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Offense escalation and specialization among juvenile offenders

John David Burrow

To the Graduate Council:

I am submitting herewith a thesis written by John David Burrow entitled "Offense escalation and specialization among juvenile offenders." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Sociology.

Michael Benson, Major Professor

We have read this thesis and recommend its acceptance:

James Black, Donald Hastings

Accepted for the Council:
Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Accepted for the Council:

Lee Minkel

Associate Vice Chancellor
and Dean of the Graduate School

Offense Escalation and Specialization among Juvenile Offenders

A Thesis

Presented for the

Master of Arts

Degree

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John David Burrow

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Dedication

This thesis is dedicated to the memory of my brother, Stanley Burrow. Thanks for the encouragement.

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I would like to thank my major professor, Dr. Michael Benson, for his guidance, insightful comments, and patience. I would also like to thank the other committee members, Dr. James Black and Dr. Donald Hastings, for their suggestions and assistance over the past three years. I would like to express my gratitude to my family who encouraged and believed in me. Finally, I would like to thank my friends at the University of Tennessee who helped me through the tough times.

Abstract

This research investigated the prevalence of escalation and specialization among juvenile offenders and determined whether selected demographic factors influenced the occurrence of these offense patterns. A sample of 365 juveniles from Tennessee was used in the study. Farrington's Forward Specialization Coefficient was used to study both escalation and specialization.

The major findings were (1) only a negligible amount of specialization could be detected indicating that juveniles are not likely to specialize and (2) juveniles do not demonstrate any progression of seriousness in offenses on successive referrals. Of particular significance was the finding that the number of prior referrals had no impact on what future offenses may be committed. It was concluded that though juveniles were quite versatile in their offenses, researchers should continue to attempt to identify the factors that influence the manner in which their careers develop. Socio-demographic factors like race, gender, age, and home environment may affect juvenile career development in a subtle manner unforseen by this and previous research.

Several policy implications are suggested by this research. As a suggestion, research on juvenile careers should begin after the third offense has been committed. Resources spent on combatting juvenile crime any earlier would seem inappropriate since career patterns would not have become very distinctive. Even then, the vast majority of juvenile

offenders remain status offenders and display no tendency toward escalating into more serious crimes. This shift in focus would in turn allow juvenile justice agencies to better manage their already scarce resources by targeting those offenders who are at the greatest risk of developing serious criminal careers.

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Chapter 1

Introduction and Purpose

Statement of the problem

This thesis reports the results of an investigation of the offending careers of a large sample of Tennessee juveniles. Specifically, the project focused on escalation and specialization in offending careers. Escalation is the progression from less serious to more serious offenses. Specialization refers to a career pattern in which the same offenses are committed repeatedly. Three questions guided this research. How common is offense escalation? How common is offense specialization? Are gender, race, and home environment related to the likelihood that a juvenile will escalate or specialize?

Significance of the problem

The issues of escalation and specialization are important for several reasons. First, there are many contradictory findings in the literature. Indeed, controversy surrounds the existence let alone the extent of either phenomena. Amid allegations that researchers have not properly conceptualized the terms and that inappropriate statistical procedures have been used, the lack of consistent findings stands out as a major reason why escalation and specialization should be further

studied. Some researchers contend these phenomena are apparent in the data (Rankin and Wells, 1984; Blumstein et al., 1986); others say that the data do not support the conclusion that escalation and specialization exist (Datesman and Aickin, 1984; Shelden et al., 1989). Further study is needed to provide a definitive answer for both theoretical and policy related reasons.

Policy implications are related to this debate. Some researchers argue that criminal justice resources should be diverted from status offenders to those with established patterns of serious offending. Proponents of this approach maintain that resources should not be wasted on status offenders (Clarke, 1975; Lab, 1984; Rankin and Wells, 1984; Shelden et al., 1989). This reallocation of funds would allow officials to focus on and remove from the streets those identified as serious, chronic offenders. Though fewer in number, these offenders disproportionately account for the serious harm caused to property and people. Early identification of these offenders would diminish some of the burden placed on the criminal justice system. Hence, it is important to study juvenile offending careers to determine whether serious offenders can be identified early in their careers.

If escalation and specialization do exist to any appreciable degree, we need to understand what causes these patterns. This issue has not been systematically addressed by researchers. In particular, we need to know whether theories

that explain participation in crime also explain escalation or specialization, or whether different theories are needed to explain the shape of criminal careers.

Escalation

Conventional wisdom and treatments in the popular entertainment media lead one to believe that juvenile delinquent careers begin with minor offenses that, as careers lengthen, become progressively more serious. This characterization comprises part of the definition of escalation, but researchers of offense escalation offer varied interpretations of this term. Shelden et al. (1989) suggest that offense escalation means "... offenses subsequent to the initial status offense ..." that are more serious in nature (p.206). Other researchers view escalation as a steady progression toward more serious delinquent acts (Thomas, 1976; Kobrin et al., 1980; Rojek and Erickson, 1982; Wanderer, 1984). Similarly, Blumstein et al. (1985) see escalation as offense persistence with high rates of recidivism (p.187). These differences in definition may partially explain why some researchers find escalation and others do not.

This study defines escalation as a progression from less to more serious offenses over time regardless of the level of seriousness of the initial offense. To be considered as escalators, offenders do not necessarily have to begin as status

offenders; they may begin as misdemeanor offenders. This definition permits escalation to occur within categories of offenses. For instance, offenders may begin as shoplifters and move on to more serious property offenses. Such a change still constitutes escalation since there was an increase in seriousness in the general category of property crime.

Specialization

Specialization is a pattern of offending in which the offender repeatedly commits one type of offense. Juveniles who specialize are believed to concentrate their offenses in a narrow range of activities, for example, assaultive or property crimes. Bursik (1980) defined specialization as the propensity of subsequent offenses of any type to be of the same nature as those preceding it. Others have defined specialization similarly (Wolfgang et al., 1972; Rojek and Erickson, 1982; Stander et al., 1989).

Specialization in this study conforms to the definition proposed by Bursik. That is, specialization is an established pattern of offending where more than 50% of the offenses are of the same type. This definition does not assume strict specialization; rather, specialization may be intermittent. That is, offenders may commit several property offenses, switch to minor status offenses, and again switch to property offenses, but the bulk of their offending involves one type of crime.

Chapter 2

Review of the Literature

Research on Escalation

Evidence For Escalation

Rankin and Wells (1985) conducted research that supported the existence of escalation. They began their analysis by pointing out some common perceptions of status offenders -

> [t]he common presumption is that status offenses such as running away from home and truancy are 'pre-delinquent' behaviors that lead to subsequent and more serious forms of delinquency. Undesirable, but technically nondelinquent, juvenile behaviors purportedly increase or escalate in seriousness with age, from relatively trivial status offenses to delinquency offenses (p.172).

They based their research, in part, on a reanalysis of Clarke's works (1975). In Clarke's study questionnaires were administered to 2,277 students who were beginning their tenth grade year in high school. This instrument was administered each successive year until one year after graduation. Three different procedures, all based on self-reported information, were used to measure escalation. The first was an index of offense seriousness in which the offenders were categorized as non-offenders or delinquents. Non-offenders were those who had no more than one delinquent offense; delinquents had two or more such offenses. Second, an index based on status offense involvement at school was used. The final measure that was used indicated the degree of trouble at home (pp.175-176). These last two measures were combined to form the status offense category actually used in the study.

