



# Mission Statement

The mission of the Crime Victims' Institute is to

- conduct research to examine the impact of crime on victims of all ages in order to promote a better understanding of victimization
- improve services to victims
- assist victims of crime by giving them a voice
- inform victim-related policymaking at the state and local levels.

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# ...from the Director

Research has shown that individuals involved in illegal behavior are more likely to be victims than are those not involved in such activities. The temporal order of the victim-offender relationship has been a focus of interest in recent years. Violent victimization has been found to be an important risk factor for subsequent violent offending. The current study furthers our understanding of this sequence by analyzing waves of the National Youth Survey. The relationship between violent victimization and offending was found to change from adolescence to adulthood. Clearly, if violent victimization is a risk factor for engaging in illegal behavior, policies and programs aimed at preventing victimization may be one of the most effective strategies for at-risk youth.

Glen Kercher, Director Crime Victims' Institute

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#### About the author:

Dr. Scott Menard joined the faculty of the College of Criminal Justice in 2006. His areas of academic interest include: Statistics (Longitudinal Research, Logistic Regression Analysis, Multilevel Analysis), Research Methods (Survey Research, Evaluation Research), Juvenile Delinquency, and Life Course Criminology (Victimization, Substance Use, Theory Testing).

An experienced researcher, Scott has recently completed data collection for the tenth, eleventh, and twelfth waves of data for the National Youth Survey/Family Study (NYSFS), a longitudinal, multigenerational, national probability sample whose focal respondents were 11-17 years old in 1976-77. In waves 10-12, 2002-2004, the sample has been expanded to include data on the spouses and children of the focal respondents, as well as re-interviewing the focal respondents' parents, who were last interviewed in the first wave of the survey.

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# **Victimization and Illegal Behavior**

An important issue in victimization literature is the relationship between illegal behavior and victimization. Prior to the development of victimization surveys in the 1960s, and the subsequent institution of the annual national collection of data on victims of crime through the National Crime Victimization Survey (NCVS), criminologists and the general public generally seemed to think of victims and offenders as separate populations. It was not generally recognized that victimization might be a risk factor for subsequent illegal behavior, or that illegal behavior might be a marker indicating the possibility of additional treatment needs among individuals who might be not only perpetrators but also victims of crime.

Early data from the NCVS indicated that the characteristics of individuals victimized by crime parallel the characteristics of individuals arrested for crime (Hindelang, Gottfredson, & Garofalo, 1978; Karmen, 1984; U.S. Department of Justice, 1988). Comparisons of victim and offender characteristics based on more recent data continue to indicate the similarity between victims and offenders in the following ways:

- Adolescents and young adults have higher rates of victimization and offending than older individuals.
- Males are more often victims and perpetrators than females, with the notable exception that females are most often the victims of sexual assault.
- Non-Whites, particularly African Americans, are victimized more than the
  White non-Hispanic majority, and also have higher arrest rates (but selfreport data on crime perpetration suggest that, at least for adolescents, arrest data overstate the relationship between minority status and offending).
- Violent personal and household property victimization rates are higher for households with lower household income and individuals with lower socioeconomic status (SES, variously defined in terms of some combination of one or more of occupational status, income, and education).
- Arrest rates are higher for lower income and lower SES than for higher income or higher SES individuals (although, again, self-report data on perpetration suggest that this relationship is overstated)
- Urban dwellers have the highest, and rural residents the lowest, rates of both victimization and perpetration of personal and property crimes (Rand, 2008; Snyder, 2008; Snyder & Sickmund, 2006; U. S. Department of Justice, undated; see also, for example, Brown, Esbensen, & Geis, 2007:134-140 and 147-155).

Additional research (Ageton, 1981; Esbensen & Huizinga, 1991; Jensen & Brownfield, 1986; Lauritson, Sampson, & Laub, 1991; Sampson & Lauritson, 1990; Thornberry & Figlio, 1974) confirmed that the same individuals tended to be both victims and offenders. Thornberry and Figlio (1974) examined the relationship between victimization and both self-reported delinquency and arrest data. While they did not find a temporal relationship between the type of offending and the type of victimization, they suggested that the juvenile years may well be characterized by a general behavioral pattern "typified by both commission of and victimization by various kinds of mild assaults and property offenses" (Thornberry & Figlio, 1974). Jensen and Brownfield (1986) commented that "for personal victimization, those most likely to be victims of crime are those who have been most involved in crime." In a study using the British Crime Survey (BCS), which is limited to respondents 16 years old and older, Sampson and Lauritsen (1990) reported findings similar to those reported for juveniles. Specifically, they found that "offense activity ... directly increases the risk of personal victimization" (Sampson & Lauritsen, 1990).

Consistent with these findings, analyses of first-year data from the Denver Youth Survey (DYS) also found a significant relationship between victimization and delinquency. Moreover, youth with higher rates of offending had higher probabilities of being victimized than did less frequent offenders (Esbensen & Huizinga, 1991). It is unclear from this research, however, whether this co-variation represents the influence of victimization on offending, the influence of offending on victimization, the mutual interactive influences of victimization and offending on each other, or a spurious relationship in which victimization and offending have the same root causes.

# **Explanations for the Victimization-Offending Relationship**

Most prior research on the relationship between victimization and illegal behavior draws upon the routine activities perspective (Cohen & Felson, 1979; Felson & Cohen, 1980), and focuses on the influence of offending on victimization (Esbensen & Huizinga, 1991; Jensen & Brownfield, 1986; Lauritson et al., 1991; Sampson & Lauritson, 1990). The routine activities or lifestyle approach begins with the premise that victimization is situational, and occurs when three elements are present: willing or motivated offenders, a suitable (vulnerable) target, and the absence of capable guardians against victimization (Cohen & Felson, 1979). Offender motivation is assumed, and the absence of capable guardians appears to be regarded as a lack of external restraint. The focus in the literature based on this perspective is on how the routine activities (behavior) of individuals render them vulnerable to victimization (Maxfield, 1987).

