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The Effect of Juvenile Justice System Processing on Subsequent Delinquent and Criminal Behavior: A Cross-National Study

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Abstract

This study examined similarities and differences in juvenile justice systems at two sites in different countries (Denver, Colorado and Bremen, Germany) to determine the effects of distinct features of these systems on subsequent delinquency. In this way, the study might provide information about successful juvenile justice system practices. The project involved samples of high-risk subjects at the two sites.

Differences between the two systems include a more lenient, diversion oriented system in Bremen and a more severe, punishment oriented system in Denver. In Bremen, arrest, commonly a “ticket,” can not legally occur until age 14 and juvenile law can be and commonly is applied to those aged 18-20. In Denver, the age of responsibility is 10 and adult processing begins at age 18. Also, in Bremen, during ages 14-17, dismissal and diversion from court account for over 90% of cases referred to the prosecutor, often through a letter to the offender. In Denver, offenders may be ticketed or taken into custody. Arrested offenders are most often referred to juvenile court and receive intermediate level sanctions. Confinement is very rare in Bremen, but used in roughly 10-20% of Denver cases.

The effect of such system differences on general offending rates was small. Delinquency prevalence rates were similar at both sites, 62-69% for those aged 14-17, although Denver offenders report committing a greater number of offenses every year.

Impact of arrest was examined using a common cross-site definition of arrest and employing cross-tabulations, multinomial regression, precision matched control groups, and event history models. Findings from analyses were consistent. Across both sites, there was little effect of arrest on subsequent delinquency. When there was an effect, arrest resulted in sustaining or increasing the level of delinquent behavior.

The effect of sanctions was examined using a three level measure: not arrested, dismissed/diverted, or more serious sanctions. Results indicated that level of sanction applied had little influence on future delinquency and crime. Also, particularly in Bremen, when an effect was observed, more severe sanctions resulted in persistence or increases in future delinquent/criminal involvement.

Although these findings must be tempered by limitations described in the report, the consistency of multiple analyses across sites in two countries is remarkable and suggests the finding of a general ineffectiveness of arrest and sanctioning may be robust. The findings also suggest needed dialogue about the use and appropriateness of increased severity of sanctions as a crime control strategy.

The Effect of Juvenile Justice System Processing on Subsequent Delinquent and Criminal Behavior: A Cross-National Study

Executive Summary

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The cross-national comparative research described in this report was made possible by the existence of two similar ongoing research projects, the Bremen School-to-Work Study at the University of Bremen, Bremen, Germany and the Denver Youth Survey at the University of Colorado, Boulder, Colorado. Although the two studies were independently conceived with their own research focus, taking advantage of the similar aged high-risk samples and similar measurement provided the opportunity to examine juvenile justice systems in different settings. The overall goal of the collaborative study was to describe the similarities and differences in the juvenile justice systems of the two sites and to determine the effects of different features of the two juvenile justice systems on subsequent delinquency. In this way, the study could provide information that might prove useful in consideration or discussion of successful juvenile justice system orientations and practices.

Early chapters of the report document major differences between the juvenile justice systems in Bremen and Denver. In general, these differences might be described as a lenient, diversion oriented system in Bremen and a more severe, punishment oriented system in Denver. In Bremen, individuals can not be arrested until the age of 14 and juvenile law can, and most commonly is, applied to those aged 18-20. In contrast, in Denver the age of responsibility is 10, and adult court and processing begins at age 18 (although transfer to adult court for those under 18 is possible). Also, in Bremen, proscribed behaviors for juveniles are the same as those for adults, so that behaviors that are status offenses and many behaviors that are public disorder offenses in Denver are not offenses in Bremen.

Because of a generally accurate identification/registration system in Germany (and hence in Bremen), offenders, even serious offenders, are rarely taken into custody, but may be required to report to a police station or court at a later date (similar to being given a ticket in the U.S.). All cases registered by the police must be referred to the prosecutor for disposition (dismissal, diversion, or referral to court). However, during adolescence (ages 14-17), dismissal and diversion account for over 90% of all cases referred to the prosecutor, and the greatest proportion of these are dismissed. The dismissal, perhaps with a warning, or diversion with a behavioral directive (e.g. community service) often takes the form of a letter sent by the prosecutor to the offender. This quite lenient processing is in sharp contrast to Denver, where offenders may be cited and given a ticket or taken into custody. Although there is some lecture and release by police, offenders are most likely to end up in juvenile court and receive an intermediate level sanction (e.g. behavioral directive such as community service). In addition, confinement is very rare in Bremen, but used in roughly 10-20% of the cases in Denver.

What effect do such differences in juvenile justice processing have on general offending rates? The epidemiology of delinquency within the larger samples of the two studies, suggests not much. Because of status and some public disorder offenses in Denver, a greater proportion of youth are arrested in Denver for a delinquent offense, and the frequency of offending among offenders is higher in Denver than in Bremen. However, when similar kinds of illegal behavior are considered, differences between sites are much reduced. Bremen youth report slightly higher prevalence rates for involvement in property and assaultive offenses and Denver youth report higher rates for drug offenses. In all cases, Denver offenders report higher frequencies of involvement in (number of times committing) all of the different offenses. However, in general, the sites might be described as more similar than different. The delinquency rates are not of a different magnitude at the two sites. For example, the prevalence rate of total delinquency is in the 62-69% range at both sites during the 14-17 year old age period. Thus, given the substantial difference in orientation and leniency of the two systems, it is surprising that there is not a greater difference in offending, although the Denver offenders consistently commit a greater number of offenses every year.

Because, in Bremen, all officially recorded delinquencies must be referred to the prosecutor, a common definition of arrest was adopted for this report. This definition required that arrest be defined at both sites as police contact that resulted in referral to the prosecutor or court intake. This definition excludes some "arrests" in Denver that are dismissed by the police without referral to court intake. However, at both sites the preponderance of all police contacts resulting from participation in a delinquent act were referred to the prosecutor/court intake, so that this referral requirement needed to obtain site equivalence does not substantially affect the findings of the report.

As a start toward the examination of the influence of arrest on subsequent behavior, a comparison of the frequency of police contact and arrest at each site was made. As would be anticipated (1) a similar age-crime curve was observed at both sites for both genders, with a peak in late adolescence, and (2) males at both sites were more likely to be contacted and arrested. Examining the probability of arrest only among active offenders, did not change these basic findings. In addition, it was found that being known to the police through prior arrests or being a gang member increased the probability of arrest at both sites.

While there are these general similarities, there are also striking differences. Police contacts and arrests for a delinquent offense begin at younger ages in Denver and across the entire age range considered, in Denver, police arrest individuals at substantially higher rates, often two times or more often than in Bremen. This is especially true for females where the arrest rates are often four to five times higher in Denver. Although a large proportion of individuals are arrested at some time at both sites, the higher arrest rates in Denver at each age lead to considerably higher rates of cumulative prevalence of arrest in Denver. By age 18, 34% of Bremen males had been arrested, but 73% in Denver, and 9% of females had been arrested in Bremen, but 43% had in Denver. Thus, it seems that police and arrest play a larger role in the social control of children and adolescents in Denver than in Bremen.

The higher rates of arrest in Denver, even when age, gender, and type and frequency of offending are controlled, results, in part, from arrests for status offenses. These behaviors are not considered illegal or delinquent in Bremen, but account for roughly one-third of all arrests in Denver during the adolescent years. This can be seen in comparisons of arrest rates for behavior that is delinquent (proscribed by law) at both sites. Differences in prevalence of police contact and of arrest are much smaller and even become similar across sites when only behaviors that are illegal at both sites are considered.

There were also substantial cross-site differences in the kinds of behaviors for which youth were arrested. In Bremen, the preponderance of arrests were for property offenses and there were very low rates of arrest for violent offenses. In Denver, arrests were more uniformly spread across status, property, violent, and other kinds of offenses. Interestingly, arrests for drug offenses were relatively infrequent at both sites, and were essentially zero in Bremen throughout the teen years.

To what extent do these similarities and differences across sites affect future behavior? The impact of arrest was examined using basic cross-tabulations, multinomial regression, a precision matched control group, and event history models. The findings from all of the analyses were quite consistent across both sites. In all of the analyses, there was very little effect of arrest on subsequent delinquent behavior. When there was an effect, arrest resulted in either maintaining the previous level of delinquency (persistence) or increasing subsequent delinquent behavior. There was essentially no indication at the individual level at either site that arrest resulted in a decrease in delinquent behavior.

To examine the effect of different sanctions following arrest, a scale of sanctions that indicated levels of intrusion into individual's lives and that was similar across sites was developed. In this way, the effect of similar sanctions could be examined at each site. What was not fully appreciated during early efforts of the project was the level of leniency of the juvenile justice system in Bremen. Because the vast majority of cases in Bremen through age 20 were either dismissed or diverted, the samples could not support analyses of each of the increasing sanction levels. As a result, differences between those offenders who were not arrested, those dismissed and/or diverted, and those given some more serious sanction could be examined.

With this limitation, the findings concerning sanctions were similar to those for arrest. Controlling for other variables, the effects of sanctions during adolescence on young adult crime and separately on adult crime, and the effects of sanctions during young adulthood on adult crime, were examined. These analyses indicated that the level of sanction applied following arrest had very little influence on future involvement in delinquency and crime. Also, particularly in Bremen, when an effect of sanctions was observed, it was those individuals given more severe sanctions that tended to persist in or have higher levels of future delinquent/criminal involvement.

The project also examined the impact of sanctions on future employment and life satisfaction. These analyses indicated some consistency across sites. Being delinquent, during the period defined as adolescent in the two sites is generally unrelated to adult (early 20's) employment outcomes. Being sanctioned for such behavior, however, is related to reduced chances for a stable or skilled job in Bremen and to increased chances for unemployment in Denver.

Sanctioning is also related to reports of lower levels of life satisfaction during adulthood in Bremen. Overall, the findings about sanctioning are thus consistent with those about the impact of arrest. Sanctions do not appear to have major effects, but when such effects occur they are likely to result in diminished opportunities that may influence problem behavior.

It should be noted that official punitive sanctions need not demonstrate an ameliorative effect to justify their use. The role of police and juvenile justice system involve public safety and the perceived need of victims and society for retribution for offenses committed. In addition, the influence of police and justice system on general deterrence can not be disregarded. Nevertheless, if arrest and sanctioning are considered interventions to reduce an offender's level of future offending, the results of this project suggest that arrest and sanctioning are not very successful intervention strategies. Rather than reduce the probability of continued offending, arrest and sanctioning either have little effect or serve to exacerbate future delinquency and crime.

Although not a study of general deterrence, it is interesting that the quite lenient justice system employed in Bremen does not result in "runaway" rates of delinquency and crime within the Bremen sample under study, either by self-report measures or by official records. Given the contrast between the punitiveness of the system in Denver and lack of such punitiveness in Bremen, it might be expected that there would be very substantial differences in delinquency and crime over the 14 to 24 year old age range. Yet, what is found are relatively small differences in prevalence and substantially higher frequencies of committing crimes among offenders in Denver. Increased severity of sanctions does not appear to have the effect commonly anticipated in the U.S. Although we lack the data to adequately examine the issue, the data we do have suggests that at both sites the probability of a police contact for behaviors that are offenses at both sites are quite similar. Thus, it may not be the severity of sanctions, but rather the simple certainty of a response for delinquent acts that is of importance both for the offender and for general deterrence in the society at large.

It should be noted that to some extent, these findings might have been anticipated. After reviewing several studies, Sherman et al. (1998, p.9) conclude that "arrests of juveniles for minor offenses cause them to become more delinquent than if police exercise discretion and merely warn them or use other alternatives to formal charging." Findings concerning prevention programs for more serious offenders also suggest less punitive options may be more successful than other more restrictive justice system options (see e.g. Greenwood, Model, Rydell and Chiesa, 1996). Also, a randomized experimental study with outright release, referral to juvenile court or referral to other social services as "treatment" options found that the re-arrest rate was smaller for the outright release group than for any other group (Klein, 1986). Findings of the benefits of less severe sanctions (diversion rather than referral to court) are also reported in a German study (Crassmoeller, 1996). Thus, consistent with the above and some other research (see Howell, 1997, pp. 193-197, for additional reviews), this project found little evidence that increased sanctions, and perhaps even arrest with no sanctions, provides individual deterrence. The trend in the U.S. towards criminalization of behaviors and imposition of more punitive sanctions for such delinquent behavior, including the use of incarceration, may not have the desired outcome. Of some concern, the long-term outcome of such policies may not be adequately comprehended, and may in the long run result in reduced public safety.

The findings of this study must, however, be tempered by limitations imposed through the study design. First, since this is a comparative study imposed on two independent studies in different countries, the need for identical or similar constructs and measures across sites partially limits the full capabilities of each independent study. Second, the extreme leniency of the Bremen justice system prevents the examination of a wider range of sanctions. Third, the underlying or societal meaning of arrest and sanctioning may vary between the two countries and between the two sites involved. Although we have no evidence of this, if the significance of official responses to delinquency is perceived differently at the two sites, the influence of the responses (such as arrest) might also be expected to differ. Fourth, given the size of the samples, it was not possible to examine across sites the effect of an arrest for a specific offense on future involvement in that specific illegal behavior. Also, an examination of whether effects of arrest and sanctioning are different for different types of individuals could not be adequately conducted in the equivalent cross-site data sets. Finally, restrictions resulting from the availability of data for certain ages or measurement years in one or the other study limited certain of the developmental analyses that could be undertaken.

Despite these limitations, however, the consistency of the findings in multiple analyses across sites in different countries, is remarkable and suggests quite robust findings. In fact, the similar findings from two sites, one quite lenient and the other quite punitive, suggests some greater generalization of the finding of a general ineffectiveness of arrest and sanctioning. The ability to compare and contrast such sites, although providing some limitation as noted above, on the other hand provided a unique opportunity that could not have been achieved if studies within a single country had been used. The promise and importance of cross-national research is thus underscored.

Finally, it must be noted that conceivably those caught up in the juvenile justice system may be on a different life trajectory even before justice system contact. Thus, we can not conclude from the current study that arrest and increased sanctioning are criminogenic and set up processes that result in increased criminal involvement. However, evidence from the matched control group analyses point in this direction. There is clearly a need for greater concern about and discussion of the current U.S. orientation toward increased criminalization of behaviors and increased severity of sanctions, and a need to empirically examine sanctioning options currently employed in the juvenile justice system and in the adult system for those described as young adults. Similarly, the findings suggest that any proposal for changes in the juvenile justice system in Bremen that would focus on increasing the severity of current sanctions should be very carefully evaluated.

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Chapter 1

Introduction

Comparative Criminology becomes increasingly important as societies and economies become more closely related in the process of globalization. The need to compare – and even adapt - criminal justice approaches towards crime is, of course, more essential in some areas (organized crime, economic crimes, drug trade) than in others. Regarding juvenile delinquency, it has been argued that the behavior of young people around the world has become increasingly homogenized (Hartjen 2000: 525) due to the supra-national features of youth culture (internet, music scene, videos, television series, etc.). It has also been noted that there are some common features of development in post-industrial societies (e.g. social exclusion of the urban poor and minorities) and the suggestion that these conditions have led to an increase of youth violence throughout Europe and the U.S. (Pfeiffer 1998, 304). On the other hand, juvenile delinquency is also strongly influenced by the opportunity structure and justice systems of particular regions, countries, and neighborhoods and therefore has many regional features as well.

For quite some time there has been interest in the development of juvenile delinquency throughout the world because, regardless of geographic region, delinquency and crime have a peak in prevalence and frequency during the juvenile years. Moreover the perceived urgency to prevent juvenile delinquency from persisting into adult ages seems to encourage comparisons of the outcome of different juvenile justice systems (JJS) as well. The question is whether some JJS's are better suited to cope with juvenile delinquency and result in different long term outcomes than others.

The JJS in most industrial societies was created around the turn of the 20th century out of the conviction, “that a benevolent super-parent could ‘cure’ juvenile delinquency” (Hartjen 2000: 524). There is thus substantial common ground for analyzing and comparing their particular features. There are, however, also quite substantial differences that have emerged over time. For example, during the 20th century in some countries ‘get-tough-on-kids’ ideologies have gained acceptance (notably in the U.S. and U.K.) and led to blended systems which include rehabilitative as well as punitive features, while other countries (e.g. Germany, Austria, Denmark) were adhering to the original principles of the decriminalization of youth crime. The question arises if such differences in dealing with juvenile delinquency have any impact on reducing the likelihood of proximal juvenile delinquency or criminal activities that occur later during adulthood.

Although there is the opportunity for comparisons, there is certainly no abundance of comparative studies in which the features of two (or more) JJSs are systematically held against each other to determine their differences, for example regarding their degree of punitiveness, their scope of behavioral control, or the proportions of formally versus informally handled cases. Typically we find descriptions of particular features of various JJSs (Shoemaker 1996; Kerner, Galaway and Janssen 1986; Klein 1984), most of which are based predominantly on legal provisions and provide only limited insights into the actual functioning of the systems compared.

However, there are also some comparative statistics on criminal justice systems available (e.g., European Sourcebook 1999) which allow comparisons of particular essentials of justice systems such as the relative importance of prosecutorial versus judicial handling of cases as well as sanctioning patterns in particular countries. These compilations also include statistics on recorded crimes (index crimes and others) for various countries, and often provide the starting point of comparative criminology. They have further been expanded by the important International Youth Self-Report Delinquency Study (Junger-Tas et al. 1994).

According to Mueller and Adler (1996), comparative criminological research has three orientations: establishing the cross-national validity of criminological theories, providing suggestions for the utilitarian quest for potentials of reforming criminal justice systems, and working towards strategies for joint efforts to internationally reduce crime. The first goal is being served by cross-national research on causes and correlates of juvenile delinquency (e.g., Farrington and Loeber 1999; Caspi et al. 1994). The third goal seems to be approached mostly by the work coordinated by United Nations organizations (e.g. HEUNI). The second goal, is often addressed through descriptions of various innovations for dealing with juvenile delinquency (e.g., Juvenile Awareness Programs in the U.S., family group conferences in New Zealand, etc.), although some considerations of the outcomes of such efforts have not been particularly positive, noting a response of little more than a “Gee, That’s interesting!” (Hartjen 2000: 529).

The second goal cannot really be accomplished without knowledge about the effects of suggested interventions in the system of origin, a comparison of the two systems (the one where an innovation has been created and the system which wants to import it), and an analysis of the change the intervention may cause for the importing system (Schumann 1983). However almost all of the valuable work of comparative criminology has stopped short of examining system differences and attempting to figure out the effects of those different features on total juvenile delinquency rates or on juvenile delinquents and their subsequent behavior. That is, we are lacking comparative studies that attempt to establish the effect of system-differences in a quasi-experimental way. We hope the research reported here may be a step towards that goal.

Using Mueller and Adler’s distinction, this research merges, to some extent, the theoretical and utilitarian perspectives. Although not designed as a test of theory, in looking at the deterrent effect of two different systems of juvenile justice that to some extent are based on different theoretical orientations, a test of those orientations and whether processes in one might prove beneficial to the other is attempted. On the other hand, comparing the effect of two systems may also help determine the appropriate scope for utilitarian thinking. If both systems accomplish the same task by different strategies but with the same effect, the implication would be that it does not matter which approach is chosen to react to juvenile delinquency because neither of them works significantly better. While such a result would not preclude importing features or innovations from one system to the other, such importation could not really be based on the argument that the importing system might thereby be improved.

1.1 Cross-national comparison of the juvenile justice systems in Germany and the U.S.

It was noted above that the creation of juvenile courts was a major accomplishment of penal law reform at the turn of the twentieth century in many industrial countries, notably in the U.S., England and Germany. Its link to the formation of industrial society is evident. Reformation and

rehabilitation became principles that demanded departure from traditional penal law responses to crimes committed by children and youth (Platt 1969; Schlossberg 1977). In the U.S. the state of Illinois created a juvenile court in 1899 with 22 states following rapidly during the next 10 years. In 1925 all but two states had created a juvenile court system (Krisberg and Austin 1993, p.30). The idea behind the juvenile court movement was stated in an early court decision (Commonwealth of Pennsylvania v. Fisher 1905): to save a child from becoming a criminal and from ending in adult years in public punishment and disgrace.

During the same period of time in many European countries similar reformatory ideas won support. In Germany the first juvenile court was established in 1912, and in 1923 the passage of the juvenile court law (Reichsjugendgerichtsgesetz, RJGG) by the Parliament created a particular set of sanctions for persons under the age of 18. While those sanctions were slightly different from the sanctions created in the United States (see Chapter 3) both systems shared two principles: to apply the doctrine of *parens patriae* which gave government the authority to assume a parental role if the biological parents were not performing their role to appropriately supervise and assist the juvenile (Kempf-Leonard and Peterson 2000: 69) and to reduce the use of incarceration in regard to minors.

In the U.S. two movements contributed to change of these original ideas. In the sixties and seventies the implementation of due process into juvenile court proceedings was called for and resulted in American Bar Association Juvenile Justice standards granting fair and just proceedings (see Feld 1993). In the eighties the emergence of deterrence ideologies as well as of the notion of incapacitating serious career criminals as early as possible, in combination with a growing acceptance of the just-desert principle, led to the reduced diversion and exemption of young offenders (mostly violent and repeat offenders) and offenses (serious crimes) from juvenile justice and transferring them to adult criminal courts. This trend has continued over the 1980s and 1990s (Krisberg et al. 1986). A blended type of justice emerged due to the prevailing 'get tough ideology' throughout the U.S. This development, sometimes labeled "re-criminalization of juvenile delinquency" (Singer 1996), constituted a stark contrast to the 1970s when in the U.S. the ideas and development of diversion had led to an increase in cases being diverted from the juvenile courts.

In Germany the reform of the JJS took an opposite direction. Earlier, that is during the Nazi regime, a get tough ideology turned juvenile justice more repressive by introducing particular forms of incarceration (youth arrest), lowering criminal responsibility from the age of 14 to 12 years, as well as introducing an indefinite prison term for dangerous juveniles. While after 1945 most of those interventions survived, in the eighties the idea of diversion inspired German juvenile justice and guided what has been called "bottom up type juvenile justice reform". Juvenile court judges and prosecutors in many cities and especially metropolitan areas started to support initiatives and programs for social treatment of juveniles in the community and diverted cases to those programs rather than having trials at the juvenile court. This reform was legalized by legislation in 1990 (1.JGGAenderungsgesetz) and continues to dominate the German JJS processing up to the present. While from time to time advocates for a change to harsher punishment articulate criticisms of the current system, they have not yet reduced the importance of diversion within the JJS of Germany. Thus the general principles of the German juvenile law (JGG) are: to educate rather than to punish (Wolfe 1996:126) and to use the least intrusive sanction available.

