

EXTREME CAREER CRIMINALS

MATT DeLISI†
Iowa State University

ABSTRACT: *Although murder, rape, and kidnapping are considered extremely serious crimes, little criminal career research has focused on these perpetrators. This study examines 500 habitual offenders who have accumulated at least 30 entries in their arrest histories. Multivariate analysis of variance (MANOVA) and negative binomial regression solutions indicate that murderers, rapists, and kidnapers totaled more violent Index arrests, netted more felony convictions and prison sentences, and offended for a longer span than other chronic recidivists. Given the policy relevance of career criminal research, more scholarly attention should focus on extreme offenders.*

INTRODUCTION

Murder, rape, and kidnapping incite ire. These crimes, also known as *mala in se* offenses, are considered intrinsically wrongful, immoral, and evil. They are condemned universally across cultures and warrant very severe reactions, including capital punishment. Several researchers have documented the unanimous disdain people have for such crimes (Rossi, Waite, Bose, & Berk, 1974; Sellin & Wolfgang, 1964; Warr, 1989; Wilson, 1997). Even inchoate efforts (attempt, accessory, complicity, conspiracy, and solicitation) to commit these offenses are considered very grave matters. The public view is that murder, rape, and kidnapping are loathsome, despicable, and heinous acts.

Unfortunately, a sound criminal career-based understanding of murder, rape, or kidnapping is far from complete. Researchers have overlooked these crimes for a variety of reasons. As a result, the current study attempts to remedy this situation by providing an empirical investigation into the criminal careers of these extreme offenders.

LITERATURE REVIEW

The bulk of most serious criminal damage in the United States is perpetrated primarily by a small number of people, around 5% of the criminal population (Loeber, Farrington, Stouthamer-Loeber, Moffitt, & Caspi, 1998; Piper, 1985; Piquero, 2000; Shannon, 1991; Tillman,

† *Direct all correspondence to: Matt DeLisi, Iowa State University, Department of Sociology, 203A East Hall, Ames, IO 50011-1070. E-mail: delisi@iastate.edu.*

1987; Tracy, Wolfgang, & Figlio, 1990; Wolfgang, Figlio, & Sellin, 1972). Researchers have replicated this finding in Canada (Arnold & Kay, 1999), Denmark (Brennan, Mednick, & John, 1989), England (Farrington & West, 1993), Finland (Hamalainen & Pulkkinen, 1995), Israel (Hassin, 1989), New Zealand (Bartusch, Lyman, Moffitt, & Silva, 1997; Fergusson, Horwood, & Nagin, 2000), and Sweden (Stattin, Magnusson, & Reichel, 1989; Stattin & Magnusson, 1991; Wikstrom, 1990). Such lives are blemished by criminal and problematic behavior throughout the life-course. These characterizations include conduct and cognitive disorders during childhood, delinquency, educational failure, substance abuse during adolescence, criminality, and continued failure in social institutions during adulthood.

The etiology of habitual criminality is an open issue. The more controversial and politically conservative explanation is that serious offenders are located at the high end of a latent-trait continuum of criminality. According to this view, the most dangerous criminals experience an early onset of misbehavior and demonstrate such continuity in illegal behavior because their behavior is the manifestation of this underlying construct. Scholars disagree whether this latent trait has its roots in biological (Wilson & Herrnstein, 1985), psychological (Moffitt, 2001), or sociological processes (Gottfredson & Hirschi, 1990). However, the empirical evidence of the pathological criminality is compelling (see Farrington, 1997, 1998; Lynam, 1996).

In their seminal 1945 Philadelphia birth cohort study, Wolfgang and his colleagues (1972) found that 627 chronic offenders accounted for 71% of the murder arrests and 73% of the rape arrests. The 1958 Philadelphia birth cohort paralleled these results. Less than 8% of the boys accounted for 60% of the murder arrests and 75% of the rape arrests (Piper, 1985; Tracy, Wolfgang, & Figlio, 1990). Although researchers found that chronic or habitual offenders were disproportionately responsible for criminal violence, the low incidence of these extreme crimes clouded the meaning of these offenses with respect to criminal careers.