The routine activities approach suggests that individuals who are involved in illegal behavior should have higher rates of victimization. Those behaviors make them more vulnerable to victimization, but this perspective says nothing about the converse possibility that being victimized may also lead to illegal behavior. Lauritson et al. (1991) found that victimization and "delinquent lifestyle" appeared to influence one another. Although their results were not presented in detail, the information they did present suggested that the influence of victimization on offending might be stronger than the influence of offending on victimization. Also, as part of their measure of delinquent lifestyle, they included a variable described by Elliott, Huizinga, and Menard, (1989) as "delinquent peer group bonding," a cause of illegal behavior according to the integrated theory of Elliott and his colleagues (Elliott et al., 1989; Elliott, Ageton & Canter, 1979; Elliott, Huizinga, & Ageton, 1985). A reciprocal pattern of influence between crime and victimization is suggested by Singer (1986), who emphasizes subcultural and reciprocal aspects of predatory crime.

The possibility that victimization leads to illegal behavior would be consistent with Black's (1983) thesis that individuals may use crime as a form of social control; for example, as a form of retaliation, revenge, or deterrence. Also related are the "frustration-aggression" hypothesis (Berkowitz, 1962); general strain theory, which identifies victimization as a form of strain likely to lead to perpetration of illegal behavior (Agnew, 2001; Carson, Sullivan, Cochran, & Lersch, 2009; Harrell, 2007; Hay & Evans, 2006); and social learning theory (Akers, 1985; Bandura, 1977). An assailant may "model" behavior which is later repeated by the victim. In a broader context, this may be the explanation for the "cycle of violence" or intergenerational transmission of violence found in studies of child abuse (Gelles & Cornell, 1990; Rivera & Widom, 1990).

Another perspective on the victimization-perpetration relationship has come from self-control theory, which argues that individuals with low self-control are both more likely to

be perpetrators of illegal behavior, and also are more likely to place themselves in situations conducive to their own victimization and, once in those situations, more likely to behave in ways that increase their likelihood of victimization (Armstrong & Griffin 2007; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005; Schreck, 1999; Schreck, Steward, & Fisher, 2006; Stewart, Elifson, & Sterk, 2004).

# **Methodological Limitations in Previous Studies**

Previous studies of the relationship between victimization and offending have generally been limited to

- (a) reliance on official statistics for offending,
- (b) reliance on samples of questionable generalizability, and
- (c) limitations on the age range, particularly excluding the youngest potential victims (under age 12).

A different issue arises when looking at victimization data such as the NCVS: Missing in this dataset is information about victimization and offending for the same individuals.

Self-report data have been used extensively in examining the relationship between victimization and offending, but almost exclusively for adolescents and occasionally young adults. Lauritsen, Sampson, and Laub (1991) used the first fives waves (age range 11-21) of the National Youth Survey (NYS) and found that adolescent involvement in "delinquent lifestyles" (including both delinquent behavior and involvement with delinquent peers) and victimization each affected the other, with the impact of delinquent lifestyles on victimization being greater than the impact of victimization on delinquent lifestyles. Harrell (2007) used data on White and African American respondents from the first four waves (age range 11-20) of the NYS and found, consistent with general strain theory, that increased victimization was a risk factor for both violent and non-violent offending and illicit substance use. Menard (2002) used waves 1-9 for the three youngest cohorts in the NYS (analyzing the same persons from age 11-29) and found that violent victimization, but not property victimization, during adolescence was associated with adult violent victimization, property and violent offending, domestic violence perpetration and victimization, problem drug use, and post-traumatic stress disorder (PTSD). His results also indicated that violent offending in adolescence was a risk factor for violent offending, perpetration of domestic violence, and domestic violence victimization in adulthood. Menard and Mihalic (2001), also using the first three cohorts of the NYS for waves 1-9, found that even controlling for prior victimization and offending, adolescent violent victimization and serious violent offending (rape, aggravated assault, and strong-arm robbery) are risk factors for adult violent victimization and serious violent offending. The NYS studies thus suggest that victimization affects offending perhaps more than offending affects victimization; but the results are limited to adolescence and early adulthood.

Hay and Evans (2006) used another national sample, the National Survey of Children, with two waves of data, 1976 (ages 7-11) and 1981 (ages 12-16), and found that, consistent with predictions from general strain theory, violent victimization was a risk factor for subsequent delinquency. Carson et al. (2009) used another national sample of adolescents (ages 12-17), the National Survey of Adolescents, and also found that, again consistent with general strain theory, victimization was a risk factor for frequency and early age of onset of drug use.

The overwhelming evidence from these studies is that the same individuals tend to be involved in both criminal victimization and crime perpetration - in adolescence and early adulthood. It also appears that victimization, particularly violent victimization in adolescence, is a risk factor for adult offending. This may also be true of childhood victimization, but see Ireland, Smith, and Thornberry (2002) and Thornberry, Ireland, and Smith (2001) for evidence that it is adolescent and not childhood victimization that has an impact on later offending. Questions that remain to be answered are:

- 1. When looking at the very beginning of the process, the initial onset of victimization and offending, what is the typical sequence of initiation of victimization and offending? Which typically comes first (the cause)? Is the pattern sufficiently one-sided to conclude that, at least for initiation, one can clearly distinguish which is the cause and which is the effect?
- 2. How does the relationship between self-reported victimization and offending unfold over the life course? What is the pattern of association between victimization and offending both earlier and later in the life course, including individuals in middle age and the elderly, as well as adolescents and young adults?
- 3. What is the impact of victimization on offending, and of offending on victimization, at different stages of the life course, for everyone from children to the elderly?
- 4. How are victimization and offending related to each other when controlling for sociodemographic characteristics. In particular, given the importance of association with delinquent, deviant, or criminal others in theories of both offending (particularly for learning theories) and victimization (particularly for routine activities or lifestyle theories), to what extent is association with law-violating friends a predictor of victimization and offending at different stages in the life course?

