

The Impact of Inmate Characteristics on Perceptions of Race Relations in Prison

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Abstract: *Race relations is an issue of great concern to correctional administrators. Prior correctional research has examined only tangentially the impact of race and other sociodemographic variables on inmate perceptions of the institutional experience. Virtually no research has been conducted on Hispanic inmates, one of the fastest growing inmate populations. This research builds on prior research on the impact of race on inmate adjustment patterns, and adds to the literature by including other significant sociodemographic and criminal history variables as well as including a significant number of Hispanic subjects. The authors surveyed 775 recently released Texas inmates, or exmates. Exmates were asked their perceptions of race relations in prison. The relationship between selected sociodemographic and criminal history characteristics and exmate perceptions of race relations is examined.*

INTRODUCTION

Modern research on inmate adjustment to incarceration dates from Clemmer's (1940) pioneering study of a large prison. Clemmer, and many who followed him (Sykes, 1958), attempted to explain how inmates adapted to the prison environment by focusing on and depicting the inmate subculture. Later researchers (Carroll, 1974; Jacobs, 1977; Thomas, 1977) decried the overemphasis on the "pains of imprisonment" as the key to understanding inmate adjustment patterns, and instead focused on the attributes such as race, age, and life experiences, that inmates brought with them to prison.

These later researchers noted that as the inmate demographic began to change in the 1960s and minorities became numerically dominant in prison, race relations became a major issue (Jacobs, 1976). In 1968, the Supreme Court declared that racial segregation was unconstitutional in prison (*Lee v. Washington*, 1968). Inmate gangs formed along largely racial and ethnic lines, and many prison systems, including California (Davidson, 1974) and Texas (Fong, 1990; Ralph, 1997), experienced problems with gang and race-related violence. Researchers in the 1970s and 1980s began to focus on the impact of race on prison management (Crouch & Marquart, 1990), as well as inmate adjustment patterns (Wright,

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1989). Racial relations continue to be a problem in a number of jurisdictions today.

Prison today is different from the prison of the 1970s, just as the prison of the 1970s differed dramatically from the prison of the 1930s and 1950s. More people are incarcerated, and a disproportionate number of those incarcerated today are people of color. Hispanics in particular are being incarcerated at a much greater rate than in the past. This research builds on prior research on the impact of race on inmate adjustment patterns, and adds to the literature by including other significant sociodemographic and criminal history variables as well as including a significant number of Hispanic subjects. The authors surveyed 775 recently released Texas inmates, or *exmates*. Exmates were asked their perceptions of race relations in prison. The relationship between selected sociodemographic and criminal history characteristics and exmate perceptions of race relations is examined, with an emphasis on the differential responses of White, Black, and Hispanic exmates.

PRIOR RESEARCH

The sociological literature is rife with studies of prison life and inmate adjustment patterns. Clemmer (1940) observed that the written rules and regulations of the institution explained only a part of how a prisoner adjusted to incarceration. Equally, if not more, important was the informal social system created by the inmates. He developed the concept of *prisonization* (Clemmer, 1940, p. 299) to explain how a prisoner becomes assimilated into the informal social structure of the prison.

Sykes (1958) developed further Clemmer's concept of prisonization, explaining the cause of inmate alienation as a reaction to the "pains of imprisonment" (pp. 63-83). Sykes identified the following five pains: loss of one's liberty, loss of material possessions, loss of heterosexual contact, loss of personal autonomy, and loss of personal security. These shared pains unified the inmate population and created a subculture based on a set of norms and values in opposition to those espoused by the prison staff.

The model of prison life developed by Clemmer and extended by Sykes became known as the "deprivation model" (Allen & Simonsen, 1995) or the "indigenous" or "functional" model (Irwin & Cressey, 1962). The model has received mixed empirical support. Research by others has lent some support to the concept of prisonization. Wheeler (1961), Garabedian (1963), Schrag (1961), Wellford (1967), Street (1970), Berk (1968), Grusky (1959), Wilson (1968), and Tittle (1968) tested the deprivation model in a variety of correctional institutions, and found at least some support for the concept, although the degree of support varied by institution type.