The different developments in the U.S. and Germany have created quite different situations in the two countries. In the U.S. a truncated system of juvenile justice emerged: in most states its jurisdiction covers the age span from 10 years through 17 years, with the option to waive juvenile law for serious, violent or chronic offenders (Bartillas 1996: 304). In contrast, in Germany, the age of responsibility does not occur until the age of 14, the JJS continues to be strongly influenced by the ideas of diversion, and diversion is to be applied not only to juveniles aged 14-17 but also in most cases to young adults aged 18-20.

The question arises if those differences matter. Is the American system more or less effective in helping adolescents to reduce delinquency and live in conformity during adulthood? Or is the 'soft' approach as used in the German system more appropriate to arrive at that goal? The debates accompanying the history and presence of the JJS are characterized by the controversy of whether an increasing punitive orientation increases the deterrent potential of sanctioning or whether it contributes to persistence or even an increase of deviancy. While it is difficult to give empirical answers to such questions, a cross-national comparison of the effects of systems that incorporate different rehabilitative and punishment orientations may provide valuable insights about the consequences and implications the orientations the two systems have on the life course during adolescence and early adulthood. Such a comparison is the overall goal of the research reported here.

1.2 Contrasting the Juvenile Justice Systems in Germany and the U.S.

To more fully describe the distinctive features of the U.S. and German systems, some major differences are further outlined. These differences are based in current juvenile law of the majority of States in the U.S. and, based in current juvenile law in Germany, where the juvenile law is a federal law and therefore the same throughout the country. Major differences between the systems of juvenile justice can be seen in the definition of the jurisdiction of the juvenile court regarding age and the scope of offenses and offenders under its control. Looking beyond the juvenile court, it also seems important to note that the use of arrest differs substantially between the two countries.

(1) Scope and limitation of jurisdiction regarding age.

In Germany, the juvenile court has jurisdiction not only for young persons of 14 through 17 years of age, but also for young adult offenders, that is persons 18 to 20 years of age. For the young adults¹ (Heranwachsende), the juvenile court can choose between the application of juvenile law or adult law. The court will choose juvenile law, if the offense is committed out of motives lacking maturity (like the intent to impress peers) or if the personality of the offender appears to lack full maturity. In fact, juvenile courts apply juvenile law in the majority of trials against young adults (ages 18 – 20); the use of juvenile law has become the rule in most States (Laender) in Germany. Persons under the age of 14 lack criminal culpability according to German law. If they commit and

¹ Nancy Wolfe (1996) in her description of the German system uses different terms to translate the four age categories of the German penal law: child (under 14 years) without criminal culpability, juveniles (ages 14-17), adolescents (ages 18 –20) and adults (21 and older). Our terms adolescents (referring to Jugendlicher) and young adults (referring to Heranwachsender) should not be considered as translations for the German terms but rather as sociological descriptions of age categories, which are named differently in different countries. If we would use the term juvenile any American would expect that it refers to persons aged 10-17 rather than 14-17, as is the case for the German term Jugendlicher.

are apprehended for offenses, parents will be notified without further action. If this seems insufficient, the bureau for youth services may suggest to the parents that some programs should be attended or even that the child should spend some time in a group home. Following these suggestions is, however, completely voluntary. Parents may decide not to follow such suggestions with no further consequences for the child.

In the U.S. the situation is quite different. The juvenile court has in most States jurisdiction from the age of 10, in part because the JJS deals with status offenses (truancy, runaway, etc.) as well as various forms of other youthful and criminal offenses. The maximum age of jurisdiction varies throughout the States. Connecticut, New York, and North Carolina define the maximum age at 15, the majority set the maximum at 17 years of age, and Wyoming had a maximum age of 18 (Krisberg & Austin 1993, p.68), until it was reduced to 17 in 1993. Nowhere in the U.S. may 19- and 20-year old young adults have their cases handled under juvenile law. Taken together, in general, the JJS in the U.S. handles cases involving a much younger population (10-17) than in Germany (14-20).

(2) Scope of jurisdiction regarding offenses and offenders.

A striking difference between the U.S. and Germany is that in Germany juvenile delinquency is restricted to acts which are against provisions of the Criminal Code of Germany that are applicable to adults (Strafgesetzbuch and additional criminal laws, e.g. drug laws). Status offenses are not included and the range of public disorder offenses is very small. In effect, the U.S. juvenile courts have to handle a wider variety of offenses, many of which are not considered the business of the police or courts in Germany. In general, it may be said that to a substantial degree the JJS in the U.S. handles less serious offenses, such as status and public disorder offenses, in addition to more serious offenses, while the German JJS has jurisdiction exclusively about criminal offenses.

Moreover, since the 1980's, many U.S. states introduced legislation that makes the transfer of juveniles to adult courts possible or mandatory, and thereby restrict the jurisdiction of juvenile courts. This may be accomplished by judicial, legislative, or prosecutor's waiver, most of which refer to violent, chronic or serious offenders. Although the proportion of cases waived is relatively small, it still restricts the jurisdiction of juvenile courts for more serious cases.

Such waiver is simply not possible in the German criminal justice system. In Germany juveniles under the age of 18 can never be transferred to adult court. Moreover, all cases involving even young adults (age 18-20) are handled by juvenile courts, and in cases where adult law is applied, juvenile judges hand out the sentences. In fact, juvenile judges apply adult law to young adults predominantly for petty crimes, which are punishable by fines (a sanction not available by juvenile law²), while for more serious crimes juvenile law is applied. Thus, in strong contrast to the U.S., in Germany, serious and violent crimes committed by those 18-20 years old are mostly handled under juvenile law. The reason for this is that in cases of serious and violent crime, incarceration would be mandatory under adult law; but, preferring less stringent sanctions, juvenile law is applied so that incarceration is not required because the sentencing provisions in the German Criminal Code (StGB) do not apply for juvenile law.

² A sanction similar to a fine is available under juvenile law in which an offender receives an educational message by being required to pick a charity which is to be given a specified amount of money by the offender.

Thus, there are two quite contradictory principles governing the sentencing of violent or serious acts in the two countries. U.S. juveniles run an increased risk of receiving more severe sentences or of being sentenced under adult law. Such risk is non-existent in Germany. Rather even young adults of ages 18-20 who are prosecuted for serious and violent offenses will most probably be sentenced under juvenile law.

(3) Arrest and detention.

In Germany, the common wisdom is that adolescents ought not be put into custody except as a last resort. Therefore, the frequency with which juveniles get arrested and taken into custody seems to be substantially different in the two countries. Unfortunately there are no comparable statistics available on juvenile arrests in Germany to compare with U.S. figures. We will try to give a comprehensive overview on the distinct use of arrest in both countries later on. At this time we estimate, based on conjectural reasoning, that the prevalence of arrest in the U.S. may be higher than in Germany. There are two main reasons for this. (1) The scope of behavior considered as law breaking which may trigger arrest is quite different. In the U.S. status offenses (violation of curfew, truancy, runaway, etc.) as well as disorderly conduct (drunk in public, unruly behavior, etc.) can lead to an arrest. In Germany, neither status nor most disorderly conduct behaviors are acts that can lead to an arrest. (2) Persons under the age of 14 can be arrested in the U.S. but not in Germany, since by law they are lacking criminal responsibility. These two differences would seem to substantially increase the prevalence of arrest in the U.S. compared to Germany.

(4) A brief outline of the differences between the Juvenile Justice Systems.

For a preliminary contrast we list six differences between the JJSs of the two countries:

	<i>U.S.</i>	<i>Germany</i>
1. Minimum age of culpability	10 years	14 years
2. Maximum age	17 years	20 years
3. Sanction severity	limited diversion	much diversion
4. Waiver of juvenile law	possible	impossible
5. Scope of illegal behavior	wide (status offenses, etc.)	narrow(Criminal Code)
6. Arrest	substantial use	limited use

These differences would be anticipated to influence the impact that police and court interventions may have on the lives of young persons. It has been suggested by Lynch, that Germany (among other European countries) differs from the U.S. according to the degree that social control is based on informal control (executed by family or schools) rather than on formal social control (by police and courts) (1995: 13). If the degree that police and courts interfere with the lives of juveniles and young adults differs so substantially, do these differences have any impact on subsequent delinquency and on future adult life?

1.3 Theoretical implications: deterrence versus labeling

This research question refers to two opposing theoretical positions: the deterrence theory and the labeling approach. During the eighties and nineties, criminal justice in the U.S. experienced an impressive turn towards the deterrence doctrine. General deterrence, and also specific deterrence, became influential in guiding sentencing policies and the creation of new types of punishments (e.g. boot camps). However, the empirical proof for the preventive effects of sanctioning based on such

a deterrence orientation is not overwhelming. Deterrence has been studied more extensively for general deterrence (Paternoster et al. 1983; Piliavin et al. 1986). Regarding specific deterrence, Schneider and Ervin (1990) did not find support for deterrent effects of punishment. They observed: "Persons who had been punished more heavily ... committed more rather than fewer subsequent crimes" (p.594), and in regards to deterrence theory that the effects reported were often in the "wrong direction" (p.598). In addition the National Institute of Justice Report on "What Works, What Doesn't, What's Promising" (Sherman et al. 1997) gives rather sobering evaluations for sanctions designed for specific deterrence.

On the other hand, findings from the Philadelphia Cohort Study indicated that arrest tends to increase the risk of being arrested again, and similar hypotheses have been formulated and tested by a substantial body of research within the framework of labeling theory. For example, the London Cohort study of West and Farrington found that recidivism rates were higher for persons arrested for their offenses compared to those offenders that could avoid being arrested for the same delinquent acts (Farrington 1977). Similarly, Huizinga, Esbensen, and Weiher (1991) found in data from Denver that arrest does not appear to deter subsequent delinquency but rather contributes slightly to its increase. Recently Paternoster and Iovanni (1991) summed up the evidence on this issue and encouraged the scientific community to continue studying the recidivism-generating effect of sanctions.

In regard to sanctions, Klein (1986) conducted an experimental test on different reactions following arrest. He compared the effect of outright release, referral to juvenile court or referral to other social services (e.g. counseling) on subsequent delinquency using a randomized design. Klein found that the re-arrest rate was smaller for the outright release group than for any other group (p.63), suggesting that "diversion to nothing" may have some advantages. A quasi-experimental German study testing diversion by prosecutors rather than the juvenile courts also found for first offenders (but not for repeat offenders) lower recidivism rates for those handled by this less formal type of diversion by prosecutors (Crasmoeller 1996).

Taken together these findings suggest that there is probably little support for either specific deterrence or labeling theory, with a slightly better result for the latter. That is, we would expect small positive effects for handling cases involving juveniles in a less severe mode: using diversion and less severe sanctions might be followed by somewhat lesser subsequent delinquency. For the purpose of this study, the findings suggest that by comparing both sites we might expect slightly less recidivism for German juveniles.

1.4 How different are both juvenile justice systems in reality?

In a recent paper Hartjen argued that despite the fact that legal systems may indicate substantial differences, "in practice young offenders on the whole are treated quite similarly"(2000: 530). This implies the familiar view that "law in the books" and "law in use" may differ quite substantially. If this argument is correct, it would negate system differences between the two sites of the size that has been so far described. Therefore, it is necessary to give some data on the practice of juvenile law in both countries. For this purpose we have to rely on official statistics and depend completely on the availability of data from both countries as well as the comparability of the categories used.

It seems doubtful that the practice of decision making in the JJSs of both countries is as similar as Hartjen suggests. It has previously been noted that the American JJS works under the premise that sanctions are to “emphasize the importance of changes in the family and the child deemed necessary by the judge” (Ferdinand 2000: 472). From the position of the ‘super parent,’ formal reactions are considered necessary to bring about change. In contrast, some European countries, as well as Japan, trust in the potential of the family, school or work place to suggest to the offender the advantages of behaving in a conforming way (Ferdinand 2000: 473). If such differences of orientation prevail, differences in the handling of juvenile offenders would be expected - more formal in the U.S. and less formal in some other countries.

1.4.1 Reactions by the police

In the U.S. the first contact of the juvenile offender with the JJS is usually an encounter with a police officer (although there exist other sources of referral to juvenile court, such as schools, social service agencies, parents, and probation officers). The police officer may simply warn and release the youth, or issue a citation or ticket requiring the juvenile to report to juvenile or other court at a later date. The officer may take the juvenile into custody and to the police station, record the contact, give an official reprimand and then release the juvenile. The officer also may refer the juvenile to a diversionary agency (e.g. youth service bureau). Alternatively, the police officer may formally charge the juvenile with an offense and refer the offender to juvenile court, or, more intrusively, after charging the juvenile take the offender to a detention center to await further handling of the case (Bartillas 1996:306). While it is not clear if all five types of handling juvenile offenders are always counted as an arrest in official statistics, it seems reasonable to assume that issuing a citation or “ticket” or taking the offender to the station to make a record is a necessary precondition. To get an idea of the number of arrests made annually during the nineties two figures may help.

In 1990 an estimated 2.2 million arrests of persons under age 18 were made (Snyder 1992). In 1999 the figure was estimated as 2.5 million (Snyder 2000). The number of arrests declined during the nineties for murder, burglary and motor vehicle theft but increased for simple assault, drug abuse and curfew violations (Snyder 2000:3). About three-fourths of the arrested persons were male. The highest estimated volume of arrests were for larceny-theft, running away from home, liquor law violations and non aggravated assault (Snyder 1992:3).

During the 1990s, there were some changes over time in the way police handled arrest cases. In 1990, 28% were handled within the police department and the youth released thereafter. This figure declined to 23% in 1999. Referral to juvenile court rose from 63% to 69%, and referral to criminal court rose slightly from 5 to 6 % (Snyder 1992:5 and Snyder 2000:7). Looking at age specific arrest rates they seem highest for those 16 and 17 years old (about 4,500 per 100,000)³. These data do not provide estimates of the prevalence of arrest, since an offender may be arrested more than once. They do provide, however, an upper limit of the prevalence. Using data from Snyder and Sickmund (1995:2 & 100), that match the data given above, an upper limit of the prevalence of arrest can be estimated to be between 8% and 9%.

³ Thirteen and fourteen-year-old kids seem to have a similar risk as 21-year-old adults (about 2,900). Kids 12 years and under run a rather small risk (about 230). (See age specific arrest rates.)

In *Germany*, juvenile offenders are commonly given a “ticket” and may either be requested to check in at a police station or prosecutor’s office at a later time or to await other instructions from the prosecutor’s office (that may simply arrive in the form of a letter from the prosecutor). This is the normal procedure in Germany, where a perfect registration system of inhabitants allows the police to easily locate any offender whose identity is known. Therefore, taking a person into custody is necessary and legally acceptable only in more serious cases.

In Germany figures on arrest that involve taking a youth into custody are not available. The reason for this is that, as noted, in Germany, arrest that involves taking an offender into custody is not a frequent mode of handling juvenile delinquency cases. The only figures that are available at the police level refer to cases cleared by the police with children, adolescents or young adults being the suspects. In 1999, about 450,000 minors (below age 18) were identified as offenders. Based on these data the suspect rate (per 100,000 of the age group) might be estimated for persons aged 14-17 as high as 7,200 (or 7.2%) and for young adults at about the same level (Bundesministerium der Justiz 2000: 15).

Quite obviously the prevalence of “arrest” in the U.S. and the “known suspect” rate in Germany, with different definitions and age groups, can not be directly compared. However, it does seem reasonable to note that these figures do suggest some very general correspondence in the prevalence of youth formally coming to the attention of the police, perhaps being in the 6-9% range in both countries.

There is another difference in the handling of youth contacted by police officers that needs to be mentioned. In Germany, there is very little discretion at the police level for handling the cases other than filing the case with the prosecutor. Therefore no data is available on the proportion of offenders released after being warned by the police.

1.4.2 Juvenile court level

In Germany almost all cases involving juveniles are sent to special prosecutors associated with juvenile courts. As noted earlier, very little police discretion is permitted and almost all cases are referred to the prosecutor. At the prosecutorial level, diversion plays a substantial role. As noted in greater detail below, cases without legal sufficiency are dismissed and are not included in official statistics. Based on official statistics, in 1990, prosecution dismissed about 40% of the cases; in 1998 this proportion increased to 55% (Heinz 2000:170). The vast majority of such dismissals involved no further action, while a small proportion involved the fulfillment of some “educational measure,” a precondition for dismissal. In addition juvenile judges turned to dismissal in more than 15% of the cases which reached court (BMJ 2000:37). Taken together, somewhere between 55% and 70% of the cases that reached prosecution, or about 2 out of 3 cases, with evidence sufficient to substantiate a charge, eventually were diverted. The remainder were convicted and punished by local non-custodial disciplinary or educational measures, with the exception of some 4% of all convicted persons who went to prison (*ibid.*).

Thus, German juvenile justice processing can be characterized as making heavy use of diversion with or without additional reactions (community service order, etc.) and a very restricted use of incarceration. This description also applies to all cases of young adults that are decided on the basis of juvenile law (JGG). The proportion of young adult cases (ages 18-20) handled according to

juvenile law oscillated between 58% (1995) and 60% (1998) (Heinz 2000:169). Also of interest, during the nineties, the proportion of offenders held in detention prior to conviction oscillated between 5 and 7 %.

In the U.S. the processing of juveniles varies between States and even counties so that any description must be quite general. Commonly, juvenile court intake determines what action should be taken on a petition. In contrast to German statistics, cases lacking legal sufficiency are included in official statistics. Essentially four options are available: dismissal if the case is too weak or petty, diversion to an agency, informal probation, or petition to court (Bartillas 1996: 307). Of the cases sent to court intake, roughly 50% are handled informally. The majority of these cases are dismissed for lack of legal sufficiency and the rest dismissed after a 'consent decree' is signed by the juvenile (promising victim restitution or obedience to informal probation rules) (Snyder and Sickmund 1995). These obligations are accepted voluntarily.

During the nineties the percentage of informally handled cases declined from 50% to 43% in 1998. Thus, in somewhat over half of the cases, at intake a petition is filed either to adjudicate the case at the juvenile court or to waive it to criminal court. However, the juvenile judge may not adjudicate and dismiss the case and may ask the juvenile to take some action, such as making restitution or attending drug counseling, prior to a final adjudication decision. When the case has been adjudicated, sanctioning follows, often after another disposition hearing. In the majority of adjudicated cases, formal parole is selected as the sanction. Residential placement is used in about three of 10 cases, and other dispositions (e.g. community service, restitution without also probation) are rather rare. A small portion of the cases are transferred and will be decided at the criminal courts.

1.4.3 Comparison of sanction patterns in both juvenile justice systems

It would be an accomplishment to provide a good statistical comparison for the disposition patterns between the two JJS. For this purpose we ought to have equivalent categories for the available types of reaction in both systems as well as reliable statistics, preferably for the same year. Such data is not available. The statistical sources are quite different for both countries. In the U.S. the National Center for Juvenile Justice provides valuable statistics including case-flow charts⁴, which can be used to get estimates of the frequency various dispositions are being used. For Germany the Konstanzer Inventar Sanktionsforschung⁵, directed by W. Heinz, publishes overviews as well as updates on the decision making of juvenile courts.

Although a good comparison of the rate of use of different official dispositions cannot be constructed, some indication of the frequency of use of different dispositions is possible. For this purpose, a sanction scale that was developed to enable the research reported here, and described further in Chapters 3 and 6, is employed in a slightly condensed form. This scale is based on

⁴See for example Juvenile Court Statistics 1995, Washington 1998 or check for more recent years: <http://ojjdp.ncjrs.org/ojstatbb/html>, which has been adapted from Puzanchara et al. Juvenile Court Statistics 1998, Washington: OJJDP 2001.

⁵ See www.uni-konstanz.de/rtf/kis.

descriptions of the events normally implied by the particular sanctions (e.g. having to pay money) rather than legal terms. The validity of employing such a scale for comparative purposes depends, of course, on the equivalence of those events in both countries.

Since the study reported here uses data referring to the years 1989 through 1996, data from 1995, one of the years under study, is used to examine differences in disposition rates, which have not greatly changed during the nineties.

Before trying to relate the available data from both countries to each other, several important warnings and caveats are needed. First, the available statistics for some types of sanctions do not match well. Most importantly, the statistical data on Germany exclude all cases which lack sufficient evidence because they have been dropped, based on prov. 170 II Code of Criminal Procedure, directly after the police files have been sent to the prosecutor's office. That is, before the statistical count of the prosecutor's decision-making takes place. Thus, only cases with legal sufficiency are included in the German statistics. In contrast, weak cases lacking legal sufficiency are included in the U.S. statistics about juvenile court intake decisions. Therefore a proportion of the cases will be dismissed at intake for pettiness or lacking legal sufficiency. Preferably these cases should be excluded from the comparison, but the exact proportion among cases dismissed at intake is not known. However, Snyder and Sickmund (1995:137) list insufficient evidence as the first cause of dismissal, and, although it is an overcorrection, we thus have tabled U.S. estimates with and without initial dismissals at court intake, since the latter provides a better match to the German data.

Another important difference is that the U.S. data refer to the age group 10 – 17, while the German data on dispositions refer to young persons age 14 – 20. Data on arrests of children (up to age 12) indicate that the law-breaking of those arrested children consists mostly of larceny-theft, simple assault, vandalism, disorderly conduct, running away from home and curfew violations (Snyder 2001), and that, as might be expected, only about 20 % of these cases are adjudicated in juvenile court. The diversion rate is high for these young children, who are not culpable according to German law and therefore not included in German statistics. Thus, the differential effect of the inclusion of younger children in the U.S. in the comparison is partially mitigated, but cannot be ignored.

More problematic, is that in Germany the young adults (ages 18-20) are included in the statistics and there is no way to exclude them. We know, however that they are treated more harshly because diversion is suggested to be applied for first offenders who are probably less frequent among the group of young adults. In addition, the types of offenses handled by the juvenile courts differ substantially because in Germany only offenses listed in the Criminal Code and other Criminal Laws (like Drug Law) are included while in the U.S. public disorder (drinking alcohol in public or lying about the age) and status offenses (curfew violations) are included which are not offenses in Germany.