#### **Data and Methods**

Data for this study are taken from the National Youth Survey Family Study (NYSFS), an expansion of the National Youth Survey (NYS) which includes parents, spouses, and children of the original respondents. As described in Menard (2002), the National Youth Survey (NYS) employed a probability sample of households in the continental United States based on a self-weighting, multistage, cluster sampling design. The sample was drawn in late 1976 and contained an estimated 2,360 eligible youth, born 1959 to 1965, of whom 1,725 (73%) agreed to participate in the study. Overall completion rates were over 94% of the original respondents for waves 2 and 3; 87% for waves 5 and 6; 80% for wave 7; 83% for wave 8; and 78% for Wave 9.

Data for waves 10, 11, and 12 were collected in 2002-2004. In wave 10, an attempt was made to again interview the original respondents, and to collect data to allow us to locate and interview their surviving parents, current spouses or partners, and adolescent and adult children for subsequent waves of the NYSFS.

This is the same sample that has been used in several previous studies of the relationship between victimization and offending, as noted above, but here the analyses are expanded beyond previous analyses to include (a) data on the same respondents at older ages, and (b) data on new respondents; the parents, spouses, and children of the original NYS respondents.

#### **Victimization Measurement**

The questions about victimization used in the NYS/NYSFS are summarized in Table 1. Questions about violent victimization were asked in all 9 waves of NYS interviews (for the years 1976-1980, 1983, 1986, 1989, 1992); however, in the second year (1977), approximately 4/7 (57%) of the respondents were not asked about property victimization. Past studies involving the NYS have indicated that the distinction between violent and property victimization is important. For several of the analyses here the two are considered separately. For other analyses, particularly the sequencing of the onset of victimization and offending, the more inclusive total property plus violent victimization is used.

### **Table 1. NYS Victimization Items**

NYS: "How many times in the last year..

#### Robbery

...has something been taken directly from you (or an attempt made to do so) by force or by threatening to hurt you?

### **Battery**

(Waves 1-7) ...have you been beaten up by your mother or father?

(Waves 1-7) ...have you been beaten up (or threatened with being beaten up) by someone other than your mother or father?

(Waves 8-12) ...have you been beaten up or threatened with being beaten up by someone?

#### **Aggravated Assault**

...have you been attacked with a weapon, such as a gun, knife, bottle, or chair by someone (other than your mother or father)?

#### Sexual Assault

...have you been sexually attacked, or raped (or an attempt made to do so)?

#### Theft of a motor vehicle or bicycle

...has your car, motorcycle, or bicycle been stolen (or an attempt made to do so)?

#### Theft from a vehicle

...have things been taken from your car, motorcycle, or bike, such as hubcaps, books or packages, or bike locks?

### Household burglary (begins wave 8)

...has something been stolen from your home (house, apartment, etc.) or an attempt made to do so?

# Theft from a public place

...have some of your things, such as your jacket, notebooks or sports equipment been stolen from a public place such as a school cafeteria, restaurant, or bowling alley?

#### Personal larceny with contact (not robbery) (begins wave 8)

...has your pocket been picked, or your purse or wallet snatched, or an attempt made to do so?

#### Vandalism

...have any of your things been damaged on purpose, such as car/bike tires slashed or books and clothing ripped up?

# **Measures of Offending**

Several offending scales are used in the present analysis; all include attempted as well as completed offenses.

**Felony assault** (serious/index violent offenses) includes rape, aggravated assault (attacking someone with the idea of seriously injuring or killing them), and either gang fighting or battery (depending on the availability of that measure at a particular wave; gang fighting is used in waves 1-8, battery in wave 9, and both in waves 10-12).

*Felony theft* consists of larceny involving more than \$50, motor vehicle theft, and burglary (from either a dwelling or a vehicle).

*Index offending* consists of felony assault and felony theft plus strong-arm robbery (taking something by force or threat of force).

*Minor offending* consists of offenses that vary somewhat with age, but include minor theft (theft of less than \$50), minor assault (hitting without the intention of seriously injuring or killing someone), illicit drug sales, and public disorder. Specifically excluded are status offenses such as cheating on school tests or truancy, acts which could be construed as juvenile delinquent behavior but which would not be considered crimes if they were committed by adults. General offending consists of index plus minor offending. In contrast to the violent and property offending scales for victimization, there is no clear indication that measures of offending as predictors or as outcomes of victimization need to be specific as opposed to general. Therefore, both more specific and more general scales for offending will be used here. As with victimization, both the prevalence and frequency of offending will be examined in this report.

Substance use includes four measures, three of which have been used extensively in past research involving the NYS, and one of which has been used relatively little. Alcohol use is generally associated with victimization and offending, particularly violent victimization and offending (Elliott et al. 1989; Menard, Mihalic, & Huizinga 2001). Marijuana use represents the use of a relatively "soft" drug. Inhalant use (the "new" drug relative to past studies involving the NYS) represents the inappropriate use of substances that are not generally themselves illegal, and is most prevalent at younger ages. Finally, a polydrug or hard drug use scale is used which includes any one or more of amphetamine, barbiturate, cocaine, hallucinogen, or heroin use. Past studies of substance use in the NYS indicated that hard drug use was practically always accompanied by alcohol and marijuana use. Fewer than 1% of the sample reported hard drug use but no marijuana or alcohol use, hence the designation of this scale as a polydrug use scale. Substance use is considered as both a risk factor for and a potential consequence of victimization and offending here. As with victimization and offending, both prevalence and frequency of substance use will be examined.

*Exposure* to or association with friends who are engaged in illegal behavior is a scale involving 8 items asking how many of your friends (none, very few, some, most, all) have purposely damaged or destroyed property that did not belong to them, used marijuana, stolen something worth less than \$5, hit or threatened to hit someone without any reason, broken into a vehicle or building to steal something, sold hard drugs, stolen something worth more than \$50, or encouraged you to do something that was against the law. This is a subset of the exposure to delinquent peers scale used in other studies involving the NYS (e.g., Elliott et al. 1989).

