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Correlates of Violence within Washington State Prisons

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ABSTRACT AND ARTICLE INFORMATION

The Washington State Department of Corrections indicates that there is a rise in prison violence for both men and women in their facilities. Using unique data on every inmate incarcerated in the state of Washington between 2009 and 2011, we correlate inmates' prevalence of prison violence with background characteristics of inmates, their ties to the community, and the effects of prison classification and programming. We find that race/ethnicity, community ties, and education are significantly tied to prison violence. Further, prison classification identifies those inmates most likely to be violent while incarcerated. Surprisingly, no effect of gender on prison violence is seen. Implications for our findings are discussed.

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Prisons are charged with maintaining custody and control of society's most violent offenders. Despite the best efforts of prison administrators and staff, violence occurs. When attempting to identify predictors of prison violence, studies show inconsistent findings with the exception of age and criminal history (Steiner & Wooldredge, 2009). Not surprisingly, younger inmates with a criminal history of violence are most likely to engage in violence in prison. Other predictors intermittently determined to correlate with violence include the background characteristics of inmates, their ties (or lack of) to the community, the dynamics of life inside the prison, characteristics of the prison environment including administration, and state and federal policies and funding (Arbach-Lucioni, Martinez-Garcia, & Andres-Pueyo, 2012; Walters & Crawford, 2013).

Another consideration with researching prison violence is the issue of measurement. Studies on prison violence include those that examine violence as part of more inclusive measures of prison misconduct in general (see Camp, Gaes, Langan, & Saylor, 2003; Cochran, 2012; Siennick, Mears, & Bales, 2012; Wooldredge, Griffin, & Pratt, 2001) and those that focus specifically on violence (see Berg & DeLisi, 2006; Cunningham, Sorenson, & Ready, 2005; DeLisi, Berg, & Hochstetler, 2004; Hardyman, Austin, & Tulloch, 2002). It is also likely that self-report data may have important measurement differences as compared to official data (Steiner & Wooldredge, 2013). We focus explicitly on prison violence using official data.

Largely unexamined in existing research is the effect of regional differences. It is well established that patterns of violent offending in the country vary by region with the South having the highest rates of violence (Crime in the United States, 2011). It is likely that patterns of prison violence may vary

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correspondingly. Studies include national, federal, and state samples with little specific testing for regional differences and numerous samples from various regions of the country, albeit few from the Northwest. Wooldredge et al. (2001) evaluated samples from New York, Vermont, and Washington when considering the efficacy of different models of prison classification in predicting prison misconduct. They find significant regional variation across the three samples. The present research examines contemporary data from the state of Washington and focuses specifically on prison violence as separate from other infractions.

Research also examines factors related to inmates' connection (or lack of) to the community, which could be anti-social connections such as gang membership (see Cunningham & Sorenson, 2007; DeLisi, 2003; DeLisi et al., 2004; Gaes, Wallace, Gilman, Klein-Saffran,& Suppa, 2002; Griffin & Hepburn, 2006; Sorenson & Cunningham, 2010) or pro-social connections including visitation (see Cochran, 2012; Siennick et al., 2012) and marriage (see Huebner, 2003; Toch, Adams, & Grant, 1989; Wooldredge, 1994; Wooldredge et al., 2001). Unexamined in existing research as an indicator of ties to the community is prior homelessness, a measure included in the current study.

Other factors intermittently discovered to predict prison violence represent the dynamics of life in the prison and the prison administration. Those include the heterogeneity of the inmate population and the staff (see Camp et al., 2003; Irwin, 2005; Jacobs, 1977; Steiner & Wooldredge, 2009b), whether the inmate has a job inside the prison (Steiner & Wooldredge, 2009b), programming and counseling (see French & Gendreau, 2006; Keyes, 1996; Morgan & Flora, 2002 for meta-analyses that include educational, vocational and mental health programs), and classification (see Austin, 2003; Byrne & Hummer, 2007). Research is mixed in its assessment of the institution's capacity for control and the usefulness of prison classification such as programming (Griffin & Hepburn, 2013; Sandler, Freeman, Farrell, & Seto, 2013). Programming is understudied in prison research, and it may be useful as a predictor of institutional misconduct (Sandler et al., 2013).