Another important difference is that the data available for the U.S. represent estimates based on a selection of juvenile courts⁶. They are based on data from juvenile courts which cover about two thirds of the country's population in the age group examined, and we do not know what kind of selectivity is involved. The German data, on the other hand, are complete.

Given these various warnings and caveats, the comparison of the rates of use of various dispositions in Germany and the U.S. are contrasted in Table 1.1.

Although the warnings and caveats described above must be remembered, there are some notable differences in disposition patterns that can be seen in Table 1.1. Using estimates in which cases without legal sufficiency are removed, in Germany, almost half of all cases referred to the prosecutor (which is basically all of those arrested by the police) are dismissed without further sanction. In comparison, in the U.S., very few of the cases, with legal sufficiency, are dismissed by court intake. Also, while 5% of the German referrals are dismissed with a sanction, 30% of the U.S. referrals are dismissed with a sanction. Combining these figures, over half of the German referrals are diverted prior to juvenile court, while only 30% (and perhaps fewer, depending on legal sufficiency assumptions) are so diverted in the U.S. Thus, quite obviously, at the prosecutor/court intake level, diversion from the juvenile court is practiced to a substantially greater extent in Germany than in the U.S.

It should be noted, however, that very little police discretion is permitted in Germany and, as noted above, in the U.S. roughly 28% of all "arrestees" are informally handled by the police and not forwarded to court intake. Presuming that a substantial proportion of the police dismissals do have legal sufficiency (say one-half), then roughly 45% of the arrestees in the U.S. and 53% of the arrestees in Germany, whose cases have legal sufficiency, are diverted and not referred/petitioned to juvenile court. This gap is even wider if a smaller percent of the cases informally handled by the police are considered to satisfy legal sufficiency requirements. Thus, the observation that diversion from the juvenile court is practiced to a substantially greater extent in Germany than in the U.S. continues to hold even when the informally handled cases are considered.

Other differences in sanctioning can also be observed. Combining the first three categories of sanctions, a somewhat greater proportion of cases are handled informally in Germany than in the U.S. That is, 68% of the cases are dismissed/diverted in Germany, versus 59% in the U.S. Also, individuals referred to juvenile court that are adjudicated/convicted are more likely in Germany to be sanctioned by fines or other intermediate sanctions, while in the U.S. such individuals are more likely to be placed on formal probation. Such referrals are also slightly less likely to be incarcerated in Germany than in the U.S.

Taken together, these dispositional patterns suggest a generally more lenient orientation to offenders in Germany than in the U.S., with a substantially greater use of diversion (especially at the court intake/prosecutor level) and the imposition of less severe sanctions. A somewhat more punitive orientation is observed in the U.S., with less diversion and greater use of formal probation and incarceration. Consistent with this characterization is the observation that the proportion of

⁶ See Sickmund et al. 1998:3, 9.

offenders detained prior to court disposition amounted to 20% of juveniles referred to juvenile court (Sickmund et al. 1998:7), which is three to four times greater than the proportion of referred juveniles detained in Germany.

Table 1.1

Sanctioning Patterns in Germany and the U.S. by Prosecution and Juvenile Courts (1995)⁷

Reaction	Germany Cases with Insufficient Evidence Removed	United States Cases with Insufficient Evidence Removed	United States Cases with Insufficient Evidence <u>Not</u> Removed
(1) Prosecutor or court intake dismisses, diversion with no sanctions or requirements	48% (dismissal with written warning; cases without legal sufficiency are not included)	0 (or very few)	21% (mostly for lack of legal sufficiency)
(2) Diversion to educational measures and directives without petitioning to juvenile court	5% (dismissal and educational directives or disciplinary measures agreed upon after confession; prov.45 IIIJGG)	30% (informal probation or other sanctions agreed upon voluntarily)	24% (informal probation or other sanctions agreed upon voluntarily)
(3) Dismissal by court with or without sanction. Non- adjudicated.	15% (dismissal by the juvenile judge together with educational measures, community service order etc.) (prov. 47 JGG)	29% (dismissal by the juvenile judge with or without informal probation or other sanctions)	23% (dismissal by the juvenile judge with or without informal probation or other sanctions)
(4) Fines and other intermediate sanctions	22% (conviction to disciplinary measures, educational measures, fines)	6% (adjudication and dispositions like restitution, community service, fines)	5% (adjudication and dispositions like restitution, community service, fines)
(5) Probation, suspended sentence	5% (youth prison term suspended)	27% (formal probation)	17% (formal probation)
(6) Short and long term incarceration	8% (youth arrest and youth prison)	13% (residential and out of home placement including 1% cases waived to criminal court) ⁸	10% (residential and out of home placement including 1% cases waived to criminal court)
Size of population handled by prosecution and juvenile court (1995)	Roughly 240,000 juveniles and young adults	1,354 ,000 juveniles	1,714 ,000 juveniles

⁷Sources: W. Heinz 2000, and BMJ 2000 for Germany; Sickmund et al. 1998 for the U.S.

⁸The inclusion of cases of waiver in the category of incarceration is based on the following reasoning: “the prosecution may argue that the juvenile has been adjudicated several times previously and that interventions ordered by the juvenile court have not kept the juvenile from committing subsequent criminal acts. The prosecutor may argue that the juvenile court is unlikely to be able to intervene for the time period necessary to rehabilitate the youth” (Snyder and Sickmund 1995:78). Both arguments seem to demand incarceration rather than fines or probation.

1.5 Research questions of this study

Given this background, the goal of the study reported here is to examine the differential effect of arrest and sanctioning in high-risk samples of youth in two sites, one in Germany and one in the U.S., on subsequent delinquent and criminal behavior. This goal leads to various research objectives for the study. Among the questions to be addressed are:

1. What is the scope of police intervention at both sites?
At each site, what is the likelihood of being arrested ?
What is the likelihood of arrest for specific types of offenses?
2. If offenders aged 14 –17 commit the same type of delinquency and crime, how different are the sanctions applied in both sites? What about offenders age 18-20?
3. Does arrest result in or correlate with recidivism? Or does arrest deter individuals from subsequent offending?
4. Does the use of diversion versus sanctioning make a difference in regard to recidivism?
Do different sanction levels make a difference in regard to recidivism?
5. What effects do arrests, diversion and sanctioning have on aspects of adult life (work status, and satisfaction with private and occupational situation)?

These questions and issues are addressed in Chapters 4 through 9. The research design, methodological issues, and description of measurement for the study are described in Chapters 2 and 3.

Chapter 2

Description of the Study Sites and Studies

This comparative research is based on data from two autonomously ongoing longitudinal studies: the Denver Youth Survey (DYS) and the School-to-Work Study in Bremen (Bremen Study). In this chapter each of the studies is described and thereafter an overview of the analytical frame used to answer the research questions is provided. In Chapter 3, details of the joint data set for the comparative study, the selection and creation of measures and scales, and the particular statistical tools to be used are described.

To understand the potential as well as limitations of the design of this comparative study, some information about the history and development of both studies is necessary. The comparative study was not conceived when the particular research projects were initiated in Denver and Bremen some years ago. Rather, the cross-national design was attached later, when funding was jointly obtained from the German-American Academic Council and the Office of Juvenile Justice and Delinquency Prevention in 1996 and from the National Institute of Justice in 1999. This history led to the capability to conduct good cross-site comparisons, but it also results in some restrictions on the scope of questions that can be answered by this study.

2.1 The Denver Youth Survey

The Denver Youth Survey (DYS) is a prospective longitudinal study of delinquency, drug use, victimization, and mental health that focuses on both antisocial and successful development during childhood, adolescence, and young adulthood. The aim of the study is to identify social conditions, personal characteristics, and developmental patterns that are linked to sustained involvement in delinquency and drug use; and to examine the relationship of these developmental patterns and behaviors to mental health and victimization. The research project is thus focused on the identification of both risk and protective factors that may initiate, sustain, terminate, or prevent delinquency and problem drug use across the life span. The project includes extensive focus on female delinquency, neighborhoods, school environment, mental health issues, gang involvement, problem drug use, and victimization.

The DYS is based on a probability sample of households in "high-risk" neighborhoods of Denver Colorado. The neighborhoods were selected on the basis of a social ecology analysis of population and housing characteristics associated with delinquency. Only those socially disorganized neighborhoods that had high official crime rates (in the upper one third) were included. All households located within these neighborhoods provided the household sampling frame for the study. The survey respondents were selected in early 1988. The respondents include 1528 children and youth (807 boys and 721 girls) who were 7, 9, 11, 13, or 15 years old in 1987, and one of their parents, who lived in one of the more than 20,000 randomly selected households. For the purposes of this report and to provide comparison with the Bremen School-to-Work Study, for most analyses only the two oldest birth cohorts, those aged 13 and 15 in 1987, are used. The combined size of these two DYS cohorts is 571.

The sampling procedure resulted in the inclusion of a large number of African-American, Hispanic, and other minority youth and includes both "in-school" and "drop-out" youth. Over 92% percent of the more than 20,000 households originally sampled were successfully screened for the presence of eligible children. The screened households contained 1794 eligible children of which 1527 (85%) completed the first year's interview. Completion rates were 91-93% in 1989-1992, which is notably high by prevailing standards. Due to a gap in funding for data collection, there was a two-year gap in data collection that resulted in difficulties tracking the highly mobile survey respondents. As a result, the completion rate is approximately 80% over the 1995-1997 period, although the project has continued to interview over 90% of those located each year. All interviews are conducted in private settings, usually in a face-to-face format in the respondent's home, although for later waves, interviews with respondents who have moved some distance from the research site (nationally or internationally) are interviewed by telephone under strict privacy rules. Respondents in the military or in jail or prison are also interviewed.

The DYS is part of Office of Juvenile Justice and Delinquency Prevention's Research on the Causes and Correlates of Delinquency involving three projects located in Denver, Pittsburgh, and Rochester, NY. In its initial stage the three projects of the Program worked collaboratively in creating a sequence of core measures used in at least two and usually all three sites. This development served to enhance the overall measurement space of each project. In addition, each project developed measures specific to the individual site. In addition, stemming from the collaborative work with the Bremen School-to-Work Study, in 1996, substantial sections were added to the interview schedule for older youths and young adults. Some of these sections were direct translations of portions of the Bremen interview schedule, and others focused on additional work experience and formal and informal training for jobs, to permit greater comparison across the two sites.

For the DYS, this combination of core, site specific, and additional work measures resulted in a large measurement battery for child, youth, young adult and parent interview schedules. Some of the scales and measures are adaptations from previous studies, especially from our own previous survey work (e.g., the National Youth Survey, Elliott et al., 1985, 1989), and others were developed specifically for this survey.

Although the list of variables measured by the study is large, it is not an eclectic list. The selection of variables is guided by the problem behaviors and by a mix of variables provided by an integrated theoretical model with a focus on neighborhood social disorganization, biological history, conventional and deviant socialization and bonding, personality and mental health, peer influences, secondary (external) controls, work history and experience, and rational choice. Based on our prior experiences with the National Youth Survey, the project developed new self-report drug use and delinquency measures, which are believed to be substantial improvements over earlier measures. The drug use measure includes items about the use of both prescription and illicit non-prescription drugs and collects information about frequency of use, amounts used, location of use, and other follow-up information. The delinquency measure attempts to eliminate reporting of trivial events and the potential double counting of events and obtains information about physical location, nature of offense, and other follow-up information.

Based on our earlier work and in collaboration with the Pittsburgh project, the DYS developed child measures of delinquency and drug use that mirrored the adolescent measures but which were suitable for children as young as 7 years of age.

In addition to self-reports of delinquent behavior and drug use, official arrest data from the Denver Police Department about all respondents in the longitudinal survey were obtained, covering all arrests and contacts through the fifth wave of the study.

Over its fifteen-year history, the Denver Youth Survey has benefited from the combination of major funding for the project from the Office of Juvenile Justice and Delinquency Prevention (OJJDP) and the National Institute on Drug Abuse (NIDA). The DYS was originally funded as a study of the causes and correlates of delinquency over the 1986-1992 period by the Office of Juvenile Justice and Delinquency Prevention, which also supported analyses and other research efforts during the 1993-1994 period. Supplemental funding from NIDA was provided from 1988-1992, to increase the drug use focus of the study and to permit a special study of the peers of a sample of the child and youth respondents of the main survey. During the 1995-1999 period, support for the main survey was provided by NIDA, with OJJDP providing supplemental funding for analyses and other research efforts. In addition, the MacArthur Foundation supported an increased focus on neighborhoods within the main survey and a separate survey of the full city of Denver, using similar and for the most part identical instrumentation to that of the main survey over the 1989-1991 period.

Funds supporting an original collaborative research effort between the DYS and the Bremen School-to-Work Study were provided by the German-American Academic Council for the years 1997-1999, with matching funds from OJJDP, for a project on school-to-work transitions. This effort resulted in the development of some of the joint measurements employed in the research reported here. Funding for the comparison of effects of JJS processing, the research reported here, were provided by the National Institute of Justice.

2.2 The School-to-Work Study in Bremen

This longitudinal study started as a panel study on the relationship between achievement in vocational training and delinquency. Achievement was defined on two levels: (1) acquiring an apprenticeship contract after leaving school, and (2) graduating from an apprenticeship (versus failing to graduate or dropping out of the apprenticeship). The main hypothesis was that low achievers on both levels would be more delinquent than high achievers.

The study started in 1988 with the first wave of data collection taking place in May/June of 1989. Since the Bremen Study was funded as part of a research center on "Status Passages and Risks in the Life Course," it shared the particular funding conditions of the center. The National German Research Foundation creates centers of excellence with a limited duration in many fields of science throughout the country. Funding is granted on a term to term basis, with a term lasting three years. The renewal of funding for another term depends on a thorough review of the accomplished work after two years. Given these conditions the only available option at the beginning was to design a panel study with duration of two terms. This led to a panel design with a three-year interval between the wave 1 data collection and the wave 2 data collection. The study originally was to be terminated after six years.

Two insights changed this original plan that would have brought the study to a conclusion in 1994. First, it turned out that only a small proportion of the initial wave 1 cohort had completed the vocational training by the time wave 2 data had been collected (which precluded any determination of the success or failure at achievement at time 2 for the better part of the panel). Second, the principal investigator of the Bremen Study, after participating in a workshop on longitudinal studies, had become familiar with the three research projects within the OJJDP Program on The Causes and Correlates of Delinquency, and was especially impressed by the many similarities between the Bremen Study and the Denver Youth Survey. Emerging cooperation included exchange of interview manuals and planning a joint workshop. It was perceived that there was a chance for testing the main findings of the OJJDP research group comparatively in a European country. In consequence, the design of the Bremen Study was changed from a two-wave-panel study to a longitudinal study of eventually 12 years duration. This assimilation to the design of the DYS fortunately worked quite well (funding was granted through the year 2001).

This history of the Bremen School-to-Work Study accounts for the fact that the composition of the cohort was based on specific considerations related to early school-leaving. The cohort consists of all students of the *Hauptschule* (comparable to elementary plus middle-school in the U.S.) and the *Sonderschule* (alternative school) in the City of Bremen who left school in summer 1989, after having attended school for at least 9 years (the legally required minimum at that time). Some members of that population would leave school prior to graduation or even drop out of grades lower than the regular 9th grade; others would graduate from the 9th or 10th grade. But all would leave school at the lowest level of general education available in the German school system. This low level of education constitutes a particular risk for their life course. In Germany, as in many Western societies, the credits earned in the educational system open up options for advanced education and vocational training as well as to upper level sectors of the labor market. Those who only graduate from *Hauptschule*, or even drop out of it, or leave school at the *Sonderschule*-level, will most certainly not qualify for higher positions. Access to the apprenticeship system is their major option, but even in that system they will not qualify for attractive, new technology-oriented apprenticeships, but rather for traditional handicrafts like baker, plumber, butcher, auto mechanic, barber, salesperson, etc. Some of them, especially the dropouts and those who did not graduate, will not even manage to obtain a less attractive and lower paying apprenticeship contract, but will immediately enter the unskilled labor market. Taken together, the Bremen cohort is a high-risk group according to their low status regarding educational and vocational life skills.

The cohort was constituted indirectly. During the last weeks of the 1988/89 school year, questionnaires were presented to all students of 9th and 10th grades of all *Hauptschulen* and *Sonderschulen* in the City of Bremen. They were requested to complete the questionnaires irrespective of their future plans, but were asked to indicate whether they intended to leave school that summer or to continue their education. Additional questionnaires were sent to students who were absent from school on the particular day of in-class data collection. By July 1st, 1660 questionnaires had been answered. In August it was determined for all students who had agreed to an inquiry at their school, whether they had in fact terminated their school attendance or rather had returned to classes after the end of school holidays. Some had declined

that request and were contacted individually. For others neither strategy worked, because the questionnaire had been answered anonymously, or either the agreement to the inquiry at school was lacking or there was not a correct address. Eventually it was possible to determine for 732 juveniles that they had in fact left school. This group constituted the cohort of graduates and dropouts from *Hauptschulen* and *Sonderschulen* that formed the sample of the study and was contacted in 1993 for the wave 2 interview.

Due to various reasons (no valid address, unavailability for a contact, rejection of the requested interview, etc.) only 426 interviews could be completed at wave 2. This large attrition rate made it necessary to estimate the biases caused by that loss, especially regarding the main variables of the study: delinquency as well as school achievement, social status, gender, age, etc. Fortunately it was possible to check with the German Central Register on Delinquency (Bundeszentralregister in Berlin) for all 732 juveniles whether they had a record. Based on that information it could be determined that the juveniles missed in wave 2 were not more (or less) delinquent than those who stayed in the cohort. Also none of the background or sociological variables differed significantly for the persons who dropped out of the cohort. Thus, it was concluded that the reduced cohort was sufficiently representative of the original cohort of students who left school in 1989 to continue the study. The study was continued with wave 3 interviews conducted in 1995 and wave 4 interviews in 1997. During the fourth wave, 366 juveniles completed interviews.

At wave 2, 55% of the sample were male and 45% female. Their years of birth vary between 1971 and 1974 with the vast majority born in 1972 and 1973. Social status in regard to parents' occupation and education was two-thirds lower class and one third lower middle class. The ethnic composition of the cohort was 17% minority (mostly Turks and some Russian).

The in-class questionnaire used at wave 1 in 1989 covered only a small number of constructs due to the fact that privacy protection laws required agreement by the parents for all of the questions to be answered by the then-minors, which suggested leaving aside potentially critical questions. This restriction included self-reported delinquency, which was not measured before wave 2 (1993). At that time respondents were requested to report retrospectively about their delinquency for three time periods: 1) before leaving school; 2) from the time of leaving school through 1991; and 3) for 1992. For 1992 and later years, SRD measures are available on an annual basis. However, due to the fact that the wave 2 interview covered a multiple year period and in waves 3 (1995) and 4 (1997) the data collection took place in two-year intervals, there may have been some underreporting of delinquency for 1991, 1993 and 1995.

Beginning with the second wave, the questionnaires covered many aspects of vocational training and entry into the labor market, as well as various variables discussed in the criminological literature as possible causes and correlates of delinquency. From 1995 on, questions were included that had been used in the DYS interviews (especially questions regarding stigmatization by interventions of the criminal justice system) to increase comparability. One major feature of the standardized interview schedule is the collection of life events on a monthly basis, covering vocational training, work and unemployment, events in family and partnerships, illnesses as well as the particulars of housing.

The design of the Bremen study includes additional research strategies including a qualitative longitudinal study using a sample of 60 individuals who have been interviewed in 5 waves with a non-standardized open strategy to obtain their personal account of relevant life events. These parts of the design are not described here because they are not used in the comparative research.

2.3 The Creation of a Joint Cross-Site Data Set

As noted earlier, the two “parent” studies have many parallels. Given the histories of the two projects, there are, of course, also major differences. It is essential to discuss both to be able to determine the scope and limits of this comparative effort. At the beginning some brief information about the two sites seem useful.

Located in the “middle” of the U.S., the City and County of Denver, Colorado, from which the high risk sample of the Denver Youth Survey was drawn, is the center of a large metropolitan area, that includes five other counties. The metropolitan area is situated at the foot of the Rocky Mountains, with a high mountain range to the west. Originally a gold and silver boomtown in the 1800’s, the metro-area has become the commerce center for the Rocky Mountain region of the U.S., with a strong and diverse economy including a number of high-tech industries. The metro-area has had consistently low, less than 5%, unemployment rates over the last decade. Within the metro-area, the City of Denver is a modern city of about 500,000 residents, with a central business district with skyscraper buildings surrounded by residential and small business areas. Denver is somewhat more ethnically diverse and poorer than the surrounding counties, having larger proportions of Hispanics (21%) and African-Americans (12%) and substantially lower salaries and a greater number of families living in poverty (13%).

The City of Bremen, from which the Bremen School-to-Work Cohort Study sample is drawn, is the capital of the State of Bremen, the smallest of the 16 states that comprise the Federal Republic of Germany. Bremen is located near the North Sea and is the tenth largest city in Germany with a population of 548,826 (in 1997). Over 1200 years old, an early center for Christian missions to Northern Europe, Bremen played a major role as a trading center among the towns of the medieval Hanseatic League. Because the seaport of Bremen consistently loses trade to Hamburg, Rotterdam and Bremerhaven (the sister city which makes up - together with Bremen - the State of Bremen) and because the shipbuilding industry is dramatically in decline, the unemployment rate is about 12.5%. However, Bremen is an important location for automobile manufacture, steel production, and the aerospace industry, as well as undergoing a transformation into a location for services and a high-tech convention and trade center. Minorities, predominantly Turks, constitute about 12% of the population. Unfortunately there is no regional statistical information available on the percentage of Germans who have emigrated from East-European countries (notably Poland, Russia and Rumania) in the last decade on the ground of their German ancestry; an estimate based on federal figures would be 3% of the population in 1989. Thus the general minority proportion would amount to 15 % in the state of Bremen. Poverty is measured differently in Germany but the proportion of families in poverty should be roughly the same as compared to Denver.

Let us now have a closer look at similarities and distinctive features of both studies.

(a) Parallels:

Both studies are longitudinal studies with regular measurement covering roughly the same ages and period of development over the same chronological period of time. Both of the projects include samples of both genders. There are thus substantial sample similarities, and a major confounding variable of period effects is automatically controlled. Each of the projects includes similar or identical measures of many theoretical and behavioral constructs, including delinquency, drug use, information about work experiences, and other variables of interest. The data from both studies are based on self-report information, obtained from confidential interviews with respondents in private settings, so that differences in data collection methodologies are minimized. Although the projects were not designed as collaborative projects with common research goals, the similarities of the two projects are remarkable, and these parallels are described in greater detail in the following.