The deprivation model was challenged by researchers in the 1960s and 1970s, who criticized its disregard for the effects of life experiences such as criminal history, on inmate adjustment patterns (Carroll, 1974; Irwin, 1970; Irwin & Cressey,

1962; Jacobs, 1977). These writers argued that an inmate brought with him the code of the streets, which he used in modified form within the prison walls. Other researchers criticized the deprivation model for its failure to take into account the impact of individual characteristics such as race, age, and socioeconomic status, on inmate adjustment patterns. This was referred to as the "importation model." There is empirical support for the importation hypothesis (Carroll, 1974; Faine, 1973; Jacobs, 1977; Lawson, Segrin, & Ward, 1996; Thomas, 1970, 1977; Wood, Wilson, Jessor, & Bogan, 1968).

RACE AND INMATE ADJUSTMENT

Several studies have focused on the racial heterogeneity of the inmate population. Although earlier studies made passing reference to racial differences and their potential impact on the prisoner subculture (Sykes, 1958), the picture generally painted was one of inmate homogeneity. Regardless of whether such a picture was accurate then, indications are it certainly is not accurate today. Carroll (1974, 1982) and Jacobs (1974, 1976, 1977) both detail the changing inmate population, focusing particularly on racial differences.

Jacobs's description of Stateville prison portrayed the Black inmates as much more cohesive and unified than the White inmates. He argued this racially-based group unity was a direct consequence of the Black inmates' shared preprison experiences with racism and discrimination in their lives in general and the criminal justice system in particular (Jacobs, 1976, 1977). Carroll posited that blacks were successful in adjusting to prison not only because of their shared history of discrimination on the basis of race, but because so many of them came to prison from the urban ghetto, where "making it" on the streets required a greater degree of toughness (Carroll, 1982).

Goodstein and MacKenzie (1984) found that White and Black inmates did vary by race on the degree of prisonization and time spent in the criminal justice system. White inmates with multiple convictions were found to be more highly prisonized than Whites with one conviction, whereas Black inmates remained at the same level of prisonization regardless of the number of convictions (Goodstein & MacKenzie, 1984). Black inmates were also found to be more *radicalized* than White inmates, regardless of the length of confinement. These findings suggest Black inmates have a more negative attitude of the criminal justice system in general, possibly because they have suffered discrimination at the hands of criminal justice actors at all levels of the system. Goodstein and MacKenzie's research suggests there are significant differences between Black and White inmates. Unfortunately, they did not examine Hispanic inmates separately.

Several studies of racial differences in prison have found Black inmates significantly more likely to be involved in conflicts with either the staff or other inmates. Fuller and Orsagh (1977) found that Black inmates were more likely to

be aggressors than White inmates. Other studies have also found that interracial conflict most often involves a Black aggressor and a White victim (Bowker, 1980; Lockwood, 1980; Wooden & Parker, 1982). The evidence of racial differences on aggressive behavior is mixed, however. A number of other studies have found little or no support for the hypothesis that non-White inmates are in fact more aggressive or violent than White inmates when controlling for other factors such as age, number of prior arrests, and drug and alcohol dependency (Ellis, Grasmick, & Gilman, 1974; Goodstein & MacKenzie, 1984; Wright, 1988; Zink, 1957). Additionally, although a number of studies found Blacks much more likely to be involved in conduct that resulted in official condemnation by the prison administration (Flanagan, 1983; Ramirez, 1983), it has been suggested that racial discrimination on the part of prison administrators or correctional officers may account for this differential (Flanagan, 1983; Howard, Winfree, Mays, Stohr, & Classon, 1994; Poole & Regoli, 1980; Wright, 1988).

Other studies of racial differences in adaptation to prison indicate that White inmates may suffer from higher levels of stress and fear than Black inmates. One study found that White inmates are more likely to injure themselves intentionally (Wright, 1988). Other studies showed that White inmates had a greater number of psychological problems, including breakdowns (Johnson, 1987) and depression. Again, however, there may be alternative explanations. Goodstein and MacKenzie (1984) found no differences in the level of anxiety or the likelihood of depression among Black and White inmates.