By examining official data from the state of Washington in the present study, we sample indicators from each of the previous general categories, specifically the background characteristics of inmates (gender, race/ethnicity, and education), their ties to the community (visitation and prior homelessness), and factors related to the effects of administration of the prison on inmates (classification and programming). It is our intention that an investigation of these indicators in a largely unexamined region will contribute to a literature that shows predictors of prison violence to be regionally variable and that inmate involvement in prison programming in particular will be a significant contribution of our research to the literature on correlates of prison violence.

Literature Review

Gender

Gender is a demographic variable that is infrequently studied in the prison violence literature. Research is mixed on gender and general prison misconduct. Some research suggests that institutional misconduct is lower for females than males (Cunningham, Sorenson, & Ready, 2011; Drury & DeLisi, 2010; Harer & Langan, 2001). However, other studies have found no difference between gender and institutional misconduct (Camp et al., 2003; Steiner & Wooldredge, 2014). Celinska and Sung (2014) find that some predictors of prison rule violations (prior victimization, diagnosed mental disorders, and contact with family) are gender specific, while Chen, Lai, & Lin (2014) suggest that institutional misconduct for women varies by type of offense committed. What is more consistent with gender and the prison literature is that there is less prison misconduct among women when the focus is specifically on violence.

However, as serious violence is much less common in women's prisons, it is often not examined (Craddock, 1996; Wulf-Ludden, 2013). Studies that reflect on gender and prison violence find that men are more violent in prison than women (see Austin, 2003; Berg & DeLisi, 2006; Sorensen & Cunningham, 2010; Wulf-Ludden, 2013). Further, some scholars suggest that female inmates' interpersonal relationship may become more volatile than previously thought (Greer, 2000). This interpersonal relationship volatility could lead to an increase in prison violence among women. Such literature would suggest that more research on gender and violence in prison is necessary.

Race/Ethnicity

An intermittent predictor of prison violence is race/ethnicity. Schenk and Fremouw (2012) determined race generally to be a strong predictor of violence, with racial minorities tending to be more violent than White inmates. Wooldredge and Steiner (2012) recognized that victimization rates for White inmates were slightly higher than for Blacks with reference to physical assaults. However, the authors noted the difficulty in reaching such conclusions

because so many studies were limited to one geographical area with often unique demographic characteristics.

This was also examined by Steiner (2009) who studied 512 state-operated prisons and showed that those with higher proportions of Black inmates had higher levels of assaults but concluded that heterogeneity in the composition of the inmate population contributed to the inmate violence. Harer and Steffensmeier (1996) evaluated violent misconduct in 58 federal prisons from several geographic areas in the 1980s. They determined race to be a significant predictor, with Black inmates twice as likely to be found guilty of a violent infraction as White inmates.

In a large southwestern state, DeLisi (2003) used a dichotomous sample of white or non-white and established that non-whites were more likely to engage in serious violent misconduct than whites. Later in the same region, Berg and DeLisi (2006) divided race/ethnicity into White, Black, Latino, Native American, and Asian American. They showed that Latino males were the most likely to engage in violent infractions. In fact, being a Latino male was the strongest predictor of violent infractions in their study. Native American males were the second most likely to be involved in violent infractions, while Black male involvement was not significantly different than White male involvement in prison violence. Yet, in Rhode Island, Rocheleau (2011) discovered that Latino inmates were the *least* likely to engage in prison violence.

In contradiction, Griffin and Hepburn's (2006) study of inmates in Arizona observed that White inmates were more likely to be guilty of assault than either Black or Latino inmates, and they noted that White inmates were a racial majority both in the prison and in the larger community. Finally, several studies have established no significant relationship between race/ethnicity and prison violence (see Baskin, Sommers, & Steadman, 1991; Camp et al., 2003; Wright, 1989).

While it appears that a relationship between race/ethnicity and prison violence is generally accepted in the literature, there is variation in terms of which racial/ethnic minorities are more involved in violence. Schenk & Fremouw (2012) did note the unique demographic composition in different geographic locations as confounding the generalizability of findings. However, Steiner and Wooldredge (2009) argue that parallels between disadvantaged minority communities and prison environments are very relevant for understanding inmate violence in particular. Thus, a consideration of race/ethnicity and prison violence is important, but the regional variation must be considered.

Education

Education has consistently, but not uniformly, been shown to predict prison misconduct and violence. In a sample from the state of Washington (along with New York and Vermont), Wooldredge et al. (2001) found education to be a predictor of prison misconduct. Less education has also been found to be a strong predictor of violent misconduct in studies conducted in Arizona, Florida, and Missouri (see Berg & DeLisi, 2006; Cunningham et al. 2005; Cunningham & Sorenson, 2006; DeLisi et al., 2004).