As noted, both studies are longitudinal with available data overlapping in time from 1989 through 1998. Data through 1996 is used in the present study. The two oldest cohorts of the DYS (born in 1972 and 1974) match quite well with the Bremen cohort in terms of age and gender composition.⁹ Thus the age span which can currently be analyzed starts at the age of 13-14 (for the youngest in the cohort at wave 1) and ends at 24 (for the oldest group in 1996).

Many variables have been measured in a similar way by both studies. Both have drawn heavily on insights from empirical evaluations and testing of criminological theories. Some measures even have been transferred from one study to the other (stigmatization measures from the DYS to Bremen; employment and training related variables from Bremen to the DYS). In both studies, delinquency has been measured by self-report to determine the prevalence and frequencies of deviance, as well as reactions of the criminal justice system to this deviance, and thus avoid the biases in official records. The development of common delinquency scales as well as measures for arrest and sanctioning are discussed in Chapter 3. Also, control variables and other measures used in this study are sketched in that chapter.

Given these descriptions, in many ways the two samples and studies might be considered more similar than different. For this reason, we believe it is reasonable to compare the life experiences of the two samples to obtain some understanding of the effects of social processes such as the reaction to delinquency by the juvenile and criminal justice systems. Such similarity is, however, tempered by some important differences and these are described next.

(b) Differences:

While there is a good match biologically for the age groups of both cohorts, socially there are some major differences. The Bremen cohort left school, by definition of the sample, in summer 1989. Although a small proportion may have returned in fall 1990, essentially the cohort was out of school during the whole period under study. In contrast, most of the DYS cohort attended

⁹ DYS: 53% males, 47% females; Bremen: 55% males, 45% females; year of birth: DYS: 1972: 47%, 1974: 53%; Bremen: 1971: 14%, 1972: 36%, 1973: 42%, 1974: 8%.

high school through the age of 18 or 19 (which they reached in 1990 and 1992). Although desirable for this comparative study, controlling for school status during adolescence was not possible because almost all of the Bremen sample was not in school and almost all of the Denver sample was in school during their adolescent years. Thus, the effect of school attendance could not be modeled within the two sites and the effects of school attendance on delinquency and reactions to it can not be examined.

There are some additional differences in the composition of the samples that should be noted. One in ten persons of the Bremen cohort attended a *Sonderschule* (alternative school), either graduating or dropping out of it in 1989. Almost all of the DYS youth attended high school, and there are relatively low dropout rates during the teenage years. However, is the small group of high school dropouts in the DYS an equivalent group to *Sonderschueler*? This is an open question because this type of school is referred to in the U.S. as a special school. There is also the possibility that high school graduates are more educated after 12 years of schooling than the *Hauptschule* graduates after 9 to 10 years of schooling. This discrepancy would imply that the Denver youth generally have a higher educational level and, therefore, might be less deviant.

Another important difference is that the proportion of minority youth (mostly Hispanics and African-Americans) in the DYS cohorts is much higher (90%) than the proportion of minorities in the Bremen cohort (17%). Given the possibility of discrimination against minority members and the possible contribution of such discrimination to delinquency, we might expect higher delinquency rates among the DYS youth.

Some of the differences in the composition of the cohorts stem from the different criteria for selecting them at both sites: in Denver, households in high-risk neighborhoods; in Bremen, low school achievers, who leave school as early as legally possible after a minimum of 9 years of schooling. Are these groups really comparable? We examined whether the cohort members in Bremen are - like the Denver youth - living in areas with higher crime rates and with less developed social services. This did not seem to be the case. The Bremen cohort was (in 1993) spread all over Bremen. Thus, a focal question remains: Are groups characterized by handicaps for the life course which stem from a low level education on one side or a high-risk neighborhood on the other, really comparable? Both groups can be considered "at risk" for problem behavior, but can the two be considered equally "at risk"? We left the answer to this question open and decided that equality of risk would be determined by initial delinquency levels. If the initial delinquency levels were close to each other, we would consider the cohorts as equivalent (see Chapter 3).

Finally, there are some measurement differences. While the data of the Denver Youth Survey used in this project stem completely from interviews, in Bremen an additional data source about legal reactions to delinquency was used. For each individual in the cohort it was possible to check with the Bundeszentralregister if there was any record of activity by the prosecutor, juvenile court, or criminal court. This Bundeszentralregister is the central register for all cases decided by law enforcement agencies throughout the whole country. There is a slight difference in registration depending on whether the decision by prosecutors and courts is based on juvenile law or on criminal law. If it is based on juvenile law, the register includes dismissals as well as any other kind of decision by judges or prosecutors. For persons 21 years of age and older who

are prosecuted under criminal law, only convictions are registered. Thus, for this group of adults, it is an incomplete data source for cases that have been dismissed either under the condition of fulfillment of particular demands or without any such demand (provisions 153 and 153a of the German Code of Criminal Procedure StPO). Since registrations in the Bundeszentralregister are used rather than self-reports as a basis for the measurement of arrest in Bremen, we have to keep in mind that, for individuals 21 years of age and older, the data may be incomplete. In addition to the measurement of arrest, there are some site differences in the retrospective recall periods for SRD. These differences are described in Chapter 3.

2.4 Adequacy of Bremen and Denver as Sites for the Study and Research Topics

As a part of this study, there are three tasks that need to be accomplished. First, the empirical reality of the differences between the two juvenile justice systems, as outlined in Chapter 1, has to be determined. That is, for the age periods of childhood (up to 14), adolescence (14-17), young adulthood (18-20) and adulthood (21 and older), for both sites, the patterns of arrest and sanctioning need to be described and compared. Second, multivariate analyses need to be conducted to determine if the differential use of arrest and sanctioning at the two sites influences subsequent delinquency and other characteristics of the life course. Third, if these effects can be consistently established at both sites, consideration is needed of what conclusions might be drawn as to the comparative effectiveness of the two juvenile justice systems.

Beforehand, it is helpful to check the feasibility or adequacy of using the two sites for these purposes of this study. Let us therefore look at characteristics of the two juvenile justice systems and check the legal and empirical situation in both sites.

In Chapter 1 we outlined the following differences of the juvenile justice systems:

1. Minimum age. In most states of the U.S., including Colorado (and hence in Denver), the culpability of juveniles begins at the age of 10. In Germany, federal law is binding on all states, and specifies that the jurisdiction of juvenile courts starts at the age of 14. Thus, in principle, we are able to describe the effect of the differing minimum ages on the arrest and sanction history of Denver juveniles at the age threshold of 14 years in comparison to their age-mates in Bremen.

2. Maximum age. In the U.S., juvenile court jurisdiction ends in most states at the age of 17, as is the case in Colorado. In Germany the jurisdiction ends at the age of 20. For offenders of the ages 18-20 the juvenile judge can choose, after having made a judgment as to the maturity of the offender and/or the “childishness” of the offense, whether juvenile law or criminal law shall be applied. The Länder (as states are called in Germany) differ in respect to their tendency to apply criminal law or juvenile law in cases of young adults. The rate of juvenile law application for persons aged 18 to 20 is for Germany about 60 % (1998) and for Bremen 62% (Heinz 2001). By using a cohort from Bremen there is a good contrast between the application of juvenile versus adult law to persons aged 18-20. This difference allows us to examine whether interventions by the police (contact, arrest and referral) and the dispositions by prosecutors or judges (sanctions) differ between the two sites, as one might expect given the different legal situation for the years of young adulthood (age 18-20).

3. Sanction severity during adolescence and young adulthood. The use of diversion from court (dismissal with or without the demand to fulfill particular directives) is more frequent in

Germany compared to the U.S. We unfortunately do not have specific information about the use of diversion by Colorado and the Denver juvenile courts. We do know, however, that the juvenile courts in Bremen make extensive use of diversion (Heinz and Storz 1992). While for Germany as a whole in 1998, 69% of the cases in the JJS were diverted, the rate for Bremen was as high as 86% (Heinz 2000: 172), being exceeded only by Hamburg. Interestingly it was especially the juvenile judges rather than the prosecution who contributed to that high rate in Bremen. This prominent use of diversion in Bremen should help maximize the difference regarding the sanctioning patterns used in the German and American sites.

Another feature of the two JJS to be compared is the use of custodial sanctions. The use of custodial sanctions is less frequent in Germany and in Bremen than in the U.S. and Denver. Again, this fact is exacerbated by the low rate of custodial sanctions in Bremen. In the State of Bremen in 1998, the number of juveniles (persons younger than 18 years¹⁰) held in detention and correctional facilities was 10 (2 detained and 8 imprisoned) while in Colorado some 1,236 youth were held in Division of Youth Correction residential programs¹¹. With Colorado having a population six times as large as the population of the State of Bremen, the number of incarcerated youth is roughly 20 times greater. There is also an important difference between the Bremen JJS and the situation in Germany: Bremen lacks a facility for short term incarceration (youth arrest for 2–4 weeks) and thus makes very little use of that particular sanction.

Taken together we would expect that the sanctioning patterns at the two sites, as reflected in the data about the two study samples, should differ quite substantially. Descriptions of these sanctioning patterns can include the frequency of particular sanctions per year, per age or per age period, as well as the maximum sanctioning level per year, age, or age period.

4. Waiver of juvenile law. In all states of the U.S., some form of waiver to the criminal court is possible for certain offenders, such as chronic, violent and serious offenders. In the state of Colorado discretionary waiver may be used for 12-year-old offenders who committed particular serious crimes. For 14-year-olds, waiver can be filed in cases of class 1 or 2 felonies. This waiver of juvenile law may be used for offenders as young as 14 years of age leading to severe sentences and prison terms. In addition, a 1997 law toughened sentencing for juveniles convicted of a felony; they are now subject to ‘aggravated sentencing’¹², by which minimum sentences are raised. While fortunately serious violent offenders as well as chronic offenders constitute only a small percentage of the caseload of the JJS (waiver takes place in the U.S. in approximately 1% of the petitioned cases), the potential for increase in the severity of sentencing of juveniles is present also in Colorado’s juvenile justice system. As noted earlier, there is no possibility of “waiver” in Germany or Bremen.

¹⁰ Detained persons as of December 31, 1998; imprisoned persons as of March 31, 1998 (Freie Hansestadt Bremen 2000, p.20, 21).

¹¹ NCJJ Profiles: Colorado 2000; www.ncjj.org/stateprofiles.

¹² See Yee 1998:7.

5. Larger variety of behavior is prohibited / considered an offense in the U.S. In the U.S. during childhood and adolescence (and possibly for later years) more types of behavior are proscribed by law than in Germany. Status offenses and many forms of public disorder are not considered illegal in Germany. Thus, there is greater variety of behaviors that are illegal in Denver in comparison to Bremen. This expanded variety of illegal behavior in Denver suggests the following research questions in regard to childhood and adolescence: To what extent in Denver are police activities (contacts and arrest with referral) and sanctions (number, maximum) per age period based on status and public disorder offenses? If we consider only those behaviors that are punishable by law at both sites, are the arrest rates for these offenses similar or different?

Given the system and sanctioning differences in Bremen and Denver described above, it seems that the two sites do provide sufficient differences that it should be possible to compare across the two sites the effects of different arrest and sanctioning patterns on subsequent behavior of the youth. Between site differences do seem adequate to permit an examination of different sanctions.

2.5 Structuring the Data by the Age of the Samples.

Given the differences in the sampling and measurement timing of the two studies, it is helpful to diagram the ages at which data is available from the two studies. An outline of this structure is given in Table 2.1.

Table 2.1
Age Structure of the Samples for the Years in Which
SRD, Arrest or Sanctioning Were Measured
(Bold letters: adolescence period. Italics: period of young adulthood.
Denver sample: 1972 and 1974 birth cohorts only.)

Born		84	85	86	87	88	89	90	91	92	93	94	95	96
1971	B	13	14	15	16	17	<i>18</i>	<i>19</i>	<i>20</i>	21	22	23	24	25
1972	B,D	12	13	14	15	16	17	<i>18</i>	<i>19</i>	<i>20</i>	21	22	23	24
1973	B	11	12	13	14	15	16	17	<i>18</i>	<i>19</i>	<i>20</i>	21	22	23
1974	B,D	10	11	12	13	14	15	16	17	<i>18</i>	<i>19</i>	<i>20</i>	21	22

This overview indicates some limitations of the data. Since the DYS conducted its first wave in 1988 collecting SRD data about 1987 specifically and for earlier years in a more general way it is only the youngest of the two cohorts used in most analyses of this study that allow the study of delinquency and arrest during childhood. For the Bremen study delinquency during childhood could not be measured because there is only a general measure of delinquent acts committed in 1989 and earlier. Based on that information we may describe delinquency during adolescence quite adequately at least for the cohorts born in 1972 and later, but not for earlier life periods.

2.6 Analysis Overview

To understand the effects of the empirical differences of arrests and sanctioning patterns in Bremen and Denver, we have to look at two actors for their subsequent behavior: (1) the offenders regarding their future delinquency and other conduct during their life course; and (2) the police/prosecutors/ judges regarding their decisions to arrest the offender in the event of a new offense and selecting a sanction.

We will analyze the data for each site separately, that is running parallel analyses with similar designs for the data sets of Bremen and Denver. The results may be different for the sites and it is to be determined what accounts for those differences. Given the differences in the behaviors that are proscribed by law at the two sites, we will attempt to examine comparative cross-site differences using measures of delinquent behavior that are site-specific and using measures that include behaviors that are proscribed at both sites.

Hypotheses to be addressed include inter-related *offender* and *police/prosecutor/court* questions. Among these are issues about the influence of the maximum age of juvenile court responsibility. Does a maximum age of 17 versus 20 years make a difference? That is, controlling for offender characteristics (1) does a more severe level of sanctioning during *young adulthood* (ages 18-20) result in a higher probability of persistence or increase of delinquency during adulthood (21 and older), and (2) does a more severe level of sanctioning during young adulthood result in a lower level of occupational status in later life and less satisfaction with one's life situation in general and regarding work? A second similar issue is the influence of differing sanction severity during adolescence. Does a more severe level of sanctioning during *adolescence* (ages 14-17) result in a higher probability of persistence or increase in delinquency during young adulthood or adulthood?¹³

¹³ We will not be able to study the effect of waiver specifically because of the limitation of cases and data in the two Denver cohorts. The sanctions in cases of waiver are, of course, measured and are included in our analyses.

Chapter 3

Developing Comparative Measures and Strategies of Analysis

The creation of measurements that are valid at both sites is an important step for any comparative social research. Since this comparative research builds upon two ongoing studies, previously created measures can act as a guide. However, there is a need to develop new joint measures that match in terms of construct validity and that are useful for the research questions specified by the comparative design. The development of these measures is in itself instructive, providing further understanding of cultural and social differences between the two countries. We will describe rather specifically the measurement of delinquency, arrest, and sanction severity and, in so doing, provide some sense of the similarities and differences between juvenile justice systems at the two sites.

3.1 Delinquency Measures

Retrospective Self-Report Delinquency (SRD) Measurement at both sites

At both sites the respondents were asked to self-report, retrospectively, delinquent acts committed during the year prior to the interview. However, not all measurements were taken on an annual basis. In Bremen, the retrospective measurements cover a longer period, usually referring to the last year and the next-to-last year. Thus, in 1995 the SRD measurements for the years 1993 and 1994 were taken and in 1997 the measurements for 1995 and 1996 were taken. In 1993, however, the time span was even longer, with separate measures covering 1992, the joint period 1990/91, and delinquency occurring during and before the year 1989 (“the period before leaving school”).

Also, for the years 1992 and 1993, the DYS had to deviate from its routine of measuring SRD on an annual basis. In 1995, the retrospective measurement included independent measures for the years 1992, 1993 and 1994, resulting in some underreporting for the 1992 and 1993 periods. For a better understanding, we provide an overview on all yearly measurements, indicating the years for which the study has the best retrospective validity (i.e. SRD measured for the preceding year) in capital letters (Table 3.1).

Table 3.1
Self-reported Delinquency (SRD) as Measured in Both Studies

Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bremen	(.....	x)	(.....x.....)		X	x	X	x	X	x	x	X
Denver	X	X	X	X	X	x	x	X	X	X	(X)	(X)	

In Bremen, delinquency measures for the years prior to and including 1989 are merged, as are the measures for 1990 and 1991. For Denver, the 1997 and 1998 data were only partially available for the combined data analyses. Table 3.1 indicates that some time periods are better for comparative analyses. For example, to indicate the scope of delinquency for both cohorts, the most valid measures available for both sites are for the years 1994 and 1996.

For many questions to be addressed in this study, it is necessary to examine change over two or more adjoining years. This is not problematic for most of the Denver data and only slightly problematic for the Bremen data. However, as explained below, since we will develop measures of change relative to site-specific quartiles calculated for periods covering multiple years these distortions should be minimized.

The two studies used slightly different sets of offenses for the SRD scales. The DYS developed new self-report delinquency and drug use measures (48 items) based on prior experiences from a preceding longitudinal study, the National Youth Survey (Elliott, Huizinga, Ageton 1985). The Bremen Study used essentially a list of offenses (32 items) and the precise wording that had been developed for an earlier study on general deterrence among youth (Schumann et al. 1987; Schumann & Kaulitzki 1990). The variety of deviant behavior covered at both sites differs due to differences in the criminal codes in the U.S. (Colorado) and Germany.

Examination of the measures of the two sites indicated that of eight general delinquency scales and one drug scale used in the DYS interviews, only two scales, status offenses and public disorder, would have no match in the Bremen study. This is not surprising, since, as noted in earlier chapters, these two kinds of behaviors are not illegal in Germany. Of the remaining scales there were at least some equivalent items for selected offenses in the scales measuring minor property, serious property, minor assault, serious assault, drug sales and drug taking. Thus, while total measures of delinquency would measure different combinations of illegal behavior at each site and thus result in site-specific measures, there was a sufficient base for creating a common total delinquency measure and several common sub-measures that were essentially identical across sites and could be used for comparisons in analyses.

Some Preliminary Comments About Self-report Delinquency Measures.

It should be noted that SRD measures do not measure involvement in all possible forms of delinquency, i.e., proscribed behavior for which an individual can be arrested. For example, although the SRD measures of the NYS and DYS were designed to include all offenses listed in the Uniform Crime Reports with at least 1% prevalence rates, along with several other offenses, nevertheless, there are several offenses that are not included in these measures. For example, jaywalking or setting off fireworks offenses and technical offenses (violation of court orders, probation violations) are not included. This, of course, means that individuals can be arrested for offenses that are not included in SRD measures.

Second, for the purpose of the research reported here, there is a question about what measures of delinquency are most appropriate. Since the study attempts to understand the outcome of social control employed by the particular juvenile justice system at each site, we need to conduct comparisons of the total scope of reactions by the juvenile justice system. Also, to measure the impact of the police and JJS on the lives of the juveniles, we need to determine the effect these agencies have on future behavior.

In regard to the impact of the police and JJS, two types of questions could be asked. (1) Is there an effect of arrest and JJS processing on general delinquency? That is, does an arrest for a specific offense affect one's overall involvement in delinquency? For this question, use of a

general or total measure of delinquency would be appropriate. This use, however, involves making a generalization assumption. That is, regardless of the specific offense that leads to arrest and JJS processing, it is assumed such experience generalizes and has an effect on one's involvement in delinquency in general. (2) Does an arrest and JJS processing for a specific offense or specific type of offense affect subsequent involvement in this specific type of behavior? For example, does an arrest for auto theft affect subsequent involvement in auto theft but not affect involvement in any other kind of theft or delinquency in general?

For this report, the first form of the question is employed in most analyses that examine the impact of arrest and JJS processing. There are two reasons for this. First, making the generalizability assumption above, it is reasonable to ask whether arrest and JJS processing affect delinquency in general. Second, as a matter of practicality, in general, there were not a sufficient number of arrests for specific types of offense, at one site or the other, to permit an examination of the influence of arrest for specific types of offenses.

Given the focus on cross-national comparisons of the impact of juvenile justice systems on subsequent delinquent behavior, an issue further arises as to the scope of the total SRD measure to be employed in such comparisons. Should a common measure, identical across sites, be used, or should a total SRD measure that includes all the behaviors included at a specific site (a site-specific measure) be used? For most analyses on the impact of the JJS, we have used the latter. If we presume that arrest and JJS processing affect subsequent delinquent behavior, behavior that is legally proscribed, then, given the differences in what is delinquent at the two sites, it becomes necessary to use site specific indices of delinquency that reflect the behavior specifically proscribed at a particular site. That is, because the reach of control, i.e., the behavioral areas addressed by law, varies substantially across the two countries, we can not restrict analyses to a selection of common offenses. Doing so would remove substantial segments of illegal behavior at a given site, such as status and public disorder offenses in Denver, thus limiting the behavior that could be affected by juvenile justice system actions and altering the potential for finding system effects.

To examine the effect of the juvenile justice system on delinquent behavior in a given jurisdiction or site, it is necessary to use the definition of delinquency (proscribed behavior) applicable to that jurisdiction, and not the definition of some other jurisdiction. Otherwise, behaviors that are not illegal may be included and behaviors that are illegal may be excluded. It then becomes impossible to examine the effect of arrest and sanctions on proscribed behavior.

Given these considerations, we developed measures of delinquency based on three different definitions, each of which is used for specific purposes. (1) An *Any Offense Measure* that is site specific and includes all proscribed behaviors at a given site. This measure is applicable only to arrest data, referring to the entire set of offenses for which an individual can be arrested. (2) A *Total SRD Measure* that is site specific and includes all of the behaviors included in the SRD measure at a given site. This measure is used (as a dependent or control variable) for most analyses that examine the effects of arrest or sanctioning on subsequent delinquency. (3) A number of *SRD Common Scales*, that are essentially identical or equivalent subsets of delinquent behaviors at both sites. These measures are used for questions that concern arrests or juvenile

justice processing for specific kinds of delinquent behavior. The steps taken to create these scales are telling for the differences of the criminal law in both countries, and their construction is described below in some detail.