AGE AND INMATE ADJUSTMENT

Age is frequently cited as an important explanatory variable in criminal justice (Gottfredson & Hirschi, 1991). A number of studies of violence in prison suggest that age is an important factor in inmate adjustment patterns. Age has been closely linked to the likelihood of aggressive behavior in prison. As inmates increase in age, there is a linear decline in the number of aggressive acts toward other inmates and/or correctional staff (Ekland-Olson, Supancic, Campbell, & Lenihan, 1983; Porporino & Zamble, 1984). This correlation mirrors the age-crime relationship in the free world (Gottfredson & Hirschi, 1991; Nagin & Farrington, 1992). However, a study of age and aggressive behavior in prison by MacKenzie (1987) revealed a slightly more complex picture. Rather than a linear decline with age, they found aggressive behavior rose until the late 20s, then declined. Additionally, interpersonal conflicts with other inmates remained high for a longer period of time than did interpersonal conflicts with correctional officers. Recent research suggests that age is related not only to the likelihood of being involved in violent activity in prison, but also to perceptions of prison as safe or dangerous. Hemmens and Marquart (1999) found that younger inmates were more likely to perceive prison as a dangerous place than older inmates.

METHODS

The data for this article were obtained from a survey administered by twelve graduate students during a 6-week period to 775 men just released from incarceration in the Texas Department of Corrections–Institutional Division (TDCJ-ID). These former inmates, or exmates, were interviewed at the bus station in downtown Huntsville. Although there are more than 100 prisons in TDCJ-ID, virtually all inmates are processed and released through one institution. Inmates are released through the front entrance of the Walls Unit, located in downtown Huntsville. They are provided with their personal belongings, a small amount of cash (in the form of a check from the state), and a voucher for a bus ticket to their destination. State law requires that persons released from prison must return to the place where they were convicted and sentenced; this requirement ensures that virtually all releasees will in fact go to the bus station upon their release.

As the former inmates approached the bus station to purchase their tickets, the interviewers asked them to participate in the survey. No material inducements were offered, and confidentiality was assured. Some exmates agreed to submit to the interview at this time, others agreed to be interviewed after obtaining their bus ticket, and still others agreed to be interviewed after first going to a nearby store or restaurant. Some exmates initially refused to cooperate, but later changed their minds and were interviewed while they waited for the bus to arrive. It was not uncommon for some exmates to initially refuse to participate, but then change their minds once they observed other exmates participating. When asked why they changed their minds, these respondents would often explain that, “I figured if you were going to get his opinion, I might as well put mine in too,” or words to that effect.

Some exmates refused to be interviewed, or were not approached by the interviewers. Those who refused to be interviewed provided a variety of reasons, ranging from distrust to apathy. Interviewers did not approach every exmate because there were times when there were too many exmates and not enough interviewers. The selection of who to interview was random in that interviewers simply attempted to contact as many exmates as possible, given the limited number of interviewers and the large number of exmates.

Although care was taken to create a research design that would yield accurate responses and generalizable results, there are areas of concern that may limit the usefulness of this study and that should be noted. These include the issues of selection and response bias.

SELECTION BIAS

A simple random sample is the best approximation of the population (Maxfield & Babbie, 1995). In this study, we did not undertake to collect a simple random sample, but rather approached as many members of the population under study (defined as all inmates released during the 6-week period of study) as possible and

sought to interview them. According to TDC data, 1,900 inmates were released during this 6-week time period, and 775 inmates were in fact interviewed. This represents a response rate of 41%. This is an acceptable level, but the question remains whether those who did not respond are systematically different from the whole population. If so, then selection bias exists, and this would limit the generalizability and accuracy of the survey results (Maxfield & Babbie, 1995).

Steps taken to limit selection bias in this research project included the following: (a) contacting exmates as soon as possible after their release from prison, so as to contact as much of the population as possible; (b) employing interviewers of differing ages, races, and genders in an effort to match as closely as possible the demographic characteristics of the exmate population and thus foster a sense of commonality and trust; (c) employing an interviewer who could communicate with Spanish-speaking exmates, so as not to exclude any non-English speaking members of the population; (d) reading the survey to exmates, so as not to exclude those members of the population with nonexistent or negligible reading skills; and (e) making the survey short and easy to respond to, to encourage exmates to participate. These measures should have reduced the amount of selection bias to a level that does not render the results meaningless.

RESPONSE BIAS

Related to selection bias is the problem of response bias. Response bias may occur when a portion of the sample chooses not to participate in the survey (Fowler, 1993). Where selection bias involves the exclusion of possible respondents from the sample by the interviewer, response bias involves the exclusion of possible respondents by the potential respondents themselves. Nonresponse may bias a sample if the nonrespondents are systematically different from the sample that is surveyed (Babbie, 1995).