Despite the consistency of findings that level of education predicted prison violence, the research findings were not uniform. In a study of victimization, Wooldredge and Steiner (2012) found background and lifestyle factors, including education, to be conditioned by race. Specifically, education was a strong predictor of the odds of victimization for property offenses for Whites but not for violent offenses, and education was not a strong predictor of victimization for African American inmates for either property or violent offenses. However, in a critical review of the literature of individual characteristics related to prison violence, Schenk and Fremouw (2012) examined a sample of over 500 studies and found that, while examining education was not a primary goal in any of the studies, it was a consistently strong predictor of prison violence. They expressed encouragement in education as an individual level variable that was dynamic and could be enhanced during incarceration.

Community Ties

While there is much research on the effects of residence and residency ties on post-prison reintegration into the community (Latessa, 2004; Metraux & Culhane, 2004, 2006; Roman, 2004), there are few on the potential effects of these on prison misconduct and, specifically, violence. By residence we mean whether or not an inmate was homeless prior to incarceration (and presumably without a home to return to upon release), and residency ties refers to visitation and social support from outside the prison. Again, we find that the literature focuses primarily on general prison misconduct rather than specific indicators of violence.

Visitation has been associated with lower misconduct generally, but consistency in visitation had a much stronger effect (Cochran 2012). Siennick et al. (2012) examined visitation and disciplinary infractions (including contraband) and determined that the probability of infractions decreased in anticipation of visits and substantially increased immediately after, then eventually leveled off. They

attributed the increase to spousal visits and infractions for contraband. The Minnesota Department of Corrections (2011) investigated the impact of visitation on recidivism (both new offenses and technical revocations). They observed that visits from siblings, in-laws, and fathers were most beneficial but visits from spouses increased the risk of recidivism.

Social ties and family support have been associated with a lower likelihood of serious misconduct, which included primarily violent behaviors (along with escape and possession of a weapon; Berg & DeLisi, 2006; DeLisi et al., 2004). While not specifically examining prison misconduct or violence, Warren, Hurt, Loper, & Chauhan (2004) determined that close ties to the outside (having a spouse and supportive family and visits from children) predicted better adjustment to prison for women.

There seems to be ample support in the research that visitation and social support do have an impact on prison adjustment and the likelihood of misconduct including violent misconduct. However, the potential impact of prior homelessness is absent and is a factor that the current research considers. As homelessness appears to impact post-prison reintegration, it could also impact prison integration as seen through violent infractions.

Effects of Classification and Programming on Inmates

Research suggests that while individual-level factors are powerful influences on prison violence, administrative prison-level factors may influence prison violence as well (Cunningham et al., 2011). In a review of the empirical research over the previous two decades, Byrne and Hummer (2007) assessed whether a subgroup of high risk inmates who would likely be involved in prison violence could be identified and whether such evidence would support the idea that current classification systems reduced the risk to others. They concluded that current classification systems neither predicted prison violence very accurately nor reduced that violence. They argued for a shift in emphasis toward classifying inmates on the basis of changing them (programming/treatment) more so than identifying them for increased levels of control. Byrne and Hummer (2007) further lamented that very little quality research had been conducted (they reviewed 14 studies from a 20 year period) and that research specifically linking classification, program placement, and in-prison behavior had not been conducted.

Classification systems in prisons were more focused on external classification (custody level and where the prisoner was sent) than on internal classification (which housing units and which facility programs; Austin, 2003). Austin (2003) also showed that classification and other risk assessment instruments were commonly implemented without proper design and testing and that sufficient staff training and monitoring was lacking. Additionally, classification and risk assessment instruments were often very complicated, and Austin identified a direct relationship between how complicated the classification process was and how reliable it would be. Makarios and Latessa (2013) saw substantial differences between risks and needs assessment instruments used in prisons and argued that the two types should be separated.