Low numbers of murder, rape, and kidnapping also haunt other classic data sets and hamper a fuller understanding of these behaviors. The Gluecks' (1930, pp. 355-356) retrospective analysis of the criminal careers of 500 males released from the Massachusetts Reformatory unearthed 51 counts of rape and 157 instances of homicide, manslaughter, attempts to commit murder, and suicide. The inclusion of attempted murder and suicide obviously inflated the latter figure. While no analysis of kidnapping was provided, dire criminal violence was relatively rare. Their later study of 500 delinquents and 500 non-delinquents found zero incidence of murder, no kidnapping cases, and 18 counts of

sexual offenses, a category which was not limited to just rape (Glueck & Glueck, 1950, p. 295).

The entire 1945 Philadelphia birth cohort unearthed only 10 murder and 32 rape arrests (Wolfgang, Figlio, & Sellin, 1972, p. 102). Kidnapping was not measured. Indeed, Weitekamp and colleagues (1995) found that chronic offenders engaged primarily in petty, "cafeteria-style" delinquency and were not as dangerous as was commonly believed. Similarly, the 342 persons in the Columbus, Ohio Dangerous Offender Project netted just three murder arrests, 14 rape arrests, and two arrests for the "white-slave act," an analog of kidnapping (Van Dine, Conrad, & Dinitz, 1979, pp. 42-45). It is surprising to note the frequency with which murder (Dunford & Elliott, 1984; Elliott, 1994), rape (Decker & Salert, 1986), kidnapping (Blumstein, Cohen, Das, & Moitra, 1988; Decker & Salert, 1986; Shannon, 1991), or all three (Moffitt, 2001, p. 131; Osgood, Johnston, O'Malley, & Bachman, 1988; Pateroster, Dean, Piquero, Mazerolle, & Brame, 1997) are excluded from criminal career research projects.

The obvious explanation for the academic neglect of murder, rape, and kidnapping is lack of opportunity (Bartusch et al., 1997, p. 41; Cernkovich, Giordano, & Pugh, 1985). These offenses are far less prevalent than other serious crimes, such as robbery and aggravated assault (Blumstein et al., 1988; Blumstein, Cohen, Roth, & Visher, 2001, p. 53; Smith, Smith, & Noma, 1984, p. 61). Every year, officers take approximately 16,000 murder suspects and 80,000 rape suspects into custody. Comparatively, there are over 500,000 robbery arrests and over one million aggravated assault arrests (Federal Bureau of Investigation, 2000). Kidnapping is not included in the *Uniform Crime Reports* due to its exceptionality. Furthermore, just 1% of all state and federal prisoners are incarcerated for a kidnapping conviction (U.S. Department of Justice, 2000). Consequently, criminologists have found it easy to overlook extreme crimes in criminal career research.

Weiner (1989) conducted a comprehensive review of 46 criminal career studies conducted from 1958 to 1985. He found that researchers either excluded murder, rape, and kidnapping altogether as dependent variables or that the prevalence of these crimes in the databases was negligible. Studies which did include these extreme offenders indicated that such offenses occurred in less than 1% of the sample or population (Weiner, 1989, pp. 50-72).

In addition to its scholarly worth, the study of criminal careers carries tremendous policy implications. Scores of researchers have attempted to identify the most serious criminal offenders in order to remove them from society in a cost-effective manner. According to Broadhurst (2000, p. 109), "the search for factors that distinguish habit-

ual and dangerous offenders from others has been the ‘Secular Grail’ of offender-centered criminology.” It is surprising that this research has excluded murder, rape, and kidnapping from the discussion of criminal career severity and extremity. Indeed, murderers, rapists, and kidnapers are removed from the criminal career conceptualization of the most dangerous and chronic offenders. For example, Chaiken and Chaiken (1983) defined violent predators, presumably the most serious of criminal offenders, as high-rate offenders who committed such nefarious crimes as robbery, assault, and drug dealing. These offenses and offenders are unquestionably serious. Yet, they pale in comparison with murder, rape, and kidnapping.

Greenwood (1983) created a chronic offender scale to identify high-risk offenders for incapacitation policies. The Greenwood seven-factor scale measured recent imprisonment, prior conviction for the same offense, juvenile conviction prior to age 16, recent or adolescent use of heroin or barbiturates, and recent unemployment. Greenwood (1986) later applied the scale to the 411 males in the Cambridge Study of Delinquent Development. He discovered a 95% accuracy rating in predicting chronic offending. However, Decker and Salert (1986) criticized the Greenwood scale for producing too many false-positives and being unable to predict accurately those offenders who pose the greatest risk to society. In short, the criteria for serious offender status have not been inclusive enough. As a result, numerous comparatively minor offenders have been misidentified (Blumstein & Moitra, 1980).

