

## AGE AND SEXUAL ASSAULT IN CORRECTIONAL FACILITIES: A BLOCKED OPPORTUNITY APPROACH\*

RICHARD B. FELSON  
PATRICK CUNDIFF  
NOAH PAINTER-DAVIS

Department of Sociology & Crime, Law, and Justice  
Pennsylvania State University

KEYWORDS: sexual assault, age, correctional facilities

*We use data from the National Incident-Based Reporting System (NIBRS) to examine the effects of age on the risk of sexual and physical assault in prisons and jails. Our evidence suggests that male inmates of all ages tend to sexually assault young men. The preference for the young is much stronger for sexual than for physical assault, which suggests that the young are sexually assaulted because of their sexual attractiveness rather than because of their vulnerability. We argue that the strong relationship between sexual attractiveness and age reduces opportunities for consensual sex among older inmates. As a result of blocked opportunities for consensual sex, older men are much more likely to commit sexual assault than one would expect, given the general tendency of young men to be more violent. Thus, the age-attractiveness relationship can parsimoniously explain the contrasting age patterns one observes for offenders and victims.*

Since the 1930s, research on the sexual behavior of men in prison has emphasized their lack of access to women (Fishman, 1934; Hensley, 2002; Scacco, 1975; Sykes, 1958; Wooden and Parker, 1982; see Fleisher and Kreinert, 2009, for a review). When heterosexual opportunities are blocked, some heterosexual inmates turn to homosexual activity (Johnson, 1971; Kirkham, 1971). Some of that activity is coercive or a mixture of coercion and persuasion, although most of it is consensual (Fleisher and Kreinert, 2009; Wooden and Parker, 1982). Sexual deprivation resulting from a lack

---

\* Direct correspondence to Richard B. Felson, 1012 Oswald Tower, University Park, PA 16802 (e-mail: rbf7@psu.edu).

of access to women is a central theme in discussions of prison sexual assault.<sup>1</sup>

Violence is, of course, more likely to occur when mutual interest in sexual activity is absent. Although some inmates are interested in homosexual activity with other inmates, many are not. In addition, it is likely that inmates are much more willing to play the active role than the passive role (Tedeschi and Felson, 1994). When the demand for sexual services exceeds the supply, sexual violence is more likely. This conflict has a parallel outside prison where men are much more interested in casual sex than are women (Felson, 2002; see Baumeister, 2000, for a review).

In this research, we examine the effects of age on whether inmates commit sexual assault or are sexually assaulted. We argue that the relationship between age and sexual attractiveness is responsible for the age patterns observed. Younger inmates have higher rates of victimization because they are more sexually attractive, whereas older inmates have higher rates of offending because they lack opportunities for consensual sex with young men. We compare age patterns in sexual and physical assaults in an attempt to determine whether sexual attractiveness or vulnerability explains age preferences, and to control for the tendency of younger offenders to commit more crime.

Our emphasis on sexual attractiveness in interpreting age preferences implies that sexual motivation plays a role in sexual assault. The idea that sexual motivation plays a role in sexual assault outside of prison is controversial, although considering it along with other motives has become more acceptable in recent years (e.g., Bryden and Grier, 2011; Felson, 2002; Kanin, 1967; Mann and Hollin, 2007; Palmer, 1988). In contrast, the emphasis on sexual deprivation in the prison research literature suggests that the role of sexual motivation is accepted (e.g., Fishman, 1934; Sykes, 1958; Wortley, 2002; see Fleisher and Kreinert, 2009, for a review). For example, Lockwood (1980) argued that the inmates he interviewed:

[s]aw a peremptory sex drive behind their activities, and blamed the prison and other external forces for creating the pressing problem which inevitably forced their actions: How can you cope with being sexually deprived for three years, for two, for even five years at a time? (pp. 127–8).

---

1. Some evidence suggests that conjugal visits reduce prison rape, although it is unclear whether that effect is a result of the opportunity they provide for sexual release (see Wyatt, 2006). Note also that external cues are important in stimulating sexual desire (Singer and Toates, 1987). Martin (1981) argued, based on unpublished data, that sexual desire is diminished for many inmates because women are not available.

Furthermore, his interviews suggested that young men were preferred as victims because they were viewed as more attractive and as more strongly resembling women.

We focus on sexual attractiveness (and motivation) because it makes sense of the age patterns that we observe. We do not deny that a power motive or some combination of motives also could be involved (e.g., Nacci and Kane, 1984; Wooden and Parker, 1982). For example, sexual dominance and submission apparently affect status in prison (e.g., Hensley, Tewksbury, and Castle, 2003). In addition, Fleisher and Kreinert's (2009) interviews with inmates suggest that inmates sometimes threatened sexual assault for economic gain. Finally, power affects vulnerability, even if it is not a goal: Powerful inmates typically assault weaker inmates (e.g., Chonco, 1989; Lockwood, 1980; Nacci and Kane, 1984; Smith and Batiuk, 1989).

### AGE OF VICTIMS

Research generally suggests that younger inmates are at greater risk of rape and sexual assault victimization than older inmates (Guerino and Beck, 2011; Hensley, Koscheski, and Tewksbury, 2005; Hensley et al., 2003; Wolff et al., 2006). Beck et al. (2010) found mixed evidence in a victimization survey of male and female inmates that combined physical coercion and verbal pressure. Younger inmates in jail were at greater risk of victimization by staff and other inmates. Younger inmates in state and federal prisons were at greater risk of victimization by staff but not by other inmates.

Research outside of prison also finds evidence that sexual assault offenders have a strong preference for young people (e.g., Thornhill and Thornhill, 1983). Furthermore, older offenders have almost as strong a preference for young people as do younger offenders (Felson and Cundiff, 2012). In unpublished research, we find that the age patterns are similar regardless of the gender of offenders and victims. Men and women overwhelmingly target teenage boys and girls. One does not observe much age homophily, the pattern for consensual sex.

The usual explanation for the victimization of young people is their sexual attractiveness. Male sexual attraction toward young women has received the most attention. The age preference is substantial and is apparently observed in every culture (e.g., Buss, 1989; Harris, 1994; Henss, 2006; Mathes et al., 1985). Older men also are attracted to younger women, although they judge the physical attractiveness of older women more positively than do younger men (Harris, 1994; Mathes et al., 1985). The age preference explains why older people spend so much money to look younger. It also explains why models and sex workers (prostitutes, erotic dancers, and actors in the pornography business) are overwhelmingly young

and why their compensation declines as they age (e.g., Bogaert, Turkovich, and Hafer, 1993; Edlund and Korn, 2002). The evidence regarding the relationship between age and sexual attractiveness is much more limited for males. The preference for young males may be just as strong according to the age patterns observed for sexual assaults against males described earlier.<sup>2</sup> The average male prostitute, according to Coombs (1974), is 15–23 years old.