In this survey, there were exmates who were contacted by the interviewers but who chose not to participate. Some gave no reason for their refusal. Reasons given for refusing to participate included general disinterest in the project (“What do I care about some survey?”), suspicion of the interviewer’s motives (“How do I know you don’t work for the state?”), and a lack of time (“I just got out of TDC and I want to have some fun, not sit around and answer some dumb survey”). Interviewers noted no apparent similarity among those who refused to participate—no one racial or ethnic group or age category seemed more likely to refuse to participate. Sometimes men in a group would not participate; sometimes men in a group would all participate. There was no appreciable pattern of nonresponse based on how, where, or when exmates were approached.

It was not possible to determine if certain groups of exmates with similar but unobservable characteristics refused to participate. Examples include if sex offenders in general chose not to participate, or if Catholic offenders chose not to participate. As the characteristics of sex offender and Catholic are not visible to the naked eye, and no information on offense type or religious affiliation was col-

lected from offenders who did participate, there is no way to know if members of these groups (or others) chose not to participate.

FINDINGS

SOCIODEMOGRAPHIC CHARACTERISTICS OF THE EXMATE SAMPLE

Descriptive statistics for the sociodemographic and criminal history characteristics of the 775 male exmates who constitute the sample are summarized in Table 1. Sample characteristics are similar to national level data regarding sociodemographic characteristics of male inmates in 1994 (Gilliard & Beck, 1996).

Blacks are the largest racial/ethnic group in the exmate sample, comprising almost half (48%) of all respondents. Whites account for approximately one third (33.7%) of all respondents, whereas Hispanics make up just more than 17% (17.2%) of the sample. The racial/ethnic composition of the sample is similar to the racial/ethnic composition of inmates nationally. National statistics indicate that 45.6% of inmates are White, and 48.2% are Black/minority (Gilliard & Beck, 1996). The percentage of Hispanic inmates has increased dramatically on a national level. In 1980, Hispanic inmates accounted for less than 8% of the prison population in the United States, but by 1993 this figure had increased to slightly more than 14% (Gilliard & Beck, 1996). The figures for Hispanic inmates are estimates, as many jurisdictions do not keep separate counts for Hispanic inmates but instead include them in the Black or minority category (Maguire & Pastore, 1995). Researchers have estimated that the true percentage of Hispanic inmates nationally may be closer to 17% (Gilliard & Beck, 1996). Texas does record the number of Hispanic inmates, and TDCJ-ID statistics show that as of 1993 (the latest statistics available), there were 14,307 male Hispanic inmates, compared with 27,568 Black inmates and 16,594 White inmates. The racial/ethnic breakdown in Texas prisons, then, is 28.3% White, 47% Black, and 24.4% Hispanic (Snell, 1995). The racial/ethnic composition of the exmate sample closely mirrors that of Texas prisons.

The average age of the exmate sample is 32.98 years. White exmates are slightly older, with a mean age of 33.84 years, compared with a mean age of 32.67 years for Black exmates and 32.16 years for Hispanic exmates. The difference in mean ages is not statistically significant. Precise national statistics on age are not kept, but estimates of the number of inmates by age category by the United States Bureau of Justice Statistics suggest the mean age of the exmate sample is in line with national statistics. Approximately 55% of all inmates are age 32 or younger, whereas 45% are age 33 or older (Snell, 1995). Additionally, the median age of inmates on admission (a statistic that is kept) was 29 years in 1992 (Perkins, 1994).

TABLE 1
SOCIODEMOGRAPHIC AND CRIMINAL HISTORY
CHARACTERISTICS OF THE EXMATE SAMPLE

<i>Characteristic</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
Race/ethnicity					
White	261	33.7			
Black	363	46.8			
Hispanic	133	17.2			
Other	17	2.2			
Age					
17 to 29	289	37.3			
30 to 39	326	42.1			
40 to 49	119	15.4			
50 to 72	36	4.6			
Mean age			32.99	8.67	17 to 72 years
Education level					
No high school degree	429	55.4			
High school degree	223	28.8			
Some college	87	11.2			
College degree	28	3.6			
Mean education level			10.96		4 to 20 years
Prior incarcerations					
0	351	45.3	2.44	1.19	
1	61	7.8			
2	215	27.7			
3 or more	148	19.1			
Years in prison					
1 to 3	112	26.9	6.08	4.46	
4 to 5	141	33.8			
6 to 9	164	39.3			
Age at first arrest					
Younger than 17 years	379	48.9	19.37	6.75	
18 years	88	11.4			
19 to 21 years	111	14.3			
22 to 29 years	128	16.5			
30 or older	56	7.2			