**Belief that it is wrong to violate the law** is a scale involving 7 items asking how wrong it is (not wrong at all, a little bit wrong, wrong, or very wrong) to purposely damage or destroy property that did not belong to them, use marijuana, steal something worth less than \$5, hit or threaten to hit someone without any reason, break into a vehicle or building to steal something, sell hard drugs, or steal something worth more than \$50.

The specific items are the same as for the exposure scale, with the exception that encouraging someone to break the law is not included in the belief scale. Belief that it is wrong to violate the law is included here primarily as a control variable when examining the relationship of exposure to victimization and offending.

Urban/suburban/rural residence (USR) is coded as 1=urban, 2=suburban, and 3=rural. Ethnicity is predominantly treated as the distinction between the White non-Hispanic majority and all other (minority) groups. Given the time at which the data were first collected on the original respondents, the non-White minority consists primarily of African Americans, followed by Hispanics, and then other racial/ethnic groups. Gender (male or female), age (age at last birthday in wave 1; updated in subsequent waves), and highest grade completed are also included as predictors. Highest grade completed is included here because of its utility as one index of socioeconomic status, and because at different stages of the life course it may have different effects on the outcomes of interest (for example, decreasing non-drug offending but increasing illicit substance use during early adulthood).

# **Results**

# Sequencing of Victimization and Offending

The sequencing of victimization and offending was initially examined for adolescence, using the youngest three cohorts (ages 11-13 at wave 1 in 1976) and tracing them to the end of adolescence (ages 18-20 at wave 6 in 1983). In past studies, most individuals who will ever initiate offending or victimization will have done so by the end of adolescence (e.g., using the NYS, Elliott et al. 1989; Menard 2000). Separate analyses were also conducted for the four oldest cohorts and for the sample as a whole, but the results were so similar that only the results for the youngest three cohorts are presented here.

Respondents were classified as having

- (1) never initiated either of victimization or offending by wave 6,
- (2) having initiated both victimization and offending prior to the beginning of data collection in wave 1,
- (3) having initiated both victimization and offending in the same year at some time subsequent to wave 1,
- (4) having experienced the onset of victimization prior to or in the absence of onset of offending, or
- (5) having initiated offending prior to or in the absence of onset of victimization.

Category (1) never initiated, represents "right censoring"; neither victimization nor offending onset has been experienced, and it is possible that neither will be experienced, or that one or the other or both will be experienced at some unspecified time in the future, after adolescence.

Category (2) represents "left censoring"; onset has already occurred, and it is impossible to ascertain whether victimization or offending occurred first.

Category (3) order of onset can not be ascertained, because onset has occurred for both victimization and offending in the same year. The last two categories are the categories for which order of onset is actually ascertainable.

Table 2 presents the results for sequencing of onset of victimization and offending during adolescence for the youngest three cohorts of the NYSFS.

Table 2. Sequencing of Onset of Victimization and Offending During Adolescence

	Frequency	Percent	Valid	Ascertainable
	requests		Percent	Percent
Neither experienced	381 49.0 66.5		66.5	-
Left censored (both 1976 or earlier)	13	1.7	2.3	-
Onset of both in same year	22	2.8	3.8	-
Delinquency before victimization	49	6.3	5.6	31.2
Victimization before delinquency	108	13.9	18.8	68.8
Missing	205	26.3	-	-

There is serious left censoring, and for most respondents the order of onset of victimization and illegal behavior cannot be ascertained. The plurality of respondents (49.0%), and the majority with non-missing data for all six waves (68.8%), had already experienced onset of both illegal behavior and victimization by wave 1 (1976, the first year for which data are available). Without detailed information for ages prior to age 11, the most reasonable conjecture would be that patterns before adolescence probably mirror patterns during and after adolescence, but it is possible that patterns of onset before adolescence differ substantially in some unspecified way from the patterns observed in adolescence. Another 2.3% of the cases with valid data (1.7% of the total; 6.8% of the cases that are not left censored) experienced onset of neither victimization nor offending by wave 6 (1983). Onset of both victimization and offending occurred in the same year for 3.8% of the cases with valid data (2.8% of the total; 11.5% of the cases that are not left censored). The order of onset can be ascertained for only one-third of the cases with non-missing data (one-fourth of the total). Of those cases for which it is possible to ascertain order of onset, victimization typically comes first (a little over two-thirds of the time; 18.8% of cases with non-missing data, 13.9% of the total), but there is a substantial minority of individuals for whom offending comes first (about one-third of the cases for which order of onset is ascertainable; 8.6% of cases with non-missing data, 6.3% of the total). These results hold whether general delinquency, or minor offending, or only those offenses measured by both the victimization and delinquency scales are included in the analysis. The results of analyzing males and females, and Black and White respondents separately also produced results uniformly consistent with the results in Table 2, but there were

statistically significant differences: the ratio of initiation of victimization prior to offending vs. offending prior to victimization was 2.0:1 for males and 1.7:1 for females, and 1.5:1 for majority and 3.2:1 for minority respondents, indicating that the usual order of victimization prior to offending is more pronounced for males and for minority respondents.

A somewhat different picture emerges when sequencing of victimization and substance use are examined. Table 3 presents the sequencing of victimization and substance use for alcohol (3a), marijuana (3b), and polydrug use (3c). Past research has indicated that there is a fairly strong sequencing among these substances, with alcohol coming first, then marijuana use, then polydrug use (Elliott et al. 1989; Menard et al. 2001), so, predictably, there is more initiation of alcohol use prior to victimization and less initiation of polydrug use prior to victimization than there is initiation of marijuana use prior to victimization. The current analysis, however, shows that for all three substances, the overwhelming pattern is one of onset of victimization prior to initiation of substance use. Even for alcohol use, a clear majority of the cases with non-missing data for all six waves (52.8%) initiate victimization prior to alcohol use (a 5:1 ratio of initiation of victimization prior to alcohol use). For marijuana use, the ratio is 18:1, and for polydrug use, it is 332:1 with victimization preceding substance use.