Much of the research on classification is focused on the broader and more common dependent variable of prisoner misconduct rather than violence. When studying dangerous misconduct (assault, robbery, and drug trafficking) in the California prison system, Berk, Kriegler, & Beck (2006) concluded that dangerous misconduct was a rare event (3% of inmates). They further determined that for every true positive prediction of the classification scheme, there were ten false positives. This was deemed an acceptable cost as the false positives were "almost a sure bet to engage in one of the less serious forms of misconduct" (Berk et al., 2006, p. 9). They observed that inmates at the highest risk for misconduct were young, had long criminal records and sentences, and were gang affiliated both on the street and in the prison. Austin (2003) also established that prisoners likely to be involved in misconduct were young men with a history of violence and/or mental illness, those who were gang affiliated, and those who had recent disciplinary actions and were not involved in prison programming. Likewise, Camp et al. (2003) discovered that age and prior misconduct were the strongest predictors of misconduct in the federal prison system.

Correctional treatment is another important factor pertaining to prison misconduct. In a meta-analysis reviewing 68 studies, French and Gendreau (2006) found that behavioral treatment programs (rather than non-behavioral such as educational or vocational programs) had the strongest effects and that programs associated with the most reductions in misconduct were also associated with larger reductions in recidivism. These findings were consistent with previous meta-analyses conducted by Keyes (1996) and Morgan and Flora (2002). French and Gendreau (2006) also recognized large gaps in the research literature and called for additional research that specifically defined prison context and criterion variables, employed longer follow-up periods, and specified offender characteristics

(especially risk level). This finding coincided with Byrne and Hummer's (2007) argument that little research linking classification and program placement to prison misconduct had been done. Our research builds on this omission and specifically examines the impact of internal programming on inmates' prevalence of prison violence.

Hypotheses

While the research on gender and prison misconduct is mixed, we hypothesize that men will commit more violence in prison, as women are less likely to be associated with violence than men. We also hypothesize that minorities will commit more violence in prison than Whites in the state of Washington and that those with a high school diploma or GED will be less likely to engage in prison violence. Using homelessness in particular, we expect that such individuals will be associated with greater prison violence, as the homeless will have fewer ties to the community. Finally, while few studies have considered the influence of internal administrative-level factors on prison violence, we hypothesize that those in behavioral programming will be associated with less violence.

Methods

Data and Cases

The current study uses data from the Washington Department of Corrections (DOC). All inmates incarcerated for a twenty-month period between January 1, 2009 and August 31, 2011 were included with a sample breakdown of 6,674 females (17.3%) and 31,842 males (82.7%). Data were collected on demographic information such as gender, race, type of offense, sentence length, and repeat incarceration. The data also include such factors as residency prior to incarceration, as well as internal programming and prison visitation.

Dependent Measure

As we are simply interested in prevalence of committing a violent infraction in prison, the dependent measure is a dichotomous "yes" or "no" dummy variable.[1] Using official report data on infractions for the entire cohort (*N*=38,516), the Washington State DOC recognizes approximately 309 types of misconduct infractions of which 58 (18.77%) are coded as violent (See Appendix).[2] A strength of our dependent measure is that previous studies including sex in prison have not differentiated between consensual and violent sexual acts, even though consensual sex is less of a threat to inmate and institutional security (Saum, Surratt, & Inciardi, 1995; Wolff, Blitz, Shi, Bachman, & Siegel, 2006). However, our dependent measure does make this distinction and only focuses on violent sexual acts.

Independent Measures

Gender. Gender is a dummy variable with male as the reference category.

Race/Ethnicity. Race/ethnicity is measured with six dummy variables for Asian/Pacific Islander, Black, Latino, Native American, Other, with White as the reference category. The state of Washington has a comparatively large percentage of Latinos and Native Americans in the general and prison population. These data allow for a robust consideration of race.

Education. Inmates who do not have a high school diploma can obtain a GED in prison. All inmates who successfully pass their GED exam while incarcerated are noted by the DOC and thus documented as someone who did not have a high school degree before entering prison. Our education dummy variable compares those with a high school degree before incarceration to those who did not have one.

Residence. The state of Washington documents whether inmates had a place of residence before incarceration or whether they were homeless. Previous research has considered residency ties to prison infractions, but none has specifically looked at homelessness. This dummy variable compares those who were homeless before incarceration to those who were not.

Residency ties. We use visitation as a proxy for residency ties and social support from outside prison. Each prison facility in the state of Washington has different regulations on the number of visitors per visit. However, the maximum number of visitors per visit in any facility is ten. This research uses overall number of visitors as a proxy for visitation. Much research on visitation examines ties to recidivism and suggests that greater frequency of visitation is most important to reduce recidivism (see Bales & Mears, 2008; Minnesota Department of Corrections, 2011). Thus, rather than just considering whether an inmate has a visitor or not, we consider how many visitors they had. Based on the frequency distribution for visitation, four categories of coding were created for those with fewer than ten visitors, eleven to one hundred, one hundred one to five hundred, and over five hundred visitors.