The mean years of education completed for the exmate sample is just under 11 (10.96) years, or less than a high school degree (12 years). More than half (55.4%) of all the exmates have not completed high school. Slightly more than one quarter (28.8%) of the exmates have a high school degree or GED, whereas 15% have at least some college experience. National statistics on inmate education level indi-

cate that roughly 40% of all male inmates do not have so much as a high school degree, whereas slightly less than 47% have a high school degree, and slightly more than 13% have at least some college experience (Snell, 1995). The national median education level of inmates at admission in 1992 was 11 years (Perkins, 1994). This closely mirrors the exmate sample. Comparison of the exmate and national samples reveal exmates as a whole are somewhat less educated than inmates nationally, with a greater percentage of exmates having failed to graduate from high school.

SOCIODEMOGRAPHIC CHARACTERISTICS BY RACE/ETHNICITY

The statistics of the exmate sample, examined in the aggregate, mask several significant differences between racial/ethnic groups. As reported above, Blacks constitute the largest racial/ethnic group in the sample, almost half (48%) of all respondents. Whites account for one third (33.7%) of all respondents, and Hispanics make up just more than 17% (17.2%) of the sample. Although many jurisdictions do not keep statistics on the number of Hispanic inmates, instead including them in other racial categories, the statistics that are available indicate that Texas has a higher proportion of Hispanic inmates than many states. This is not unexpected, as the number of Hispanics living in Texas is higher than many states.

The three racial/ethnic groups do not vary much by age. The mean age for Whites (33.84 years) is slightly higher than the other two groups. Black exmates have a mean age of 32.67 years, whereas Hispanic exmates have the lowest mean age of the three groups, at 32.16 years. The differences in the mean scores of the three groups are not statistically significant.

The three groups do demonstrate some difference in education level. Black exmates have the highest mean for years of education, 11.27. Whites have a mean education level of 11.00 years. Hispanic exmates have a mean education level of 10.06 years, more than a full year less than Black exmates. It comes as no surprise that Hispanic exmates are less educated than White or Black exmates, as Hispanics nationally are less well-educated than Whites or Blacks.

PERCEPTIONS OF RACE RELATIONS IN PRISON

The number of gang-related deaths and violent attacks in Texas prisons has dropped dramatically since the mid-1980s, when gang activity was at its highest (Crouch & Marquart, 1990; Fong, 1990), but race continues to be an issue in Texas prisons as increasing numbers of inmates and correctional staff are minority group members (Huang, 1996). Exmates were asked their perceptions of race relations in Texas prisons today. Their responses are analyzed below.

ANALYSIS OF VARIANCE

Exmates were asked two questions dealing with their perceptions of race relations in prison today. Exmates were asked their level of agreement with the statements “race is a big problem in TDC” and “allowing inmates of different races to live in separate living areas is a good idea.” The possible range of scores was from 1 (*strongly agree*) to 4 (*strongly disagree*). A lower mean score indicates that an exmate group tends to agree with the statement, a higher mean score indicates that an exmate group tends to disagree with the statement.

Several sociodemographic and criminal history variables were collected and used in the analysis. Selection of these variables was based on prior research (Goodstein & MacKenzie, 1984; MacKenzie, 1987; Wright, 1989). Sociodemographic variables include race/ethnicity, age, and education. Criminal history variables include age at first arrest, number of prior prison sentences, and number of years spent in prison. Analysis of variance is used to determine if there are statistically significant differences in the mean scores of the respondents in the various categories. The results are displayed in Tables 2 and 3.