Table 3. Sequencing of Onset of Victimization and Substance Use During Adolescence

	Frequency	Percent	Valid Percent	Ascertainable Percent
3a Victimization and Alcohol Use				
Neither experienced	9	1.2	1.9	-
Left censored (both 1976 or earlier)	135	17.4	28.2	-
Onset of both in same year	34	4.4	7.1	-
Alcohol use before victimization	48	6.2	10.0	15.9
Victimization before alcohol use	253	32.5	52.8	84.1
Missing	299	38.4	-	-
3b Victimization and Marijuana Use				
Neither experienced	21	2.7	3.7	-
Left censored (both 1976 or earlier)	28	3.6	4.9	-
Onset of both in same year	7	0.9	1.2	-
Marijuana use before victimization	27	3.5	4.8	5.3
Victimization before marijuana use	483	62.1	85.3	94.7
Missing	212	27.2	-	-
3c Victimization and polydrug use				
Neither experienced	27	3.5	14.7	-
Left censored (both 1976 or earlier)	47	0.5	0.7	-
Onset of both in same year	5	0.6	0.9	-
Polydrug use before victimization	2	0.3	0.3	0.3
Victimization before polydrug use	539	69.3	93.4	99.6
Missing	201	25.8	-	-

As with non-drug offending, these results are consistent for males and females, but the ratio of initiating victimization first is statistically significantly higher for females than for males: for alcohol use, victimization comes first by a ratio of 6.3:1 for females and 1.7:1 for males; for marijuana use 20:1 for females and 6.8:1 for males; and for polydrug use 156:1 for females and 96:1 for males. There are also statistically significant differences, but still the same patterns, by ethnicity: for alcohol use, onset of victimization occurs prior to onset of substance use by a ratio of 2.1:1 for majority and 7.1:1 for minority; for marijuana use, 8.8:1 for majority and 27.2:1 for minority; and for polydrug use, 75:1 for majority respondents, and there are no minority respondents who initiate polydrug use prior to or in the absence of victimization.

The analysis of the sequencing of victimization and offending suggests that for the onset of victimization and illegal behavior, a one-year lag is adequate to separate a change in one (e.g., victimization) from a change in the other (e.g., illegal behavior). This is true for about 88-90% of the uncensored cases (cases for whom onset of at least one behavior occurred after the first measurement period) for non-drug offending and alcohol use, and about 99% for marijuana and polydrug use. Regardless of the specific outcome measure, the onset of victimization more often precedes the onset of illegal behavior than the onset of illegal behavior precedes the onset of victimization. For substance use, it is already clear that in the majority of cases, victimization precedes substance use. These results suggest that:

- (1) in order to fully capture the sequencing of victimization and non-drug offending, it is necessary to extend the analysis into childhood, before adolescence;
- (2) if the patterns of onset prior to adolescence mirror those in adolescence, then onset of victimization typically precedes onset of non-drug offending, consistent with frustration-aggression, general strain, and learning theories;
- (3) the evidence is unequivocal that victimization precedes substance use, also consistent with frustration-aggression, general strain, and learning theories; but
- (4) a simple unidirectional causal relationship, as suggested by either the frustration-aggression, general strain, or learning theories (with victimization causing offending) or by routine activities theory (with offending causing victimization), is unlikely to provide an adequate explanation for the relationship between victimization and non-drug offending.

# The Relationship Between Victimization and Offending Over the Life Course

Table 4 details the relationship between prevalence rates of total victimization and general offending for eight age groups at wave 11 (2003). The adolescent age group, ages 11-17, is selected to encompass adolescence and to parallel the ages of the original NYS respondents (OR) in the first wave of the survey, but the 800 cases in the adolescent age group in Table 4 are the youth offspring (YO) of the original NYS respondents. The transitional age group (ages 18-26) was selected to parallel wave 6 of the NYS (ages 18-24) and also to make a split that would be convenient for the definition of subsequent age groups. This stage includes completion of high school, college, and possibly graduate school for some respondents, and serious entry into the labor market for others. The young adult age group (ages 27-35) parallels the ages at wave 9 of the NYS (ages 27-33; we have no data on OR for ages 34 and 35), and represents the stage at which education is typically completed for all but a very few respondents, and full scale entry into the labor force for all who choose to participate. In the present analysis, transitional

and young adult respondents are drawn predominantly from the adult offspring (AO), of the OR, age 18 and older. The number in the young adult category is relatively low, but should be sufficient (with due caution) for analysis.

The early middle age group (age 36-45) is the first of four ten-year age groups; the ten-year span was used to provide sufficient cases for analysis in each age group. This group consists primarily of OR, with some spouses (SP) as well. In later middle age (ages 46-55), the sample consists primarily of spouses of the OR, with a few parents (PA) and AO as well, and has a higher proportion of male respondents than the other groups, a fact which may have some limited effect on the results presented below. The groups labeled pre-retirement (ages 56-65), early elderly (66-75), and later elderly (76-88; there were just a handful of respondents over age 85) consist almost entirely of the parents of the OR, with some older spouses in the pre-retirement group. The numbers of cases for the later middle age and the later elderly groups are, as for young adults, relatively small, but should be adequate to give some idea of how the relationship between victimization and offending differs (cross-sectionally; this does not really represent change, for which longitudinal data on the same respondents at different times would be required) across the life course from adolescence to old age.