However, an inmate who has served a shorter sentence and has the same number of visitors as one with a longer sentence arguably has more social ties. Thus, the number of visitors is standardized by sentence length through the creation of z scores to make comparisons between these different groups.

Programs. Initial classification in the state of Washington puts inmates into internal programs that are deemed necessary to help each individual become a law-abiding citizen upon release. An inmates' involvement in three prison programs are documented: Family relations, offender change, and chemical treatment.[3] The family relations program focuses on improving the inmates' relationship with their families and children in particular. The offender change program has many components, most notably moral reconation therapy (MRT) and stress and anger management (SAM). The goal of MRT is to improve pro-social reasoning and behaviors among inmates, while SAM creates an understanding of anger and stress triggers and provides tools to channel this anger/stress in non-violent ways. The chemical treatment program focuses on an inmate's addiction to alcohol and/or drugs.

Control Variables

Control variables include offense type, sentence length, and repeat incarceration. All offenses for which the inmate is currently incarcerated are classified into one of three categories: violent offense, property offense, or drug offense. Thus, we take into account and control for a criminal history of violence (see Sorensen & Davis, 2011). Previous research on prison general misconduct and violence has specifically suggested that sentence length can exert an influence, with prison violence more likely to occur during the early part of incarceration and/or among those with shorter sentences (see Berg & DeLisi, 2006; Camp et al., 2003; Cunningham & Sorensen, 2007; Wooldredge et al., 2001). Once again, based on the frequency distribution of sentences in the state of Washington during the 20-month period, we classify sentence length into five categories: less than one year, one to one and one-half years, one and one-half to two years, two to three years, and more than three years.

Inmates with simple repeat incarceration have also been shown to display increased general misconduct and/or specifically violence within prison (see Berg & DeLisi, 2006; Cunningham et al., 2005; Hardyman et al, 2002; Kuanliang & Sorensen, 2008; Steiner & Wooldredge, 2008). To control for this possibility, we include a "yes" or "no" dummy variable whether this was the individual's first admission to prison or a readmission.[4]

Analytical Strategy

To test whether gender, race/ethnicity, education, residence, residency ties, and programming were associated with violent infractions within prison, binomial logistic regression was employed due to the dichotomous nature of the dependent variable. Initial descriptive and bivariate analyses were conducted before regressions were run. This initial analysis considered frequency and percentage of offending as well as relative odds of offending.[5]

Analysis

Descriptive and Bivariate Analysis

Table 1 presents initial descriptive and bivariate analysis of gender, race, residence, residency ties, and programming association with violent infractions in prison. Descriptive percentages for gender indicate that the majority of both males and females do not commit violent infractions within prison. Bivariate results for race show that while most inmates do not commit violent infractions, Latinos commit the most violent infractions followed by Native Americans. In fact, using Whites as the reference category, Latinos are 3.20 times more likely to commit a violent infraction while incarcerated followed by Native Americans at 2.20 times more likely.

Descriptive and bivariate analyses also indicate that those without a high school degree before entering prison are four times more likely to commit violent infractions in prison than those with a high school degree. Further, having a place to live prior to incarceration suggests that the bivariate odds of the inmate committing a violent infraction are only approximately half (0.55) that of being homeless prior to incarceration.

Finally, descriptive and bivariate results show that those inmates involved in each of the various forms of prison programs (family relations, offender change, and chemical treatment) commit more violent infractions than those not in such programs. Also, most inmates do not receive visitors and those inmates with visitors commit more violent infractions than those without visitors.