These last two measures were combined to form the status offense category actually used in the study.

Rankin and Wells (1985) strongly believed that patterns of escalation would emerge among those individuals who initially began as status offenders and their analysis did find some evidence of escalation. Their work showed that one-third of the students moved from status offenses to serious delinquency by the time they were in the twelfth grade. However, a much larger proportion remained status offenders or stopped offend- ing altogether (p.177). One inference that may be drawn from their research is that many offenders who have relatively long careers, nevertheless, do not escalate.

Blumstein et al. (1986) also studied escalation and found evidence of its existence. Their findings indicated that escalation is more common among nonwhite than white offenders. When looking at the seriousness of offenses, they found that

> average seriousness scores increased on successive police contacts for Philadelphia juveniles ... and reanalysis of successive transitions [found] that switches to more serious offense types and decreases in switches to less serious offense types on later transitions (p.84).

These researchers seem to suggest that escalation is often hidden among other patterns of offending. Such patterns include offense persistence and specialization.

LeBlanc and Frechette (1989) proposed a very precise definition of escalation. It is "... the appearance of diverse forms of delinquent activity that go from minor infractions to the most serious crimes against the person as the delinquent

increases in age" (p.18). Presumably, the older juveniles are, the more serious will be their offenses. LeBlanc and Frechette suggest there may be some peak age at which time juvenile offenses are at their worst after which time the offenders may then shift to offenses of lesser seriousness.

LeBlanc and Frechette (1989) used two samples of adolescents, one group composed of 1,654 adolescents between the ages of 12 and 17 and the other composed of 470 known delinquents. Both groups were given two self-report questionnaires, the first in 1974 and the second in 1976. Initially, the researchers found a marked increase in delinquency offenses that began at age 12 and ended at age 14. They indicated that offenses occurred over a series of stages beginning with what was called emergence (in which offenders confine their offenses to homogeneous, non-serious delinquent offenses) and ending with conflagration (in which the severity and diversity of delinquent offenses increases). LeBlanc and Frechette indicated that offenses committed in the middle stage, exploration, were more serious than those in the preceding stage. More importantly,

> ... the sequence of crimes found in the three stages, exploration, explosion, and conflagration constitute to the true process of escalation. Hence, it is possible say that, thanks to stabilization, diversification, and acceleration, offending can develop with increasing serious -ness during adolescence but according to a sequence that is hierarchic (pp.121-122).

Evidence Against Escalation

Some research contradicts the escalation hypothesis. Stephen Clarke (1975), using data provided by Wolfgang et al. (1972) in a cohort study, attempted to measure the careers of juveniles by their initial offenses. He defined escalation as

> ... undesirable behavior of children [that] tends to increase in seriousness with age, on a continuum from trivial juvenile offenses to serious delinquent offenses (p.53).

Offenses were classified into five categories: status offense, personal injury, theft, damage to property, and combination (pp.53-54).

Several conclusions were drawn. First, juveniles whose first offenses were of a status offense type committed far less serious offenses than other offenders. Second, these first offenders failed to produce offense records which included theft, property, or injury offenses. Third, the best indicator of index offenses was the previously committed offense. Clarke argued that this last finding weakened the escalation hypothesis which predicted that the "... chance of committing index offenses would increase with the total number of offenses committed" (p.57).

Susan Datesman and Mikel Aickin (1984) also oppose the escalation theory. Much of the work done by Datesman and Aickin was based on analysis of transition frequencies. On these transitions, their offense categories ranged from least to most severe, showing a natural progression of increasing

severity of the offenses (p.1252). Datesman and Aickin modeled their work after a Markov process. Instead of assuming that the current offenses were independent of the offense history of the juvenile, they believed that the current offenses and those immediately before it influenced what type of offense would next be committed (p.1263). They argued that future offenses are predicated on past offenses.

Datesman and Aickin (1984) used a sample of 687 status offenders referred to the Family Court of Delaware (p.1251). Both self-report and official data were used. All participants were interviewed at six month intervals to determine whether their offenses had worsened. They concluded that there was no escalation.

> There appear[ed] to be very little evidence to support the escalation hypothesis. Fewer than 10% of those youths showed evidence of progression toward delinquency offenses 70% of the time or more. The bulk of these youths fell in the middle ranges of escalation, with at least two-thirds of all race-sex groups reporting that 40-60% of their offenses were more serious at T2. This again suggests that there is no clear cut progression from status to delinquent offenses... (p.1271).

Dunford and Elliot (1984), like Datesman and Aickin, used self-report data to examine escalation. They believed it to be very important to consider both seriousness and frequency of offenses. Dunford and Elliot noted that

> serious career offenders, who are by definition the most frequent and serious offenders in the sample in terms of self-reported delinquency, were arrested at a rate that far exceeded even the adjacent career classification (non-serious career offenders). The trend was one of escalation of arrest rates from non-offenders through serious career offenders ... (p.75).

They used data from the National Youth Survey for 1976 through 1980. A total sample of 1,725 was used (p.61). Background information on age, sex, race, and home environment was gathered. Four delinquent types were developed to classify the participants according to the seriousness of their self-reported offenses (pp.64-65). Each type was then measured against the number of offenders who were arrested for particular crimes. The findings indicated that

> chronic offenders did not start out by committing petty offenses that eventually escalated into more serious ones; thus they did not show a career pattern of increasing seriousness of delinquency over time. Instead, they generally began their delinquent involvement in relatively serious offenses (p.82).

Thus, there was no evidence for escalation contingent on offense history or frequency of offenses.

Shelden, Horvath, and Tracy (1989) examined escalation as it relates to gender. They investigated whether male or female offenders were more likely to escalate. A broad definition of escalation was used by these researchers. For them, "[e]scalation was defined as offenses subsequent to the initial status offense that were more serious than status offenses" (p.206). Their sample included 863 juveniles whose first recorded offense was either a status or delinquent offense. Offense categories were constructed to measure the degree of seriousness. They tried to match status offenses with all subsequent offenses.

Shelden et al. (1989) indicated that about 75% of all those initially charged with status offenses did not escalate

in their activities, especially among females. Males still committed a larger proportion of all offenses especially within the status offense category (i.e., no escalation into serious delinquent offenses). "... The majority of those whose first referral was a status offense did not become serious delinquents. If anything, they became something considerably less than serious delinquents" (Shelden et al., 1989, p.214).

Mixed Evidence of Escalation

Kobrin, Hellum, and Petersen (1980) conducted research that neither confirmed nor weakened the escalation theory. Following the earlier work of Clarke (1975) and Thomas (1976), they hypothesized that escalation would occur among juveniles who had extensive offense histories. A sample composed of 16,000 juveniles who had participated in various institutional programs over a two year period was used. Individuals in these programs were matched on various demographic factors. They were classified on prior and subsequent offenses. Kobrin et al. were interested in two questions. First, is there a group of offenders who confine their juvenile activities within one category (status offenses, property offenses, assault)? Second, are there any demographic factors (sex, age, race) that distinguish these juveniles from one another?