Table 4. Total Victimization and Offending Prevalence by Age Group, Ages 11-88, 2003

	N	n (n)	Numb	er of case	s (percenta	ige)
	IN .	r (p)	Neither	Victim	Offender	Both
Adolescent 11-17 (YO)	800	.242 (.000)	274 (34.7)	146 (18.5)	152 (19.2)	218 (27.6)
Transitional 18-26 (AO)	445	.234 (.000)	169 (38.1)	88 (19.8)	79 (17.8)	108 (24.3)
Young Adult 27-35 (AO)	125	.288 (.001)	45 (36.0)	6 (4.8)	46 (36.8)	28 (22.4)
Early Middle Age 36-45 (AO, SP)	1754	.115 (.000)	979 (55.8)	204 (11.6)	416 (23.7)	155 (8.8)
Later Middle Age 46-55 (OR, SP)	151	.073 (.371)	37 (24.5)	7 (4.6)	83 (55.0)	24 (15.9)
Pre-retirement 56-65 (PA, SP)	389	.053 (.299)	201 (51.7)	31 (8.0)	130 (33.4)	27 (6.9)
Early Elderly 66-75 (PA)	379	018 (.733)	226 (59.6)	24 (6.3)	118 (31.1)	11 (2.9)
Later Elderly 76-88 (PA)	94	.104 (.179)	69 (73.4)	4 (4.3)	18 (19.1)	3 (3.2)

YO - Primarily youth (age 11-17) offspring of the original NYS respondents

The age groups are listed in the first column of Table 4; the number of cases being analyzed is listed in the second column; and the correlation between the two most inclusive measures of victimization and offending, total victimization, and general offending, is listed in the third column. The correlations are statistically significant for adolescent, transitional,

AO - Primarily adult (over age 18) offspring of the original NYS respondents

SP – Primarily spouses of the original NYS respondents

PA - Primarily parents of the original NYS respondents

OR - Primarily the original NYS respondents

young adult, and early middle age respondents, but not for respondents in the last four age groups. The strength of the association appears to peak in the young adult years, then to decline from young adulthood to early middle age, and to decline even further after early middle age. The increase in the correlation for later elderly respondents might be of interest if it were statistically significant, but it is not, and a larger sample might well produce a weaker correlation for that group.

The last four columns of Table 4 show the number and row percentage of cases in each age group who are (a) neither victims, according to the total victimization scale, nor offenders, according to the general offending scale; (b) victims but not offenders; (c) offenders but not victims; and (d) both victims and offenders. The proportion of those who are neither victims nor offenders is about one-third in the adolescent, transitional, and early adult years', around half in the early middle age, pre-retirement, and early elderly groups; then around three-fourths in the later elderly years. The apparent drop in the proportion who are neither victims nor offenders in later middle age seems odd, and may be attributable to random error in this relatively small subsample in the table (the increase in the proportion who are neither victims nor offenders for the later elderly should also be viewed with some caution because of the small subsample size). At the other end of the table, the overlap between victimization and offending is initially high, around one-fourth of the sample, then declines below 10% in early middle age, pre-retirement, early elderly, and later elderly age groups (the latter two at less than 5%), again with an anomalous difference, this time an increase, for the later middle agers. "Pure" victims are rare among adolescents and transitionals, and rarer still at later ages. The percentage of "pure" offenders, however, is markedly higher than the percentage of "pure" victims for all but the youngest two age groups. It hardly fits the stereotype, but these data indicate that the elderly are more involved as perpetrators than as victims. This should be tempered by noting that some of the offenses included in the general offending scale are relatively minor (petty theft, minor assault, public disorder). The same may be true of some of the items in the total victimization scale, but unlike general offending, the total victimization scale cannot, by definition, include victimless crimes, so there are simply more possibilities for offending than for victimization.

# **Longitudinal Analysis: Correlations from Adolescence to Early Middle Age**

As indicated in the previous section, differences in correlations between victimization and offending for different age groups represent cross-sectional differences, not the developmental differences that occur as individuals move from one stage to the next in the life course. Table 5 presents the same information on victimization and offending, correlations of victimization with selected other variables, at the four stages of the life course through which the original NYS respondents have passed. All of the calculations in Table 5 are based on data from OR, on (a) YO for ages 11-17, (b) AO for ages 18-26, (c) a combination of AO and SP for ages 27-35, and (d) a combination of OR and SP for ages 37-45.

Comparing and noting that correlations are obtained for the same age groups, but for different respondents, there are both similarities and differences. First, the highest correlations were typically observed for young adults, and the typical pattern is more of a monotonic decline with age. This suggests that there may be a cohort effect operating for the AO. Speculatively, the AO who are already young adults would have been born to at least one relatively young (OR) parent, and this may have placed them at greater risk for victimization and offending, which in

Table 5. Correlation of Victimization, Offending, and Substance Use Prevalence for OR from Adolescence to Early Middle Age

Pearson's r(p)	General	Index	Felony	Felony Theft	Felony Theft   Alcohol Use   Inhalant Use	Inhalant Use	Marijuana Use	Polydrug Use
Violent Victimization								
Adolescent 11-17	.312 (.000)	.340 (.000)	.319 (.000)	.227 (.000)	.142 (.000)	(800.) 560.	.171 (.000)	.176 (.000)
Transitional 18-26	(0000) 967:	.304 (.000)	.287 (.000)	.200 (.000)	.074 (.005)	.045 (.102)	.174 (.000)	.188 (.000)
Young Adult 27-33	.251 (000)	.222 (.000)	.233 (.000)	.130 (.000)	.081 (.003)	.069 (.011)	.150 (.000)	.131 (.000)
Early Middle Age 37-44	(.000) .182	(0000) (111)	.120 (.000)	(.000) (138)	004 (.887)	.089 (.002)	(000.) 660.	.103 (.000)
Property Victimization								
Adolescent 11-17	(.000)	(.191 (.000)	.167 (.000)	.146 (.000)	.102 (.000)	.065 (.070)	.080 (.004)	.071 (.010)
Transitional 18-26	(193 (.000)	(000) (113)	(000.) 860.	.132 (.000)	.073 (.005)	.016 (.551)	.133 (.000)	.123 (.000)
Young Adult 27-33	(.000) (.000)	(700.) (200.)	.069 (.011)	.107 (.000)	.062 (.023)	.000 (.991)	(000.) 860.	.087 (.001)
Early Middle Age 37-44	.147 (.000)	.092 (.001)	.084 (.003)	.043 (.129)	.043 (.135)	021 (.469)	.074 (.010)	.059 (.040)
Total Victimization								
Adolescent 11-17	(.000) (.315)	(.000) (.000)	.228 (.000)	.176 (.000)	.112 (.000)	.067 (.065)	.133 (.000)	.128 (.000)
Transitional 18-26	(.000) 275	(.000) (.000)	(.000) (.000)	.156 (.000)	.094 (.000)	.024 (.384)	.180 (.000)	.180 (.000)
Young Adult 27-33	(.000) (.220	.145 (.000)	.143 (.000)	.135 (.000)	.089 (.001)	.029 (.282)	.134 (.000)	.115 (.000)
Early Middle Age 37-44	.177 (.000)	.124 (.000)	.118 (.000)	.076 (.008)	.036 (.205)	.026 (.365)	.081 (.005)	.075 (.009)
- :-								