An alternative explanation of the age pattern in sexual assault is that it reflects opportunity and vulnerability (e.g., Palmer, 1991; Travis, 2003). Perhaps younger inmates are more vulnerable because they have less experience or self-confidence than older inmates. A qualitative study of inmates 50 years of age and older suggests the opposite pattern (Kerbs and Jolley, 2007). It found that older inmates reported being targeted by younger inmates as a result of age-related declines in health and diminished social status. For example, older inmates reported that younger prisoners purposefully cut in front of them in line because younger prisoners thought that elders were less likely to retaliate. Inmates know that young men are more violent and are therefore more likely to fight back. The quantitative evidence described in the subsequent discussion shows that young inmates are in fact more violent.

Physical strength related to age also may play a role because the assaults we study involved force not manipulation. Physical strength has a curvilinear relationship with age (Montoye and Lamphiear, 1977; see also, Clement, 1974). For males, it increases until 20 years of age and begins to decline around 35 years of age. If physical strength is an important determinant of assault victimization, we might find a curvilinear relationship between age and victimization with inmates in their 20s and early 30s having the lowest risk.

Studies of age and sexual assault outside prison have attempted to control for opportunity factors by examining whether *during other crimes*, age affects whether an offender will commit a sexual assault. Felson and Cundiff (2012), for example, found that men are much more likely to sexually assault a woman during a robbery if she is young. Female robbery victims between 15 and 29 years of age had the highest risks of sexual assault victimization (see also Felson and Krohn, 1990; Shackelford, 2002). These studies suggest that sexual assault offenders have a strong preference for young people and that opportunity factors cannot account for the age pattern outside of prison.

---

2. According to Thornhill and Palmer's (2000) evolutionary approach, a preference for young women reflects a preference for women at the height of their fecundity. However, evolutionary psychologists have some difficulty explaining why age patterns are the same for sexual assaults involving all four gender combinations.

## AGE OF OFFENDERS

Age is one of the best predictors of criminal behavior, particularly violent criminal behavior (e.g., Hirschi and Gottfredson, 1983; Quetelet, 1831; Steffensmeier et al., 1989). The age pattern is even observed in prison where research shows that younger inmates are more likely to commit physical assault than older inmates (Ekland-Olson, Barrick, and Cohen, 1983; MacKenzie, 1987; Wooldredge, 1998). Despite selection—prison samples include violent men of all ages—the age–violence relationship is not eliminated. The tendency for young inmates to commit more violence is consistent with the importation model of prison violence (Cunningham, Sorenson, and Reidy, 2005; Griffin and Hepburn, 2006; Harer and Steffensmeier, 1996). This model emphasizes what prisoners bring into the institution (e.g., their personal and social attributes). It is in contrast with a deprivation model, which emphasizes the effect of the prison environment on prison violence.

Following blocked opportunity theory (e.g., Merton, 1938), and a deprivation model, we hypothesize that the age pattern in committing sexual assault in prison settings is an exception to the age-desistance rule. That is, older inmates may be *more* likely to commit sexual assault than younger inmates, or at least they are more likely than one would expect given the usual effects of age pushing in the opposite direction. According to blocked opportunity theory, people are likely to turn to crime when their opportunities to achieve their goals using legitimate means are blocked. Merton (1938) would describe their criminal behavior as innovative. The theory focuses on race and class discrimination as barriers to economic success, but crime could be a response to any type of barrier.<sup>3</sup> People may be more likely to turn to crime when their own limitations prevent them from getting what they want using conventional means. For example, adolescents who cannot attain status in school because they have an attention deficit, depression, or low academic ability may view crime as a means of gaining status.<sup>4</sup>

We argue that older men cannot obtain consensual sexual partners in prison because they are not sexually attractive or sexually tolerable to other inmates. Younger male inmates are more likely to be viewed as a

- 
3. Our approach resembles general strain theory (Agnew, 2006) in that it considers noneconomic sources of “strain” but we are not positing a role for anger or other negative affect.
  4. Note that low sexual attractiveness or any other personal limitations may be affected by structural or cultural factors. For example, some scholars might argue that the age–attractiveness relationship is affected by media images and that the inability of older people to attract partners is a result of age discrimination. From the point of view of evolutionary psychology, on the other hand, the age–attractiveness relationship is “natural,” a reflection of our evolutionary heritage.

suitable alternative to women, whereas older men are beyond the latitude of acceptance. This barrier to opportunity increases the tendency of older inmates to sexually assault younger inmates.<sup>5</sup> The process may help explain why youth in juvenile facilities are much less likely to be raped than youth in adult facilities (Forst, Fagan, and Vivona, 1989).

We are not aware of any studies that examine the age preferences of inmates of different ages who commit sexual assault in prison. A few studies have examined the age of inmates who commit sexual assaults. Morash, Jeong, and Zang (2010) compared the ages of 121 perpetrators of sexual assaults in prison with the ages of 121 nonperpetrators. They did not find much evidence of age effects. Inmates who committed sexual assault with penetration were slightly younger than the nonperpetrators, whereas those who engaged in sexual assaults without penetration were similar in age. Guerino and Beck (2011) reported that a somewhat higher percentage of sexual assaults were committed by inmates 25–39 years of age than by inmates younger than 25 or older than 39, but they did not control for the number of inmates in each age grouping. Note that any tendency for older offenders to have higher rates of sexual assault is likely to be offset by the tendency for younger men to have higher rates of violence generally. We attempt to control for this tendency in this research.

A blocked opportunity approach also applies outside of prison, given men's attraction and lack of sexual access to young men and women. More generally, men's sexual preference for young people does not change much as they age, according to the literature cited earlier.<sup>6</sup> In contrast, their ability to obtain consensual sex with young people declines sharply as they age. In other words, their aspirations do not change much, but their expectations decline dramatically. If they want sexual encounters with younger people, they must pay for it or use force. The tendency for older men to commit higher rates of sexual assault than expected, given their lower tendency to commit crime, was observed in Felson and Cundiff's (2012) study of robberies. The curve representing the likelihood of sexual assault during robbery did not look like the typical age curve. Robbery offenders in their 30s, 40s, and early 50s were as likely to commit sexual assault during the robbery as younger offenders.

---

5. Homosexual activity is also an innovation for inmates because they lack the opportunity for heterosexual activity.

6. Note that age patterns in consensual sex reflect the preferences of both parties and operate according to exchange principles (e.g., Berscheid and Walster, 1969). When romance and marriage are involved, other factors besides sexual attractiveness come into play. The result is age homophily and males who are slightly older than their female partners (Amato et al., 2007).

## CURRENT STUDY

We examine the effects of age on the risk of sexual and physical assaults that occur in prisons and local jails. We predict that teenagers should have the highest rates of sexual assault victimization in prison and that an inmate's risk should decline as he ages. We predict that older as well as younger offenders will target young men because people of all ages perceive young adults as more sexually attractive. In addition, older inmates have plenty of contact with younger inmates because adult prisons are not age-segregated. Outside prison, opportunities for interage crime are more limited.