Kobrin et al. observed that juveniles who had two or more offenses (status offenses) shared the same probability of com-

mitting a delinquent or status offense as those who had no offense history at all. Thus,

> youth marginally involved in status offense behavior are in little danger of moving into the more serious forms of delinquency. However, those for whom status offense behavior has become chronic appear to be as likely subsequently to commit misdemeanor and criminal offenses as they are to confine themselves to status offenses (pp.231-232).

From previous research, we see that there are inconsistent findings. There is one reason which may explain why the research is marked by inconsistency. There are conceptualization problems. Should escalation focus on the entire offense history of offenders or on a specific juncture in the offending career? Researchers possibly have been looking at different things. It is often unclear whether they intend to examine offense persistence or criminal careers. Offense persistence refers to offenses committed at a constant rate without any apparent change in frequency; criminal careers refer to the entire scope of the juvenile's offense history. If offense persistence has been the focus of research then, only a narrow piece of the juvenile's offense history would be studied while offenses committed before or after a certain time would be ignored. Basically, the argument is reduced to one of operationalization.

Research on Specialization

Research on Specialization

Specialization merely means a cycle of committing similar offenses repeatedly. How offenders manifest specialization may vary. LeBlanc and Frechette (1989) indicated that specialization may be an extension of the juvenile career, often following patterns of escalation. They contend that specialization may manifest itself in several forms. First, offenders may focus only on particular offenses which result in a distinct pattern. Second, offenders over a period of time, may narrow their offenses to only a few particular types (p.102).

Evidence against Specialization

One of the most comprehensive studies that examined patterns of offenses such as specialization was the Philadelphia cohort study by Wolfgang, Figlio, and Sellin (1972). This study included all males born in Philadelphia in 1945 who resided in the city between the ages of ten and eighteen (p.2-7). The study investigated the relationship between age, race, and offenses and included some 9,400 subjects.

As a method of analysis, Wolfgang et al. employed transition matrixes to determine if the males clustered in certain categories of offenses. They indicated that

> [for] each of the index offense categories ..., like offenses [were] more likely to follow one another. The

> probability of injury following injury is .0920, while the probability of injury following other types offenses range[d] from .05530 for theft to .0882 for damage. The probability of a theft following a theft [was] .2130 compared to .0854 (from injury to theft) and .1463 (from damage to theft) (p.189).

The strongest correlation was found in the injury category; however, they still found that non-index offenses were most likely to be next committed irrespective of past offense histories. They concluded by saying that the strength of speciali-zation was difficult to determine since all of the transition probabilities were small. In short, they found little support for the specialization hypothesis.

Wolfgang in a later study with Thornberry and Figlio (1987) examined specialization and escalation. This study was based on a sample of 975 male subjects from Philadelphia. A major finding of this study was the failure to find specialization. They wrote that

> [if] the cohort subjects tended to specialize in certain types of offenses as their careers developed, the probabilities along the main diagonal would be considerably elevated vis-a-vis the probabilities in their respective columns. Such is not the case, however. The strongest evidence of specialization concern[ed] theft offenses, for which the probability of moving from a theft to a theft [was] .2130, while the probability of moving from any other type offense range[d] from .0854 to .1463 (p.47).

Reasonably, one may conclude that juvenile offenders do not specialize in their offenses. The pattern that emerged here was similar to one in Wolfgang's prior study.

Rojek and Erickson (1982) attempted to add to the specialization framework. Their study aimed to enlarge the

framework in which specialization is defined. They studied a sample of 1,619 juveniles who had at one time been processed by the juvenile justice system. By using official records rather than self-reports as in previous studies, transition matrixes were constructed to observe trends in clustering or shifts toward greater offense seriousness. They wrote that

> [t]he probabilities along the main diagonal are not particularly high, indicating that juvenile offenders do not display the propensity of remaining in a consistent offense state during their deviant careers (pp. 13-15).

Rojek and Erickson tried to discern whether gender and race interacted with offense history to exacerbate specialization. However,

> [t]here was no evidence that as the number of offenses increased, a clustering of offenses resulted. Further, there was no evidence that male or females specialize in particular types offenses as their careers develop (p.26).

Even when new factors were used in the analysis, the results still failed to yield specialization.

Steven Lab (1984) drew on the work of Wolfgang (1972) and Rojek and Erickson (1982). Lab used data from three birth cohorts from the years 1942, 1949, and 1955 (p.297). These cohorts comprised a group of 7,100 juveniles. The offense histories of these juveniles were measured against different age groups. Lab found that the juveniles' most current offenses were followed by status offense (p.299). Clearly, this finding suggests non-specialization since there is no appearance of consecutive like-offense types.

Evidence for Specialization

Bursik (1980) found some support for specialization in a random sample of 750 offenders from the Cook County, Illinois Juvenile Court (p.855). He believed that race was a stronger determinant of specialization than age. Two tendencies were shown that were obscured in other studies:

> (1) race plays a major factor in determining the seriousness of specialization, and
> (2) white youths are more prone to engage in offenses where there is little likelihood of violence.

Bursik examined the frequency of like offenses and found that blacks and whites have similar specialization patterns except for personal injury. He categorized offenses into four groups and generated race specific transition matrices. In this manner, Bursik was able to study transition probabilities for the offense groups and found that white males were more prone to specialize in property offenses (p.859). Bursik determined that white males who specialized in injury offenses were anomalies. He also showed that both white males and non-white males were equally capable of specializing, albeit in different areas.

Farrington, Snyder, and Finnegan (1988) studied juvenile court careers using a sample of approximately 70,000 juveniles from Utah and Maricopa County in Arizona (p.468). Four offense categories were constructed to classify the juvenile offenders. Two primary measures of specialization were used, Forward Specialization Coefficient and Adjusted Standardized

Residual which are statistics used to assess specialization (p.471). Their work proved fruitful because they found specialization. Specialization was more pronounced among persistent offenders who "... appeared to become more specialized on average with each succeeding offense" (pp. 475-477).

Stander, Farrington, Hill, and Altham (1989) completed a study on specialization which emphasized Markov chain analysis. They opted to use the criminal career approach which

> ... [d]irects attention to questions about why people start offending, why they continue, and why they stop as well as to questions about frequency and seriousness of offenses of different types at different ages (p.318).

This global approach diminishes concern about sample size and controls for factors that may have some sort of impact on juvenile offenses.

Their sample were males from twenty-one English prisons (p.321). Their offenses were ranked in six categories ranging from "most serious" to "least serious" (p.319). Typically, juveniles' entire offense histories are not reliable predictors of what may occur in the future (p.319). Figlio, working with Markov models, asserts that

> [i]f the probability of committing a next offense, when considered by type given the type of the last offense, is essentially independent of the number of the offense (that is, the transition matrixes are identical within the limits of sampling variability), it may be concluded that the sequence of states may be a simple, homogeneous Markov chain (p.200).

Stander et al. (1989) used this model to test whether offense histories did in fact play a part in predicting specialization. They found that offense patterns within their study

could not be modeled after a Markov chain. Even more, they found that past offense histories were essential in predicting what offenses may next be committed (pp. 323-324). Since Markov models were found to be inappropriate, they borrowed a technique developed by Farrington et al. (1988) called the Forward Specialization Coefficient (pp. 326-329). This technique proved valuable because they did find specialization, especially among sex offenders.