In most of the analyses we will look at prevalence of offending as well as at the frequency as measured by the total SRD scale. In some cases, for frequency measures we will not use the raw data but rather offender frequencies, that is, the frequencies among active offenders (excluding non-offenders). Also, as explained in some detail in the SRD analysis methodology section below, to minimize the effects of extreme scores and distributional properties of SRD measures, offender frequencies are recoded into quartiles giving a five-point scale (non-delinquents, and the four quartiles). Such “quartile measures” were derived from the mean offender frequency distribution of a given age group (e.g. 14-17). Thus each frequency measure is rescored 0-4, with 0 indicating no delinquency and 1-4 indicating the offender quartiles. These quartile measures may then be used to create change scores between two consecutive time-periods.

Developing a Common scales of offenses

To develop scales which cover exactly the same types of behavior at both sites, it was necessary to describe the typical behavior pattern for each offense listed in a scale of either study and determine if there was a match available in the alternate study. We found two levels of matching:

- (a) almost identical wording and meaning at both sites (*nearly identical measures*) and
- (b) more inclusive measures in one study, which would become equivalent by combining more than one measure of the partner study (*equivalent measures*).

For some items of the DYS SRD scales there was no match among the Bremen Study items and vice versa. We list some of these because they provide an indication of differences between the legal systems and proscribed behaviors of both countries.

Items Only in the Bremen SRD:

- Did you ever take something home from your workplace without being authorized to keep it? (An equivalent measure was initiated in the DYS property scale beginning in 1995.)
- Did you ever change a document (e.g. the date of birth) or produce a fake document (e.g. the signature) or use such document to mislead someone? (This offense is related to claims to which persons are entitled in the welfare states of Western Europe, but to a lesser extent in the U.S.)
- Did you ever enter a store, a bar, or a disco while there was an order of no admittance for you? (Such orders are rarely promulgated, if at all, in the U.S., and then often as a type of restraining order.)
- Did you ever buy, sell or trade guns or comparable weapons like brass knuckles, bats, or other things? (An offense in Germany due to stiffer regulations for commerce of weapons, but not in the U.S.)

Items Only in the Denver SRD:

- Scale on status offenses (4 items, e.g. run away from home, curfew violation)
- Scale on public disorders (7 items, e.g. begging, obscene phone calls, drunk in public)
- In the past year have you set fire to a house, building, car or other property? (an offense committed predominantly by children, an age group that had been excluded from the Bremen cohort but not in the DYS)
- In the past year have you been paid for having sexual relations with someone? (not an offense in Germany)

We developed common scales for 1) property offenses, 2) minor assault, 3) serious assault, 4) drug sales, 5) soft drug use and 6) hard drug use. In most cases, these were extracted from measures previously developed at both sites. A Total Common SRD scale was defined as the summation of these six sub-scales.

To assist in understanding the difference between site-specific Total SRD measures and the Common scales, we contrast the various matching and non-matching items of the six sub-scales, starting with the *property scale*. The items contained in the *property scale* are listed in Table 3.2.

Table 3.2

Property Offense Items in the Common Scale and Additional Items in the SRD Scales of the DYS and Bremen Studies. (Bold letters indicate a Common Scale Item)

Common Scale: Property

DYS: Have you _____	Bremen: Did you _____
Avoided paying for movies, bus or subway rides?	Go to events (sports, concerts, movies, etc.) without paying for them?
Stolen or tried to steal things worth less than \$5?	
Stolen or tried to steal things worth more than \$5 but less than \$50?	
Stolen or tried to steal things worth more than \$50 but less than \$100?	
Stolen or tried to steal things worth more than \$100?	
	Steal something that belonged to another person (excluding cars, bikes, and motorcycles)?
Taken something from a store without paying for it?	Take something from a store without paying for it?
Bought, sold or held stolen goods or tried to do so?	Hold, store, buy or sell goods that to your knowledge had been stolen?
Gone into or tried to go into a building to steal something?	Break and enter a house, building, basement, shack, etc. with the intent to steal something?
Gone joyriding?	Without permission, use a motorcycle, bike, or car for a "joyride" without intending to keep it?
Stolen or tried to steal a motor vehicle?	Steal someone's car, bike, or motorcycle?
Additional Items in SRD Site Specific Total Property Scales	
	Take something home from your workplace without being authorized to keep it?
	Use public transportation without having a ticket? (Not used in scale because of its almost universal prevalence).
Snatched someone's purse or wallet or picked someone's pocket?	
Used checks illegally?	
Used or tried to use credit or bank cards without the owner's permission?	
Tried to cheat someone by selling them something worthless?	
	Try to receive money without being entitled to get it by using false documents or statements? (Insurance/welfare fraud)
Taken something from a car that did not belong to you?	Steal something (radio, items lying on seats) or car parts (accessories) from a car?

Thus the Common Property scale consisted of measures of: shoplifting, theft, breaking and entering, vehicle theft, joyriding, avoiding payment, and fencing.

Some explanations might be instructive to illustrate the differences in controlling lawless behavior regarding property and financial matters. We excluded the item used in the Bremen study that asks about evading payment of fares in buses or other public transportation, irrespective of the inclusion of that behavior in the corresponding DYS item. This was done because in Bremen, as generally in Germany, fare-dodging is a very frequent offense with a high prevalence rate. In Denver, as in much of the U.S., fare-dodging is prevented to a substantial degree by having drivers check every passenger who enters the vehicle, or the use of other kinds of technical prevention, which reduces that offense to a very low incidence rate. Not paying attention to this crucial difference and including the fare-dodging item would have rendered a scale with very different meanings at both sites.

We also had to exclude, much to our discomfort, all varieties of fraud. Writing bad checks is almost impossible in Germany, because holders of a bank account automatically have the right to withdraw excess money up to a particular amount, as a kind of a silent credit taking. In Germany, credit cards are only slowly gaining wider distribution and had yet to become a substantial source of fraud when the Bremen study was initiated.

A more prominent variety of cheating in Germany is obtaining payments from agencies by pretending to be entitled to benefits. However, this is a rare part of juvenile delinquency in the U.S. because of the more restricted scope of the American welfare system compared to the Countries of Western Europe. Thus, behavioral patterns of fraud depend partly on the social preconditions for trust in commercial relations and on the availability of benefits in particular societies, and it does not seem correct to treat the different behaviors that are labeled fraud as equivalents. Rather it seemed safer to exclude these offenses from the property scale.

There were other problems to be solved as well. Some of the DYS items include attempts as well as completed offenses. This is not so for the Bremen study, with the exception of breaking and entering. However, since there is no safe ground for estimating the relative frequencies of attempts for the various offenses, we accepted the match in principle while expecting that in consequence the prevalence and frequencies may be slightly increased for the Denver youth. Some counterbalance may be provided for the property scale for Bremen youth, because the provision of the German Criminal Code on vehicle theft includes bikes, not just motor vehicles, thus extending the measure compared to the respective DYS item that includes only motor vehicles.

Additional complications stemmed from the highly differentiated way theft was recorded in the DYS scale: several different dollar amounts, as well as targets (cars, stores). This latter overlap of targets results in double reporting. For example, a person who stole goods from a car may report this event both to the item on theft from a car and also to the theft item of \$5-50. Likewise, the person who shoplifts may report the event both to the item about taking something from a store without paying for it and the theft item of less than \$5. Follow-up items to the question about shoplifting indicated that between 33% and 50% of the shoplifters in each year reported the same theft on other items. This proportion was lower for those who had stolen from cars, but still substantial. However, there was also substantial co-reporting in the Bremen data set for a general theft item (which explicitly excluded vehicle theft) and the vehicle theft item (25% reported both). We included shoplifting in the common property scale after having ruled

out double reporting in Denver, by using follow-up items on reported offenses that eliminated instances of double counts. The level of double reporting in Bremen for the item on theft from automobiles was unclear and could not be remedied by use of follow-up questions, so this item was excluded from the common property scale. We did, however, include both joyriding and vehicle theft irrespective of their substantial overlap in the cross-tabs because this was the case in both studies, precluding a bias against one site.

Two *assault scales* were constructed: *serious* and *minor assault*. These scales are based on items, which although similar, had some differences in wording across the two sites, as can be seen in Table 3.3. To create a *minor assault scale* was rather easy; the last item listed in the table seemed to be equivalent in both studies. Since in the DYS questionnaire follow-up questions had been asked, it was possible to insure that reports of minor assault were of sufficient severity that the victim required medical treatment. Thus, this item (corrected for the DYS) served as that scale. Serious assault posed some problems, however. While the definitions for rape, aggravated assault, and robbery provided a good match, the item about participating in gang fights in the DYS seemed to measure something different to the group-fighting item in the Bremen study. For Denver, we cross-tabulated reports of gang fighting with reports of gang membership to determine what proportion of those fights may be a consequence of being a gang member. In Denver a large proportion of those who reported involvement gang fights were not actually members of gangs themselves. This led us to believe that there was, at both sites, a similar situation: among reports of collective fighting, only some were truly gang fights. Therefore the match was sufficiently close that we decided to include that item in the scale for serious assault.

For assault, the Common Scales are identical to the site-specific assault scales at both sites.

Table 3.3
Violent Offenses in the Common Scale
(equals the particular SRD scales of the DYS and Bremen Study)

DYS: Have you _____	Bremen: Did you _____
Used a weapon, force or strongarm methods to get money or things from people?	Take away from someone money or other goods by using or threatening with violence (with the use of a weapon or a substitute)?
	Take away from someone money or other goods by using or threatening with violence (without the use of a weapon or a substitute)?
Been involved in gang fights?	Been involved in group-fights or riots (e.g. before/after soccer games, at demonstrations, music events, on the street or in bars or discos)?
Had or tried to have sexual relations with someone against their will?	Force someone to have sex with you against his/her will?
Attacked someone with a weapon or with the idea of seriously hurting or killing them?	Injure someone on purpose with a weapon, knife, tear gas or another dangerous object?
Hit someone with the idea of hurting them (excluding prior items)?	Hit, beat up, kick or otherwise attack a person (without using weapons etc.) in such a way that he/she had to visit a doctor?

The creation of the common *drug scales*, that is scales for *drug sales*, *soft drug use* and *hard drug use*, implied the omission of varieties of drugs which were not on the drug market in Germany or which were not on the list of prohibited substances there. In general, at both sites, the drug laws punish possession rather than consumption of drugs. Another complication was the high level of elaboration of the DYS drug scale compared to the less elaborated questions in the Bremen study. For a better understanding, the items in both sites are again listed (see Table 3.4).

Table 3.4
Drug Offenses in the Common Scale and the Site-specific Total SRD Measures of Both Sites
(Bold letters indicate a Common Scale Item)

Common Scale: Drug Offenses	
DYS: Have you _____	Bremen: Did you _____
Sold marijuana or hashish?	Sell hashish or other 'soft' drugs?
Sold hard drugs such as heroin, cocaine, or LSD?	Sell heroin or other 'hard' drugs?
Used marijuana or hashish?	Use or possess hashish or other 'soft' drugs?
Used cocaine?	Use cocaine? ¹⁴
Used hallucinogens, LSD, acid, peyote, mescaline, psilocybin?	
Used crack?	
Used ice (methamphetamines)?	
Used heroin?	Use or possess heroin or other 'hard' drugs?
Used angel dust or PCP?	
	Use ecstasy? ¹
Additional Items in Site-specific Drug Scales	
Used tobacco?	(Not illegal in Bremen)
Drunk beer?	(Not illegal in Bremen)
Drunk or used wine?	(Not illegal in Bremen)
Drunk hard liquor?	(Not illegal in Bremen)
Used non-prescription over-the-counter drugs?	
Used tranquilizers?	
Used barbiturates?	
Used codeine?	
Used amphetamines?	
Used other prescription drugs or intoxicants?	
Used inhalants such as glue, paint, or nail polish?	
Used other drugs?	

¹⁴ Only included starting 1995 (retrospectively measuring the 1993 and 1994 delinquency self-reports) in Bremen.

The six common scales (property, minor assault, serious assault, drug sales, marijuana possession/use, and possession/use of hard drugs) are used separately, but for the clarification of some analyses, the scales about the possession/use of drugs and drug sale may be collapsed to one. A Common General Delinquency is obtained by combining all the sub-scales, including drug use. Quite obviously this total delinquency is not comprehensive, because some types of offenses (damaging property, drunk driving, fraud, etc.) have been left aside. It does, however, provide a summary of a wide range of delinquent behavior that is delinquent at both sites.

Site specific SRD scales

We have described at some length the creation of Common scales for offenses, which are valid at both sites as well as measured in a similar way. These Common scales will be used in some examinations of cross-site system differences and their effect on further delinquency.

We will employ, however, more often the particular site-specific SRD scales (*Total SRD*) used by both studies at their respective sites. As noted above, this is necessary to determine the effects of sanctioning or arrest on subsequent behavior at a given site. The creation of the Common General Delinquency scale was possible only by exclusion of a variety of offenses that are, in part, rather characteristic of the style of formal control of adolescents in the separate countries (such as status offenses in the U.S. or driving without the appropriate license in Germany). It is for these offenses for which many, and perhaps the majority, of youth are arrested and prosecuted - and thus their experiences with law enforcement are partly, and perhaps substantially, based on these site-specific offenses. If, for example, we want to study effects of arrests on subsequent behavior, we cannot include arrests for offenses other than those in the common scales, on the one hand, but neglect those offenses when we look at behavioral outcomes. In fact we will present many results which are based on the site-specific SRD scales as used at the particular site. Only when we attempt to test whether site-specifically established effects can be replicated in the cross-site comparison in a stricter sense, will we use the Common Scales.

Listed in Table 3.5 are other items included in the site-specific Total SRD scales. Status and public disorder offenses, which are not proscribed behavior in Bremen, make up the majority of the additional offenses in Denver. In Bremen, there are a variety of offenses that were not included in the Denver SRD, and hence are site specific.

Table 3.5
Other Items in the Site Specific Total SRD Scales of the DYS and Bremen Studies

DYS: Have you _____	Bremen: Did you _____
Purposely set fire to a house, building, car or other property?	Intentionally spray paint or glue on an object which you did not own?
Thrown objects such as rocks or bottles at people?	Buy, sell or trade guns or comparable weapons like brass knuckles, bats, or other things?
Been loud, rowdy, or unruly in a public place so that people complained about it or you got in trouble? – public disorder	Drive a motor vehicle (e.g. an ‘enhanced’ motorcycle) without having the proper drivers license?
Been drunk in a public place? – public disorder	Leave the site although you had caused damage to another motor vehicle with your own?
Made obscene telephone calls? – public disorder	Enter a store, bar, or disco while there was an order of no admittance for you?
Begged for money or things from strangers? – public disorder	Change a document (e.g. the date of birth) or produce a fake document (e.g. the signature) or use such document to mislead someone?
Been paid for having sexual relations with someone? – public disorder	Drive a motor vehicle while being intoxicated?
Paid someone to have sexual relations with you? – public disorder	
Hitchhiked where it was illegal to do so?	
Run away from home? – status	
Skipped classes without an excuse? – status	
Broken city curfew laws? – status	
Lied about your age to get into someplace or to buy something? – status	
Purposely damaged or destroyed property that did not belong to you?	Intentionally destroy, damage or kick in property that did not belong to you (vending machines, shop windows, phone booths), or did you ever stab tires?
Carried a hidden weapon?	Carry a weapon or other dangerous items with you without having a permit?

3.2 Transformations of Delinquency Measures for Analyses

In considering potential analyses, the study faced the standard problems inherent in examining intra-individual change and inter-individual differences in life-course developmental studies. Historically methodologists have had different solutions or suggestions about these problems (see e.g., Rogosa 1979), and quite obviously there still is no one best agreed upon methodology, although latent variable models are more in vogue (see e.g., Collins and Horn, Eds. 1991). Nor is there agreement about an answer to the questions – should we measure change and if so, how? In addition, since the focus is on delinquency, there are additional distributional and estimation/prediction problems, that are somewhat unique. In particular, (a) delinquency measures are typically extremely skewed with mode and mean around 0; (b) the error of measurement tends to increase with increases in scores, and (c) in prediction models there are both “floor” and “ceiling” effects or “regression to the mean” problems.

Because of these issues, the project devoted substantial effort to considerations and preliminary empirical examination of different kinds of transformations and modeling strategies for determining the effect of an arrest on future behavior. Various transformations (e.g. logarithmic, percentiles, categorical) were considered in different modeling approaches (e.g. OLS regression, logistic regression, longitudinal structural equation/latent variable models).

A problem that continued to surface, however, was “regression to the mean.” Individuals who had very high delinquency scores tended to decrease, while individuals with low scores tended to stay the same or increase. This was not unexpected and is observed for many other kinds of variables in addition to delinquency (see e.g., Allison 1990; or Plewis 1985). However, it did present a particular problem for the project. High frequency offenders in one period tended to decrease their delinquency in the following period. Because (and it was empirically demonstrated that) high frequency offenders have a greater probability of being arrested, so also do arrestees tend to have high delinquency scores in the year of arrest and decrease their delinquency in the following year. The problem is that while the delinquency of arrestees has decreased, the decrease may have nothing to do with their arrest. Rather, it follows directly from the observation that the probability of arrest increases with increasing frequency of SRD and that those with higher scores have a greater probability of decreasing their delinquency in the following time period.

After substantial deliberation and empirical examination, the research team decided upon an ordered polytomous categorical transformation. (Some additional rationales for such measures are given by Cliff, 1991.) This transformation (1) while not totally eliminating “regression to the mean” problems, did substantially better than others, and (2) allowed measured change in delinquency to reflect substantive as well statistical change (i.e. avoided giving significance to a small change in frequency on a scale with a large range). The measure was defined as follows. First, for each individual, their average annual involvement in delinquency across the adolescent period, their average annual involvement across the young adult period, and their average annual involvement across the adult period were determined. Based on this average information, within each age period, the SRD range of offenders (those with positive average SRD scores) was divided into quartiles. This provided, for each age period, a division of the frequency range of SRD into five ordered categories -- “non-delinquents” (an SRD score of 0) and, for positive scores, four equal parts defined by the ranges of the quartiles, scored 1,2,3, and 4. Following this, individual annual SRD scores were coded into these categories, resulting in an annual delinquency measure ranging from 0 to 4.

An advantage of this measure, over annual quartiles, is that it permits, within age categories, the identification of year-to-year intra-individual change that could be missed if annual quartiles were used. For example, since annual quartiles may change each year, an individual may have the same annual quartile ranking in adjacent years even though that individual’s delinquent involvement (and ranking, using the above measure) has changed substantially.

In addition, for examining change scores, a change score using the categorical transformation was defined in the following way. Let x_1 and x_2 denote SRD at time1 and time2, respectively. If $x_1=x_2=0$, a change score of 0 was assigned, and the group of individuals with such scores were called “conforms,” indicating continuous conforming behavior. If x_2 was less than x_1 , so

that $x_2 - x_1$ was negative, a change score of 1 was given, and the individuals with such scores were called “*decreasers*”. If x_2 was equal to x_1 , and both were greater than 0, a change score of 2 was given, and the individuals with such scores were called “*persisters*”. If x_2 was greater than x_1 , so that $x_2 - x_1$ was positive, a change score of 3 was given, and the individuals with such scores were called “*increasers*”. As this definition suggests, it seemed important to distinguish between the conforms and the persistent group, rather than combine them, so that their difference in delinquent involvement was maintained in the change score. Also, it should be noted that although this seems a quite reasonable change measure, nevertheless, it is limited in the sense that those in the highest quartile at time1 can not “increase,” nor can those who are non-delinquent at time1 “decrease”.

The use of the “quartile transformation” and “quartile change” scores also fitted well with the use of polytomous or nominal regression models, as means of modeling or examining the effect of arrest in non-equivalent control group designs. These models are used in many of the analyses of the effect of arrest in later chapters and permit the use of a multi-category nominal dependent variable that is predicted by other categorical or continuous independent variables. In addition to these predictive models, additional approaches to the examination of the effect of arrest were used. These included event history models and the comparison of arrestees with precision matched control groups.

3.3 Measuring Arrest

As outlined in the first chapter, arrest (that is, taking an individual into custody) does not play as an important role as a strategy of law enforcement in Germany as it does in the U.S. In Germany the computerized inhabitant registration system is developed to such an extent that almost any person can be identified and tracked by the police through a required personal identification number. If a person has no permanent address, the presumption of his pending escape might be founded and detention is legally possible. In such cases an arrest is normal. In other cases the police would have to set the person free once their correct address has been established. Only in some cases involving very serious offenses is arrest applicable to prevent recidivism. Thus, a suspect will be arrested especially but certainly not exclusively in cases where it is probable that the suspect might leave the area and escape to prevent further prosecution. These legal restrictions substantially reduce the numbers of arrests in which individuals are taken into custody in Germany. However, for this cross-national study we may expand the measurement of police interventions somewhat.

Questions also arise about what police actions are included in referring to arrest in the U.S. How long does the police-citizen encounter usually last: some minutes, hours or a whole day? How often does arrest lead to detention and/or bail setting? Are booking and fingerprinting a required part of an arrest? These various aspects would be important, if an attempt to find a matching police strategy for Germany were made. Obviously, the results of police encounters for delinquency and criminal acts are quite different between the two countries.

There is, however, a similarity between the two sites that allows a more similar definition of “arrest.” The reactions of the police in Germany, to check the ID of suspects, let them go and ask them to show up at the police station at some later date for questioning are similar to being ticketed for a delinquent/criminal offense in some sites in the U.S. In the U.S., ticketing usually

implies that the suspect is supposed to show up at a police station or court at a later date for being questioned and other actions. Since we have measurements for both arrests and tickets for both sites we can use a combined measure which fits well to the different situation in both countries.

For *Denver* the interview included the following questions:

How many times in the last year (a) were you arrested? (b) were you given a ticket? There were follow up questions for every event of arrest or ticketing including the following:¹⁵ (c) What were you doing that led the police to arrest you or give you a ticket? (d) What offense did the police charge you with? (e) Did you actually commit the offense for which they arrested or ticketed you? (f) As a result of that arrest or ticket did any of the following happen? -1. Were you warned and released? 2. Were your parents notified? 3. Were school officials told? 4. Were you referred for counseling? 5. Were you diverted or sent to a treatment program? 6. Did you have to go to court?

Thus, in Denver, it was possible to determine events of arrests or ticketing that were related to offenses the respondent did not commit as well as those that did not go to court. Using this information we were able to measure police encounters at three levels of intervention: (1) police contact without an arrest/ticket, (2) police contact with an arrest/ticket but no subsequent court proceedings (police diversion), and (3) police contact with an arrest/ticket and some form of subsequent court proceedings. Police contact included all encounters from questioning to arrest with referral, even those encounters that led only to warning and release, notification of parents or school officials and referral to counseling or other diversion beyond the level of going to court.