An alternative argument is that younger inmates are targeted because they are more vulnerable than older inmates. Although evidence cited earlier suggests the opposite pattern, the possibility cannot be ruled out. We therefore address the vulnerability issue by comparing age patterns in sexual and physical assaults. If age patterns reflect differences in vulnerability, we should observe similar patterns for sexual and physical assaults. Inmates should sexually and physically assault more vulnerable inmates. If, on the other hand, sexual assault victims tend to be younger than victims of physical assault, it will suggest that sexual assault offenders are responding to the sexual attractiveness of young people; they have a higher target value. Note, however, that this is a conservative test since there is reason to expect that the provocative behavior of young people increases their risk of physical assault victimization. Outside prison, younger adults have higher rates of physical assault victimization than older adults (e.g., Truman and Rand, 2010).

We also predict that sexual assault offenders are older than physical assault offenders. This prediction is based on blocked opportunity theory. Older men find younger men more sexually attractive, but they cannot interest them in consensual sex because younger adults do not find them attractive enough. Older men are less violent than younger men so they should commit fewer assaults generally, but they should be more likely to commit sexual assault than physical assault.

## METHODS

The current study is based on 8 years (2000 to 2007) of NIBRS data from the National Incident Based Reporting System (NIBRS). NIBRS is well suited for the current study because it provides information on the age of the offender as well as on the age of the victim. In addition, it yields a sample of sexual assaults much larger than the samples used in prior

studies.<sup>7</sup> Information on the type of offense, location of the offense, and the gender and age of offenders and victims was obtained from the incident-level files. Incidents classified as simple or aggravated assault or forcible sex offenses were included if they occurred in a prison or jail.

NIBRS is administered by the Federal Bureau of Investigation. As of 2007, 6,444 law enforcement agencies contributed to NIBRS, representing 25 percent of the U.S. population.

While NIBRS tends to undersample urban areas, prisons draw from urban areas even when they are located in rural areas (Beale, 1998; Donzinger, 1996; Hooks et al., 2004). We may be undersampling urban dwellers who are incarcerated in local jails, however. Perhaps this will lead us to undersample African Americans. In the Supplementary Analyses section, we will examine whether there are race differences in the age of offenders and victims.

Law enforcement agencies are required to report crimes that occur in correctional facilities within their jurisdiction to NIBRS (U.S. Department of Justice, 1999). Of course, many incidents, particularly minor ones, do not come to the attention of prison authorities (e.g., Struckman-Johnson and Struckman-Johnson, 2000). When inmate-on-inmate sexual assaults do come to the attention of authorities, according to Guerino and Beck (2011), approximately 70.0 percent of it is the result of the victim reporting. Fowler et al. (2010) found that 62.3 percent of inmates indicated they would definitely report it if they were sexually assaulted by another inmate. Outside prison, according to the National Crime Victimization Survey, 31.0 percent of sexual assaults and 55.0 percent of physical assaults are reported to the police (Hart and Rennison, 2003). We consider the implications of underreporting for our analysis of age effects in the Discussion section. We will suggest that any age-related underreporting is likely to strengthen our conclusions.

Only male-on-male offenses were included in our main analyses. Forcible sex offenses included forcible sodomy ( $n = 439$ ), sexual assault with an object ( $n = 42$ ), and forcible fondling ( $n = 193$ ). Both attempted and actual assaults were combined because analyses not presented suggest that the age of offender and victim were unrelated to whether the assault was completed. To simplify the coding of age and to avoid complicating the issue of vulnerability, we focus on incidents involving a single victim and

---

7. Several datasets that include information on sexual assault in correctional facilities have emerged as a result of the Prison Rape Elimination Act (PREA). The data for the Survey of Sexual Violence and Former Prisoner Survey are not archived at this time, and the National Inmate Survey is restricted and does not have information on the age of the offender.

a single offender. However, in the Supplementary Analyses section, we will examine incidents involving multiple offenders and a single victim. Juveniles were omitted because they tend to be incarcerated in separate institutions and have no contact with older offenders. Physical assaults on law enforcement officials, which include correctional officers, were omitted because they complicate our age adjustment (see the subsequent discussion). Approximately 5 percent of the physical assaults and none of the sexual assaults were committed against law enforcement officials (see also Ouimet, 1999). The final sample involved 12,188 incidents, including 674 sexual assaults.

To determine whether young inmates are preferred, it is necessary to adjust for the fact that the number of inmates at risk in each age group is unequal. For example, if attacks were random, we would expect to find more victims 21–25 years of age because they are the largest inmate age group. We cannot compute a rate for each age group because we do not know the exact population at risk (i.e., the denominator). However, we can use data from the Bureau of Justice Statistics on prisoners and jail inmates in 2004 (see Harrison and Beck, 2005) to adjust for the percentage of inmates in the United States that fall into different age groups. It seems reasonable to assume that the age distribution in correctional facilities covered by NIBRS approximates the age distribution in correctional facilities for the country as a whole.

We use the following formula adapted from the formula for deriving relative risk ratios (see Rowland, 2003, for a discussion) to make our age adjustment:

$$\alpha_i \frac{(o_i / .E_i)}{\sum(o_{ij\dots n} / E_{ij\dots n})} * 100$$

where  $\alpha$  equals the age-adjusted percentage of assaults for age group  $i$ ,  $O_i$  equals the number of observed assaults for age group  $i$  in our sample, and  $E_i$  equals the number of expected assaults for age group  $i$  in the national inmate population. The denominator is the sum of all computed ratios of observed versus expected values. Note that using a reference group for our denominator yields the same exact results.

In our logistic regression model, we examine the effect of victim and offender age on the likelihood that the offense was a sexual assault or a physical assault. We treated the ages of victim and offender as a series of dummy variables. The dependent variable was coded as 1 if it were a sexual assault and 0 if it were a physical assault. The analysis allows us to take into account age differences in vulnerability and opportunity. It also makes an age adjustment unnecessary. Finally, the coding of the outcome variable

**Table 1. Sample Descriptives**

Variable	Physical Assault		Sexual Assault	
	<i>n</i>	%	<i>n</i>	%
Victim Age				
18–19	980	8.51	112	16.59
20–24	2,577	22.38	214	31.70
25–29	2,151	18.68	105	15.56
30–34	1,528	13.27	103	15.26
35–39	1,410	12.24	52	7.70
40+	2,870	24.92	89	13.19
Offender Age				
18–19	1,315	11.42	34	5.04
20–24	3,084	26.78	89	13.19
25–29	2,298	19.95	112	16.59
30–34	1,548	13.44	102	15.11
35–39	1,240	10.77	98	14.52
40+	2,031	17.64	240	35.56
Total	11,516	100.00	675	100.00
Mean Victim Age		31.96		28.03
Mean Offender Age		29.82		35.05

