of lesser severity among inmates from Humaita or Braganca?

In addressing these questions, it is important to control for severity of original offense. If, for example, former inmates from Humaita were sentenced to prison for offenses that were generally less severe than those of inmates from Braganca, we would expect a lower recidivism rate. If severity of offense does not differ, and results are favorable to the program, we can conclude with greater confidence concerning its effectiveness. We categorized the criminal offense that led to imprisonment and ranked the severity of offense (see

Appendix A on page 10). Offense categories were broken into several groupings commonly referred to in the literature:

(1) minor ($n = 29$), (2) property ($n = 140$), (3) drug ($n = 47$), (4) violent ($n = 131$), and (5) other ($n = 1$; escape from prison). Severity rankings ranged from 1 (mild) to 5 (severe).

“Contributing to the past as well as the present popularity of these two prisons is the widely held belief that both prisons have much lower rates of recidivism...”

The prison populations differed significantly with respect to severity of offense, category of offense, and time in prison. By all indications, prisoners from Humaita were incarcerated for more severe criminal activity. The mean severity of offense was 3.9 ($SD = 1.2$) among Humaita prisoners compared to 3.4 ($SD = 1.1$) among Braganca prisoners ($t = 4.6$, $df = 346$, $p < .0001$). The mean difference was a medium effect size (ES) (Cohen's d , or $ES = -.50$), showing greater severity of offense among Humaita prisoners.

To examine differences in types of offenses, the prison variable (Humaita/Braganca) was cross-tabulated with offense category (1-5). Humaita prisoners had committed 59% of the violent crimes (77 of 131) despite having a smaller study sample than the Braganca prison. Given the Humaita popula-

tion and total number of violent crimes, the expected number of violent original offenses was about 57. Proportionately, Braganca prisoners had committed more minor, property, and drug crimes, than Humaita prisoners had. However, the chi-square for drug crimes was small and non-significant (chi-square = .78). The prisons differed significantly when minor and property crimes were collapsed (chi-square = 22.6, $p < .0001$, $ES = -.27$). Fifty-three Humaita prisoners were incarcerated for minor and property offenses, compared with 116 prisoners in the Braganca prison. The deviations from expected values met criteria for small effects. In sum, these data revealed that individuals from Humaita were originally imprisoned for disproportionately more violent crimes, somewhat fewer minor and property offenses (combined), and equally for drug offenses.

Prisoners spent considerably more time at Humaita than did prisoners at Braganca. The mean time spent in prison (number of months from sentence date to release date) was 19.5 months ($SD = 19.8$) at Humaita compared to 4.3 months ($SD = 7.3$) at Braganca. This was a very large difference as evidenced by the effect size calculation ($t = 8.6$, $df = 158.1$, $p < .001$, $ES = -1.3$). This difference should not be interpreted to mean that Humaita prisoners served more time in prison in general, than Braganca prisoners. A more plausible explanation is that the common practice of transferring prisoners from one facility to another is less likely to take place at a “religious prison” like Humaita, and more likely to take place at Braganca, with its ever-growing reputation as a clean and vocationally productive environment.

Findings

Results of analyses revealed important differences between these two prisons in terms of severity of offense, category of offense, and time served. Risk assessment tools designed to predict the likelihood of re-arrest have consistently used severity of current offense as well as prior criminal history as key recidivism predictors.⁵ Thus, since we find a higher incidence of severe criminal wrongdoing among prisoners from Humaita, we would expect these prisoners to be at greater risk for re-offending.

1. What was the recidivism rate for inmates from both Humaita and Braganca?

Recidivism data were unavailable on 213 prisoners (46%).⁶ Although data loss was greater among Braganca prisoners (57%) than among Humaita prisoners (49%), missing data did not differ significantly across prisons (chi-square = 2.0, $p = .16$). Twenty-eight percent ($n = 51$) of the 182 prisoners (Humaita $n = 75$, Braganca $n = 107$) were re-arrested during the three year follow-up period. Thus the recidivism rates were 16% ($n = 12$) for Humaita, and 36% ($n = 39$) for Braganca (chi-square = 9.1, $df = 1$, $p < .01$). The first observation from this finding is that the recidivism rate of former inmates from both prisons is remarkably low by any standard. The second observation is that the recidivism rate for Humaita ex-prisoners is less than half that found among prisoners from Braganca (16% and 36% respectively).

When divided evenly by risk (median split of severity of original offense), the difference in recidivism was statistically significant in the high risk sample with rates of 12% vs. 38% respectfully for Humaita and Braganca offenders (see Table 1). Stated differently, among those in the high risk category, former prisoners from Braganca were more than three times as likely to be rearrested. The recidivism rate was also somewhat higher among Braganca prisoners in the low risk sample with a rate of 36%, compared 21% for Humaita. The recidivism rates did not differ significantly in the low-risk sample. However, this analysis resulted in a loss of 15 subjects (all from Braganca) due to missing data on the severity of original offense variable.