The literature reviewed suggests that there is little agreement among scholars about the existence of specialization. Farrington et al. (1988) suggest that specialization is indeed a part of the offending career, albeit only a small part. Other researchers such as Wolfgang et al. (1972 & 1987) and Rojek and Erickson (1982) hold contrary views. They could find no evidence of specialization at all. Such contradictions provide the impetus for this research.

A central component of all literature focusing on escalation and specialization has been the variables race, gender, age, and home environment. Such research has suggested that these variables may influence the incidence of escalation and specialization. The importance of these variables will next be discussed.

Relationship of Race, Gender, Age and Home Environment to Escalation and Specialization

Certain socio-demographic variables are often mentioned in criminology literature as having causal links to crime. Numerous books and articles have been devoted to the discussion of race, age, gender, and home environment. Previous research on escalation and specialization has mentioned but not extensively talked about the influence of these factors on career patterns. To make this research comparable to previous research, it will also examine race, gender, age, and home environment. Several hypotheses will be presented at the conclusion of the discussion of these variables.

Race

Some research suggests that blacks and whites engage in different types of delinquent offenses (Bursik, 1980; Datesman and Aickin, 1984). For example, Datesman and Aickin (1984) found that black males are much more likely to be referred for delinquent as opposed to status offenses than white females or white males (p.1273). Thus, if blacks escalate or specialize, it probably will occur in areas such as personal injury offenses; if white offenders escalate or specialize, it probably will occur in status offenses.

Age

LeBlanc and Frechette (1989) suggest that juveniles tend to commit their most serious offenses at age sixteen. The implication is that juvenile offenders may show evidence of escalation up to age sixteen after which their offenses may stabilize or deescalate.

Gender

Official statistics, self-report data, and much popular literature suggests that males and females differ in both the frequency and types of offenses that they commit. Males are thought to participate in more serious or violent offenses while females are thought to participate mostly in status offenses. Whether the same pattern holds for high rate male and female offenders is unclear. Rojek and Erickson (1982) found that "... there was no evidence that male and female juveniles specialize in a particular type of offense as their official career develops, although the nature of their involvement differs" (p.26). Canter (1982) also has provided some evidence supporting this position. She wrote that

> [d]espite evidence of greater involvement in many delinquent behaviors, the patterns of male and female delinquency were quite similar. This finding coincides with reports from other SRD studies and contrasts the more-sex type picture of male and female delinquency presented in official statistics (p.388).

Home Environment

Home environment is often cited as an important influence on delinquency. Many researchers have found strong correlations between delinquency and broken homes, including Canter (1982), Gove and Crutchfield (1982), and Rankin (1983). Canter found that "there was evidence that offenders from broken homes reported significantly more delinquent offenses than those from intact homes" (p.161). Gove and Crutchfield (1982) examined the effects of household overcrowding. They found that "[m]arital status of parents is significantly and negatively correlated with delinquency ..." (p.310). Rankin (1983) also found support for connections between broken homes and delinquency. He indicated that the manner in which broken homes are defined often masks any positive correlations with delinquency. Rankin wrote that

> ... this study indicates that at least three types of juvenile misconduct- running away, truancy, and auto theft- were strongly related to a specific type of broken home: those in which both biological parents are missing (p.477).

The essential point is that broken homes are an important correlate of delinquency. It will be determined whether the structure of the home environment influences the likelihood of juveniles specializing or escalating in their offenses.

Although it is well known that race, age, gender, and home environment influence the likelihood that a juvenile will become delinquent, the influence of these variables on career

patterns in delinquency has received less attention. In light of the gaps in the research literature, this research will investigate several questions. First, are black offenders more likely to specialize in property offenses and person offenses than white offenders? Second, are 15-16 year olds more likely to escalate or specialize in property and person offenses than any other age group? Third, are offenders from non-intact homes more likely to escalate or specialize than offenders from intact homes? Fourth, are high-rate female offenders as likely to escalate or specialize as high-rate males offenders?

Chapter 3

Procedures

Sample and Data

This study was based on official records compiled for the juvenile justice system of Tennessee. The sampling frame consisted of referrals appearing in juvenile court intake and disposition records in 1985 and 1986. These records were compiled by the Tennessee Council on Juvenile and Family Court Judges. The 1985 data set contained information on approximately 32,000 referrals and the 1986 data set contained nearly 40,000 referrals. To examine escalation and specialization, it was necessary to study patterns of offending over as long a period of time as possible. Hence, only individuals appearing in both the 1985 and 1986 data sets were used in the final sample. To identify those offenders appearing in both data sets, cases were matched according to initials and date of birth, sex and race. This matching process left approximately 8,800 juvenile offenders in the sample.

To examine escalation and specialization, subjects were needed who had committed multiple offenses. Therefore, the sample was further restricted to offenders with at least 5 referrals in two years. This criterion reduced the sample to a very selective group of 365 highly active offenders. Focusing on these offenders was justified given my interest in escalation and specialization. Obviously, offenders who commit

only one or two offenses by definition cannot escalate or specialize in any meaningful sense. The focus of this research was escalation and specialization patterns among career offenders, not on the factors that initially may cause juveniles to become career offenders.

Variables

Offense categories

Information on offense seriousness was taken from the Tennessee Juvenile Court Information System User's Manual. Offenses were grouped in four broad categories according to their level of seriousness. Category I contained the personal injury offenses (vehicular homicide, assault, assault with intent to rape, robbery, robbery with deadly weapon, assault with intent to murder, manslaughter, murder). Category II contained property offenses (shoplifting, receiving and concealing stolen property, petty larceny, grand larceny, motor vehicle theft, burglary, arson, vandalism, forgery). Category III contained illegal conduct violations (loitering, trespass-ing, drunkenness, DUI, possession/sale of marijuana, possession/sale of other controlled substance, disorderly conduct, carrying a dangerous weapon, other drug offenses). Category IV contained status offenses (running away, truancy, incorrigibility, possession/drinking alcohol, violation of curfew). One

last category was created, Category V, which included other non-offense reasons for which a juvenile can be referred to court: neglect (abuse, desertion, inadequate care), violation of proceedings (violation of probation, violation of valid court order), and other special proceedings.

Socio-demographic Variables

The four socio-demographic variables central to this investigation(age, home environment, race, and gender) were operationalized as follows. The juveniles were divided into four age groups (11-12, 13-14, 15-16, 17-18). Following Cernkovich and Giordano (1987), home environments were classified as either:

> intact- both parents present; or
> non-intact- mother absent, father absent, living with relatives, or other arrangements.

Three racial groupings were used: (1) white, (2) black, and (3) other. More than 98 percent of the sample fell into either the white or black race categories. The third category was composed of Mexican-Americans. Last, the offenders were grouped according to gender; male and female.

Analysis

The most influential research on escalation and specialization in criminal careers has focused on offense-to-

offense transition matrixes (Rojek and Erickson, 1982; Cohen, 1986; Kempf, 1987). To investigate escalation and specialization among juvenile offenders, offenses were first grouped into the five categories described above. Next, transition matrixes were constructed representing the transition from offense t-1 to offense t (t=time). Each matrix is a two way table that classifies offenders according to the t-1 and t offenses. Offenders who committed the same offenses at t-1 and t fall into the diagonal cells of the matrix and are considered specialists. For example, a juvenile who committed two status offenses at t-1 and t would show evidence of specialization in status offenses.