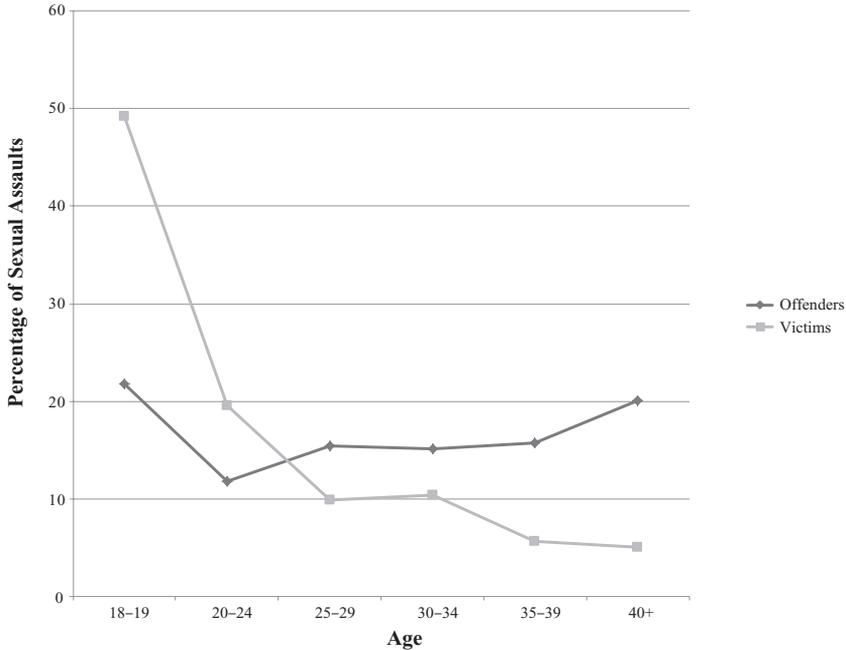
decreases the likelihood that some omitted variable is producing the age effects. Only variables that are associated with both the independent and dependent variables can bias the coefficients. It is difficult to imagine a third variable that is correlated with *both* age and whether a sexual assault or physical assault occurred. It would have to be more strongly associated with one type of assault than another. The effects on age and on one type of assault (but not on the other) also would have to be extremely powerful to account for the strong age effects we find.

## RESULTS

In table 1, we present the age distribution for offenders and victims. For sexual assault, the modal age category is 20–24 years of age for victims and 40 years of age and older for offenders. These percentages are misleading because they do not take into account the age composition of the inmate population. For instance, 18–19-year-olds make up 17 percent of sexual assault victims in our sample but only make up 3 percent of the national prison population (see Beck and Harrison, 2001).

The age patterns for victims in table 1 are fairly similar to those reported by Guerino and Beck (2011) in their national sample. For example, 17.0 percent of victims were 40 years of age or older in their sample, compared with 13.2 percent in our sample. Our sample of offenders is slightly older than theirs. For example, 29.0 percent of their offenders were 40 or older compared with 35.6 percent of our offenders.

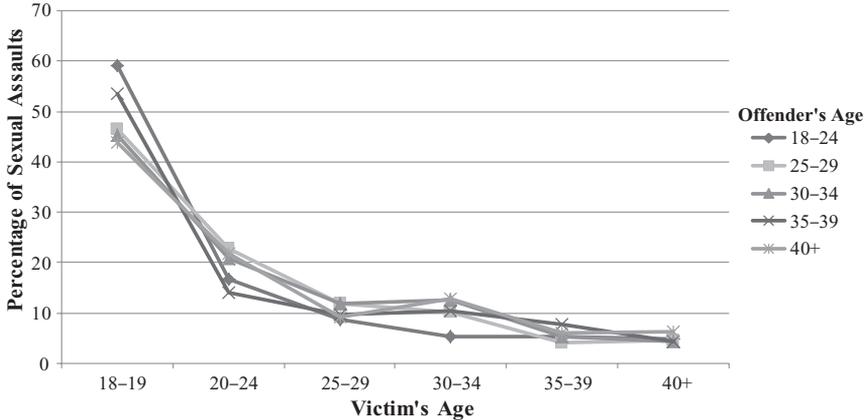
**Figure 1. Age Distributions of Sexual Assault Offenders and Victims ( $N = 674$ ) (Age-Adjusted)**



In figure 1, we show the relationship between age and the risk of sexual assault victimization. The relationship between age and victimization is curvilinear with teenagers showing the greatest risk of victimization. The risk declines until 25 years of age and then levels off. The age effects are quite strong. For example, 18–19-year-old men are 7.7 times more likely to be victimized than 30–34-year-old men. Figure 1 also shows the age distribution for sexual assault offenders. It shows that age does not have much of a relationship with offending. The curve is pretty flat revealing an interesting exception to the standard age curve.

In figure 2, we present the age distribution of sexual assault victims for offenders of different ages. We combine offenders 18–19 and 20–24 years of age to increase the number of cases in this category. The results show that offenders of all ages target young victims. Even offenders older than 40 years of age are most likely to victimize teenagers. We see some evidence of age homophily, however. The correlation between age of offender and victim (treating both as continuous variables) is weak but statistically significant ( $r = .07$ ;  $p < .05$ ).

**Figure 2. Age Distribution of Sexual Assault Victims for Offenders of Different Ages (N = 674) (Age-Adjusted)**

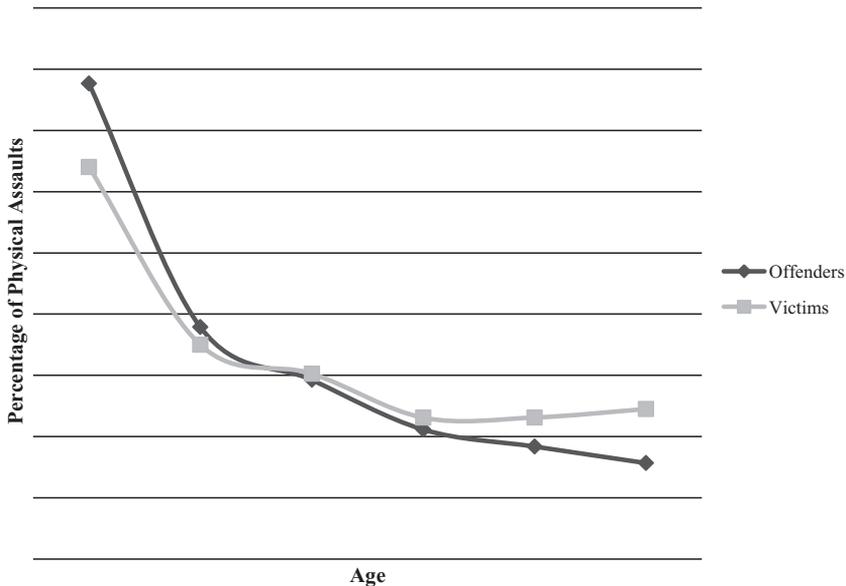


In figure 3, we present age distributions for physical assault. The age pattern is very similar for offenders and victims. In both cases, the relationship is curvilinear with teenagers having the highest rates. The risk declines from 18 years of age until 30 years of age for victims and then levels off. For offenders, the risk declines sharply from 18 until 30 and then continues to decline more gradually.

In figure 4, we present the age distribution of physical assault victims for offenders of different ages. The results show a similar curvilinear pattern for offenders of all ages. We see evidence of a tendency to target young victims and evidence of homogamy. The correlation between age of offender and victim (treated as a continuous variable) is weak but statistically significant ( $r = .14$ ;  $p < .05$ ). The preference for young victims seems to be weaker for physical assault than for sexual assault (and the level of homogamy is higher), but we examine this issue more carefully in the subsequent discussion.