Table 1 - Descriptive and Bivariate Analysis of Gender, Race/Ethnicity, Education, Residency, Programming, and Visitation on Violent Infractions in Prison (N=38,516)[a]

	No Violent Infraction	Yes Violent Infraction	Total	Relative Odds [b]
Gender (Male Reference)				
Male	29,826 (93.7)	2,016 (6.3)	31,842 (82.7)	1.00
Female	6,388 (95.7)	286 (4.3)	6,674 (17.3)	0.66
Race (White Reference)				
White	26,218 (95.2)	1,334 (4.8)	27,552 (71.5)	1.00
Asian/Pacific Islander	1,149 (95.0)	60 (5.0)	1,209 (3.1)	1.00
Black	5,466 (91.5)	509 (8.5)	5,975 (15.5)	1.80
Latino	1,544 (86.3)	245 (13.7)	1,789 (4.6)	3.20
Native American	1,141 (90.1)	125 (9.9)	1,266 (3.3)	2.20
Other	696 (96.0)	29 (4.0)	725 (1.9)	0.80
Education (Yes Reference)				
High School Degree - Yes	34,665 (94.7)	1,927 (5.3)	36,592 (95.0)	1.00
High School Degree - No	1,549 (80.5)	375 (19.5)	1,924 (5.0)	4.00
Homelessness (Yes Reference)				
Homeless - Yes	2,814 (90.0)	311 (10.0)	3,125 (8.1)	1.00
Homeless - No	33,400 (94.4)	1,991 (5.6)	35,391 (91.9)	0.55
Visitors (Zero Reference)[c]				
Zero	30,324 (96.0)	1,270 (4.0)	31,594 (74.0)	1.0
Less than Ten	5,890 (85.1)	1,032 (14.9)	6,922 (16.2)	4.25
Eleven to One Hundred	3,135 (85.3)	540 (14.7)	3,675 (8.6)	4.25
One Hundred One to Five Hundred	421 (85.2)	73 (14.8)	494 (1.2)	4.25
Programming (Family Relations Reference)[d]				
Family Relations	5,081 (86.5)	794 (13.5)	5,875 (19.2)	1.00
Offender Change	13,611 (87.7)	1,908 (12.3)	15,519 (50.6)	0.88
Chemical Treatment	8,331(90.0)	921 (10.0)	9,252 (30.2)	0.69
Control Variables				
Sentence Type (Violent Offense Reference)				
Violent Offense	10,701 (93.6)	727 (6.4)	11,428 (30.0)	1.00
Property Offense	12,769 (94.5)	746 (5.5)	13,515 (35.5)	0.86
Drug Offense	12,644 (96.2)	499 (3.8)	13,143 (34.5)	0.57
Sentence Length (Less than One Year Ref.)				
Less than One Year	26,156 (95.2)	1,333 (4.8)	27,489 (65.8)	1.00
One to One Half Years	2,951 (81.8)	657 (18.2)	3,608 (8.6)	4.40
One Half to Two Years	6,323 (96.1)	255 (3.9)	6,578 (15.7)	0.80
Two to Three Years	2,887 (89.9)	326 (10.1)	3,213 (7.7)	2.20
More than Three Years	869 (95.0)	46 (5.0)	915 (2.2)	1.00
Repeat Incarceration (Yes Reference)				
Repeat Incarceration - Yes	5,689 (83.2)	1,145 (16.8)	6,834 (17.7)	1.00
Repeat Incarceration - No	30,525 (96.3)	1,157 (3.7)	31,682 (82.3)	0.20

[a] Percentages are shown in parentheses
[b] Reference categories used to calculate relative odds
[c] Those with more than five hundred visitors were too small
[d] The programming total does not equal 100% as not all inmates were enrolled in these 3 programs

Multivariate Analysis

The results of multivariate analysis are presented in Table 2. Using logistic regression, Blacks, Latinos, and Native Americans have greater odds of committing a violent infraction within prison than Whites. Supportive of the bivariate results above, Latinos are 2.09 times more likely to commit a violent infraction within prison than not. Further, those inmates without a high school degree and who are homeless before entering prison have greater odds of committing a violent infraction in prison. The results of the multivariate analysis also further clarify the bivariate results as they show specifically those inmates who have fewer than ten visitors have greater odds of committing a violent infraction in prison. However, while not significant, those with more than ten visitors actually engage in less prison violence.

This is consistent with previous literature on the influence of visitation.

All inmate programs are significantly tied to violence within prison. Interestingly, those inmates in chemical treatment have lower odds of committing a violent infraction within prison, while those inmates in the family relations and offender change program have much higher odds of committing a violent infraction in prison. Finally, those inmates incarcerated for a violent offense have greater odds of committing another violent offense in prison, and those inmates who have been previously incarcerated have greater odds of committing a violent infraction in prison. Surprisingly, no significant difference is observed between the odds of males and females committing violent infractions within prison. Both are equally likely to be involved in prison violence.