RACE/ETHNICITY AND PERCEPTIONS

Exmates differ in their perceptions of race relations in prison. The mean score on the variable “race is a big problem in TDC” is 1.807 for Whites, 1.865 for Hispanics, and 2.141 for Blacks. On this item, the difference in means is statistically significant at the .05 level for Black and White exmates, and for Black and Hispanic exmates. White and Hispanic exmates are more likely to perceive race relations as an issue of concern than are Black exmates. Additionally, whereas Black exmates tend to agree less strongly with the statement, it should be noted that exmates as a whole tend to agree, rather than disagree that race is a problem. The mean score for all exmates is 1.97 on a scale from 1 to 4, indicating inmates are more likely to agree than disagree with the statement.

Racial/ethnic identity also impacts on exmate support for allowing inmates of different races to live in separate quarters. Black exmates evince less support for such a policy than White or Hispanic exmates. The mean score for Black exmates (2.933) is higher than the mean score for White exmates (2.296) or Hispanic exmates (2.436). The difference in mean scores of Black and White and Black and Hispanic exmates is statistically significant at the .05 level, as it was on the prior item. This result is logical, given that White and Hispanic exmates perceive race as more of a problem than Black exmates—if one sees race as a problem, it makes sense that one might perceive as palatable a policy that separates the races, thus presumably reducing the potential for racial conflict. As for why Black exmates are less likely to see race as a problem, a possible explanation is that they constitute a near-majority of the prison population. There may be some truth to the

TABLE 2
 PERCEPTIONS OF RACE AS A PROBLEM
 ("RACE IS A BIG PROBLEM IN TDC") BY SELECTED
 CHARACTERISTICS USING ANALYSIS OF VARIANCE

	N	Mean	SD
Race/ethnicity			
White	259	1.807 ^a	.722
Black	361	2.141 ^c	.781
Hispanic	133	1.865	.715
<i>F</i> ratio = 16.815, <i>F</i> prob. = .0000			
Age			
19 to 29 years	288	1.767 ^a	.726
30 to 39 years	323	2.046 ^f	.769
40 to 49 years	119	2.160 ^b	.701
50 or older	28	2.464 ^d	.793
<i>F</i> ratio = 14.543, <i>F</i> prob. = .0000			
Educational level			
< High school	427	1.937	.746
High school/GED	222	2.045	.783
Some college	86	1.907	.776
BA/BS	21	2.048	.865
<i>F</i> ratio = 1.249, <i>F</i> prob. = .2909			
Age at first arrest			
12 to 17 years	379	1.897	.740
18 years	86	1.802 ^b	.733
19 to 21 years	109	2.138 ^b	.739
22 to 29 years	128	2.063	.791
30 or older	56	2.214 ^{e,g}	.847
<i>F</i> ratio = 5.216, <i>F</i> prob. = .0004			
Prior time (years)			
1 to 3 years	111	2.045	.767
4 to 5 years	140	2.000	.759
6 to 9 years	163	1.957	.757
<i>F</i> ratio = .4467, <i>F</i> prob. = .6401			
Prior prison convictions			
1	61	1.967	.774
2	213	1.995	.762
3	91	1.923	.734
4	55	2.164	.788
<i>F</i> ratio = 1.1967, <i>F</i> prob. = .3107			

The following notations indicate statistical significance at the .05 level between groups: 1,2 (a); 1,3 (b); 2,3 (c); 1,4 (d); 1,5(e); 2,4(f); 2,5(g).

TABLE 3
 SUPPORT FOR THE SEPARATION OF RACES ("ALLOWING INMATES
 OF DIFFERENT RACES TO LIVE IN SEPARATE LIVING AREAS
 IS A GOOD IDEA") BY SELECTED CHARACTERISTICS
 USING ANALYSIS OF VARIANCE

	N	<i>Mean</i>	SD
Race/ethnicity			
White	257	2.296 ^a	.804
Black	358	2.933 ^c	.707
Hispanic	133	2.436	.772
<i>F</i> ratio = 58.669, <i>F</i> prob. = .0000			
Age			
19 to 29 years	286	2.559	.859
30 to 39 years	322	2.717	.784
40 to 49 years	118	2.534	.759
50 or older	27	2.593	.694
<i>F</i> ratio = 2.552, <i>F</i> prob. = .0545			
Educational level			
< High school	425	2.595	.807
High school/GED	221	2.715	.778
Some college	84	2.619	.877
BA/BS	21	2.429	.746
<i>F</i> ratio = 1.525, <i>F</i> prob. = .2067			
Age at first arrest			
12 to 17 years	375	2.563	.841
18 years	87	2.517	.805
19 to 21 years	110	2.718	.803
22 to 29 years	125	2.768	.731
30 or older	56	2.679	.741
<i>F</i> ratio = 2.357, <i>F</i> prob. = .0522			
Prior time (years)			
1 to 3 years	110	2.682	.765
4 to 5 years	141	2.500	.833
6 to 9 years	163	2.601	.821
<i>F</i> ratio = 1.656, <i>F</i> prob. = .1921			
Prior prison convictions			
1	61	2.459	.848
2	213	2.648	.826
3	93	2.624	.751
4	54	2.407	.813
<i>F</i> ratio = 1.8488, <i>F</i> prob. = .1377			