To assess the extent of specialization in the sample as a whole and in the sub-samples based on age, sex, and race, a measure developed by Farrington et al. (1988) called FSC was used. FSC or "Forward Specialization Coefficient" is derived from the equation,

$$FSC = \frac{O - E}{R - E} \qquad (3.1)$$

where, O equals observed frequency, E equals expected frequency, and R equals row total. The value of FSC ranges from 0 to 1, where 1 represents complete specialization and 0 represents complete versatility (Farrington et al., p.473). FSC is unaffected by sample size. To determine the significance between the observed and expected values, the "Adjusted

Standardized residual" is used. According to Bursik (1980), ASR

> ... can be viewed as an appropriately standardized normal deviate and interpreted as such, allowing for the departure of each cell from independence. Using this test in conjunction with the computed ratio of the observed values and expected values, it is possible to determine if the ratios are significant indicators of specialization (p.855).

ASR is defined by the equation,

$$ASR = \frac{O-E}{\sqrt{E}} = \frac{OT-RC}{\sqrt{RCT}}. \qquad (3.2)$$

where O represents the observed value, E represents the expected value, R= row, C= column, and T= total (Farrington et al., 1988, p.473).

The FSCs were examined over four transitions by using the coefficient developed by Farrington. The FSCs were then averaged over the four transitions. If specialization is prevalent, it will be reflected within the diagonals of the matrixes. In order for the FSCs to regarded as significant, the ASRs must equal or exceed 1.96. Escalation will be determined by examining the off-diagonals of the matrixes.

Chapter 4

Description of the Data

The final data set contained a sample size of 365 offenders. Of the 365 offenders, 282 were males and 83 were females. The sample included 177 white offenders and 184 black offenders. Regarding home environment, 104 offenders were from intact homes, 208 offenders from broken or non-intact homes, and 31 offenders were from either group homes or some other supervised institution. There were 7 offenders in the 11-12 age group, 93 offenders between 13-14 years old, 137 offenders between 15-16 years old, and 114 offenders between 17-18 years old.

Before moving to the results on escalation and specialization, the relationships between the socio-demographic indicators and career patterns are discussed. This discussion presents descriptive information concerning differences or similarities between the various groups under analysis.

Race and Crime

To determine whether black offenders and white offenders committed the same type of offenses, the sample was stratified by race and the distribution of offenders in each referral category was examined. All five referral events for both black

and white offenders were separately examined. This procedure permitted the study of the likelihood of offenders moving from one referral category to another. Overall, Table 1 shows that black offenders were more likely to be referred for property offenses. The percentage of offenders referred for these offenses ranged from 38 percent to 49 percent while the percentage of white offenders referred for the same offenses ranged from 28 percent to 37 percent. In contrast, white offenders tended to be referred more for status offenses, 28 percent to 42 percent, while black offenders were referred for these offenses at a lesser rate, 16 percent to 27 percent. There was also a slight difference in referrals for person offenses. Referrals for black offenders who committed person offenses ranged from 15 percent to 17 percent; white referrals ranged from 7 percent to 13 percent. This pattern of offending was not altogether surprising since previous research by Rojek and Erickson (1982) and Datesman and Aickin (1984) has found that black juveniles were more likely to be referred for more serious offenses.

Gender and Crime

The same procedure was used to examine gender and crime. More females were expected to be referred for status offenses, and analysis bore out this expectation. By the fifth referral,

Table 1

Black and White Offenders by Referral Category

Referral	N	Offense				Total %
		Status	Conduct	Property	Person	
		White Offenders				
1	158	42%	21%	28%	7%	98%
2	148	31	21	33	13	98
3	121	36	24	28	11	99
4	130	33	19	37	10	99
5	132	28	28	31	12	99
		Black Offenders				
1	162	27%	13%	42%	17%	99%
2	178	23	20	38	17	98
3	165	16	19	47	16	98
4	157	17	18	49	15	99
5	161	21	23	40	15	99

Note: Percentages do not sum to 100% due to rounding errors.

50 percent of the females were still referred for status offenses. In contrast, only about 19 percent of the males were referred for status offenses by the fifth referral. There was a significant difference between males and females property referrals. Table 2 shows that of all male referrals, 37 percent to 48 percent were property related. In contrast, of all female referrals, 17 percent to 29 percent were property related. The differences were less pronounced among person referrals; between 14 percent to 15 percent of all males had person related referrals and 7 percent to 14 percent of all females were referred for these offenses. The percentages in the table conformed to research indicating that males commit more serious offenses than females (Shelden et al., 1989).

Age Group and Crime

Age and crime were examined next to see if the age groups differed in the offenses that they committed. The older age groups were expected to be referred more often for serious offenses. LeBlanc and Frechette (1989) suggested that such may be the case especially among 15-16 year olds. The analysis indicated that the 13-14 year olds, 15-16 year olds, and 17-18 year olds did not differ significantly by referral reason. All three age groups were as likely to be referred for status and illegal conduct offenses as they were for property and person offenses. For example, Table 3 shows that 28 percent to 42

Table 2

Male and Female Offenders by Referral Category

Referral	N	Offense				Total %
		Status	Conduct	Property	Person	
Male Offenders						
1	253	26%	19%	39%	14%	98%
2	246	19	24	40	15	99
3	224	18	23	44	15	100
4	231	16	21	48	15	100
5	237	18	28	37	15	98
Female Offenders						
1	65	67%	9%	20%	14%	100%
2	62	59	9	17	13	98
3	52	55	15	19	9	98
4	57	57	10	24	7	98
5	58	50	13	29	7	99

Note: Percentages do not sum to 100% due to rounding errors.

Table 3

Offender Age Groups by Referral Category

Referral	N	Offense				Total %
		Status	Conduct	Property	Person	
		13-14 Year Age Group				
1	84	42%	10%	36%	12%	100%
2	77	28	16	40	16	100
3	69	33	19	35	13	100
4	72	29	10	50	11	100
5	77	32	23	31	13	99
		15-16 Year Age Group %				
1	121	40%	16%	31%	12%	99%
2	115	35	16	35	14	100
3	101	30	11	47	12	100
4	108	32	20	37	10	99
5	108	31	17	38	13	99
		17-18 Year Age Group				
1	100	23%	28%	35%	14%	100%
2	99	19	34	31	15	99
3	89	17	36	28	19	100
4	93	14	27	44	15	100
5	94	13	39	34	13	99

Note: Percentages do not sum to 100% due to rounding errors.

percent of the 13-14 year age group was referred for status offenses and 30 percent to 40 percent of the 15-16 year age group and 13 percent to 23 percent of the 17-18 year age group were referred for the same offenses. In contrast, 10 percent to 23 percent of the 13-14 year old group was referred for illegal conduct offenses while 11 percent to 20 percent of the 15-16 age group and 27 percent to 39 percent of the 17-18 year age group were referred for these offenses. Table 3 also shows that 31 percent to 50 percent of the 13-14 year age group was referred for property offenses. In contrast, 31 percent to 47 percent of the 15-16 year age group and 28 percent to 44 percent of the 17-18 year age group were referred for these offenses. Similarly, 11 percent to 16 percent of the 13-14 year age group was referred for person offenses. In comparison, 10 percent to 14 percent of the 15-16 year age group and 13 percent to 19 percent of the 17-18 year age group were referred for the same offenses.