Policies based on the extant measurement of serious offenders have failed miserably because overly broad criteria have produced too many false-positive predictions (Auerhahn, 1999; Bernard & Ritti, 1991; Brown & Pratt, 2000; Greenwood & Turner, 1987; Haapanen, 1990; Van Dine, Conrad, & Dinitz, 1979; von Hirsch, 1985). Instead of focusing on murderers, rapists, and kidnapers, criminal justice policies have attempted to reduce crime by controlling comparatively common street criminals engaged in robbery, burglary, and drug violations. Bernard and Ritti (1991) quantified the policy failure based on the typical operationalization of the chronic offender in the following way:

In a steady state of rolling cohorts (i.e., if each succeeding cohort is just like the last one), this policy [selective incapacitation of chronic offenders] would produce an ongoing rate of 6,305 boys per 100,000 boys in long-term secure facilities. At present, fewer than 200 boys per 100,000 boys are incarcerated in such facilities. This policy would “selectively” incapacitate over 30 times as many boys as at present, despite releasing all boys not in the chronic group (Bernard and Ritti, 1991, p. 34).

This assessment raises several troubling concerns. For instance, why has criminal career research not translated into more effective policy? Have the wrong offenders been identified as dangerous and habitual? Are murderers, rapists, and kidnapers the “true” career criminals? Are their offending careers worse than other criminals? Are extreme career criminals identifiable using demographic measures and criminal career parameters such as age of onset? The current study attempts to offer preliminary answers to such questions by analyzing the offense careers of persons who are involved in murder, rape, and kidnapping. More specifically, this inquiry compares extreme criminals (murderers, rapists, and kidnapers) with habitual criminals to determine whether this select offender group compiles a heftier violent crime arrest history, amasses a larger property crime arrest history, accrues more felony convictions, and serves more prison sentences.

DATA

The Study Groups

The data for the present study were derived from the official criminal files of the nearly 26,000 suspects processed at one urban jail in the western United States during 1995-2000. Record checks isolated 500 of these offenders (less than 2%) as qualified for habitual offender status. The pretrial services supervisor, along with representatives from the local district attorney’s office and the judiciary, chose 30 career arrests as the applicable criterion for habitual offender status. Members of this group are precluded from recognizance bond consideration. Also, the 30-arrest benchmark, along with commensurate felony convictions and prison sentences, makes defendants eligible for enhanced sentencing. As discussed earlier, murder, rape, and kidnapping are such rare phenomena that offender samples and official data are necessary to yield adequate numbers for quantitative analysis.

Demographically speaking, most of the 500 habitual criminals were middle-aged White males. More specifically, the sample was 89% male ($n = 445$ offenders) and the average age was 40 years with a range of 18 to 74 years. In terms of race, 52% ($n = 262$) of the offenders are White, 29% ($n = 144$) are Hispanic, 12% ($n = 61$) are Black, 6% ($n = 30$) are American Indian, and 1% ($n = 4$) are Asian American. For the analyses, Whites are coded as 0 and minorities as 1.

Measures

According to official arrest records in the National Crime Information Center (NCIC) database, the average age of onset was nearly 19

years (range 8 to 57 years). Relying on “official” age of onset is admittedly one limitation of these data. The NCIC contains arrest and judicial information submitted by federal, state, local, and foreign criminal justice agencies. Numerous states do not include detailed juvenile histories, which is reflected by the relatively late age of onset for these offenders. Another consideration is that age refers to how old the suspect was at the time of the arrest and not necessarily at the time of the offense (Dean, Brame, & Piquero, 1996; Loeber et al., 1998; Moffitt, 2001; Piquero, 2000; Tracy & Kempf-Leonard, 1996). The average criminal career span was 21 years (range 4 to 53 years). Thus, although the retrospective NCIC records were collected from 1995-2000, the scope of the criminal records span several decades and go as far back as 1948.