For *Bremen* police contacts that result in official registration without subsequent court action of some kind are very rare because, whenever the police have probable cause to suspect someone, the legality principle demands that the case be filed with the prosecutor's office. All police files must be sent to the prosecutor who then decides on further dispositions. Following official registration, there is almost no police discretion permitted. However, a case filed by police may not lead to any court action if it turns out that legal sufficiency is lacking, and in this situation, the case is dismissed.

In Bremen two different ways were employed to ask about police interventions. For each of the years 1993-1996, a follow up question to every SRD item asked whether a police contact and/or a court contact happened as a consequence of a reported offense. At wave 2 (1993) it was also asked whether in each of the preceding years 1984-1992 if a respondent had a police and/or court contact for any offense included in the SRD scale. In addition, the federal register of justice decisions, the Bundeszentralregister (BZR), in Berlin provided for all respondents information (starting at the age of 14) about whether there had been any recorded prosecutor or court decisions, and if so, the nature of the offense, the date, and any sanctions applied. Thus, it was possible to determine if self-reported police actions in fact led to subsequent recorded law

¹⁵ Those questions were asked for the first three incidences of arrest or ticketing; for any further incidences information relating to (d), (e) and (f6) was noted.

enforcement of any kind beyond the police level. This register also provided information about decisions regarding diversion and the types of sanctions applied to diverted cases.

The distinction between (1) police contact and (2) arrest leading to court referral allowed the construction of two different matching measures for both sites. In essence, these measurements allowed us to study arrest by focusing on serious interventions by police. Only those police encounters that led to referral to court in Bremen and Denver were defined as “arrest.” Thus, more specifically for our purpose here, we defined arrest as a police contact for any delinquent offense that resulted in referral of the individual to other parts of the Juvenile Justice or Criminal Justice Systems (for Denver: District Attorney, Probation Department, Court). For Bremen arrest was defined as police contact that resulted in being referred to the prosecutor or court with legal sufficiency, followed by any legal action (including dismissal) listed in the BZR based on the juvenile court law (JGG) or on the Criminal Code (StGB) if the person was treated as an adult. Although we independently arrived at this definition of arrest - police contact that results in a referral to prosecutor/district attorney/court - it is interesting, and gives some support to the rationale for the definition, that another study of U.S. and German sanctions came to the same definition (Feeney 1998).

A distinction of measurement has to be kept in mind. Police *contacts* are in both sites based on self-reports. *Arrests* (including *tickets*) are self-reported in Denver while they are taken from the register (BZR) in Bremen. For Denver, use of registered data was problematic because police record data had only been obtained from the City of Denver. Official data were thus incomplete for those who moved outside the boundaries of the City of Denver. The incompleteness of these data precluded their use.¹⁶

It also seems necessary to comment on differences between self-reported contacts and registered arrests in Bremen. In Chapter 5 it will become evident that, for Denver, the prevalence rates of police contacts and arrests do not differ very much. Most police encounters resulted in referral to court. Yet some kinds of offenses during the adolescent years did not necessarily lead to court, among these are curfew violations and running away from home. This is not to say that these offenses rarely result in referral to court. To the contrary, many do. But, since these offenses occur so frequently, there remains a large proportion of such cases that are not referred. Other offenses, which are not always referred to court, include forms of disorderly conduct and trespassing. At older ages, rather than status offenses, violation of court orders becomes a prominent offense that is not always brought to court.

¹⁶ It should be noted that official arrest data from any specific locality do not provide complete data since individuals can be arrested in other localities. Without centralized data sources, only partially complete record searches can be done. For the Denver project, the records from 16 independent localities would have to be searched, just for the extended Denver-metro area and an even larger search would be required to cover the movement of respondents across the U.S. Given the scope of this effort, it has not been conducted.

In Bremen, there is a wider range of offenses that lead to self-reported police contact, but do not result in referral to the prosecutor or court action as registered in the BZR. During adolescence and young adulthood, these offenses include shoplifting, fare dodging, graffiti, vandalism and simple assault. At older ages some group assaults and traffic offenses do not lead to court.

Apparently, at both sites, prior to taking official action, recording the event and taking the offender's identity, police show some discretion and consider some situations or offenses as minor and not requiring further action.

3.4 Measuring the Severity of Sanctions

To our knowledge, cross-national comparisons of juvenile justice have not yet produced a method to establish a scale of interventions that would allow the matching of sanctions used in different countries. Though there have been compilations of the juvenile laws of various countries (e.g. Shoemaker 1996), these compilations stop short of providing a structure of severity that would enable cross-national comparisons to examine how sanctions in different countries differ in their restriction on the liberty of persons.

The unavailability of a scale of interventions, led us to develop a scheme of common features of sanctions in both countries, based on the type of intervention involved in any of the particular sanctions available in either Germany or the U.S. It would be difficult, and perhaps a mistake, if one would try to create a joint scale for the sanctions that are used in two countries A and B by using the sanctions of country A as a master scheme, and then assigning the sanctions of country B based on their degree of fit to the sanctions of country A. Rather, it seems more appropriate to derive a sociological description of the types of interventions present in the sanctions of both countries A and B, and then work from there towards a common scale¹⁷. That is exactly what we did. Table 3.6 provides an overview on the resulting scale.

There are some dispositions handed out in Germany, usually by the criminal courts, which do not fit well into this scheme, but they are rarely used¹⁸. There are also some punishments occasionally added to a main punishment (e.g., forfeit of driver's license, confiscation of items used in or gained by the crime) that are ignored in this coding in favor of the main sanction. For some analyses, we will reduce the sanction measure by collapsing codes 0, 1, and 3 into dismissal and 2 and 4-11 into sanctioned. The Bremen Study also uses an alternate coding scheme combining 1, 2, and 3 into a diversion category and 4-11 into a sanctioned category. The DYS combines the codes 0-8 into a dismissal and lower sanction category and 9-11 into a higher sanction category consisting of probation and incarceration. The DYS also uses a coding scheme of combining 0, 1, and 3 as a dismissal category, 2 and 4 through 8 as an intermediate category, and 9 through 11 as a serious category.

¹⁷ We are grateful to Johannes Feest who strongly suggested those steps.

¹⁸ In Germany: suspension of a fine, prov.59 StGB, waiver of punishment, prov.60 StGB.

Table 3.6
Common Sanctions Scale

Code	Behavioral type	Sanction in Germany	Sanction in the U.S.
0	Police dismiss after arrest	Not available in Bremen	Police warn, lecture, may notify parents, but no court referral
1	Prosecutor dismisses without further intervention	Prov.45 I JGG (or if no subparagraphs specified): Prosecutor dismisses, may lecture	Data not available in Denver (included under police dismissal)
2	Diversion: Prosecutor dismisses after a behavioral directive has been completed. No Court Referral	Prov.45 II, III JGG Prosecutor with consent of court demands community services, victim-offender agreement, etc.; dismissal follows completion	Youth receives services as a result of police contact, but is not referred to court
3	Court dismissal without sanctions	Court dismissal without sanctions	Court dismissal without sanctions
4	Court dismissal with sanction. Not convicted/adjudicated	Prov. 47 JGG Court dismisses after counseling, treatment, fulfillment of behavioral directives	Informal probation Data not available for Denver (Included codes 6 or 8)
5.	Conviction/adjudication. Sentenced to fine by juvenile court.	Prov.15 I no.4 JGG Disciplinary measure: to pay amount to non-profit organization	Juvenile fine
6.	Conviction/ adjudication plus disciplinary order	Community service, restitution, apology to victim, social training, etc.	Community service, family counseling, restitution, etc.
7.	Conviction / adjudication sentenced to fine by adult/criminal court	Prov. 40 StGB Fine based on Criminal Law	Fine imposed by Adult/District Court
8.	Conviction/ adjudication Referred to social services	Prov. 10 I no. 5; 12 no. 1 JGG Put under guardianship and in a group home	Referred to social services or community treatment provider, and may be put under guardianship
9.	Conviction / adjudication, placed on probation and monitoring by probation officer	Prov.27 and 21 JGG Probation (suspension of sentencing to / or suspension of serving a prison term)	Probation
10.	Conviction plus short term incarceration (up to 1 month)	Prov. 16 JGG Youth custody	Detention in juvenile facility or county jail
11.	Incarceration for a period exceeding 1 month	Prov. 18 JGG; 56 StGB Youth prison / prison / locked up in psychiatric facility, etc.	Incarceration in juvenile correctional facility / prison.

For Bremen the coding is based on the information recorded in the BZR. For any particular offense, the most severe sanction is coded. However, according to the juvenile law of Germany, every trial has to cover all offenses known to the prosecutor at the day of trial. Therefore more than one offense can be considered in conviction. The sentencing has to be related to all known offenses. The number of offenses a person is convicted for at a given trial influences the severity of the sentence handed down. This, however, should not affect the coding. For the DYS, sentencing outcome is coded based on the self-reports of the respondents and, as for Bremen, the

most severe sanction is coded. These self-reports may contain errors regarding the particular offense or the nature of the official reaction, in particular because respondents may not know or may misunderstand legal terms. The nature of the sanction from the offender's point of view, however, is reasonably represented, and does provide some match to expected official actions.

3.5 Measuring Control and Other Outcome Variables

In the preparation of the data file for this comparative study, some 90 variables with a sufficient match across sites were identified. Only a small portion of these are used in this study as control and other outcome variables, and these are listed in Table 3.7.

Table 3.7
Control and Other Outcome Variables

DEMOGRAPHICS	Birth Year Gender Minority status
PEERS	Delinquent peers Close friends/peer group (clique) Gang membership
OCCUPATIONAL SPHERE	Job Status Unemployment Job stability Job satisfaction
ATTITUDES	Current personal situation

The need to permit examinations of and control for gender differences in the prevalence and effect of arrest follows from the differences between genders in delinquency and arrest rates observed in almost all studies that include both genders. One of the generally indisputable findings from criminology is that women commit fewer offenses and are arrested less often than men.

Age is not only a factor that determines JJS jurisdiction, but also is an important determinant of delinquency, as indicated by the age-crime curve with a peak at about 15-18 years of age. In this study, age is measured by year of birth, ranging from 1971 to 1974 in Bremen, and being either 1972 or 1974 in Denver. In many analyses we will use an age-related measurement, for example of delinquency, of arrest rates, or of sanctioning. In some models used to explain an outcome variable for a particular year, we will, of course, use age as a control.

Minority status refers in Bremen to immigrants from Russia and Poland, who have been naturalized as Germans, and for immigrants from all countries who kept their nationality; for Denver it means being non-Caucasian.

Delinquency of peers as a determinant of juvenile delinquency has been abundantly demonstrated (for a review, see Thornberry and Krohn 1997). In both data sets the measurement of peer delinquency was quite similar. Respondents were asked how many of their friends had

committed various deviant acts (e.g. use of drugs, robbery, theft, serious assault, etc.). Summing responses to the individual items created a summary scale. However, the following difference between sites should be noted. At both sites the scale for delinquent friends is measured for the year preceding data collection. In Denver, due to the annual data collection, the measure is available for the years 1987-1991 and 1994-1998. In Bremen, measures for 1992, 1994, 1996 and 1999 are available and can be used for analysis. This restricts somewhat the number of years for which this variable can be used.

In addition, we developed the following *Delinquent Friends* measure, which was equivalent for both sites:

1 = having no friends

2 = friends' delinquency below median

3 = friends' delinquency equal or above median.

The scale reflects the differing strength of possible peer influence, ranging from nil to relatively strong deviancy, which, according to the theory of differential association, constitutes a substantial influence on delinquency. For some analyses, categories 1 and 2 were combined, thus creating a measure *Delinquent Peer Group* (0=no friends or friends' delinquency below the median, 1= friends' delinquency equal to or above the median).

Gang and clique membership. We also used information for every year under study about whether the respondent had been a member of a clique (group of friends) and if that group considered themselves to be a delinquent gang¹⁹.

Occupational status refers to whether particular types of work implicitly or explicitly provide some kind of occupational training. This measure was developed to indicate a potential match to the apprenticeship system in Germany. The potential of jobs to provide skills was considered to establish structural equivalence for both sites. To match jobs on this aspect we defined a variable with three categories - "skilled job", "unskilled job" and "not working." A "skilled job" for Bremen meant being in an apprenticeship or being employed in an occupation that was available only after completing an apprenticeship.²⁰ Any other kind of employment was defined "unskilled". For Denver this distinction was a more difficult task, since there is no formal training system for non-college bound youth. We based the decision on job codes and - if necessary - brief job descriptions. A "skilled job" had to fulfill three conditions:

1. The German dual system offers an apprenticeship for it, or
2. Some real skills are required, and
3. Some training is provided.

If these qualifications weren't met, we classified the job as "unskilled". Respondents who did not work during a given year were classified as "not working" at both sites.²¹

¹⁹ For more information on the issues related to gang membership and gang activities at both sites see Huizinga and Schumann 2001.

²⁰ Altogether we included in addition to apprenticeships: vocational schools, all kinds of training programs or occupations that are based on a completed apprenticeship like Fachschule, Umschulung, Meisterschule, ABM as well as self employment.

²¹ While it was possible to code most occupations consistently for both sites either as skilled or unskilled, this was not possible in the case of military services. In the U.S., the military often provides some kind of training,

If job status was *unemployed* for the duration of a year, it was used as a measure of *unemployment*. Also, a job status of employed throughout two consecutive years during a period of the life-course was considered a measure of *job stability* for the corresponding life period. Both measures may serve as indicators of occupational success in life.

Job satisfaction, that is the subjective appreciation of one's occupational status, has been found in recent research to have explanatory power for the relationship between unemployment and crime (Hartnagel and Baron 1997). Thus it seems reasonable to believe that the effect of work status on delinquency may be mediated by the judgment of a person about the value of their particular job. We therefore, constructed a measure of job satisfaction, although this measure was constructed from different items at the two sites. In Denver the question asked was: "All things considered, how satisfied have you been with this job?" In Bremen, the second part of the following question was used: "All in all - how do you rate your current life-situation? a) privately? b) regarding the job? (satisfied/ neither - nor/ or dissatisfied)"²²

For both sites the answers were collapsed into a dichotomy as being either "satisfied" or "other". In Bremen, this information was available for the years 1993, 1995 and 1997. In Denver this variable is available annually beginning in the year 1995.

Attitudes towards the private life situation was measured in Bremen by the first part of the question mentioned above and is used in some analyses.

especially if a person is in the service for a long period of time. While this enables coding military as "skilled work" for the U.S., for Germany such coding would be misleading. For Germany, being drafted for 12 months does not imply qualification or training, but rather involvement in military activities, quite similar to unskilled work, which then is the appropriate way to code military in Germany.

²² In Bremen another option to measure the subjective evaluation was available with the following question: "If you had to grade your current occupational situation, what would you say? (Excellent, very good, good, sufficient, poor)". Of course the answers to both questions correlated strongly; however the measure using the word "satisfied" was preferred not only for the better match of the wording but also because of its higher correlation with delinquency.

3.6 Analytic Strategies

To provide basic epidemiological information about prevalence and frequency of involvement in delinquency, police contact and arrest rates, and the use rate of different sanctions, basic descriptive statistics (cross-tabulations, means, etc.) were used. As described above, several procedures were used to examine the effect of arrest and sanctions on subsequent delinquency and on later life outcomes. These included various forms of regression models (OLS, logistic, polytomous), matched pairs analysis, event history analysis, and categorical hierarchical interaction methods, although the results of this latter method seemed redundant and are not described in this report. Our general approach could be described as a non-equivalent control group design. That is, with the exception of the matched-pairs analyses, we attempted to statistically model the effect of arrest (or sanctions) on subsequent outcomes, while controlling for other variables presumed to affect the relationship of arrest or sanctions to the later outcomes. Use of each of these methods is further described in the chapters in which they are employed.

Chapter 4

Delinquency in Denver and Bremen – An Epidemiological Overview

One of the major questions in comparative criminology is why there are substantial differences in the frequency of crime in the U.S., as compared to other western societies in Europe. It has been argued that the high frequency of particular types of crimes in the U.S. (e.g. homicides) might be considered an “anomaly” (Shelley 1985). Thus, at the beginning of a study that compares crime and delinquency and crime control in the U.S. and a European country, it is important to describe differences in crime rates between the two comparison sites, and to determine if the disparities would be of such magnitude to be an obstacle to comparison. The comparative data available²³ about self-reported delinquency, rather than recorded crime, would make us expect some substantial (but not extreme) differences in various types of delinquency. In this chapter, a comparison of the epidemiological findings in Denver and Bremen is provided.

First we will use the site-specific Total SRD scales employed at both sites, which are rather different. These scales allow examination of the prevalence and frequency of law breaking of any kind by the members of the Denver and the Bremen cohorts. Thereafter, for another comparison, we will restrict this epidemiological description to offenses covered by the Common scales to determine whether delinquency rates differ across sites when offenses are restricted to identical subsets of delinquent behavior.

4.1 The Overall Picture of Delinquency in Bremen and Denver

It is a well-established finding in criminology throughout the world that some form of juvenile delinquency is committed by almost every youth at some point in time. It is also well established that after a period of occasional offending most youth discontinue their delinquent behavior. Thus, we find the so-called age-crime curve in one form or another in almost every country. For the comparison of German and American youth we also expect to find the majority of cohort members offending at particular ages and a declining curve for the adult years.

In comparing the annual prevalence of offending at each site, as indicated by the site-specific Total SRD scale, we find a process of growing out of delinquency in both sites. Also, we find a higher prevalence in Denver as compared to Bremen for the early years of the two studies. One obvious reason for the difference stems from the greater variety of illegal behaviors covered in Denver, many of which are not illegal in Germany. Thus we might even be surprised if the differences in prevalence were not substantial. The prevalence rates by year for the two sites are given in Table 4.1.

²³ Of particular validity for our study are the data published in Junger-Tas et al. 1994 on cities in the U.S. and Germany.

Table 4.1
Annual Prevalence of Offending Based on the Site-specific Total SRD Scales in Bremen and Denver

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bremen	.62**			.58**		.60	.66	.62	.57	.61	.43	.47	.47
Denver	.67	.67	.70	.63	.59	.33*	.35*	.59	.49	.47			

* SRD for 1992 and 1993 in Denver were measured differently involving longer periods of recall. Therefore these figures may suffer from memory loss and are not comparable with other figures in the table (see Chapters 2 and 3).

** SRD measure refers to prevalence over a two or three year period, the years being collapsed in the question asked.

In Denver, during the earlier years through 1990, roughly two out of three persons committed offenses. Over time, this proportion decreased to about one half. The figures for 1992 and 1993 should be neglected because those measurements were obtained in 1995, involving a two- or three-year recall, and as can be seen, are not in accord with other estimates. Comparing the Denver and Bremen data we surprisingly find for 1994 and later years a higher prevalence of offending in Bremen. This finding, which runs counter to what might be expected, may be partly due to the fact that in the site-specific scales used here fare-dodging is included, a law-breaking behavior as widespread in Germany as public disorders or status offenses are in the U.S. The relatively large prevalence figures based on the site-specific SRD measures suggest a high prevalence of rather petty offenses. In Bremen the reduction of delinquency is somewhat delayed in comparison to Denver. Based on these annual data, it appears that the age-crime curve is evident earlier for American than for German youth.

Because the samples of both sites consist of multiple birth cohorts, the age-crime curve might better be examined using prevalence rates displayed by age. These rates are given in Table 4.2. For Denver we find a peak at ages 15-16, with some decrease in offending as the adolescents turn 18, at which time many will leave high school to begin their working careers. Especially during the twenties, prevalence rates decline. At the end of the observation period, roughly one out of two reports no delinquent behavior.

Table 4.2
Prevalence of Offending by Age Based on the Site-specific Total SRD Scales
in Bremen and Denver*

	14	15	16	17	18	19	20	21	22	23	24
Bremen		.65**		.63	.61	.60	.62	.61	.61	.59	.55
Denver	.62	.69	.68	.66	.62	.59	.44	.52	.52	.55	.48

* For some ages data from a specific cohort was not available.

** Ages cannot be separately measured due to the phrasing of the question.

In Bremen the situation is slightly different. The age-related prevalence is quite similar during the years of adolescence, slightly over 60%, and remains at this general level during young adulthood until the age of 23 with a very slight reduction thereafter. The prevalence at age 24 is still substantially higher in Bremen than in Denver.

To make the between-site comparison more comprehensive, it also is useful to examine the frequency of offending among offenders (i.e., the mean frequency of involvement among youth who commit some delinquency), a figure often known as “lambda.” It may well be that while the prevalence of offending is quite similar at both sites lambda is not. Offender frequencies in Bremen and Denver during a particular year and at a particular age are given in Tables 4.3 and 4.4.

Table 4.3
Annual Offender Mean Frequency (Lambda) in Bremen and Denver

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bremen	26.3			29.4		20.1	24.4	24.8	56.2	51.5	24.5	23.3	19.5
Denver	28.2	34.9	38.2	44.2	45.8	65.6	60.6	54.1	49.6	37.9			

As can be seen, the offender frequencies are substantially higher in Denver than in Bremen, except for the years 1995 and 1996 during which several persons reported an extremely high frequency of offending in Bremen. The different rates may explain the unexpected finding of our comparative research - that although the rates should be higher in the U.S. to be in line with the larger crime figures known from crime statistics, in actuality the prevalence rates of the samples are not very different. It appears that it is not the proportion of offenders, but rather the frequency of their offending that accounts for the difference in the incidence of law breaking.

Similar differences are found between the two sites when the mean offender frequencies are tabled by age. As can be seen in Table 4.4, the picture is quite the same with substantially higher frequencies reported in Denver. Interestingly, at both sites, lambda increases with age but does not decrease after a peak because there are no clear peaks. This is an important similarity across sites. Although the number of offenders declines somewhat, those who persist continue to commit offenses at a high frequency over time.