Home environment and Crime

Finally, the relationship between home environment and crime was examined. Offenders from intact homes were expected to be referred more for non-serious offenses while offenders from non-intact home would be referred more for serious offenses. As Table 4 shows, the percentage of offenders from

Table 4

Offenders from Intact or Non-Intact Homes by Referral Category

Referral	N	Offense				Total %
		Status	Conduct	Property	Person	
		Non-Intact Homes				
1	185	30%	16%	39%	13%	98%
2	181	28	21	35	14	98
3	167	19	22	43	14	98
4	172	20	19	46	13	98
5	178	20	27	37	14	98
		Intact Homes				
1	94	40%	18%	33%	8%	99%
2	86	22	24	34	14	94
3	70	34	22	27	15	98
4	78	29	19	38	12	98
5	77	27	27	32	13	99

Note: Percentage do not sum to 100% due to rounding errors.

intact homes referred for status offenses was somewhat higher than that for offenders from non-intact homes, 22 percent to 40 percent compared with 19 percent to 30 percent for offenders from non-intact homes. In contrast, the percentage offenders from intact homes referred for property offenses ranged from 27 percent to 38 percent while 35 percent to 46 percent of offenders from non-intact homes were referred for these offenses. Offenders from non-intact homes were referred at only a slightly higher rate for person offenses than offenders from intact homes, 13 percent to 14 percent compared with 8 percent to 15 percent. Home environment did not appear to heavily influence referrals for either group.

Chapter 5

Results

Specialization

The FSCs for the entire sample were examined first. Given the small sample, relatively large FSCs were needed to achieve statistical significance. The size of the FSCs in the diagonal cells of each transition matrix indicates the degree of specialization. Overall, the diagonal FSCs were not consistently high for any referral category indicating that specialization is not very prevalent among juveniles. The average FSCs were likewise low, the largest being .365 for property offenses (Table 5). According to Farrington et al. (1988), the ASRs are usually significant along the diagonal and tend to indicate a greater degree of specialization than would be expected by chance (see also Rojek and Erickson, 1982 and Stander et al., 1989). All ASRs were significant except for illegal conduct (1.26) and property (1.67) in the fourth transition.

To determine whether male and female offenders differed in specialization patterns, the sample was stratified by gender and the FSCs recomputed and averaged over four transitions. The FSCs along the main diagonal were not consistently high for any transition. The highest average FSCs obtained were for female status offenders (.430) and female property

Table 5

Forward Specialization Coefficients

Four Transitions:Full Sample

Offense	Average FSC
Status	.346
Conduct	.235
Property	.365
Person	.263

offenders (.403). Contrary to expectations, there was less specialization among male property offenders than female property offenders. This finding should be viewed cautiously since the female offenders are probably referred for shoplifting rather than the more serious property offenses (Table 6).

Table 6

Average Specialization FSCs by Gender

Offense	Males	Females
Status	.180	.430
Conduct	.234	.171
Property	.338	.403
Person	.271	.176

To test whether the average FSCs for males and females are significantly different, the T-test for difference of means was used. Ott, Larson, and Mendenhall (1987) indicate that the differences of means for small samples could be examined by using the formula,

$$t=\frac{\overline{X_1}-\overline{X_2}}{S_p\sqrt{\frac{1}{N_1}+\frac{1}{N_2}}}$$

where (5.1)

$$S_p=\sqrt{\frac{(N-1)\,s_1^2+(N_2-1)\,s_2^2}{N_1-N_2-2}}$$

(5.2)

This procedure was performed with the status offense FSCs for both males and females. The t-statistic did not prove to be significant, t= 2.8665 (below .05 level of significance, 2 degrees of freedom) . A grand t-statistic was calculated for all transitions, .6642.

Black and white offenders differences in specialization were examined next. At first glance, it appeared that white offenders tended to specialize more in person offenses than black offenders. The highest average FSC for white offenders was for property offenses (.407). White offenders were expected to have a much higher average FSC for status offenses (.386). The average FSCs for black offenders were much lower in every referral category. The highest average FSC obtained

was .324 for property offenses (Table 7). These small FSCs suggest that versatility is more common among black offenders than white offenders. An examination of the difference of means for status offenses committed by white offenders and black offenders produced a t-value of 2.114 which was not significant (below .05 level of significance, 2 degrees of freedom). A grand t-value, 3.0279, was then calculated for all transitions.

Whether home environment influences specialization was examined next. Offenders from intact homes had a higher propensity to specialize in property offenses than offenders from non-intact homes. For offenders from intact homes, the average FSC for property referrals was .508 compared to .408 for offenders from non-intact homes (Table 8). This was contrary to expectations. That is, it was assumed that the highest average FSC would be found among offenders from non-intact homes. This finding must be viewed with caution since it was not known which types of property offenses were engaged in by offenders from intact homes. There was no remarkable difference in the average FSCs for any other referral category. The average FSCs were quite similar for all other referral categories. An examination of the difference of means for property offenses committed by offenders from intact homes and non-intact homes revealed a t-value of .9103. This t-value suggested that the null hypothesis could not be rejected (above .05 level of significance, 2 degrees of freedom). A grand t-value was then

Table 7

Average Specialization FSCs by Race

	White	Black
Offense		
Status	.386	.269
Conduct	.309	.151
Property	.407	.324
Person	.378	.200

Table 8

Average Specialization FSCs by Home Environment

	Intact	Non-Intact
Offense		
Status	.293	.369
Conduct	.314	.247
Property	.508	.408
Person	.372	.260

calculated for all transitions, .7673.

Last, the FSCs for the different age groups were analyzed. Since an adequate sample size could not be obtained for the 11-12 age group, it was dropped from the analyses. The remaining age groups all displayed weak tendencies toward specialization. The highest average FSC obtained was observed for status offenses was found within the 13-14 year old group (.402). The average FSCs for 15-16 year olds and 17-18 year olds were considerably lower (.319 and .245 respectively). The average FSC for property referrals for 15-16 year olds was somewhat higher than that of the other age groups (.409 v .381 for 13-14 year olds and .301 for 17-18 year olds). LeBlanc and Frechette's (1989) assertion that 15-16 year olds are more likely to specialize was not strongly supported in this analysis. The point is that there are no apparent differences between these age groups (Table 9).

Escalation

Farrington et al. (1988) indicated that by analyzing the off-diagonals of the FSCs, one could determine whether offenses escalated in seriousness. Using this method, the FSCs were averaged over four transitions and the off-diagonals were examined. The average FSCs for the off-diagonals were uniformly small and negative, indicating that offenders were not likely to escalate. The off-diagonals for the different comparison

Table 9
Average Specialization FSCs by Age

Offense	13-14	15-16	17-18
Status	.402	.319	.245
Conduct	.122	.181	.269
Property	.381	.409	.301
Person	.247	.127	.370

groups were also examined.