In table 2, we estimate age effects on the risk of sexual versus physical assault using logistic regression. The results show strong effects of the age of victim with victims 35 years of age and older the least likely to be sexual assaulted. Assaults involving victims younger than 25, particularly teenage victims, are the most likely to be sexual. The odds that an assault is sexual is 390 percent higher (odds ratio = 4.90) for teenage victims than for victims older than 40 (the reference group). These results support the idea that age preferences reflect the victims' attractiveness rather than their vulnerability.

**Figure 3. Age Distribution of Physical Assault Offenders and Victims ( $N = 11,516$ ) (Age-Adjusted)**

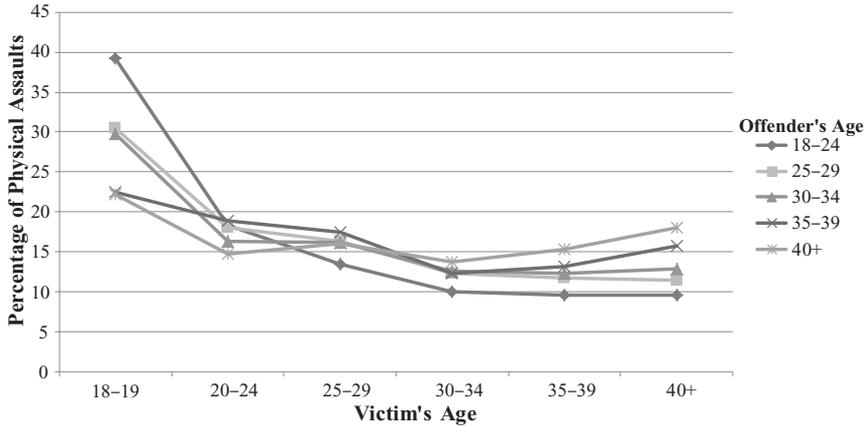


The effects of the offender's age are quite strong in the opposite direction, supporting our hypothesis about blocked opportunity. Assaults committed by offenders older than 40 are the most likely to be sexual, whereas assaults by teenagers are the least likely to be sexual. If we switch the reference category, we can more easily compare the strength of the offender age effect with the strength of the victim age effect. The odds that an assault is sexual is more than 490 percent higher (odds ratio = 5.92) for offenders older than 40 than for teenage offenders. This effect is even stronger than the 390 percent increase that was observed for victim age.

### SUPPLEMENTARY ANALYSES

To test the robustness of our findings, we performed several supplementary analyses (not presented). First, we examined incidents involving multiple offenders and a single victim separately using the mean age of offenders in a particular incident. Of the incidents reported to NIBRS, 12.26 percent of sexual assaults and 7.61 percent of physical assaults involved multiple offenders. The age effects for multiple-offender incidents were similar to those observed for single-offender incidents: incidents involving teenage victims were the most likely to be sexual and incidents involving offenders older than 40 were the most likely to be sexual.

**Figure 4. Age Distribution of Male Physical Assault Victims for Offenders of Different Ages ( $N = 11,514$ ) (Age-Adjusted)**



**Table 2. Logistic Regression Predicting Sexual vs. Physical Assault ( $N = 12,191$ )**

Variable	<i>b</i>	(SE)	OR
Victim Age			
18-19	1.59*	(0.15)	4.90
20-24	1.17*	(0.13)	3.22
25-29	0.56*	(0.15)	1.75
30-34	0.85*	(0.15)	2.34
35-39	0.22	(0.18)	1.24
40+	~	~	~
Offender Age			
18-19	-1.78*	(0.19)	0.17
20-24	-1.57*	(0.13)	0.21
25-29	-1.00*	(0.12)	0.37
30-34	-0.67*	(0.12)	0.51
35-39	-0.45*	(0.13)	0.64
40+	~	~	~
Constant	-2.80*	(0.12)	

ABBREVIATIONS: OR = odds ratio; SE = standard error.

\* $p < .05$

Second, we examined whether age patterns were affected when race was included in the equation. The inclusion of controls for the race of the victim and offender did not have any noticeable effects on the age coefficients presented in table 2. In addition, we examined statistical interactions between race and age. We estimated the following interactions in four separate equations: race of offender  $\times$  victim age; race of offender  $\times$  offender age;

race of victim  $\times$  victim age; and race of victim  $\times$  offender age. We saw no evidence supporting the idea that any of the age patterns varied by race. Only 2 out of the 20 interaction coefficients were statistically significant.

Finally, we examined incidents involving men's assaults on female victims ( $N = 1,189$ ). We must be careful in our interpretation of these results because we do not know who is involved in these incidents. It could be inmates, male visitors, correctional officers, and other staff who assault female inmates, or male inmates who attack female visitors and staff who are not correctional officers (see Struckman-Johnson and Struckman-Johnson, 2006). We performed an age adjustment, but it is based on inmates alone and therefore biased. The bias, however, does *not* affect interpretation of our regression results because a comparison of sexual and physical assault does not require an age adjustment.

The results were very similar to those we presented for male victims. The curvilinear relationships for age of victims and offenders looked very similar: Older and younger offenders were most likely to target teenagers. The logistic regression coefficient showed the same patterns: Younger women were much more likely to be sexually assaulted than physically assaulted, and older men were much more likely to commit sexual than physical assault.

## DISCUSSION

Our finding that younger inmates are at greater risk of sexual assault victimization than older inmates is consistent with most prior research. The large sample allows us to examine the age distribution in more detail. Our evidence suggests that teenagers are by far the most frequent victims of sexual assaults in correctional facilities. Men (and probably women) older than 25 years of age are rarely sexually assaulted. Comparisons of sexual and physical assault suggest that this age pattern cannot be attributed to differences in vulnerability. Our regression results suggest that the age effect on sexual assault victimization is much stronger than the age effect on physical assault victimization.

Our finding that sexual assault offenders have an overwhelming preference for young victims is consistent with research outside of prisons. The evidence consistently shows that age-related sexual attractiveness is a key variable in predicting victimization for men and women. Although we do not have a measure of sexual attractiveness, it is difficult to imagine other interpretations of the age effect on the relative risk of sexual versus physical assault. It seems unlikely that offenders sexually assault the young to express dominance, for example. One would have to explain why offenders of all ages are more likely to target the young when they engage in sexual assault than when they engage in physical assault.

The strong tendency to target the young is striking given other factors that should suppress or even reverse the relationship. First, younger adults are more dangerous to attack and more difficult to overcome than older adults, according to Kerbs and Jolley (2007). To the extent this is the case, we may have underestimated the age preference. Second, the provocative behavior of young men should increase their risk of physical assault victimization and deflate our coefficients representing the relative risk of sexual and physical assault. This factor also should lead us to underestimate the age preference in sexual assault. Third, age is obviously a correlate, not an indicator, of sexual attractiveness. We observe a strong relationship between age and victimization in spite of the fact that there are many exceptions to the rule that young people are more attractive. Finally, men tend to be somewhat indiscriminate in their sexual behavior (see Baumeister, 2000, for a review). Although they prefer sexually attractive partners, many are willing to relax standards when the opportunity is presented. In fact, heterosexual inmates are clearly relaxing their standards when they engage in homosexual activity. Despite their indiscriminate and opportunistic approach to sex, men overwhelmingly target teenagers.