In addition to the demographic and criminal career measures, three dichotomous indicators were created to mark whether offenders had been convicted of at least one murder, one rape, or one kidnapping charge. The qualifying arrest and conviction was excluded from the offender’s history count to avoid biasing the analyses. This procedure produced 42 convicted murderers, 80 convicted rapists, and 38 convicted kidnapers. Some offenders were convicted of a combination of these offenses. For instance, seven offenders were convicted for murder and rape, three for murder and kidnapping, and 13 for rape and kidnapping. These “interactive” offenders, persons with convictions for more than one type of extreme violent crime, were excluded from the regression analysis for violent index crimes to avoid potential multicollinearity problems.

Just as an aside, there were some very active extreme offenders located in the database who were eliminated from subsequent analysis. Three offenders were convicted of murder, rape, and kidnapping. They all had epic criminal careers that warrant further detail. The first offender’s initial arrest occurred at age 10. Over a 28-year span, he accumulated 60 arrests for a variety of charges, 21 felony convictions, and 15 commitments to prison. The second outlier was arrested 57 times from age 17 to 67. His record included two murder convictions and 14 prison sentences for felony convictions. The third case involved a subject who was not arrested until age 36. Over the next 30 years, he managed to accumulate 44 arrests (10 of which were for rape) and to serve 11 stints in prison.

Commensurate with the research hypotheses, four criminal history indicators were used. These measures followed the guidelines of Part I and II offenses in the *Uniform Crime Reports*. They included violent index arrests (murder, rape, robbery, and aggravated assault), property index arrests (burglary, theft, auto theft, and arson), felony convictions, and prison sentences. This population demonstrated a sustained and

staggering involvement in all types of crime. Offenders averaged 3.64 violent index arrests (range 0-43), 12.19 property index arrests (range 0-104), 5.61 felony convictions (range 0-33), and 3.48 prison sentences (range 0-28).

RESULTS

The MANOVA analysis, shown in Table 1, contains mixed results when comparing murderers, rapists, and kidnapers with other habitual offenders. Persons involved in murder, rape, or kidnapping amassed a significantly longer arrest history for violent index offenses than other recidivists. The average murderer, rapist, and kidnapper totaled over six arrests for violent index offenses. Chronic offenders who were never convicted of murder, rape, or kidnapping averaged 2.61 violent index arrests.

Table 1 also shows that no significant differences emerge between the groups in terms of the number of arrests for burglary, theft, auto theft, or arson. However, significant differences do appear for felony convictions and prison sentences. Murderers, rapists, and kidnapers averaged six to seven felony convictions and four to five stints in prison. Habitual offenders, on the other hand, logged five felony convictions and less than three prison terms.

TABLE 1
Multivariate Analysis of Variance by Offender Group

Variable	Habitual (<i>n</i> = 370)	Murderers (<i>n</i> = 42)	Rapists (<i>n</i> = 80)	Kidnappers (<i>n</i> = 38)	<i>F</i> -Value
Violent Index Arrests	2.61	6.48	6.18	6.63	32.49*
Property Index Arrests	13.15	14.43	13.11	12.39	0.20
Felony Convictions	5.04	7.21	6.45	6.26	5.96*
Prison Sentences	2.85	5.29	4.31	4.79	8.13*
Age	38.68	43.19	42.77	44.26	5.72*
Race (Nonwhite = 1)	0.72	0.72	0.80	0.55	0.83
Sex (Female = 1)	0.14	0.07	0.00	0.00	4.90*
Age of Onset	18.88	17.74	17.98	19.29	1.29
Career Span	19.80	25.45	24.79	24.97	8.99*

* Denotes statistical significance at the .001 level.

Murderers, rapists, and kidnapers tend to be in their early forties and older than their recidivist peers. They are also more likely to be male. In fact, just 7% of the murderers are female and none of the female career criminals were ever convicted of rape or kidnapping. The typical criminal career of a murder, rapist, or kidnapper spans 25 years. The majority of all offenders in the current study, regardless of category,

rization, are either White or Hispanic. Similarly, all offender groups began their criminal careers at approximately the same age.