Table 10 indicates the average FSCs of the off-diagonals for the full sample. Some degree of escalation was expected from status to property offense. However, Table 10 shows that the average FSCs were exceptionally small.

The off-diagonals for male and female offenders were next examined (Table 11). Here, the average FSCs were also uniformly small. There was no evidence to support the proposition that male offenders were more likely to escalate than female offenders.

The same general pattern could also be discerned in Table 12, Table 13, and Table 14. All the average FSCs were low and negative. Though Kempf (1987) indicated that FSCs could take on negative values, there was no significance attached to any of the FSCs that were obtained.

Table 10

Average Escalation FSCs of Off-Diagonals

Full Sample			
Offense			
Status	-.057	-.272	-.064
Conduct		-.134	-.021
Property			-.050
Person			

Table 11

Average Escalation FSCs of Off-Diagonals by Gender

Male Offenders			
Offense			
Status	.006	-.211	-.042
Conduct		-.247	-.034
Property			-.049
Person			
Female Offenders			
Offense			
Status	-.034	-.136	-.050
Conduct		-.048	.447
Property			.003
Person			

Table 12

Average Escalation FSCs of Off-Diagonals by Race

Offense			
	White Offenders		
Status	-.149	-.198	-.065
Conduct		-.143	-.033
Property			-.045
Person			
	Black Offenders		
Offense			
Status	-.007	-.310	-.055
Conduct		-.171	-.002
Property			-.026
Person			

Table 13

Average Escalation FSCs of Off-Diagonals by Home Environment

Offense		Intact Homes	
Status	-.037	-.309	-.049
Conduct		-.213	-.045
Property			-.099
Person			

Offense		Non-Intact Homes	
Status	-.073	-.276	-.042
Conduct		-.207	-.001
Property			-.038
Person			

Table 14

Average Escalation FSCs of Off-Diagonals by Age Groups

Offense			
	13-14 year old Offenders		
Status	-.085	-.269	-.061
Conduct		-.080	-.021
Property			-.024
Person			
	15-16 year old Offenders		
Status	-.006	-.326	-.035
Conduct		-.199	-.032
Property			-.023
Person			
	17-18 year old Offenders		
Status	-.075	-.092	-.108
Conduct		-.163	-.071
Property			-.078
Person			

Another way of investigating escalation is to look at changes in the percentage distributions of referral categories over five referral events. If escalation is common among this sample of juvenile offenders, one should expect to see a shift in the percentages referred for status and illegal conduct offenses to property and personal offenses. That is, the percentage referred for, say, status offenses at event 1 should be smaller than the percentage referred at event 5.

Table 15 indicates the percentage and number of offenses for each referral event. Inspection of the table shows that there were no dramatic changes from status to property or person offenses over successive referrals. The percentage of offenders referred for property offenses ranged from 19 percent to 22 percent while the percentage of offenders referred for person offenses ranged from 19 percent to 23 percent. If offenders were escalating, the greatest degree of change would have occurred among those referred for property and person offenses.

The referral events were compared by the demographic variables race, gender, and home environment. Table 16 and Table 17 give the distributions of white and black referrals. As before, there were no remarkable shifts in the number and percentage of referrals for either white or black offenders. The percentage of white offenders referred for property offenses ranged from 6 percent to 9 percent while the percentage of black offenders referred for these offenses ranged

Table 15

Frequencies for Each Referral Event

Referral	Status	Conduct	Property	Person
1	27%	18%	20%	19%
	(111)	(57)	(115)	(40)
2	21%	21%	20%	23%
	(84)	(66)	(111)	(47)
3	17%	19%	19%	19%
	(69)	(59)	(108)	(40)
4	17%	18%	22%	19%
	(70)	(55)	(125)	(38)
5	18%	24%	19%	19%
	(73)	(76)	(106)	(40)
Total	100%	100%	100%	100%
N=	(407)	(313)	(565)	(205)

Table 16

Frequencies for Referral Events of White Offenders

Referral	Status	Conduct	Property	Person
1	17%	11%	8%	6%
	(67)	(34)	(45)	(12)
2	11%	10%	9%	10%
	(34)	(32)	(50)	(20)
3	11%	9%	6%	7%
	(44)	(29)	(34)	(14)
4	11%	8%	9%	7%
	(43)	(25)	(48)	(14)
5	9%	12%	7%	8%
	(38)	(37)	(14)	(16)
Total	59%	51%	39%	37%
N=	(406)	(308)	(563)	(205)

Table 17

Frequencies for Referral Events of Black Offenders

Referral	Status	Conduct	Property	Person
1	11%	7%	12%	14%
	(44)	(22)	(68)	(28)
2	9%	11%	11%	13%
	(37)	(33)	(61)	(27)
3	6%	10%	13%	13%
	(25)	(30)	(74)	(26)
4	7%	9%	14%	12%
	(27)	(29)	(77)	(65)
5	9%	12%	12%	12%
	(35)	(37)	(24)	(24)
Total	41%	49%	61%	63%
N=	(406)	(308)	(563)	(205)

from 11 percent to 14 percent. The percentage of referrals for person offenses for both white offenders and black offenders were likewise small.

The referral events for males and females were also examined (Table 18 and table 19). As expected, male offenders were referred more often than female offenders for property and personal offenses. However, the rate at which males and females were referred for different offenses did not vary much over successive referrals. The percentage of females referred for person offenses ranged from 1 percent to 4 percent while the percentage of males referred for the same offenses ranged from 16 percent to 19 percent. These percentages suggest that while, overall, males are more likely than to commit serious offenses, they do not increase their likelihood in the later stages of their careers. Last, the referral events for the various home conditions were examined. Table 20 and Table 21 give the referral distributions for both intact and non-intact homes. There were no significant changes observed for any group over the five referrals. It was determined that juveniles in this sample were simply not likely to escalate. The average FSCs for the off-diagonals corroborated this point.

Finally, an additional method was used to identify offenders; a subsample of the offender population was taken to identify those who adhered to the traditional definition of escalation. The referral histories of each individual was ex-

Table 18

Frequencies for Referral Events of Male Offenders

Referral	Status	Conduct	Property	Person
1	16%	16%	18%	18%
	(67)	(51)	(102)	(38)
2	12%	19%	18%	19%
	(47)	(60)	(100)	(39)
3	10%	16%	17%	16%
	(40)	(49)	(98)	(34)
4	9%	16%	20%	18%
	(37)	(49)	(111)	(38)
5	11%	22%	15%	17%
	(44)	(68)	(89)	(36)
Total	58%	89%	88%	89%
N=	(407)	(313)	(565)	(208)

Table 19

Freqquencies for Referral Events of Female Offenders

Referral	Status	Conduct	Property	Person
1	11%	2%	2%	1%
	(44)	(6)	(13)	(2)
2	9%	2%	2%	4%
	(37)	(6)	(11)	(8)
3	7%	2%	2%	2%
	(29)	(8)	(10)	(5)
4	8%	2%	3%	2%
	(33)	(6)	(14)	(4)
5	7%	3%	3%	2%
	(29)	(8)	(17)	(4)
Total	42%	11%	12%	11%
N=	(407)	(313)	(565)	(208)