Table 4.4
Offender Mean Frequency (Lambda) By Age in Bremen and Denver

	14	15	16	17	18	19	20	21	22	23	24
Bremen		15.8		14.4	14.0	17.9	20.5	27.0	38.4	43.7	42.9
Denver	28.0	36.9	40.4	43.7	50.3	42.3	51.4	42.8	47.4	55.9	40.1

4.2 Comparative Delinquency Based on the Common Scales

Because the site-specific Total SRD scales include different types of law breaking at each site, it is also meaningful to compare rates of offending when the kinds of law breaking are held constant, that is, for those offenses included in the Common scales. Prevalence and frequency of participation in the same types of delinquency and drug use across the two sites can be examined in Table 4.5, as well as in Figures 4.1, 4.2, and 4.3. This table and the figures indicate the prevalence (proportion of persons engaged in) of delinquency for the two sites for the 1991 through 1996 period.

In examining Table 4.5 it should be recalled that the "dipper-effect" resulting from lengthy recall may have reduced the delinquency and drug use measures for the Denver site for 1992 and 1993. Thus, for these two years, the figures presented may be considered as minimums for the estimate of prevalence. If one ignores the Denver drop in 1992 and 1993, within both sites, the prevalence of delinquency is fairly consistent across adjacent years, with some over time decrease in non-drug offenses and some increase, for Bremen, in marijuana and other drug use. Cross-site comparisons reveal some site differences. In general, for property and serious assault offenses, prevalence rates are higher in Bremen; the rates for minor assault and hard drug use are roughly the same; and the rates for drug sales and use of marijuana/soft drugs are higher in Denver, but the Bremen rates increase over time to provide greater similarity. It is interesting and contrary to expectations that the prevalence rates for property and serious assault are higher in Bremen than in Denver. Importantly, however, the prevalence of different kinds of delinquency is not too dissimilar across the two sites.

Table 4.5
Annual Prevalence of Delinquency for the Common Measures: 1991-1996

		Year					
		91	92	93	94	95	96
Property Offenses	Bremen	.27	.26	.27	.26	.23	.23
	Denver	.20	.10	.08	.16	.10	.07
Minor Assault	Bremen	.09	.09	.06	.06	.05	.05
	Denver	.08	.05	.06	.07	.04	.03
Serious Assault	Bremen	.16	.13	.13	.08	.09	.07
	Denver	.11	.07	.04	.09	.03	.02
Drug Sales	Bremen	.02	.02	.02	.03	.04	.04
	Denver	.06	.06	.06	.08	.06	.03
Marijuana/ Soft-drug Use	Bremen	.13	.11	.23	.20	.19	.21
	Denver	.22	.22	.23	.29	.28	.27
Hard Drug Use	Bremen	.03	.02	.03	.04	.07	.08
	Denver	.05	.05	.04	.06	.05	.05
Total Common Delinquency & Drug Use	Bremen	.34	.33	.43	.39	.37	.39
	Denver	.41	.30	.29	.42	.34	.34

The percentages of total common delinquency and drug use for Denver through 1994 are in the forties (neglecting the years 1992 and 1993) and decline to the thirties thereafter, while for Bremen the prevalence has an increase from 1992 to 1993 and then remains at about the same level (.39-.43) throughout the years 1993 through 1996. In 1991 and 1994 the prevalence is higher in Denver than in Bremen, but again starting in 1995, the prevalence is higher in Bremen as compared to Denver. This indicates that for a total set of offenses that are common across sites, the differences of higher prevalence rates during adolescence in Denver do not only disappear but may even reverse, so that by adulthood prevalence rates are higher in Bremen.

To give an additional overview, we provide a graph of offending prevalence at both sites for the year 1994. This year was selected because it is one of the years that provide identical measurement, that is, when SRD measures at both sites reflect recall over the prior year.

Figure 4.1 displays graphically the prevalence rate for 1994. In this figure, the general similarity across sites of the patterning of types of delinquency can be seen. For example, at both sites, involvement in property offenses is substantially higher than involvement in minor or serious assault, and the rank order of types of offenses by their prevalence rates is almost identical at the two sites. Figure 4.1 also indicates where differences lie. Drug use and drug sales are more prevalent in Denver and property offenses are more prevalent in Bremen, yielding a slightly higher prevalence of total delinquency and drug use in Denver. However, this does not indicate substantial site differences over the long term. During later years, the increase in drug offenses in Bremen levels out those differences.

Figure 4.1.
Prevalence of Common Delinquency Measures: 1994

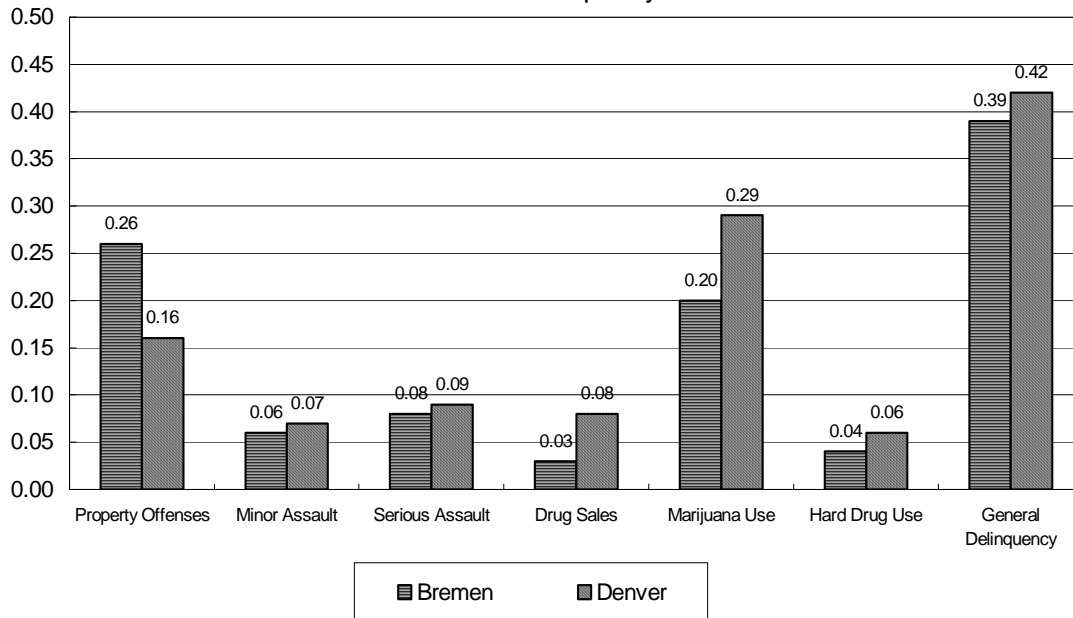
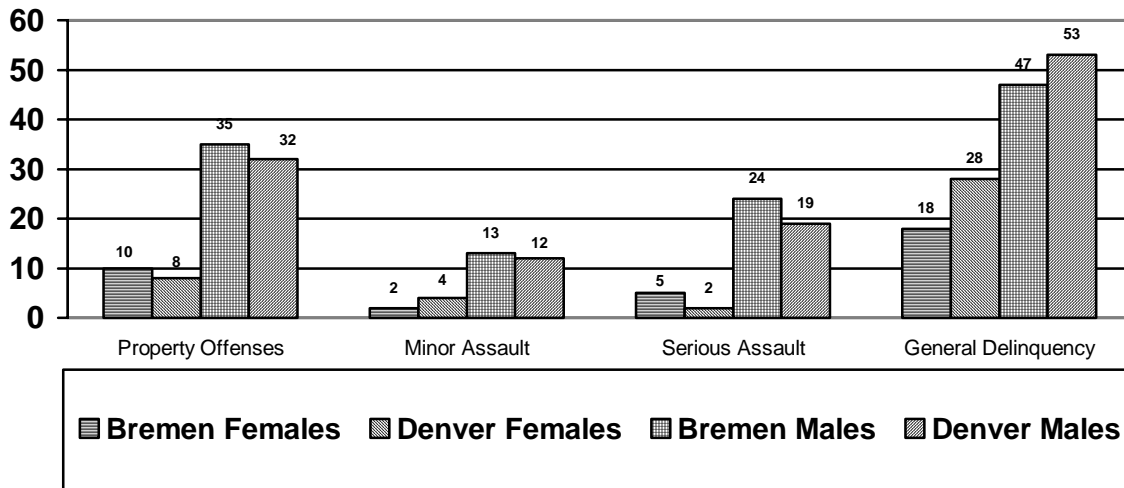


Figure 4.2 further illustrates the similarities and differences between sites, graphically displaying the prevalence of delinquency by gender for the year 1991. The expected gender difference with males having greater involvement in all forms of delinquency is clearly seen at both sites. Although there are differences between sites, in general, it might be said that the sites are more similar than different, with relatively small differences, except perhaps for general delinquency for females. However, the rates for property offenses, and minor and serious assault are fairly similar across sites for the two genders.

Figure 4.2
Prevalence of Delinquency by Gender in Bremen and Denver: 1991



Examination of statistically significant differences between the two sites in Table 4.6 for 1994 reveals essentially equivalent findings. The first row of Table 4.6 reveals significant differences in prevalence between Bremen and Denver. For example, the prevalence of property offenses is higher in Bremen than in Denver, marijuana/hashish use and hard drug use are significantly higher in Denver. However, these differences are still modest and might not be considered substantive differences.

Given these findings, an overall picture of the prevalence of delinquency and drug use arises. There are clear differences between the two sites, as might be expected in prevalence rates across any two research sites and especially sites in different countries. However, the general similarity of prevalence levels and patterning of prevalence across offense types suggests that the two sites are more similar than different. A comparison of crime statistics discovered that index crimes were in the U.S. some 50% higher as compared to Germany, a difference which the authors relate partly to cultural differences in reporting crimes to the police (Teske and Arnold 1982: 308). However, findings from the International SRD study using the same items for a variety of countries, including

the U.S. and Germany, revealed that prevalence rates for total delinquency did not differ that much (U.S. 61%, Germany 57%)²⁴. In view of our research question, in a very general way, we are even surprised how small the differences are between the curves of prevalence for the delinquency and drug scales of the two sites.

In addition to prevalence, the frequency with which delinquent offenses and drug use are committed at the two sites is of interest. Conceivably, the prevalence rates could be similar, but the number of offenses committed by offenders could be quite different. For this purpose, the average number of offenses per person in the samples and the average number of offenses committed by offenders have been included in Table 4.6 and the average number of offenses among offenders are displayed Figure 4.3 for the year 1994.

As can be seen in the table and figures, offense rates for property offenses, minor assault, serious assault, and hard drug use are relatively similar across the two sites. The offender frequency of drug sales differs substantially across sites and is higher for Denver. Examination of Table 4.6 indicates that few of the observed differences in offender frequency rates are statistically significant at the .05 level. Only marijuana use rates and the total delinquency scale (which includes and is strongly influenced by the marijuana use scale) are statistically different across sites. Thus, in general, it seems that with the exception of marijuana, the offending rate of offenders is quite consistent across sites.

These findings of some general similarity across sites in prevalence and offending rates of offenders for the total samples suggest that the two sites are not so wildly different, but rather, remarkably similar in their offending patterns. Therefore, using their data in comparative research on delinquency seems reasonable and should not be curtailed at the outset. Our concern at the start of this project was that in light of the substantial differences in the official crime rates in the U.S. and Germany, the delinquency rates of Bremen and Denver might be so dissimilar, that reasonable comparative examination of causes and effects could not be conducted. As these findings illustrate, this clearly is not the case, and this initial concern fortunately has turned out to be unfounded.

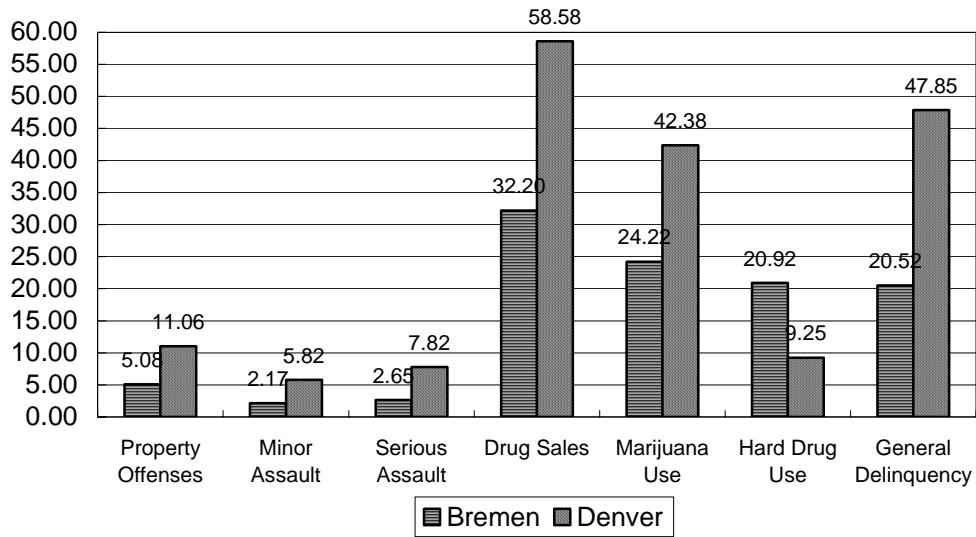
In comparing the age-crime curve as shown by either the total SRD scales or the Common scales we found that the slope of reducing involvement in offending is more level in Bremen than in Denver. This raises the question whether the activities of the JJS, that is the patterns of arresting and sanctioning youth, have some relevance for that development. This issue is explored in the next several chapters.

²⁴ See Junger-Tas et al. 1994, pp. 178 and 339.

Table 4.6
Prevalence, Mean Frequency, and Lambda (Mean Frequency Among Offenders) For Bremen and Denver: 1994

	Total Delinquency		Property		Minor Assault		Serious Assault		Drug Sales		Marijuana Use		Hard Drug Use	
	Bremen	Denver	Bremen	Denver	Bremen	Denver	Bremen	Denver	Bremen	Denver	Bremen	Denver	Bremen	Denver
1994														
Prevalence	0.39	0.42	0.26	0.16	0.06	0.07	0.08	0.09	0.03	0.08	0.20	0.29	0.04	0.06
Sig.		0.38		0.00		0.88		0.62		0.00		0.01		0.17
Mean	8	20	1	2	0(.1)	0(.4)	0(.2)	0(.7)	1	5	5	12	1	1
Sig.		0.00		0.54		0.23		0.12		0.00		0.00		0.50
Lambda	21	48	5	11	2	6	3	8	33	59	24	42	21	9
Sig.		0.00		0.10		0.23		0.12		0.12		0.00		0.23
Offender N	147	175	99	66	24	28	31	39	10	33	75	119	15	24
Sample N	372	414												

Figure 4.3
Offender Mean Frequency: 1994



Chapter 5

Patterns of Police Encounters: Who Gets Arrested; For What; At What Age?

One way to examine police-juvenile encounters, including arrest, is to begin with police contacts of any kind, then narrow these encounters to those that subsequently involve arrest (being taken into custody or being registered or given a ticket), and then narrow these further to those that invoke activities by the prosecutor or juvenile court. Due to the cross-national comparison, we have to employ a more exclusive perspective on “arrest,” which adds to the American understanding of arrest (custody/ticketing) the requirement of referral to prosecutor or court. This is necessary, because being taken into custody does not occur as regularly in Germany as in the U.S., and because, in Germany, almost all contacts resulting in registration of an offense are forwarded to the prosecutor (see Chapter 3).

It should be kept in mind that arrest is an activity of law enforcement that depends on criminal responsibility. While in the U.S. culpability in most States begins at the age of 10, in Germany persons under 14 years of age are without criminal responsibility. Thus it would be legally indefensible to arrest such individuals. However, persons under the age of 14 do have contacts with police. Police officers who catch such “under-age” youth for activities such as shoplifting may take them to their parents, or, if parents are unavailable, to the juvenile authority (Jugendamt) for further assistance. The goal of this chapter is to provide a descriptive overview of the roles played by police contacts and arrests in the systems of formal social control at both sites.

5.1 Police Encounters in General (Police Contacts)

What is the probability of a police contact for an offense prohibited by law at each site? Examination of answers to this question provides an indication of how closely youth are officially monitored for behaviors that are considered wrong/delinquent in a given country. For a more enhanced understanding, however, it is also important to examine the rate of contact in relation to the level of involvement in delinquent behavior. That is, in addition to the overall rate of police contact, it is helpful to understand the probability of police contact among offenders (person based) as well as the probability of police contact for involvement in particular types of offenses (incident based).

Since the prevalence and frequency of involvement in delinquency varies somewhat between Bremen and Denver, as indicated in Chapter 4, the rates of police contact might also be expected to vary. Also, our common across-site measure of police contact is not a perfect match, so that some differences would be expected. However, the match seems sufficiently adequate for the years 1990 onward, to permit comparison of the police contact rates.²⁵

²⁵ In Bremen police contact was measured by follow up responses to SRD items. Thus, in Bremen, a measure of police contact is available only for offenses included in the SRD. A measure of contact for *any* offense is not available. However, there are not many offenses leading to arrest in Bremen that are not included in the site-specific SRD scales, so the measure of contacts based on the SRD items should be a reasonable estimate of contacts for any

The overall prevalence of police contact at the two sites is given in Table 5.1. As can be seen in the table, the prevalence of police contact differs substantially between sites. The prevalence in Denver is more than double the prevalence in Bremen in 1990, 1994 and 1995, and it is substantially higher in 1991 and 1996.

Table 5.1
Prevalence of Police Contacts Per Year in Bremen and Denver

Year	1990	1991	1992	1993	1994	1995	1996
Bremen	.09	.14	.12	.09	.05	.06	.05
Denver	.24	.21	*	*	.14	.14	.08

* Data not available

Gender differences in police contact rates are given in Table 5.2. As might be expected, at both sites, a greater percentage of males have a police contact. Interestingly, the ratios of prevalence rates between Bremen and Denver are larger for females than for males. In Denver between one third and one fifth of the males experience at least one police contact per year, as well as every seventh female in 1990. There is a substantial contrast between the two sites. Both males and females are contacted two to three times more often in Denver than in Bremen.

Table 5.2
Prevalence of Police Contacts in Bremen and Denver by Gender

Year	1990	1991	1992	1993	1994	1995	1996
Males in Bremen	.13	.21	.17	.13	.08	.11	.07
Males in Denver	.34	.30	-	-	.23	.21	.12
Females in Bremen	.04	.04	.05	.02	.02	.02	.01
Females in Denver	.14	.12	-	-	.05	.07	.05

Thus, at least as indicated by contact rates, police in Denver seem to control individuals much more closely. This finding would support the speculation that official control in the U.S. is tighter, while in Germany informal controls by social institutions (family, etc.) play a larger role (Lynch 1995). Although the Bremen police contact data for the younger ages was considered unreliable because of the lengthy recall period involved, it was clear that during adolescence the prevalence of police contacts in Denver was substantially higher than in Bremen. Part of the higher rate for police contact in Denver results from contacts for status offenses (e.g. curfew violations, runaway, etc.), a type of behavior that is not regulated by law in Germany, but accounts for 29% of police-juvenile encounters for males and 39% for females in Denver.

offense. Also, this police contact data for the years 1985 through 1992 was obtained in the 1993 interview. Thus the earlier years are influenced by longer retrospective recall. For example, for the years 1988 and 1989, the number of self reported police contacts is smaller than the numbers of arrests leading to court taken from the registered data of the BZR (cf. Chapter 3 for details). It is thus highly probable that for the years preceding 1990 the self-reported police contacts would be underreported. As a result, we present data only for 1990 onward. To match this measurement of police contact, the police contacts reported at the Denver site were filtered by the additional item that asked -- did you commit the offense that led to the police contact? It was believed that this filter would more closely approximate the Bremen data, since at both sites, either through reports to SRD items or through a filter, police contacts were counted only for those instances where a respondent had committed an offense.

However, for young adulthood (ages 18-20, reached by the oldest cohort in Denver in 1990 and the younger cohort in 1992) there is no simple explanation as to why the police in Denver appear to practice a much closer surveillance.

Given the preceding, it seems reasonable to presume that the larger set of behaviors that are considered offenses in the U.S. (e.g. status and public disorder offenses) leads to a higher frequency of police-juvenile contacts. If this interpretation is correct, the differences should disappear if the same set of offenses is examined at both sites. Indeed, by considering only those offenses included in the common scales as matches in both countries, the picture changes. As described in Chapter 3, the Common scales are restricted to equivalent forms of deviancy that are measured in a similar way in both countries. There are sub-scales for property offenses, violence, drug use and drug sales; their sum defines a total common scale. Examining contact rates for only the offenses that are common across sites, given in Table 5.3, we find a quite different situation than the one tabled before. However, the data are available only for the years 1994-1996, when the respondents of the two studies were aged 20-24.

Table 5.3
Annual Prevalence of Police Contact for Specific Types of Delinquency
As Measured in the Common Scales in Bremen and Denver (1994-1996)

<i>Offense type</i>	<i>Bremen</i>			<i>Denver</i>		
	1994	1995	1996	1994	1995	1996
Property	.02	.03	.01	.01	.004	.004
Minor Assault	.01	.02	.01	.01	.003	.002
Serious Assault	.02	.02	.01	.004	.00	.002
Drug Use & Sales	.01	.01	.01	.02	.02	.004
Total Delinquency	.04	.05	.04	.04	.03	.01

As can be seen by comparing Tables 5.1 and 5.3, only a small proportion of contacts in Denver are for offenses included in the common scales, offenses that are often of public concern – theft/property, assaults, drug violations. Thus, the majority of the contacts in Denver are for offenses specific to that site. In Bremen, on the other hand, contacts for offenses in the common scales (see Total Delinquency, Table 5.3) comprise the majority (80-83%) of all police contacts. Although there are between-site differences in contacts for behaviors included in the common scales, these differences are rather small. For 1994 the prevalence of police contacts for total delinquency is the same at both sites, thereafter it decreases in Denver but stays persistent in Bremen. The sub-scales indicate some interesting differences. Assault results in fewer police encounters in Denver than in Bremen. Similarly, although the prevalence rates are low, except for drug offenses (prevalence in Denver .02, compared to Bremen’s .01 in 1994 and 1995), police encounters are, in general, more than twice as frequent in Bremen than in Denver. This raises the question: Why is the number of police contacts smaller in Denver, when one controls for types of delinquency?