Opportunity for rearrest, or time from date of release to the data collection cutoff (October 31, 1999), is an important covariate in recidivism analyses. Thus the risk of recidivism increases as the window of time being studied also increases. A t -test was conducted to determine whether the groups were statistically equivalent with respect to time since release from prison. The results indicate the Humaita group had more opportunity for rearrest

($M = 40.3$ vs. 38.5 months; $t = 3.2$, $df = 196.7$, $p < .01$, $ES = -.41$), which suggests

that Humaita parolees were at greater risk for rearrest. In spite of this fact, the recidivism rate was greater for prisoners from the Braganca facility.

2. What was the time to rearrest for inmates from both Humaita and Braganca?

Date of rearrest was available on 34 of 51 reoffenders (67%). On average, reoffenders from Humaita were arrested 20.2 months after release from prison. Re-offenders who served time at Braganca were arrested two months sooner (18.3 months). However, this difference was small (Cohen's d , or effect size, = $-.15$) and nonsignificant ($t = .42$, $df = 32$, $p = .68$). Because of data loss, sample size, and the small effect, we cannot conclude that Humaita prisoners refrained from criminal activity and rearrest longer or shorter than former prisoners from the Braganca prison.

3. Was the number of rearrests lower among inmates from Humaita or Braganca?

We calculated the number of rearrests from prison release until December 22, 1999. The Humaita group of 75 prisoners recorded a total of 17 rearrests, while the Braganca group of 107 former prisoners committed a total of 57 rearrests. Humaita prisoners averaged .23 rearrests, which was significantly fewer than the .53 re-arrests among former prisoners from Braganca ($t = -2.86$, $df = 179.8$, $p < .01$, $ES = .41$). We can conclude therefore, that former prisoners from Humaita were not only less likely to be rearrested, but were charged with significantly fewer arrests.

4. Was the reincarceration rate lower among inmates from Humaita or Braganca?

Disposition data were available on only 58% (28 of 51) of known reoffenders (10 from Humaita, 18 from Braganca). Six of 10 Humaita inmates returned to prison, while 16 of 17 former prisoners from Braganca returned to prison. Because of low cell sizes, chi-square was an inappropriate test. A one-tailed Fisher's Exact Test revealed a significant difference across cells ($p < .05$). Although the effect was medium-sized ($ES = .43$) and significant, the validity of this finding is questionable due to extensive data loss. However, where disposition data were available, former Braganca prisoners were significantly more likely to be reincarcerated than former prisoners from Humaita.

5. Among recidivists, were offenses more severe among inmates from Humaita or Braganca?

When Humaita prisoners were rearrested, they were arrested for more severe criminal acts, though the between-group difference was not significant (3.8 vs. 3.0; $t = 1.7$, $df = 31$, $p = .10$). The reason for the test's lack of significance is low sample size, as the effect ($ES = -.62$) was medium-sized.

Conclusions

Recidivism data were compared for two Brazilian prisons — one focusing on vocational training and prison industry, while the second was faith-based and managed by religious volunteers. Results of a three-year recidivism analysis indicate that the

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Table 1. Inmates Arrested after Release from Prison by Level of Risk

	Low Risk				High Risk			
	Humaita		Braganca		Humaita		Braganca	
	%	(n)	%	(n)	%	(n)	%	(n)
Arrested	21	(7)	36	(18)	12	(5)	38	(16)
Not Arrested	79	(27)	64	(32)	88	(36)	62	(26)
Totals	100	(34)	100	(50)	100	(41)	100	(42)

2.300, $df = 1$, $p = .129$

7.364, $df = 1$, $p < .01$

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rate of recidivism for former prisoners from both Humaita and Braganca, is extremely low (16% and 36% respectively). Further, the recidivism rate was significantly lower among prisoners from the faith-based prison, Humaita. This finding holds among high- as well as low-risk former prisoners. We also found that in addition to a lower likelihood of rearrest, ex-prisoners from Humaita were charged with significantly fewer arrest charges (i.e., multiple offenses) during the three year follow-up period. Where disposition data were available, ex-prisoners from Braganca were significantly more likely to be reincarcerated than offenders from Humaita.

It is important to note that this exploratory study is just that — an exploratory study with several methodological limitations. First, the Brazilian police did not provide criminal history on a large number of former inmates from both prisons. Though we do not believe the missing data represents any systematic bias on the part of the police to exclude certain cases, it is nonetheless necessary to interpret these findings with considerable caution. Future recidivism research

is necessary which captures a higher proportion of those being tracked over time. Another problem is the fact that we were not able to compare the two model prisons with other prisons in Brazil. Clearly, more research is necessary that would compare and contrast recidivism data on offenders from prisons in different regions with a variety of security classifications.

Acknowledging these limitations, the current study provides important initial evidence that both of these prisons are associated with very low recidivism rates and indeed seem to warrant the label of "model." We need to know more about these prisons and the philosophical approaches that would seem to differentiate them from other prisons in Brazil. Additionally, more research is needed to collect more comprehensive prison data as well as postrelease data that will make it possible to understand the reasons the faith-based prison has a significantly lower recidivism than the prison industry facility.