### AGE OF OFFENDERS

We find that older men are almost as likely as younger men to sexually assault young people (see figure 2). This interesting pattern is consistent with sexual assaults that occur during robberies outside of prison (Felson and Cundiff, 2012). The pattern is not observed in consensual sexual relationships—they tend to involve age homophily. We do, however, observe some homophily: Younger offenders are slightly more likely than older offenders to target young men. The pattern is consistent with studies showing that older men judge the sexual attractiveness of older women more positively than do younger men (Harris, 1994; Mathes et al., 1985). They have a greater latitude of acceptance.

We also found support for the hypothesis that sexual assault offenders are older than physical assault offenders. The likelihood that an assault had a sexual element was highest for offenders older than 40 and lowest for teenage offenders. The pattern was just as strong as the age pattern for victims. Apparently when one controls for opportunity and the violent tendencies of young people, a strong positive age-offending pattern emerges.

The results support a blocked opportunity argument. They suggest that older men are more likely than younger men to commit sexual assault in prisons and jails because they lack access to consensual sexual partners. As research on age and sexual attractiveness suggests, older men are sexually

attracted to younger men and women, but that attraction is not reciprocated. As a result, they cannot attract consensual partners, or at least find someone willing to play the passive role. Those who have adequate coercive power may use force to address their predicament.

When we look at offenses separately, we find that offender age is negatively related to physical assault but essentially unrelated to sexual assault. The former is consistent with the well-known age-crime curve: A strong negative relationship between age and crime is observed even in prison. The lack of a relationship for sexual assault is an exception to the age-crime curve (see also Morash, Jeong, and Zang, 2010). Younger inmates do not have higher rates of sexual assault offending in spite of the fact that they are more violent, physically stronger, and have stronger sex drives (e.g., Booth, Johnson, and Granger, 1999; Dabbs and Morris, 1990; see Sternbach, 1998, for a review). Outside prison, these tendencies presumably lead to relatively high rates of sexual assault offending among young men. Inside prison, many inmates of all ages have violent tendencies. The lack of sexual access to partners increases the rates of sexual assault offending among older men, offsetting declines in their violent tendencies, physical strength, and sex drive.

Our argument implies that sexual deprivation is a factor explaining the tendency of older offenders to have higher than expected rates of sexual coercion. However, the literature on sexual deprivation and sexual assault is ambiguous (see Felson, 2002, for a review). Cross-sectional studies find that men who engage in sexual coercion are less likely to be sexually deprived (Kanin, 1967; Lalumiere et al., 1996). However, these studies also show that men with high sexual aspirations are more likely to engage in sexual assault. Apparently, their efforts to obtain sexual experiences are sometimes successful leading to lower levels of deprivation. Research using longitudinal data is necessary to disentangle the reciprocal relationship between deprivation and sexual coercion.

Our results regarding the age of offenders have implications for the importation and the deprivation models of inmate behavior. The tendency for young inmates to commit physical assaults is consistent with the importation model. The age-crime curve observed outside of prison also is observed in prison. The deprivation model, on the other hand, helps explain why sexual assault is an exception to the age-crime curve. The lack of access to young male inmates leads to higher rates of sexual offending among older inmates. Our results therefore extend discussions of prison sexual assault that emphasize a lack of access to women. Age as well as gender are important factors in sexual assault.

Recall, however, our suggestion that age-related attractiveness may play a similar role outside of prison, where older men prefer but lack sexual access to younger women. Thus, during a robbery, older men are more

likely to commit sexual assault than one would expect given the age-crime curve (Felson and Cundiff, 2012). Thus, age-related deprivation affects the behavior of men inside as well as outside prisons.

### LIMITATIONS

The most serious limitation of this study is that it is based on official data, and therefore, it only includes incidents that come to the attention of authorities. These incidents are likely to be more serious than the incidents reported on prison victimization surveys. However, reporting should only bias our results if it is related to age. For example, our estimates of the effect of age of victims will be biased to the extent that age is related to whether offenses are reported to authorities. We have four reasons to think that the underreporting bias does not undermine our conclusions. First, Fowler et al. (2010) found that age was not significantly related to whether inmates said they would report sexual assault victimization to authorities. Second, results from a study outside prison found that the victim's age has a weak positive relationship to victim reporting of sexual and physical assault to the police, and that it is unrelated to third-party reporting (Felson and Paré, 2005). If the tendency for older victims to report assaults is observed in correctional facilities, our age effects would be even stronger. It would only strengthen our conclusions about the targeting of younger inmates.<sup>8</sup> Third, it is difficult to see how underreporting could account for our logistic regression results examining relative risk. Age would have to be differentially related to reporting sexual assault and physical assault. Finally, the age patterns are so strong that they are unlikely to be produced by a weak reporting bias associated with age.

Two other methodological limitations concern measurement. First, we do not have a direct measure of sexual attractiveness. It could be that some other age-related characteristic increases the risk of sexual victimization relative to the risk of physical assault. Perhaps some characteristic increases their vulnerability to sexual assault but not to physical assault. For example, it is possible that inmates sexually assault younger inmates because they believe younger inmates are less likely to be HIV positive. However, evidence not presented suggests that the age-victimization relationship was just as strong for sodomy as for forcible fondling and rape with an object. Sodomy is a riskier sexual activity for the offender than the other behaviors. Second, we do not have a measure of the offender's opportunities for consensual sex. One could argue that older offenders experience more

---

8. One of the best predictors of reporting to police outside prison is the seriousness of the incident; reported incidents tend to be more serious incidents than unreported incidents (Felson, Messner, and Hoskin, 1999).

sexual deprivation, not because of their appearance, but because they are likely to have been in prison for a longer period. Wooden and Parker (1982), however, found no relationship between time served in prison and homosexual activity. Garland, Morgan, and Beer (2005) found that inmates who spent longer times in prison were no more likely to engage in sexual behavior although they were more likely to have a homosexual identity. Future research should include measures of sexual attractiveness and time served.

In sum, our results suggest that teenagers in correctional facilities have higher rates of sexual assault victimization than older adults because of their sexual attractiveness, not their vulnerability. Older men's lack of attractiveness explains their relatively low rates of victimization and their relatively high rates of offending. They are more likely to commit sexual assault than one might expect because their opportunities for consensual sex are limited. Thus, the age-attractiveness relationship can parsimoniously explain the strong age patterns one observes for both offenders and victims.