The negative binomial regression analyses appear in Table 2. The data support the first hypothesis. Murderers, rapists, and kidnapers accumulated significantly more violent index arrests than did other career offenders. Moreover, older, male, and minority offenders with an early age of onset total more violent crime arrests than younger offenders, females, whites, and persons with a delayed onset. However, the data do not support the second hypothesis. Extreme offenders and habitual offenders exhibit similar property arrest patterns. Hypotheses three and four receive partial support. As expected, being a murderer is predictive of felony conviction status, but this pattern does not hold for rapists or kidnapers. Murderers and kidnapers accrue a significantly higher number of prison sentences than other habitual offenders. Convicted rapists fall outside this pattern.

TABLE 2
Negative Binomial Regression Coefficients

Variable	Violent Index Arrests		Property Index Arrests		Felony Convictions		Prison Sentences	
	Est.	z	Est.	z	Est.	z	Est.	z
Age	.023*	4.63	.020	4.70	.020*	4.93	.042*	7.19
Race (White = 0)	.115*	2.21	.056	1.36	-.053	1.25	-.021	0.37
Sex (Male = 0)	-.973*	5.19	.130	1.37	-.016	0.12	-.139	0.76
Age of Onset	-.041*	4.15	-.063*	7.32	-.071	7.71	-.074*	5.91
Murderer (Yes = 1)	.621*	4.07	-.056	0.40	.260*	1.91	.391*	2.18
Rapist (Yes = 1)	.525*	4.35	-.157	1.44	.156	1.44	.186	1.31
Kidnapper (Yes = 1)	.591*	3.65	.093	0.63	.136	0.91	.315*	2.97
Constant	.834*	3.92	2.940*	16.86	2.170*	11.77	.783*	2.97
Chi-Square	144.34*		59.42*		83.12*		94.34*	
Pseudo-R ²	.06		.03		.03		.04	

* Denotes statistical significance at the .001 level.

DISCUSSION

Before delving into substantive comments, three caveats are in order regarding the restraints of these data. First, no other research has undertaken a systematic investigation of the criminal careers of murderers, rapists, and kidnapers in comparison to other recidivists. Since these findings represent an unexplored area, future researchers should engage in similar comparative analyses. Second, although offender histories encompass input from all fifty states, the study group comes from

a single jurisdiction in one western state. Generalizability may not extend to other regions of the country. Third, these data yield mixed results. Conclusions and policy recommendations are, therefore, tenuous and require additional research.

Due to the elusiveness of murderers, rapists, and kidnappers in criminological data, most criminal career researchers have progressed without an explicit focus on the most severe offenders. Even the members of the current study group, assembled because of their disturbing criminal records, exhibit low involvement in dire criminal violence. Only 8% display murder convictions, only 16% had been found guilty of rape, and only 7% had a kidnapping conviction. By way of comparison, 34% of these extreme offenders had a prior conviction for armed robbery and 65% had aggravated assault convictions. Although serious, these latter offenses are also common and contribute to the policy dilemmas discussed earlier.

Extreme offenders account for significantly more serious violent crime arrests, more felony convictions, and more imprisonments. The modal extreme offender is a 40-year-old male. While these characteristics may prove useful when trying to target chronic offenders, prior property arrests do not distinguish murderers, rapists, and kidnappers from "other" serious offenders. Active criminals are generalists and do not specialize in a particular type of crime, a finding echoed by previous studies (Blumstein et al., 1988; Dean et al., 1996; Dunford & Elliott, 1984; Loeber et al., 1998; Paternoster et al., 1997; Piquero, 2000). Some criminals are simply more active and more dangerous than others. Moreover, extreme offenders, like their chronic peers, tend to be males, come from diverse racial and ethnic backgrounds, are arrested early in life, and continue to run afoul of the law for decades. Without access to an offender's complete criminal history, identification of chronic or dangerous offenders will remain difficult or impossible. For these reasons, it is critical to recognize that murderers, rapists, and kidnappers are *ipso facto* dangerous predators who warrant immediate concern.

The current analyses produce minuscule levels of explained variance, ranging from 3% to 6%. The equations are very basic and contain minimal control variables. An extant criminal career theory that appears amenable to these data is Moffitt's (2001) developmental taxonomy, particularly her concept of the life-course persistent offender. Moffitt (2001) theorizes that neuropsychological problems in childhood interact cumulatively with criminogenic environments, culminating in a pathological personality. This pathology influences a variety of destructive social behaviors, including extreme criminal violence. Involvement in murder, rape, or kidnapping certainly qualifies as pathological crimi-

nal behavior. Thus, Moffitt's theory may be a promising guide for future empirical research.