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Endnotes

¹For a comprehensive examination of conditions in Brazilian prisons, see for example the seven-month

study completed by Human Rights Watch, "Violence and Abuse Endemic in Brazil's Prison System," Rio de Janeiro, Brazil, December 15, 1998.

²Although the country of Brazil does not report recidivism rates for correctional facilities, corrections, judicial, and law enforcement leaders we interviewed indicated most believed the Brazilian rates to be similar to those found in other western societies such as the United States.

³Serves as a centralized criminal history tracking system for the State of São Paulo.

⁴The research team provided police officials with the name of the prisoner and date of birth. In order to further facilitate the criminal history search, in a majority of cases, police were provided with the prisoner's Brazilian identification number as well as the name of the prisoner's parents.

⁵James Austin (1989) *The Consequences of Determinate Sentencing, Punishment and Incapacitation on Parole Performance*. San Francisco: National Council on Crime and Delinquency.

⁶The Department of Criminal Identification in Brazil, did not provide criminal history data on a large number of prisoners from the two study groups. Though we do not believe the missing data reflects any systematic bias in the tracking of criminal history information, these findings should be interpreted with caution.

See the chart on page 11, included with this article.

Noninvasive Testing

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ically generate hardcopy test results and interpretation to provide the necessary documentation of these results. The entire test procedure, from specimen collection to result printout, will take less than five minutes.

- **Transdermal Analysis** — An interesting technology currently in development will detect ethanol migrating through the skin. An offender would be fitted with an ankle bracelet similar to those used for electronic monitoring. The key difference is that this bracelet would incorporate a sensor that measures and stores the offender's blood alcohol level on a continuous basis throughout the day. In addition, a tamper indicator stored in the system would disclose offender attempts to remove the bracelet. The only active participation required of the offender would be to

download the data stored on the bracelet to a central monitoring station via modem. This technology is in the prototype stage and is ready for testing in a field setting.

- **Handwriting Analysis** — Researchers are developing a device that will measure the degradation of a person's fine neuro-muscular performance due to substance abuse. Handwriting dynamics represent a complex motor skill that reflects the functions of the fine motor control system of an individual. Such fine motor control mechanisms are very sensitive to drugs and other toxic agents. Therefore, when a person uses drugs or alcohol his motor control system is affected and this effect is manifested and can be measured through handwriting dynamics. In its present configuration, the device is an instrumental pen with sensors that are attached to a PC with supporting software. When the offender signs his

name, for example, the sensors collect precise measures of handwriting dynamics. This writing sample can be compared to either the individual's previous assessment or an established threshold for general population of non-substance impaired persons. Result of this analysis would be available within minutes. This technology is in its infancy and much work remains before it can be determined if it will be a viable method of detecting impairment.

The National Law Enforcement and Corrections Technology Center is a program of the National Institute of Justice and functions as a free technology information resource center. For more information on non-invasive drug and alcohol testing or other technologies for corrections, contact Joe Russo at 800/416-8086.

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ASSESSING THE IMPACT — APPENDIX A
Offense Categories and Severity by Prisons

Offense Code	Offense	Severity Ranking	Offense Category	Humaita	Braganca
32	Driving without a license	1	1	0	2
34	Reckless driving	1	1	1	2
55	Not a crime-regulation of community service	1	1	1	0
140	Slander-defamation	1	1	0	1
244	Deadbeat dad	1	1	0	1
331	Disrespect of public employee	1	1	0	2
14	Planning crime	1	2	0	1
288	Group criminal behavior-planned	1	2	0	6
297	Falsification a public document	1	2	1	1
298	Forgery of personal documents-fraud	1	2	0	1
299	Misrepresentation-use of documents that are not one's own	1	2	0	0
304	Using false public documents	1	2	4	3
233	Indecent exposure	1	3	0	1
342	Perjury	1	3	0	1
161	Illegal use of utilities-without paying	2	1	0	1
168	Illegal appropriation	2	1	1	0
323	Office abandonment	2	1	0	1
10	Illegal bearing of fire arm	2	2	0	0
58	Exploitation through illegal gambling	2	2	2	0
61	Offensive indecent or obscene behavior	2	2	0	1
150	Violation of a domicile	2	2	0	2
171	Bad check	2	2	7	13
155	Theft	2	3	32	60
180	Receiving stolen merchandise	2	3	3	9
312	Embezzlement	2	3	0	1
733	White collar crime-fraud	2	3	1	5
904	Disloyal bailee (property violation)	2	3	0	1
16	Drug possession	3	3	9	9
12	Drug pushing	3	4	8	21
127	Abortion-perpetration resulting in death	4	4	0	1
129	Aggravated assault	4	4	5	7
329	Use of force against public official	4	4	0	1
121	Homicide	4	5	18	20
157	Armed robbery	4	5	49	21
213	Rape	4	5	3	1
214	Sodomy-rape	4	5	2	3
96	Escape from hospital prison	5	4	1	0
			Sub-totals	148	200
Missing	Missing	---	---	0	47
			Totals	148	247