Normalized n of cases:

1,559 for adolescent

1,315 for property victimization (skipped for half sample at wave 2)

771 for inhalants (first introduced for half sample at wave 2 and 3, full sample at wave 4)

1,454 for transitional

1,363 for young adult

1,217 for early middle age

turn may have inflated the correlation between victimization and offending for this age group. Parallel to these results, however, is the finding that the correlations between victimization (violent, property, and total) and offending (general, index, felony assault and felony theft) tend to be lower for the early middle age group than for the younger age groups. The correlation between victimization and offending appears to be highest with general offending for both total and property victimization, and for violent victimization for the early middle age and young adult age groups. The correlation of victimization with general offending is weaker than the correlation with index offending for adolescent and transitional ages, but the difference is small.

Table 5 also includes correlations between victimization and substance use. While there is some tendency for the correlation between victimization and substance use to be highest in adolescence and lowest in early middle age, this is not consistently the case, and the trends in the magnitude of the correlations between victimization and substance use are not as clear as the trends in the correlations between victimization and non-drug offending. It does appear that alcohol and inhalant use have their highest correlations with victimization for adolescents, while marijuana and polydrug use have their highest correlations with victimization for transitionals. Finally, comparing the correlations of offending with property, violent, and total victimization, it is evident that property victimization consistently has the lowest correlation of the three victimization measures with both substance use and non-drug offending. This suggests that unless there is a specific reason for focusing on total victimization (for example, in the analysis of sequencing in an earlier section of this report), it may be best, particularly in multivariate analyses using victimization as a predictor (but also when victimization is an outcome), to treat violent and property victimization separately.

The correlation between violent victimization and inhalant use is very weak but fairly stable in the adolescent, transitional, and young adult years, but nearly doubles in early middle age. In the adolescent, transitional, and young adult years, alcohol, marijuana, and polydrug use are more strongly correlated with victimization than inhalant use, but in early middle age, inhalant use here appears to be more strongly correlated with violent victimization than any of the other three substances.

# Multivariate Analysis of the Relationships Among Victimization, Offending, and Substance Use

For the present analysis, the dependent variables are (1) violent victimization, (2) property victimization, and (3) general offending. As noted earlier, the patterns of association involving violent and property victimization are sufficiently distinct to suggest separate analysis. Past literature also suggests that this distinction is important when using victimization as a predictor. No such distinction is suggested with respect to general offending as opposed to index offending, felony assault, or felony theft, as might be expected from the theoretical perspectives on victimization. With offending as a predictor, there is no reason to believe that one kind of index offending, felony assault, or felony theft, is any more of a risk factor for violent or property victimization than is general offending, and with offending as an outcome, there is no reason to expect that either property or violent victimization will result in one specific type of crime as opposed to another. This is reinforced by the above discussion that general offending is usually more highly correlated with victimization than are the more specialized offense scales, and that when general offending is not the type of offending most strongly related to victimization, the differences in the correlations involving general offending and the

variable that is most highly correlated to victimization (index offending for prevalence, felony assault for frequency) are small.

Substance use has been identified as one of the possible outcomes of victimization, particularly violent victimization, and it is also closely associated with other forms of illegal behavior, including general offending. More importantly in the present context, substance use has been identified as a risk factor for victimization both theoretically, from a routine activities/lifestyle perspective, and empirically.

Another risk factor for victimization from a routine activities perspective is association with friends who are involved in illegal behavior, a variable also prominent in learning theories of substance use and non-drug illegal behavior. Another robust predictor of substance use and non-drug illegal behavior is the belief that it is wrong to violate the law. While not expected to be directly related to victimization, the need to include it in the models for substance use and general offending suggests that it may be useful to explore whether attitudes that it is wrong to violate the law operate at least indirectly to reduce victimization. Academic attainment is included as a predictor here partly because it has been identified as a correlate of victimization and offending in the past, with more educated individuals being less at risk of both victimization and offending (but at higher risk of substance use at some stages of the life course). Finally, a number of demographic variables such as gender, race/ethnicity, and urban/rural were included in the analysis. Victimization and offending empirically tend to be higher (a) for males than for females, (b) for minority (non-White) than for majority (White, here not including Hispanics, who are classified in the minority/non-White category), and (c) from highest to lowest, for urban as opposed to suburban as opposed to rural residents.

### Violent victimization

- 1. The percentage of the variance that is explained by the variables in the model (R2) declines from 29% in adolescence to 16% for transitionals, 11% for young adults, and 6% for those in early middle age.
- 2. Violent victimization tends to be somewhat stable over time.
- 3. The one other coefficient that is statistically significant for all four age groups, exposure to friends who are involved in illegal behavior, is also statistically significant and positive.
- 4. General offending is a risk factor for violent victimization for the first three age groups (adolescent, transitional, and young adult), but its effect declines with age, and it is not statistically significant in early middle age.
- 5. There is no clear pattern of influence from any of the other predictors, although polydrug use appears to increase risk of violent victimization for adolescents, educational attainment appears to reduce the risk of violent victimization for young adults, and minority ethnicity appears to increase the risk of violent victimization in early middle age. The impact of both general offending and exposure to friends who are involved in illegal behavior is consistent with routine activities and lifestyle theories of victimization. The fact that other variables do not have statistically significant direct effects does not necessarily mean that they have no effect, only that their effects are likely to be indirect, mediated by exposure and, for all but the oldest of the four age groups, their own involvement in illegal behavior.