In addition to a linkage to Moffitt's concept of the life-course persistent offender, a focus on extreme violent criminals serves another important theoretical function. That concern deals with a reconciliation between the static versus developmental theoretical debate in criminology. The latter approach, exemplified by Sampson and Laub's (1993) work, is the preferred paradigm in criminal career research. At least one commentator has praised their work as "without a doubt the most comprehensive and sociologically sophisticated analysis of criminal careers to date" (Warr, 1998, p. 184). However, Sampson and Laub (1993) utilize the Gluecks' archives while Warr (1998) analyzes the National Youth Survey. These data sets contain very few offenders involved in dire criminal violence. Wright et al. (1999, p. 503) suggest that researchers should view these theoretical approaches as complementary, not adversarial, approaches. It may very well be that common offenders who participate in criminal careers follow developmental patterns. However, the extremity and exceptionality of murderers, rapists, and kidnappers pose a strong devil's advocate to developmental theories of crime. Indeed, the alarming per-capita criminal capital of pathological offenders offers compelling evidence for more static theories of crime (e.g., Gottfredson & Hirschi, 1990; Wilson & Hernstein, 1985).

While they provide impetus for varied theoretical speculation, murderers, rapists, and kidnappers posit rather simply policy recommendations. Extreme career criminals are intractably bad (e.g., Brennan, Mednick, & John, 1989; Lynam, 1996; Schwaner, 1998, 2000). There is simply no hope of rehabilitating or transforming these predators into law-abiding citizens. Instead, the criminal justice system must focus on protecting the citizenry from such strident criminals. Selective incapacitation, achieved through life imprisonment and capital punishment, may be the only appropriate sanctions for such vicious and persistent offenders.

CONCLUSION

Criticisms surrounding the conceptualization and measurement of the most serious offenders have occupied interest for at least two decades (see Blumstein & Moitra, 1980; Brown & Pratt, 2000). Instead of offering platitudes that lament the commonality of prior serious offender characteristics (e.g., substance abuse, prior incarceration, involvement in robbery), it may be that involvement in *mala in se* offenses qualifies an offender for "extremely serious" status. Murder, rape, and kidnapping are fundamentally acts of human predation. Even

if extreme criminals match their recidivist peers in other areas (e.g., onset of arrest or prevalence of property offending), their continued involvement in treacherous offenses begs for more stringent handling. Perhaps, the extreme criminal element represents the secular grail Broadhurst (2000) describes and should be elevated to the forefront of criminal career research.

REFERENCES

- Arnold, B. L., & Kay, F. M. (1999). Early transition stages and heterogeneity in criminal careers among young offenders. *Canadian Review of Sociology and Anthropology*, 36, 157-177.
- Auerhahn, K. (1999). Selective incapacitation and the problem of prediction. *Criminology*, 37, 703-734.
- Bartusch, D.J., Lynam, D. R., Moffitt, T. E., & Silva, P. A. (1997). Is age important? Testing a general versus a developmental theory of antisocial behavior. *Criminology*, 35, 13-48.
- Bernard, T. J., & Ritti, R. (1991). The Philadelphia birth cohort and selective incapacitation. *Journal of Research in Crime and Delinquency*, 28, 33-54.
- Blumstein, A., & Moitra, S. (1980). Identification of "career criminals" from "chronic offenders" in a cohort. *Law and Policy Quarterly*, 2, 321-334.
- Blumstein, A., Cohen, J., Das, S., & Moitra, S. (1988). Specialization and seriousness during adult criminal careers. *Journal of Quantitative Criminology*, 4, 303-345.
- Blumstein, A., Cohen, J., Roth, J. A., & Visher, C. A. (2001). Introduction: Studying criminal careers. In A. Piquero and P. Mazerolle (Eds.), *Life-course criminology: Contemporary and classic readings* (pp. 45-66). Belmont, CA: Wadsworth.
- Brennan, P., Mednick, S., & John, R. (1989). Specialization in violence: Evidence of a criminal subgroup. *Criminology*, 27, 437-453.
- Broadhurst, R. (2000). Criminal careers, sex offending, and dangerousness. In M. Brown and J. Pratt (Eds.), *Dangerous offenders: Punishment and social order* (pp. 109-126). London: Routledge.
- Brown, M. & Pratt, J. (2000). *Dangerous offenders: Punishment and social order*. London: Routledge.
- Cernkovich, S. A., Giordano, P. C., & Pugh, M. D. (1985). Chronic offenders: The missing cases in self-report delinquency research. *Journal of Criminal Law and Criminology*, 76, 705-732.
- Chaiken, J. M., & Chaiken, M. R. (1983). Crime rates and the active criminal. In J. Q. Wilson (Ed.), *Crime and public policy* (pp. 11-30). San Francisco: ICS Press.
- Dean, C., Brame, R., & Piquero, A. (1996). Criminal propensities, discrete groups of offenders, and persistence in crime. *Criminology*, 34, 547-575.
- Decker, S., & Salert, B. (1986). Predicting the career criminal: An empirical test of the Greenwood scale. *Journal of Criminal Law & Criminology*, 77, 215-236.
- Dunford F., & Elliott, D. S. (1984). Identifying career offenders using self-reported data. *Journal of Research in Crime and Delinquency*, 21, 57-86.
- Elliott, D. S. (1994). Serious violent offenders: Onset, developmental course, and termination—The American society of criminology 1993 presidential address. *Criminology*, 32, 1-21.