The following notations indicate statistical significance at the .05 level between groups: 1,2 (a); 1,3 (b); 2,3 (c).

notion that one feels more secure in the presence of others he perceives as similar to himself, whereas being a member of a group that is outnumbered may create feelings of insecurity.

AGE AND PERCEPTIONS

Age also impacts exmate perception of race relations. When exmate responses are examined by the age of the respondent, it turns out that younger exmates are more likely to perceive race relations as a problem than older exmates. Exmates were divided into the following four age groups: 19 to 29 years, 30 to 39 years, 40 to 49 years, and 50 years and older. The mean score on the item "race is a big problem in TDC" for exmates between the ages 19 and 29 years is 1.767. This is statistically significant at the .05 level when compared with the mean for exmates aged 50 years and older, exmates aged 40 to 49, and even the exmates between the ages of 30 and 39 years. Additionally, the differences in the mean scores of the 30 to 39 age group and the 50 and older age group are also statistically significant.

Apparently, then, youthful exmates are much more likely to believe that race is an issue of concern in prison. This may be because younger exmates are more conscious of race, or because younger exmates are more involved in racial incidents in prison. Interestingly, although younger exmates are significantly more likely to perceive race as a problem than older exmates, this concern does not translate into greater support for a policy of racial separation in prison. There are no statistically significant differences in the mean scores of the various age groups.

CRIMINAL HISTORY CHARACTERISTICS

Among the criminal history variables, only age at first arrest came up as statistically significant. Age at first arrest is related to the perception that race is a problem in prison: those exmates who were arrested at an earlier age (age 18 or younger) are more likely to perceive race as a problem than those exmates first arrested at age 19 or older. This may be because those who enter the criminal justice system at an earlier age are more likely to return to the system (Nagin & Farrington, 1992), and to perceive the criminal justice system as racially discriminatory.

LOGISTIC REGRESSION

The data were next analyzed using logistic regression, to determine which of the sociodemographic and criminal history variables, controlling for the other variables, explained a significant portion of the variance. Logistic regression, or logit, is useful for analysis of dichotomous variables that are not normally distributed, and where the relationship between the dependent and independent variables is not linear. Logistic regression allows the researcher to perform a regression-like analysis of data when the dependent variable is dichotomous

rather than continuous. Multiple regression is not robust against the assumption of the continuous linearity of the dependent variable.

The logistic regression equation produces values similar and different to the multiple regression equation. The Wald statistic is a test of statistical significance, and has a chi-square distribution. The $-2 \log$ likelihood figure assesses how likely the observed results are given the parameter estimates. The model chi-square value is determined, then variables are added to the equation and the $-2 \log$ likelihood value is obtained again. Any improvement on the model chi square is revealed in the new $-2LL$ value, and by the significance level of the model chi square. Model fit can also be assessed by using a classification table to determine how many correct predictions were made with the model. If the new $-2LL$ is statistically significant, the null hypothesis that the model with the variables added does not improve our prediction is rejected (Menard, 1995).

$\text{Exp}(B)$ is the odds ratio, the number we multiply the odds of an increase in the dependent variable for each one-unit increase in the independent variable. An odds ratio greater than 1 indicates the odds increase when the independent variable increases; an odds ratio less than 1 indicates the odds decrease when the independent variable increases.

Stepwise logistic regression is useful in two contexts: predictive research and exploratory research (Menard, 1995). Backward regression prevents the exclusion of variables involved in suppressor effects. A *suppressor effect* is when a variable appears to be statistically significant only when another variable is controlled. With backward elimination, because both variables are already in the model, there is less risk of failing to find a relationship when one in fact exists.