Table 2 - Logistic Regression of Gender, Race/Ethnicity, Education, Residency, Programming, and Visitation on Violent Infractions in Prison (N=38,516)

	B [a]	Odds [b]
Female	0.03 (0.07)	1.03 (0.90, 1.18)
Race[c]		
Asian/Pacific Islander	0.08 (0.14)	1.08 (0.82, 1.43)
Black	0.30***(0.06)	1.35 (1.20, 1.51)
Latino	0.74***(0.08)	2.10 (1.80, 2.45)
Native American	0.44***(0.11)	1.55 (1.26, 1.90)
Other	0.36 (0.20)	1.44 (0.97, 2.14)
No High School Degree	0.86***(0.07)	2.36 (2.07, 2.70)
Homelessness[d]	-0.47***(0.07)	0.63 (0.55, 0.72)
Visitors		
Less than Ten	0.22***(0.02)	1.24 (1.19, 1.30)
Eleven to One Hundred	-0.01 (0.02)	0.99 (0.95, 1.03)
One Hundred One to Five Hundred	-0.01 (0.02)	0.99 (0.96, 1.03)
More than Five Hundred	0.00 (0.02)	1.00 (0.97, 1.04)
Programming		
Family Relations	0.12*(0.05)	1.13 (1.02, 1.26)
Offender Change	1.28***(0.07)	3.58 (3.14, 4.08)
Chemical Treatment	-0.12*(0.05)	0.89 (0.80, 0.98)
Control Variables		
Violent Offense	0.30***(0.05)	1.35 (1.22, 1.50)
Property Offense	0.06 (0.05)	1.06 (0.96, 1.17)
Drug Offense	-0.22***(0.06)	0.80 (0.71, 0.90)
Less than One Year	0.01(0.08)	1.01 (0.87, 1.18)
One to One Half Years	0.82***(0.08)	2.28 (1.95, 2.66)
One Half to Two Years	-0.12 (0.09)	0.89 (0.75, 1.05)
Two to Three Years	0.21*(0.09)	1.24 (1.04, 1.47)
More than Three Years	-0.26 (0.17)	0.77 (0.56, 1.07)
Repeat Incarceration	0.92***(0.05)	2.51 (2.27, 2.78)
Intercept	-3.99***(0.11)	

[a] Standard Errors in Parentheses
[b] 95% Confidence Intervals in Parentheses
[c] White Reference Category
[d] Yes Homeless Reference Category
* $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

Overall, our research provides some important and surprising findings on indicators representing the background characteristics of inmates, their ties to the community, and the effects of classification and programming on prison violence. We hypothesized that minorities would commit more violent infractions than whites, but found that while there were more violent infractions among Latinos, Black involvement was similar to Whites. It appears that dynamics other than minority status are involved in

predicting violence in Washington state prisons. We suggest that this represents regional variability with prison violence and race/ethnicity that can be explored in future research on other regions of the country.

Surprisingly, and in notable opposition to our hypothesis, no significant difference in prison violence is determined by gender. This is contrary to previous research (see Austin, 2003; Berg & DeLisi, 2006; Sorensen & Cunningham, 2010; Wulf-Ludden, 2013). While the dynamics of interpersonal relationships among female inmates are quite different from men, perhaps this indicates some support for increased volatility and thus more prison violence among women than previously seen (Greer, 2000). This would suggest that more research on gender and prison violence is necessary to determine if rates of men's and women's involvement in prison violence are converging.

No studies have assessed the impact of homelessness prior to incarceration on prison violence. Using homelessness as a proxy for residence and community ties, we find that such individuals are more likely to be involved in prison violence. This could have implications for recidivism. If the inmate was homeless prior to incarceration (and presumably without a home to return to upon release), then they may be more likely to repeat offend. Dyb (2009) finds that incarceration increases homelessness post release, so homelessness and incarceration can also be seen as mutually reinforcing. Interestingly, in our study, visitation is a weak predictor of prison violence.

Our findings on the effects of classification and programming are mixed. Specifically, those inmates in chemical dependency programming show lesser prison violence. However, those inmates involved in the offender change programming are much more likely to be involved in prison violence. This shows support for internal prison classification in the state of Washington as the DOC decides which program(s) are appropriate for each inmate upon entry into the prison system. As the offender change program includes stress and anger management, perhaps this indicates that the state is correctly identifying those inmates that truly need to be in the offender change program and appropriately placing them. This contradicts Byrne and Hummer's (2007) finding that current classification systems are not effective in identifying a subgroup of high risk inmates who are likely to be involved in prison violence.