- Farrington, D. P. (1997). Human development and criminal careers. In M. Maguire, R. Morgan, and R. Reiner (Eds.), *The Oxford handbook of criminology* (pp. 361-408). New York: Oxford University Press.
- Farrington, D. P. (1998). Individual differences and offending. In M. Tonry (Ed.), *The handbook of crime and punishment* (pp. 241-268). New York: Oxford University Press.
- Farrington, D. P., & West, D. J. (1993). Criminal, penal, and life histories of chronic offenders: risk and protective factors and early identification. *Criminal Behavior and Mental Health, 3*, 492-523.
- Federal Bureau of Investigation. (2000). *Crime in the United States, 1999*. Washington, DC: U.S. Department of Justice.
- Fergusson, D. M., Horwood, L. J., & Nagin, D. S. (2000). Offending trajectories in a New Zealand birth cohort. *Criminology, 38*, 525-552.
- Glueck, S., & Glueck, E. T. (1930). *500 criminal careers*. New York: Alfred A. Knopf.
- Glueck, S., & Glueck, E. T. (1950). *Unraveling juvenile delinquency*. New York: The Commonwealth Fund.
- Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime*. Stanford: Stanford University Press.
- Greenwood, P. (1983). Controlling the crime rate through imprisonment. In J. Q. Wilson (Ed.), *Crime and public policy* (pp. 251-272). San Francisco: ICS Press.
- Greenwood, P. (1986). Predictors of chronic criminal behavior. In P. Greenwood (Ed.), *Intervention strategies for chronic juvenile offenders* (pp. 75-89). Westport, CT: Greenwood Publishing Group.
- Greenwood, P., & Turner, S. (1987). *Selective incapacitation revisited: Why the high rate offenders are hard to predict*. Santa Monica, CA: Rand Corporation.
- Haapanen, R. A. (1990). *Selective incapacitation and the serious offender: A longitudinal study of criminal career patterns*. New York: Springer-Verlag.
- Hamalainen, M., & Pulkkinen, L. (1995). Aggressive and non-prosocial behaviors as precursors of criminality. *Studies on Crime and Crime Prevention, 4*, 6-21.
- Hassin, Y. (1989). Career criminals, recidivists, and dangerous offenders. *Crime and Social Deviance, 15*, 1-18.
- Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., Moffitt, T. E., & Caspi, A. (1998). Development of male offending: Key findings from the first decade of the Pittsburgh youth study. *Studies on Crime and Crime Prevention, 7*, 141-171.
- Lynam, D. R. (1996). Early identification of chronic offenders: Who is the fledgling psychopath? *Psychological Bulletin, 120*, 209-234.
- Moffitt, T. E. (2001). Adolescence-limited and life-course persistent antisocial behavior: A developmental taxonomy. In A. Piquero and P. Mazerolle (Eds.), *Life-course criminology: Contemporary and classic readings* (pp. 91-145). Belmont, CA: Wadsworth.
- Osgood, D. W., Johnston, L., O'Malley, P., & Bachman, J. G. (1988). The generality of deviance in late adulthood and early adulthood. *American Sociological Review, 53*, 81-93.
- Paternoster, R., Dean, C., Piquero, A., Mazerolle, P., & Brame, R. (1997). Generality, continuity, and change in offending. *Journal of Quantitative Criminology, 13*, 231-266.
- Piper, E. S. (1985). Violent recidivism and chronicity in the 1958 Philadelphia cohort. *Journal of Quantitative Criminology, 1*, 319-344.