Logistic regression was chosen for this data because the narrow range of answers (1 to 4 on a modified Likert-type scale) tended to produce very clear response patterns—exmates either agreed or disagreed with most statements. Consequently, exmate responses were recoded into two categories—agree/disagree—and logistic regression was performed. A backward elimination procedure was run to determine which variables remained in the model.

The odds ratio is shown as a positive number in all cases, for ease of discussion. Agreement with an item was coded as 0, disagreement with an item was coded as 1. For those categorical variables (such as race) with a negative B value, the second group in the variable is more likely to agree with the item. For those categorical variables with a positive B value, the second group in the variable is more likely to disagree with the item. For those continuous variables (such as age and education level) with a negative B value, as the value of independent variable increases, the likelihood of agreement with the item increases. For those continuous variables with a positive B value, as the value of the independent variable increases, the likelihood of disagreement with the item increases.

Table 4 displays the results of the logistic regression equation on the two items related to perceptions of race relations in prison. Race, age, and age at first arrest are the only variables that remained in either model.

TABLE 4
LOGISTIC REGRESSION ON PERCEPTION OF RACE RELATIONS ITEMS

<i>“Race is a Big Problem in TDC”</i>					
<i>Race</i>	<i>B</i>	<i>Wald</i>	<i>Significance</i>	<i>R</i>	<i>Odds Ratio</i>
Race (Black/White)	-.8085	15.369	.0001	-.1386	2.24
Age (Black/White)	.4879	16.108	.0001	.1424	1.63
Age (Hispanic/White)	.5075	12.226	.0005	.1690	1.66
Race (Hispanic/Black)	.8828	10.675	.0011	.1235	2.42
Age (Hispanic/Black)	.5910	20.880	.0000	.1830	1.81
<i>“Allowing Inmates of Different Races to Live in Separate Living Areas is a Good Idea”</i>					
<i>Race</i>	<i>B</i>	<i>Wald</i>	<i>Significance</i>	<i>R</i>	<i>Odds Ratio</i>
Race (Black/White)	-1.7857	93.428	.0000	-.3372	5.96
Age first arrest (Black/White)	.0289	4.795	.0285	.0590	1.03
Race (Hispanic/Black)	1.3723	37.613	.0000	.2461	3.94
Age first arrest (Hispanic/Black)	.0437	4.802	.0284	.0690	1.04

Both of the items on race relations revealed statistically significant differences during the ANOVA, and this continued in the logistic regression analysis. White exmates were 2.24 times more likely than Blacks to agree with the statement “race is a big problem in TDC.” Hispanic exmates were 2.42 times more likely than Blacks to agree with the statement. There was no statistically significant difference in White and Hispanic scores.

For all exmates, age is also a factor. As age increases, exmates are more likely to disagree with the statement. For each increase in age of 1 year, the probability of the inmate disagreeing with the statement increases 1.05 times. For each increase in age category, exmates are approximately one and one half times more likely to disagree with the statement. This suggests that younger exmates are more likely to perceive race as a problem in prison, regardless of race.

White exmates are 5.96 times more likely than Blacks to agree with the statement “allowing inmates of different races to live in separate living areas is a good idea.” Hispanic exmates are 3.94 times more likely to agree with the statement than Black exmates. Clearly, then, Black exmates are much less supportive of separation of the races in prison than either Whites or Hispanics. This may be because of their history of being victims of racial discrimination and the “separate but equal” policy of the early 20th-century South. Hispanics have also suffered from discrimination, however, and they are much more supportive of such a policy than Black exmates.

CONCLUSION

Examination of the exmate responses by sociodemographic and criminal history characteristics reveals some significant relationships between age and race and perceptions of the institutional experience. Education level is the only sociodemographic variable that does not seem significantly related. Criminal history variables, with the exception of age at first arrest, seem unrelated to perceptions of race relations in prison. These findings suggest, then, that preprison life experiences are less important than sociodemographic attributes.

Furthermore, the logistic regression analysis strongly suggests that race matters—and matters a lot. This is not surprising, given the racial composition of Texas prisons compared with the free world, and the history of racial discrimination in Texas. Exmate perceptions of race relations are colored by their own background. Interestingly, Hispanic exmates, members of an ethnic minority, more closely align with White than Black exmates. This indicates that minority status alone does not explain perceptions of race relations.

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