Limitations

Our research is limited to official report data. However, as our focus is violent infractions in prison, it can be assumed that potential bias within the system would exert a lesser effect as these more serious types of infractions would be documented no matter who the offender or facility security level. We also do not have access to age or marital status as a predictor of prison violence. However, we do include a new indicator – namely homelessness – that has not been previously considered when researching community ties.

Further, no causal time ordering can be drawn from our findings. As such, our findings on the effects of internal prison programming are difficult to assess. It would be necessary to know whether the incidence of violence occurred prior to, during, or after participation in the offender change program for the state of Washington to truly know whether its behavioral programming is working.

Current pilot projects at two Washington state prisons are considering such before and after offender change programming variability in prison violence. Initial results distributed in a 2013 Washington State DOC news release show a dramatic decrease in violence after just a nine-month involvement in the offender change program (Washington DOC, 2013).

Further, until recently, prison gangs have not been a problem and thus not recognized in the Washington State DOC, so prison gangs are not assessed here. However, research suggests that gangs are tied to prison violence among males (see Gaes et al., 2002; Griffin & Hepburn, 2006; Worrall & Morris, 2012).[6] Only in the last few years has the Washington State DOC segregated inmates based on gang membership, specifically those claiming affiliation with the Nortenos and Surenos (predominantly Latino gangs).

Future Research

Further research should be done to assess whether the findings on race/ethnicity are regionally specific and if they are tied to gang crime in central Washington. Central Washington has a high concentration of Latino citizens including migrant laborers involved in the agricultural industry. Unfortunately, many of these communities struggle with high levels of illegal gang activity (Moreno, 2006). Future research should also test for regional variation in race/ethnicity in national samples. Finally, future research should include gang activity and also see if the finding of no significant difference in prison violence between men and women can be seen in other states. This could indicate a trend where women are becoming as violent as men in prison.

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Endnotes

[1] As the study includes everyone incarcerated in the state of Washington over a 20-month period, data are available to look at incidence of prison violence. However, for the purpose of this study, we were only interested in prevalence of prison violence as we are looking at correlates of prison violence generally and not the number of times an individual inmate engages in prison violence.

[2] Using the accepted Uniform Crime Report (UCR) definition of violent crime, all infractions that involved murder, rape or sexual assault, robbery, and aggravated assault were coded as violent.

[3] We do not have information on how long the individual was in a program, just whether they were enrolled. This is further discussed in the limitations section.

[4] As the focus is violence committed while incarcerated, no other type of sentence (i.e., probation and community corrections) are considered in the repeat incarceration variable.

[5] Before conducting analyses, a variance inflation factor (VIF) test was run on all variables to check for multicollinearity. No VIF above 4 was found, indicating that multicollinearity was not a problem in this study. Further, scatterplots tested for heteroscedasticity in the data. Normal distributions show that very little variance is left after accounting for the independent variables and heteroscedasticity is not present.

[6] As gangs are not a recognized problem among female inmates, their prison violence must be attributed to something other than gangs.

Appendix - Operationalization of Dependent Measure

Violent Infraction Description	Violent Infraction Code
Homicide	89,90
Aggravated Assault/Inmate	91,92
Fighting	97,98,310
Threatening	99,100,311
Aggravated Assault/Visitor	108,109
Holding Hostage	113,114
Disease Transfer	146
Cause Inmate Injury	147
Aggravated Assault/Staff	156,157
Sexual Assault Staff	173,174,175
Attempted Sexual Assault/Staff	176,177
Abusive Sexual Contact/Staff	178,179
Assault/Inmate	182
Assault/Offender	183
Sexual Assault/Offender	184,185
Attempted Sexual Assault/Offender	186,187,188
Abusive Sexual Contact/Offender	189,190
Rioting	191,192,362
Inciting Riot	193,194,363
Strong Arming/Intimidation	216,217
Cause Staff Injury	221
Assault/Non Hospital	227
Assault/Staff	228
Assault/Visitor	242,243
Attempted Suicide	245,246
Attempted Self-Mutilation/Harm	247,248
Refuse w/ Staff Injury	300
Resist Order w/ Staff Injury	301
Injure a Visitor	304
Assault/Hospital	306
Assault	307
Holding Hostage	333
Refuse Medical Order/Injury	382