## REFERENCES

- Agnew, Robert A. 2006. *Pressured Into Crime: An Overview of General Strain Theory*. New York: Oxford University Press.
- Amato, Paul R., Alan Booth, David R. Johnson, and Stacy J. Rogers. 2007. *Alone Together: How Marriage in America Is Changing*. Cambridge, MA: Harvard University Press.
- Baumeister, Roy F. 2000. Gender differences in erotic plasticity: The female sex drive as socially flexible and responsive. *Psychological Bulletin* 126:347–74.
- Beale, Calvin. 1998. Rural prisons: An update. *Rural Development Perspectives* 11:25–7.
- Beck, Allen J., and Paige M. Harrison. 2001. *Prisoners in 2000*. Washington, DC: Bureau of Justice Statistics Bulletin.
- Beck, Allen J., Paige M. Harrison, Marcus Berzofsky, Rachel Caspar, and Christopher Krebs. 2010. *Sexual Victimization in Prisons and Jails Reported by Inmates, 2008–09*. Washington, DC: Bureau of Justice Statistics.
- Berscheid, Ellen, and Elaine H. Walster. 1969. *Interpersonal Attraction*. Reading, MA: Addison-Wesley.

- Bogaert, Anthony F., Deborah A. Turkovich, and Carolyn L. Hafer. 1993. A content analysis of Playboy centerfolds from 1953 through 1990: Changes in explicitness, objectification, and model's age. *Journal of Sex Research* 30:135–9.
- Booth, Alan, David R. Johnson, and Douglas A. Granger. 1999. Testosterone and men's health. *Journal of Behavioral Medicine* 22:1–19.
- Bryden, David P., and Maren M. Grier. 2011. The search for rapists' "real" motives. *The Journal of Criminal Law and Criminology* 101:172–278.
- Buss, David M. 1989. Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences* 12:1–14.
- Chonco, Nobuhle R. 1989. Sexual assaults among male inmates: A descriptive study. *The Prison Journal* 69:72–82.
- Clement, Fernand J. 1974. Longitudinal and cross-sectional assessments of age changes in physical strength as related to sex, social class, and mental ability. *The Journal of Gerontology* 29:423–9.
- Coombs, Neil R. 1974. Male prostitution: A psychosocial view of behavior. *American Journal of Orthopsychiatry* 44:782–9.
- Cunningham, Mark D., Jon R. Sorensen, and Thomas J. Reidy. 2005. An actuarial assessment of prison violence risk among maximum security inmates. *Assessment* 12:40–9.
- Dabbs, James, and Robin Morris. 1990. Testosterone, social class, and antisocial behavior in a sample of 4,462 men. *Psychological Science* 3:209–11.
- Donzinger, Steven. 1996. *The Real War on Crime*. New York: HarperCollins.
- Edlund, Lena, and Evelyn Korn. 2002. A theory of prostitution. *Journal of Political Economy* 110:181–214.
- Ekland-Olson, Sheldon, Dennis Barrick, and Lawrence E. Cohen. 1983. Prison overcrowding and disciplinary problems: An analysis of the Texas prison system. *Journal of Applied Behavioral Science* 19:163–76.
- Felson, Richard B. 2002. *Violence and Gender Reexamined*. Washington, DC: American Psychological Association.
- Felson, Richard B., and Patrick Cundiff. 2012. Age and sexual assault during robberies. *Evolution and Human Behavior* 33:10–6.

- Felson, Richard B., and Marvin D. Krohn. 1990. Motives for rape. *Journal of Research in Crime and Delinquency* 27:222–42.
- Felson, Richard B., Steven F. Messner, and Anthony Hoskin. 1999. The victim-offender relationship and calling the police in assaults. *Criminology* 37:931–48.
- Felson, Richard B., and Paul P. Paré. 2005. The reporting of domestic violence and sexual assault by nonstrangers to the police. *Journal of Marriage and the Family* 67:597–610.
- Fishman, Joseph. 1934. *Sex in Prison: Revealing Sex Conditions in American Prisons*. New York: National Library Press.
- Fleisher, Mark S., and Jessie L. Kreinert. 2009. *The Myth of Prison Rape: Sexual Culture in American Prisons*. New York: Rowman & Littlefield.
- Forst, Martin, Jeffrey Fagan, and T. Scott Vivona. 1989. Youth in prisons and training schools: Perceptions and consequences of the treatment-custody dichotomy. *Juvenile and Family Court Journal* 40:1–14.
- Fowler, Shannon K., Ashley G. Blackburn, James W. Marquart, and Janet L. Mullings. 2010. Would they officially report an in-prison sexual assault? An examination of inmate perceptions. *The Prison Journal* 90:220–43.
- Garland, Travis J., Robert D. Morgan, and Amanda M. Beer. 2005. Impact of time in prison and security level on inmates' sexual attitude, behavior, and identity. *Psychological Services* 2:151–62.
- Griffin, John R., and Marie L. Hepburn. 2006. The effect of gang affiliation on violent misconduct among inmates during early years of confinement. *Criminal Justice and Behavior* 33:419–48.
- Guerino, Paul, and Allen J. Beck. 2011. *Sexual Victimization Reported by Adult Correctional Authorities, 2007–2008*. Bureau of Justice Statistics Special Report.
- Harer, Miles D., and Darrell Steffensmeier. 1996. Race and prison violence. *Criminology* 34:323–55.
- Harris, Mary B. 1994. Growing old gracefully: Age concealment and gender. *Journal of Gerontology* 49:149–58.
- Harrison, Paige M., and Alan J. Beck. 2005. *Prison and Jail Inmates at Midyear 2004*. Washington, DC: Bureau of Justice Statistics Bulletin.

- Hart, Timothy C., and Callie Rennison. 2003. *Reporting Crime to the Police, 1992–2000*. Washington, DC: Bureau of Justice Statistics Bulletin.
- Hensley, Christopher. 2002. *Prison Sex: Practice and Policy*. Boulder, CO: Lynne Rienner.
- Hensley, Christopher, Mary Koscheski, and Richard Tewksbury. 2005. Examining the characteristics of male sexual assault targets in a Southern maximum-security prison. *Journal of Interpersonal Violence* 20:667–79.
- Hensley, Christopher, Richard Tewksbury, and Tammy Castle. 2003. Characteristics of prison sexual assault targets in male Oklahoma correctional facilities. *Journal of Interpersonal Violence* 18:595–606.
- Hensley, Christopher, Jeremy Wright, Richard Tewksbury, and Tammy Castle. 2003. The evolving nature of prison argot and sexual hierarchies. *The Prison Journal* 83:289–300.
- Henss, Ronald. 2006. Perceiving age and attractiveness in facial photographs. *Journal of Applied Social Psychology* 21:933–46.
- Hirschi, Travis, and Michael Gottfredson. 1983. Age and the explanation of crime. *American Journal of Sociology* 89:552–84.
- Hooks, Gregory, Clayton Mosher, Thomas Rotolo, and Linda Lobao. 2004. The prison industry: Carceral expansion and employment in U.S. counties, 1969–1994. *Social Science Quarterly* 85:37–57.
- Johnson, Edwin. 1971. The homosexual in prison. *Social Theory and Practice* 1:83–97.
- Kanin, Eugene J. 1967. An examination of sexual aggression as a response to sexual frustration. *Journal of Marriage and the Family* 29:428–33.
- Kerbs, John J., and Jennifer M. Jolley. 2007. Inmate-on-inmate victimization among older male prisoners. *Crime & Delinquency* 53:187–218.
- Kirkham, George L. 1971. Homosexuality in prison. In *Studies in the Sociology of Sex*, ed. James M. Henslin. New York: Appleton-Century-Crofts.
- Lalumiere, Martin L., Lori J. Chalmers, Vernon L. Quinsey, and Michael C. Seto. 1996. A test of the mate deprivation hypothesis of sexual coercion. *Ethology and Sociobiology* 17:299–318.
- Lockwood, Daniel. 1980. *Prison Sexual Violence*. New York: Elsevier.
- MacKenzie, Doris L. 1987. Age and adjustment to prison: Interactions with attitude and anxiety. *Criminal Justice and Behavior* 14:427–47.