- Piquero, A. (2000). Frequency, specialization, and violence in offending careers. *Journal of Research in Crime and Delinquency*, 37, 392-418.
- Rossi, P. H., Waite, E., Bose, C. E., & Berk, R. E. (1974). The seriousness of crimes: Normative structure and individual differences. *American Sociological Review*, 39, 224-237.
- Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge: Harvard University Press.
- Schwaner, S. L. (1998). Patterns of violent specialization: Predictors of recidivism for a cohort of parolees. *American Journal of Criminal Justice*, 23, 1-17.
- Schwaner, S. L. (2000). Stick 'em up, buddy: Robbery, lifestyle, and specialization within a cohort of parolees. *Journal of Criminal Justice*, 28, 371-384.
- Sellin, T., & Wolfgang, M. E. (1964). *The measurement of delinquency*. New York: Wiley.
- Shannon, L. (1991). *Changing patterns of delinquency and crime: A longitudinal study in Racine*. Boulder, CO: Westview Press.
- Smith, D. R., Smith, W. R., & Noma, E. (1984). Delinquent career-lines: A conceptual link between theory and juvenile offenses. *The Sociological Quarterly*, 25, 155-172.
- Stattin, H., & Magnusson, D. (1991). Stability and change in criminal behavior up to age 30. *British Journal of Criminology*, 31, 327-346.
- Stattin, H., Magnusson, D., & Reichel, H. (1989). Criminal activity at different ages. *British Journal of Criminology*, 29, 368-385.
- Tillman, R. (1987). The size of the "criminal population:" The prevalence and incidence of adult arrest. *Criminology*, 25, 561-579.
- Tracy, P. E., & Kempf-Leonard, K. (1996). *Continuity and discontinuity in criminal careers*. New York: Plenum Press.
- Tracy, P. E., Wolfgang, M. E., & Figlio, R. M. (1990). *Delinquency careers in two birth cohorts*. New York: Plenum Press.
- U.S. Department of Justice. (2000). *Correctional populations in the United States, 1997*. Washington, DC: Bureau of Justice Statistics.
- Van Dine, S., Conrad, J. P. & Dinitz, S. (1979). *Restraining the wicked: The incapacitation of the dangerous criminal*. Lexington, MA: D.C. Heath and Company.
- von Hirsch, A. (1985). *Past or future crimes: Deservedness and dangerousness in the sentencing of criminals*. New Brunswick, NJ: Rutgers University Press.
- Warr, M. (1989). What is the perceived seriousness of crimes? *Criminology*, 27, 795-821.
- Warr, M. (1998). Life-course transitions and desistance from crime. *Criminology*, 36, 183-216.
- Weiner, N. A. (1989). Violent criminal careers and "violent career criminals:" An overview of the research literature. In N. Weiner and M. Wolfgang (Eds.), *Violent crime, violent criminals* (pp. 35-158). Newbury Park: Sage.
- Weitekamp, E., Kerner, H., Schindler, V., & Schubert, A. (1995). On the "dangerousness" of chronic/habitual offenders: A re-analysis of the 1945 Philadelphia birth cohort data. *Studies on Crime and Crime Prevention*, 4, 159-175.
- Wikstrom, P. O. H. (1990). Age and crime in a Stockholm cohort. *Journal of Quantitative Criminology*, 6, 61-84.
- Wilson, J. Q. (1997). *The moral sense*. New York: The Free Press.
- Wilson, J. Q., & Herrnstein, R. J. (1985). *Crime and human nature*. New York: Simon and Schuster.

- Wolfgang, M. E., Figlio, R. M., & Sellin, T. (1972). *Delinquency in a birth cohort*. Chicago: University of Chicago Press.
- Wright, B., Caspi, A., Moffitt, T. E., & Silva, P. (1999). Low self-control, social bonds, and crime: Social causation, social selection, or both? *Criminology*, 37, 479-514.