Table 20

Frequencies for Referral Events of Offenders from Intact Homes

Referral	Status	Conduct	Property	Person
1	10%	6%	6%	4%
	(38)	(17)	(31)	(8)
2	5%	7%	6%	9%
	(19)	(21)	(30)	(16)
3	6%	5%	4%	6%
	(24)	(16)	(19)	(11)
4	6%	5%	6%	5%
	(23)	(15)	(30)	(10)
5	5%	7%	5%	5%
	(21)	(21)	(25)	(10)
Total	31%	31%	26%	30%
N=	(398)	(292)	(522)	(185)

Table 21

Frequencies for Referral Events of Offenders from Non-Intact Homes

Referral	Status	Conduct	Property	Person
1	14%	11%	14%	14%
	(56)	(31)	(73)	(25)
2	13%	13%	12%	15%
	(51)	(38)	(65)	(27)
3	8%	13%	14%	14%
	(33)	(37)	(72)	(25)
4	9%	12%	15%	12%
	(35)	(34)	(80)	(23)
5	9%	17%	13%	14%
	(37)	(49)	(67)	(25)
Total	53%	65%	68%	68%
N=	(398)	(292)	(522)	(185)

amined to identify escalators (Table 22). Of the 64 offenders initially identified, only 13 actually demonstrated a true progression from less serious offenses (status and illegal conduct) to serious offenses (property and person). Demographic variables such as gender, race, home environment, and age were used to categorize this group of offenders. The results indicate that 85 percent (n=11) of the escalators were male and 15 percent (n=2) were female (Table 19). In comparison, 77 percent of the offenders from the general population were male and 23 percent of the offenders were female. It was also found that 62 percent (n=8) of the escalators were black and 38 percent (n=5) were white; whereas, 48 percent of the offenders from the general population were white and 50 percent of the offenders were black. One could say that of those who escalate, black offenders make up the largest percentage. Further, 55 percent (n=6) of the escalators were from non-intact homes while 36 percent (n=4) were from intact homes. In contrast, 28 percent of the offenders from the general population were from intact homes and 57 percent of the offenders were from non-intact homes. There is the possibility then that home environment does exert a little influence on whether offenders will escalate. Such a suggestion though should be treated with caution since true escalators make up such a small part of the general population. Last, it is seen that 54 percent (n=7) of the escalators were 15-16 years old, 31 percent (n=4) were 17-18

Table 22

Frequencies for Escalators Compared with General Population

Category	Escalators	Population
Gender		
Male	85% (11)	77% (282)
Female	15% (2)	23% (83)
Race		
White	38% (5)	48% (177)
Black	62% (8)	50% (184)
Home Environment		
Intact	31% (4)	28% (104)
Non-Intact	46% (6)	57% (208)
Age		
13-14	15% (2)	27% (93)
15-16	54% (7)	39% (137)
17-18	31% (4)	33% (114)

years old, and 15 percent (n=2) were 13-14 years old. The table indicates that 27 percent of the offenders from the general population were of the 13-14 age group while 39 percent of the offenders were of the 15-16 age group and 33 percent were of the 17-18 age group. It may be concluded then that overall, those who escalate do not differ significantly from the general population.

Chapter 6

Conclusion and Discussion

This analysis has focused on specialization and escalation in criminal careers among a sample of high rate offenders. Specifically, the goal was to determine whether selected demographic factors- race, gender, age, and home environment- influence the likelihood that an offender would escalate or specialize.

Specialization was investigated using a measure called the Forward Specialization Coefficient (Farrington et al., 1988). Analyses of the transition matrices did not indicate a significant degree of specialization. All FSCs and average FSCs were consistently low indicating that versatility is more prevalent than specialization. This finding suggests that juveniles are more likely to engage in "cafeteria-style" rather than specialized delinquency. That is, they commit various types of offenses but favor none. Their offense histories appear to reflect a hodge-podge of different offenses: status offenses intermingled with property, conduct, and person offenses. One of the more puzzling findings concerning specialization was the indication that offenders from intact homes appeared to be more likely to specialize in property offenses than offenders from non-intact homes.

Since a significant degree of specialization could not be identified using FSC, another technique called Adjusted Stan-

dardized Residual was used. All ASRs were significant with the exception of two, illegal conduct and property in the fourth transition. Though the FSCs and average FSCs were low, they did consistently indicate that juveniles were least likely to specialize in person offenses and most likely to specialize in status and property offenses.

A variety of techniques were used to examine escalation, but virtually no evidence of escalation was found. The average FSCs for the off-diagonals were all negative and small indicating no tendency for the seriousness of juvenile offenses to escalate upon successive referrals. If anything, the offenders committed offenses at the same or lesser degree of seriousness. Even when the referral events themselves were examined, there was no clustering within any particular offense category.

Turning to the policy implications of this research, it was suggested earlier that more criminal justice resources should be used to identify and remove "hardcore" offenders from the system. The findings indicated that the vast majority of status offenders do not escalate in offense seriousness. However, one should recognize that juveniles do not necessarily have to begin their careers as status offenders but may have initial referrals for more serious offenses (Dunford and Elliot, 1984). It would be wise then to focus on those individuals as opposed to status offenders. The idea that researchers should abandon the study of status offenders is not sug-

gested; however, the idea that such offenses are "pre-delinquent" has proven to be wrong. Furthermore, the findings suggest that it will be very difficult to identify serious offenders early in their careers, that is, before they commit serious offenses. Unfortunately, it appears that serious offenders may only be identifiable after they have been serious offenders.

One other consideration that may be added is that the vast majority of status offenders desist from offending. Wolfgang et al. (1972) indicated that it may be wise to wait until juveniles have committed their third offense before intervention takes place (p.254). Only those juveniles who are truly committed to delinquency would be sought out and treated (about 20 percent of all offenders). Such a suggestion would be cost effective since criminal justice agencies would not have to develop comprehensive programs designed to treat all juveniles. Instead, they could focus on those who are in most need of help.

Shortcomings

The principal problem encountered during the course of this research involved the data set itself. The essential problem was the manner in which the cases were recorded. Instead of maintaining records which were sequential where new referrals could be added into the already existing records,

totally new records were made. This method of maintaining records made it extremely difficult to assess how many cases could be used in the study. A second problem was the two year time span that was examined. This restriction made it impossible to study the juvenile careers from their beginning and detect offense patterns not otherwise visible later on. A third problem was the manner in which the offenses were categorized. The gross categorization of offenses into status, illegal conduct, property, and person permitted no examination of the types of offenses in which juveniles may have specialized. Also, there was no differentiation of severity within categories. It is possible that escalation and specialization may have occurred within these categories but remained undetected. It may have been more prudent to identify the different offenses within the categories before testing whether the offenders specialized or escalated. It may be recalled that Farrington et al. (1988) identified 21 different offenses in their study of specialization and escalation. As this study was conducted, it was not possible to emulate their method.

Summary

The results of this research show that there is little evidence to support escalation and specialization. Though statistical techniques were used that had previously found evidence of these phenomena, the same success could not be

duplicated in this study. It may be appropriate to suggest that researchers should rethink theories addressing escalation and specialization for two reasons. First, one is left with the question of what precipitates participation in serious offending. Second, there is the question of who is most likely to be pulled within the ranks of serious offenders. Until these questions are answered, uncertainty will continue to cloud the debate over the dimensions and scope of the juvenile career.

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