- Mann, Ruth E., and Clive R. Hollin. 2007. Sexual offenders' explanations for their offending. *Journal of Sexual Aggression* 13:3–9.
- Martin, Clyde E. 1981. Factors affecting sexual functioning in 60–79 year-old married males. *Archives of Sexual Behavior* 10:399–420.
- Mathes, Eugene W., Susan M. Brennan, Patricia M. Haugen, and Holly B. Rice. 1985. Ratings of physical attractiveness as a function of age. *The Journal of Social Psychology* 125:157–68.
- Merton, Robert K. 1938. Social structure and anomie. *American Sociological Review* 3:672–82.
- Montoye, Henry J., and Donald E. Lamphiear. 1977. Grip and arm strength in males and females, age 10 to 69. *The Research Quarterly* 48: 109–20.
- Morash, Merry, Seok Jin Jeong, and Nancy L. Zang. 2010. An exploratory study of the characteristics of men known to commit prisoner-on-prisoner sexual violence. *The Prison Journal* 90:161–78.
- Nacci, Peter L., and Thomas R. Kane. 1984. Sex and sexual aggression in federal prisons: Inmate involvement and employee impact. *Federal Probation* 48:46–53.
- Ouimet, Marc. 1999. Remarkable rarity of violence toward staff. *Prisons Journal: Forum on Corrections Research* 11:25–9.
- Palmer, Craig T. 1988. Twelve reasons why rape is not sexually motivated: A skeptical examination. *Journal of Sex Research* 25:512–30.
- Palmer, Craig T. 1991. Human rape: Adaptation or by-product? *The Journal of Sex Research* 28:365–86.
- Quetelet, Adolphe. 1831. *Research on the Propensity for Crime at Different Ages*. Brussels, Belgium: Hayez.
- Rowland, Donald T. 2003. *Demographic Methods and Concepts*. New York: Oxford University Press.
- Scacco, Anthony M. 1975. *Rape in Prison*. Springfield, IL: Charles C. Thomas.
- Shackelford, Todd K. 2002. Are young women the special targets of rape-murder? *Aggressive Behavior* 28:224–32.

- Singer, Barry, and Frederick M. Toates. 1987. Sexual motivation. *The Journal of Sex Research* 23:481–501.
- Smith, Norman E., and Mary E. Batiuk. 1989. Sexual victimization and inmate social interaction. *The Prison Journal* 69:29–38.
- Steffensmeier, Darrell, Emilie A. Allan, Miles D. Harer, and Cathy Streifel. 1989. Age and the distribution of crime. *American Journal of Sociology* 94:803–31.
- Sternbach, Harvey. 1998. Age-associated testosterone decline in men: Clinical issues for psychiatry. *American Journal of Psychiatry* 155:1310–8.
- Struckman-Johnson, Cindy, and David Struckman-Johnson. 2000. Sexual coercion rates in seven Midwestern prison facilities for men. *The Prison Journal* 80:379–90.
- Struckman-Johnson, Cindy, and David Struckman-Johnson. 2006. A comparison of sexual coercion experiences reported by men and women in prison. *Journal of Interpersonal Violence* 21:1591–615.
- Sykes, Ghresham. 1958. *The Society of Captives: A Study of a Maximum Security Prison*. Princeton, NJ: Princeton University Press.
- Tedeschi, James T., and Felson, Richard B. 1994. *Violence, Aggression, and Coercive Actions*. Washington, DC: American Psychological Association.
- Thornhill, Randy, and Craig T. Palmer. 2000. *A Natural History of Rape: Biological Bases of Human Sexual Coercion*. Cambridge, MA: MIT Press.
- Thornhill, Randy, and Nancy W. Thornhill. 1983. Human rape: An evolutionary analysis. *Ethology and Sociobiology* 4:137–73.
- Travis, Cheryl B. 2003. *Evolution, Gender, and Rape*. Cambridge, MA: MIT Press.
- Truman, Jennifer L., and Michael R. Rand. 2010. *Criminal Victimization 2009*. Washington, DC: Bureau of Justice Statistics Bulletin.
- U.S. Department of Justice. 1999. *Uniform Crime Reporting*. Washington, DC: State Program Bulletin.
- Wolff, Nancy, Cynthia L. Blitz, Jing Shi, Ronet Bachman, and Jane A. Siegel. 2006. Sexual violence inside prisons: Rates of victimization. *Journal of Urban Health* 83:835–48.

- Wooden, Wayne, and Jay Parker. 1982. *Men Behind Bars: Sexual Exploitation in Prison*. New York: Plenum Press.
- Wooldredge, John D. 1998. Inmate lifestyles and opportunities for victimization. *Journal of Research in Crime and Delinquency* 35:480–502.
- Wortley, Richard. 2002. *Situational Prison Control: Crime Prevention in Correctional Institutions*. New York: Cambridge University Press.
- Wyatt, Rachel. 2006. Male rape in U.S. prisons: Are conjugal visits the answer? *Case Western Journal of International Law* 37:579–614.

Richard B. Felson is a professor of crime, law, and justice and of sociology at the Pennsylvania State University. He is interested in race, regional, and national differences in violence; the role of situational factors; and differences between violence involving women and violence involving men. His books include *Violence, Aggression, and Coercive Actions* (with James Tedeschi) and *Violence and Gender Reexamined*.

Patrick Cundiff is a doctoral candidate in crime, law, and justice at the Pennsylvania State University. His research interests focus on the impact of attitudes on behavior and victimization. He is currently working on his dissertation, which explores how adolescent expectations of the future shape and influence behavioral outcomes during the transition to adulthood. Other current research projects include an assessment of the impact victim and offender characteristics involved in sexual assault, an analysis of factors influencing victim cooperation in criminal investigations, an examination of causes of changes in attitudes toward punishment over time, and the causes and consequences of variation between adolescents' perceptions of parental expectations and expectations self-reported by parents.

Noah Painter-Davis is a dual degree doctoral candidate in sociology and demography with a special emphasis in criminology and quantitative methods at the Pennsylvania State University. His research focuses on the effects of social change and stratification processes on racial/ethnic differences in both crime and its sanctioning. Current research projects focus on how the interaction of race/ethnicity, age, and gender shape the outcomes of violent incidents and the sanctioning of criminal behavior. His dissertation explores how the relationship between immigration and race/ethnic specific violent offending is conditioned by immigrant destination type (i.e., established versus emerging destinations).