The question this raises is why the impact of one's own perpetration of illegal

behavior ceases to have any apparent impact in early middle age. It is clear that by early middle age, the overlap between victimization and perpetration in general is declining. It may be that older perpetrators (those who are free to continue perpetration into middle adulthood) are at least a little wiser in choosing offenses or offense circumstances that are less likely to result in their own subsequent victimization.

# Property victimization

- 1. As with violent victimization, the percentage of variance that is explained by the variables in the model declines with age, from 21% in adolescence to 11% in the transitional ages, to about 7.5% (plus or minus 0.1%) in the young adult and early middle age years.
- 2. Like violent victimization, property victimization shows some modest stability over time, higher for the younger two age groups than for the older two age groups.
- 3. For property victimization as for violent victimization, the one other consistently statistically significant predictor in the model is exposure to friends who are involved in illegal activities.
- 4. Other predictors that are statistically significant for at least one age group are urbansuburban-rural residence, with less urban and more rural residents experiencing
  lower rates of property victimization in adolescence and young adulthood; gender,
  with females being less likely than males to experience property victimization in
  adolescence; and, surprisingly, belief that it is wrong to violate the law appears
  as a risk factor (higher property victimization for individuals with stronger beliefs
  that it is wrong to violate the law) in young adulthood. The partial pattern with
  more urban residence as a risk factor for property victimization is probably real, and
  is consistent with what we know about the distribution of property victimization
  from other studies. The gender relationship in adolescence may also be real, but
  the positive impact of belief on property victimization in a single age group, with
  no particular reason to expect that relationship at that (or any other) age, probably
  represents a statistical artifact, and should not be taken too seriously.

# Victimization as a risk factor for the perpetration of illegal behavior.

There are considerable parallels with the results for victimization.

- 1. The percentage of explained variance by the variables in the model decreases from 51% in adolescence to 39% for transitionals, 28% in young adulthood, and 21% in early middle age.
- 2. There tends to be continuity in offending, with less of a pattern of decline in how well current offending can be predicted from past offending than was found for victimization.
- 3. Both exposure to offending friends and belief in conforming to laws are consistently statistically significant predictors of general offending, as expected from both theory and past research.

- 4. Also as expected from past research, being male is a statistically significant risk factor for general offending for adolescents and transitionals, but it is not statistically significant (controlling for the other variables in the model, including prior offending) in the young adult and early middle age years.
- 5. Violent victimization does appear to be a risk factor for offending, particularly in adolescence and young adulthood (and its effect appears to be marginal in the transitional age group); property victimization also appears as a risk factor for offending, but only in adolescence. Neither violent nor property offending appears to have a statistically significant direct impact on offending in early middle age (and recall from the previous table that offending likewise ceased to have any statistically significant direct impact on victimization by early middle age).
- 6. Substance use appears to have no direct impact on offending at earlier ages, when it seems more likely that other types of offending are risk factors for substance use (see Elliott et al., 1989; Menard et al., 2001), but, also consistent with Elliott et al. (1989) and Menard et al. (2001), later in the life course, polydrug use does appear to be a risk factor for increased frequency of general offending.

# **Conclusion**

Clear implications of these results are that not only rates of victimization and offending, but also the relationship between victimization and offending, change over the life course. As both victimization and offending become less prevalent, the overlap between the two becomes smaller. In adolescence, knowing that someone has been a victim of either violent or property crime means knowing that they are at increased risk of becoming perpetrators as well as victims, and the relationship between violent (but not property) victimization and offending appears to persist well into the young adult years. Likewise, during adolescence, knowing that someone has been involved as a perpetrator of illegal behavior means that individual is more likely than a non-offender to have experienced some form of violent victimization as well, and this has readily apparent implications for assessing needs for treatment among those offenders that come to the attention of the juvenile justice system. In adolescence, one might get the impression that there are few "pure" offenders who do not also have needs for treatment as victims of crime, and, perhaps less politically correctly, that there are few truly innocent victims. Both of these positions would be overstatements, but it is clearly the case that at earlier stages of the life course, victimization and offending are mutually reinforcing risk factors. As indicated in the analysis of the sequencing of victimization and offending, the typical pattern is that victimization comes first, consistent with frustration-aggression and general strain theories linking victimization to offending, but there is also a substantial minority for whom offending appears to come first, consistent with routine activities and lifestyle theories of the victimization-offending relationship.

When people get older, things change, and one of the things that changes is the relationship between victimization and offending. Based on the correlation and regression analysis for the original NYS respondents, there appears to be a divergence between victims and offenders that starts by early middle age (here ages 36-45), and based on the analysis that divergence becomes more pronounced at even later ages, eventually reaching a point at which victimization and offending are no longer statistically significantly related to one another. This

does not suggest that offenders who also have been victims should be completely ignored after middle age, but it does suggest that there is more reason for a focus on that relationship at earlier ages.

One finding of interest here is how little substance use appears to have any direct impact on victimization or offending. Polydrug use appears to be a statistically significant risk factor for violent victimization in adolescence and for general offending in early middle age, alcohol use is a risk factor for general offending in adolescence, inhalant use is at best marginally implicated as a risk factor for general offending in early adulthood, and marijuana use has no statistically significant direct impact on either victimization or offending for the ages from adolescence to early middle age (based on the correlation and regression analysis for the OR subsample), and probably not at later ages (based on the correlation analysis for the combined subsamples at wave 11 of the NYSFS) either. Not presented in detail here are results that indicate that although there is a relationship between substance use and non-drug illegal behavior which has been more fully analyzed elsewhere (again, see e.g. Elliott et al., 1989 and Menard et al., 2001), victimization appears to have little or no impact on simple frequency or prevalence of substance use; however, there is evidence involving variables beyond the scope of the present analysis that violent (not property) victimization may be implicated as a risk factor in problem substance use (Menard, 2002).

Clearly there is much more that could be done here, with no real end in sight. The present research represents a first step in going beyond the examination of changes in the prevalence and frequency of victimization and offending over the life course, to examining changes in the relationship between victimization and offending in the life course. As in the Chinese proverb, this promises to be the first step in a journey of a thousand miles.

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