One obvious answer is that Bremen police are simply more active in terms of responding to delinquent behavior that is often of greater concern to the public at large, such as theft and property or violent offenses, and less active in other forms of delinquency. A second answer,

however, is that the common scales may be predominantly based on offenses that are characteristic for reactive rather than proactive policing. For example, drug taking and drug sales may be more subject to proactive policing, while property offenses and assaults may be more often brought to the attention of police by victims. Police then react to this information. The distinction between proactive and reactive policing is of significance here, because if police encounters are more frequent for offense types that are by nature proactive, this would be an indicator of a greater intensity of police control. However, if police only act upon complaints filed by citizens (usually victims), the prevalence of police encounters depends less on police work and control and more on the willingness of victims to report.

Typically, drug offenses are identified by proactive policing. Thus, it is interesting that for the drug scale, police contacts are slightly higher in Denver, suggesting more proactive policing. For the other scales, which cover essentially reactive offenses, the prevalence is higher in Bremen. It may be that in Denver, police are less frequently informed of crimes by victims, than in Bremen. This may especially be the case if the victims are minority youth, who may have less trust in the police. It is also possible that issues of insurance coverage for health problems are important. In assault cases in Germany, usually the insurance of offenders pays for treatment, but only if a police complaint has been filed. This encourages victims to seek police assistance and may also contribute to a higher prevalence of police contact.

Although determining the veracity of these different speculations would require substantial investigation, what is clear is that overall police contact is (1) more frequent in Denver, but that (2) when the types of offenses considered are restricted to be the same, contact rates are as high or higher in Bremen. Thus, overall formal social control, as measured by police contacts, is higher in Denver, but for certain sets of offenses, such as assault or property offenses, formal social control, is similar at both sites or even somewhat higher in Bremen.

5.2 Prevalence of Arrest (With Referral to Court) In The Total Samples

If an arrested person is referred to court, a higher level of intervention is implied. Not only has there been a police encounter with the suspect, there is also a follow up action by a prosecutor (in Germany) or juvenile court intake (in Denver). For a cross-national perspective it seems adequate to focus the analysis of the use and consequences of arrest on this particular type of official reaction to delinquent behavior, an officially registered police contact leading to court. It certainly refers to a serious reaction towards delinquency. As noted in Chapter 3, the measurement of this reaction differs somewhat at both sites but appears to be essentially equivalent. In Denver the respondents after having reported an arrest or ticket described subsequent court contact. In Bremen, for each respondent, the files on legal actions of the federal register in Berlin (BZR) were searched for any decisions handed down by prosecution or judges based on juvenile court law (JGG) during the years under study. Since, in Bremen, almost all registered contacts are referred to the prosecutor, while in Denver, only a majority of such contacts are referred to court intake, the use of “arrest with court referral” as a common measure of “arrest” across sites is necessary (see Chapter 3).

We begin with a general overview on the use of arrest in Bremen and Denver. The prevalence of arrest at the two sites is given in Table 5.4. Differences in the prevalence of arrest between sites are similar to the differences for police contact. For all years, the prevalence rates are higher in

Denver than in Bremen. For some years (1990-1995, except 1992) the rates are more than double, for the remaining years the differences are substantial, including even the years 1992 and 1993 when the Denver data may underestimate the arrest rate somewhat due to methodological circumstances.²⁶

Table 5.4
Prevalence of arrest with referral to court for any offense in Denver and Bremen

	85	86	87	88	89	90	91	92	93	94	95	96	97	98
Bremen	.01	.03	.04	.09	.10	.08	.10	.06	.04	.05	.06	.04	.04	.02
Denver	*	*	.06	.12	.19	.22	.21	.10	.11	.13	.14	.07	*	*

* Data not available.

The size of the differences between the two sites is somewhat lower than that observed for police contacts (Table 5.1). For Denver in the years 1988, 1989 (not shown) and 1990 the prevalence of police contact is only slightly higher than that of arrest, with 80%-92% of contacts referred to court.²⁷ Similarly, for 1991 and later years, 88%-100% were referred. It is conceivable that in Denver, status offenses during the years of adolescence result in a greater number of police encounters that do not result in arrests with referral to court. For Bremen, the comparison between rates of police contacts and arrests leads to more differentiated results. During the 1990-1993 period, there is a decline in the percentage of police contacts that are referred to court, from 89% to 44%. This is followed in 1994-1996 with the vast majority of contacts being referred to court each year (80%-100%). This is consistent with earlier observations of greater leniency during adolescence in Bremen. In three of the years considered, from about one-quarter up to about one-half of police contacts, that youths indicated was for a delinquent offense they had committed, were *not* referred to the prosecutor (and therefore, presumably, not registered). Thus at both sites, there seems to be a tendency for contacts with younger offenders not to result in referral to court, and this tendency is more pronounced in Bremen.

However, given that in most years and at both sites the preponderance of police contacts (in which a respondent indicated that they were in fact committing a delinquent act) resulted in court referral, it seems reasonable to conclude that differences between police contacts and arrests are not enormous, especially for the later years. Thus, we should be safe to grasp the essence of the majority of police-juvenile encounters by using the “arrest with referral to court” measure for further analysis.

²⁶ In Denver, arrests in 1992 and 1993 were measured retrospectively in the 1995 survey without follow up questions regarding court referral. Thus there is no control for court referral and this results in overestimates of the prevalence of “arrest” as used here. On the other hand, the retrospective measurements may result in under-reporting due to memory loss, similar to the retrospective measurement of delinquency (see Chapter 3).

²⁷ At both sites police contact is counted only if the contact was for a delinquent act acknowledged by a respondent, and it is known that at both sites some arrests occur when delinquent acts are not acknowledged. Thus the percentages of contacts leading to arrest reported here are slightly inflated.

If we restrict the between site comparison to offenses included in the Common scales, which include only offenses that are illegal at both sites, the differences between sites diminish (see Table 5.5). For total delinquency, as measured by the common scale, we find in all years a fairly similar prevalence of arrest in Bremen and Denver. The prevalence of arrest for property offenses is slightly higher in Bremen and the prevalence of arrest for minor assault is somewhat higher in Denver across the years. However, there appears to be general similarity between the two sites regarding police and court reactions to deviance when subsets of offenses that are illegal at both sites are considered. If one controls for offense, cross-site differences do not disappear but become smaller. Thus, as noted earlier for police contacts, the higher rate of prevalence of arrest in Denver appears to reflect arrests for behaviors that are not illegal in Germany, mainly status offenses.

Table 5.5
Prevalence of Arrests With Court Referral in Bremen and Denver
As Measured in the Common Scales in Bremen and Denver

<i>Offense Type</i>		1988	1989	1990	1991	1992	1993	1994	1995	1996
Property	Bremen	.06	.06	.04	.07	.02	.02	.02	.01	.01
	Denver	.03	.05	.03	.02	.01	.01	.01	.004	.004
Minor Assault	Bremen	.005	.005	.00	.00	.005	.007	.005	.005	.002
	Denver	.01	.01	.03	.03	.01	.02	.01	.01	.01
Serious Assault	Bremen	.005	.01	.01	.02	.02	.007	.002	.007	.00
	Denver	.002	.01	.01	.01	.005	.01	.004	.00	.004
Drugs –Sale / Possession	Bremen	.00	.002	.00	.002	.005	.00	.005	.005	.005
	Denver	.002	.004	.003	.01	.01	.01	.01	.02	.002
Total Delinquency	Bremen	.07	.07	.05	.07	.04	.03	.03	.03	.02
	Denver	.05	.07	.07	.06	.04	.03	.03	.04	.02

Arrest by Age and Gender of Offender

The age-crime curve is a well-established phenomenon in Criminology. It can be demonstrated using self-reported or officially recorded offenses, such as arrest. Thus, it is anticipated that we will find arrest rates rise to a maximum level at a particular age and decline thereafter.

To examine the age crime curve in Germany and the U.S., we have to be aware of the differences regarding the minimum age of criminal responsibility. In Germany arresting persons under the age of 14 years is not legally defensible.²⁸ There are no figures available on arrest rates for children (persons under the age of 14) in Bremen, because neither in the interviews nor in the BZR are there any indications of such events. Data about children are available for Denver, but not (except for lengthy recall) for the two oldest cohorts (born in 1972 or 1974), which are the cohorts used for most analyses in our comparative study. However, the DYS data set contains information about younger cohorts which are part of the accelerated design of the DYS (the years of birth for the five cohorts are 1972, 1974, 1976, 1978 and 1980). Thus, the design

²⁸ If police cannot determine age the suspect may be taken to the police station for further inquiry about age, but arrest, as the start of a criminal proceeding, is precluded by the lack of criminal responsibility of persons under the age of 14.

provides the opportunity to determine the proportion of police-respondent encounters starting at the age of seven, although in Denver the age of responsibility is ten, which is the youngest possible age for an arrest. For Bremen, in contrast, retrospectively we know about police contacts from the questionnaires beginning at the age of 14 and arrests with court referral from the registered data (BZR) also beginning at the age of 14.

The Denver data in Table 5.6 indicate an age curve for the prevalence of arrest with referral starting with 3% at the age of 10, a peak of 22% at the age of 18, and a decline down to 8% at the age of 24.²⁹ For Bremen the age curve for prevalence of arrest starts at the age of 14 at 2%, peaks at 9% at the age of 16 and again at 19, and declines to 5% at the age of 24. In comparing the sites, it can once again be seen that at comparable ages the arrest rates in Denver are usually twice as high and at some ages (14 and 18) even triple those in Bremen.

Similar age curves of the prevalence of arrest hold for both genders, although the peak in Denver for males is at age 18, while for females it is at 17. In Bremen the peak for males is at age 19 and for females is at age 16. Also for both genders and all ages the arrest rate in Denver is at least two to three times higher than in Bremen. As would be expected, at both sites and at all ages, males have substantially greater arrest rates than females, males having arrest rates that are two to three times higher than females.

Also, it might be expected from the findings in Table 5.2 that females in Denver are targeted to greater degree by police controls than their German counterparts. As can be seen in Table 5.6, this is especially true for the younger ages (up to the age of 18). Consistently, the prevalence of arrest for females is almost five times higher in Denver than in Bremen.

²⁹ It should be kept in mind that all tables showing age-graded arrest rates for Denver provide estimates that use data based on the five cohorts. Data from all of the cohorts that pass through a given age are used. However, not all cohorts pass through every contiguous age. For example, the estimates for age 10 use data from the 1978 and 1980 birth cohorts and estimates for the ages 23 and 24 are based on data from the 1972 cohort only. This expansion of the data set for Denver gives more reliable descriptions of the age-graded arrest risks. However, with the exception of tabled age-graded arrest data in this chapter, in all other analyses only the two oldest cohorts of the DYS data set have been used.

Table 5.6
Prevalence of Arrest (Referral to Prosecutor/Court) in Bremen and Denver by Age and Gender

Age	Total		Males		Females	
	Bremen	Denver	Bremen	Denver	Bremen	Denver
10	X	3.2%	X	4.6%	X	1.7%
11	X	1.9%	X	3.1%	X	0.5%
12	X	5.8%	X	7.0%	X	4.5%
13	0.2%*	7.9%	0.4%*	8.9%	X	6.8%
14	2.4%	13.3%	3.5%	16.7%	1.1%	9.5%
15	7.3%	18.5%	11.3%	25.3%	2.2%	10.9%
16	9.2%	19.1%	12.6%	27.2%	5.0%	10.2%
17	7.3%	20.7%	11.3%	27.2%	2.2%	13.9%
18	7.1%	22.4%	10.4%	34.2%	2.8%	11.2%
19	8.8%	19.8%	13.5%	33.3%	2.8%	7.2%
20	5.6%	13.8%	8.3%	23.2%	2.2%	3.8%
21	4.9%	11.6%	8.3%	14.9%	0.6 %	8.1%
22	6.3%	9.0%	10.0%	15.7%	1.7%	2.8%
23	6.3%	16.1%	9.6%	28.0%	2.2%	7.2%
24	4.9%	8.4%	7.4%	12.3%	1.7%	5.5%
25	1.9%	--	3.0%	--	0.6%	--
26	0.2%	--	0.4%	--	0.0%	--

* One case dismissed by prosecution (probably for lack of criminal responsibility after the age of the offender was determined).

-- Data not available in Denver

x Legally, no arrest is possible (under age)

Cumulative arrest rates are given in Table 5.7. The younger ages at which police in Denver arrest children and the higher percentage of the youth being arrested per year account for the fact that the percentage of the cohorts that has ever been arrested (the cumulative arrest figure) is very different at both sites. An interesting difference is that in Bremen during the ages of 10 through 13, which are legally considered childhood in Bremen, no arrest occurs, while in Denver approximately 15% of children have been arrested by the age of 13. At the age of 18 the figures are 23% in Bremen and 59% in Denver. Of those persons aged 24 years, 31% in Bremen and 78% in Denver have been arrested at least once in their life. The differences are even more striking for females than for males.

Table 5.7
Cumulative Distribution of Arrest (Referral to Prosecutor/Court) By Age
in Bremen and Denver

Age	Total		Males		Females	
	Bremen	Denver	Bremen	Denver	Bremen	Denver
10	x	3.2%	x	4.6%	x	1.7%
11	x	4.5%	x	6.8%	x	2.0%
12	x	9.4%	x	13.0%	x	6.3%
13	0.2%*	14.9%	0.4%*	18.8%	x	13.1%
14	2.7%	24.5%	3.9%	30.8%	1.1%	19.8%
15	10.0%	35.6%	15.2%	45.6%	3.3%	26.8%
16	16.3%	45.6%	23.5%	57.5%	7.2%	34.8%
17	20.2%	53.3%	29.6%	66.1%	8.3%	41.7%
18	22.9%	59.3%	33.5%	73.6%	9.4%	46.2%
19	25.5%	65.3%	37.0%	81.9%	11.0%	49.9%
20	27.7%	68.3%	40.0%	86.3%	12.2%	51.3%
21	28.2%	70.0%	40.9%	87.6%	12.2%	53.4%
22	29.4%	72.1%	43.0%	90.3%	12.2%	54.8%
23	30.7%	76.2%	44.8%	94.8%	12.7%	58.5%
24	31.1%	78.4%	45.7%	96.3%	12.7%	61.4%
25	31.6%	--	46.5%	--	12.7%	--
26	31.6%	--	46.5%	--	12.7%	--
27	31.6%	--	46.5%	--	12.7%	--

* One case dismissed by prosecution (probably for lack of criminal responsibility after the age of the offender was determined).

--Data not available in Denver

x No arrest possible (under age)

As can be seen, even allowing for some error in the Denver estimates from the use of the accelerated design,³⁰ the proportion of persons ever arrested by a given age is at least two to three times higher in Denver than in Bremen, and being arrested at some time in their life by the early twenties is certainly no uncommon experience among the Denver sample.

Given these differences one may consider arrest with court referral as not being very frequent in Bremen but more normal in Denver. This poses the question if the relative normality versus the relative rarity influences the effect of such interventions. We will turn to that question in a later chapter.

³⁰ For a better understanding of the data one has to be aware that for Bremen, the data are taken from the BZR and thus are summaries of officially recorded data for each person. For Denver, the figures are based on self-report and require the linking of all five birth cohorts of the Denver study. If it is presumed that the experience at particular ages of one cohort is applicable to another, then the figures presented reflect quite good estimates of the cumulative distribution, and most of the estimates are based on the experience of two or more cohorts. However, to the extent that there are underlying cohort or period effects, the estimates provided would have to be considered in error.

In conclusion, it seems that throughout almost all ages the differences of arrest rates between Bremen and Denver, which were demonstrated on an annual basis, also replicate in an age-graded data structure. Usually the rate is twice as high in Denver; for younger ages this ratio is higher, for older ages it is smaller. Apparently, Denver police intervene in the lives of children and adolescents up to the age of 18 much more frequently than do Bremen police.

5.3 Prevalence of Arrest (With Referral to Court) Among Offenders

So far arrest and police contact have been described for both sites to indicate differences in policing. For Denver, there was a suggestion that proactive policing may play a more important role. Also we learned that police contact and arrest occur in Denver for types of behavior that are not illegal in Germany. Thus, quite generally the risk of being contacted by police is higher in Denver if one does not control for the type of offense. However, if one controls for type of offense, so that the same offenses are considered at both sites, the differences between sites become very small.

Overall prevalence rates of police contact and arrest, however, should be interpreted in relation to the rates of offending or the proportion of offenders in the populations, since the rates of contact and arrest are dependent on the rates of offending. How different are the risks for *offenders* at both sites to be contacted or arrested/ticketed by police? To examine this question, it would be helpful to know what proportion of offenders according to the *site-specific SRD* scales have been arrested, as well as what proportion of youth who committed an offense listed in the *Common* scales have been arrested in a particular year?

As shown in Table 5.8 for the site-specific Total SRD scale, we find a consistently higher risk for offenders in Denver to be arrested. In fact, in 1990 and 1993, the Denver rate more than doubles the rate in Bremen. In Denver in 1989-1991 roughly 1 in 4 offenders are arrested, while in Bremen roughly 1 in 8 are arrested. During the years 1992-1995 roughly 1 in 8 offenders are arrested in Denver, while 1 in 14 offenders are arrested in Bremen. Thus, again we find a much tighter control of youth behavior by the police in Denver than in Bremen. Given the different behaviors that are offenses at one site but not the other, it may be that there are some behaviors that draw police attention more intensively and are only proscribed in Denver. One way to determine if this is true is to look at the Common total SRD scale and see if the differences remain.

Table 5.8
Prevalence of Arrest Among Persons Who Committed Offenses
Listed in the Site-specific Total SRD Scales in Bremen and Denver

	86	87	88	89	90	91	92	93	94	95	96	97	98
Bremen	.07	.06	.12	.13	.11	.14	.08	.05	.07	.09	.05	.07	.03
Denver	*	*	.12	.22	.24	.20	.14	.13	.10	.13	.06	*	*

* Data not available.

As can be seen in Table 5.9, between-site differences in apprehension for committing an offense included in the Common scales are much reduced. For the total set of offenses and property offenses that are common across sites, arrest rates are higher for Denver in some years, but higher in Bremen in others, and differences are often small. The prevalence of arrest for minor assaults is generally higher in Denver, being infrequent or zero in Bremen in most years. The prevalence of arrest for serious assault is also often similar across years. Thus, findings within the group of individuals who actually are offending are similar to the findings about arrests in the general populations. The prevalence of arrest among offenders is similar in the two sites when offenses that are common are considered, but are substantially higher in Denver when arrests for any offense are considered. This again suggests that the prevalence of arrest in Denver may reflect arrests for behaviors that are not illegal in Germany, such as status offenses.

Over the years, the pattern of annual rates indicates, not too surprisingly, that a higher proportion of younger offenders are arrested at both sites. It appears that in Denver the generally decreasing rate for total delinquency is largely dependent on property offenses, but this is not the case in Bremen. Overall, examining arrests for all types of offenses, offenders in Denver are arrested more often and this finding is replicated when the set of offenses is restricted to those types of offenses that are common across sites.

Table 5.9
Prevalence of Arrest Among Persons Who Committed Offenses
Included in the Common Scales

	Year	1988	1989	1990	1991	1992	1993	1994	1995	1996
Property	Bremen			.08	.17	.05	.03	.04	.00	.04
	Denver	.07	.16	.12	.09	.08	.05	.03	.04	.03
Minor Assault	Bremen			.00	.00	.00	.00	.04	.05	.00
	Denver	.09	.04	.10	.09	.08	.07	.00	.05	.00
Serious Assault	Bremen			.03	.05	.04	.02	.00	.07	.00
	Denver	.00	.06	.03	.06	.03	.00	.02	.00	.00
Drugs – Sale/ Possession	Bremen			.00	.00	.04	.00	.01	.00	.03
	Denver	.01	.02	.01	.03	.05	.03	.02	.06	.01
Total Delinquency	Bremen			.09	.16	.10	.04	.06	.05	.04
	Denver	.08	.14	.12	.11	.12	.08	.05	.10	.05

Risk of Arrest Among Offenders by Age and Gender

To answer the question whether selection processes guide the decision about who gets arrested and who does not, we should have a closer look at age and gender. It seems reasonable to expect that both factors influence the risk of being arrested. At which age is the risk the highest for males and females in Denver and Bremen? Are there differences regarding age and gender and if so, are they similar at both sites? Table 5.10 gives the data for those comparisons.

Table 5.10
Prevalence of Arrest (Referral to Prosecutor/Court) Among Offenders in Bremen and Denver
by Age and Gender

Age	Total		Males		Females	
	Bremen	Denver	Bremen	Denver	Bremen	Denver
10	x		x		x	
11	x	2.4%	x	3.3%	x	0.0%
12	x	13.4%	x	13.4%	x	13.2%
13	x	13.5%	x	13.0%	x	13.7%
14	--	20.1%	--	22.9%	--	16.3%
15	10.7%	24.0%	17.8%	30.0%	0.0%	16.6%
16	12.4%	25.9%	17.8%	34.2%	4.2%	15.0%
17	10.5%	27.4%	15.4%	34.6%	2.5%	18.5%
18	8.3%	29.4%	10.3%	38.1%	4.2%	18.8%
19	11.2%	27.4%	14.6%	40.7%	4.4%	8.5%
20	7.6%	18.0%	9.3%	26.8%	4.1%	2.2%
21	6.2%	18.4%	8.6%	24.6%	1.3%	9.5%
22	8.1%	12.0%	11.3%	19.2%	2.5%	3.1%
23	7.6%	27.4%	9.3%	37.0%	4.2%	15.7%
24	8.0%	14.3%	10.6%	19.1%	3.1%	9.1%
25	6.1%	--	6.1%	--	6.1%	--
26	6.0%	--	8.0%	--	0.0%	--

--Data not available in Bremen/Denver
x No arrest possible (under age)

Youth engaged in delinquency (i.e., offenders) run the highest risk of being arrested in Denver and Bremen if they are between 15 and 19 years old. In Denver the age with the highest risk is 18, in Bremen 16. By looking at gender we find interesting differences over the ages and between the sites. In Denver adolescents of both sexes under age 14 run the same risk of being apprehended. The gender-gap (i.e., male offenders having a higher arrest risk than females) begins at age 14. The risk for males doubles through the ages 15 – 18 and increases even more thereafter (e.g. five times at age 19 or six times at age 22). In Bremen the development of the gender gap is rather the reverse. At early ages (15–17), it is wider with male offenders having four times the chance of being arrested as female offenders, and narrows down somewhat at later ages (with the exception of ages 21 and 22).

By comparing the arrest risks between Bremen and Denver we find that throughout the ages, the arrest risk for offenders is two or three times higher for the American youth. Since the rates of arrest among offenders as defined by the common scales were fairly similar over the 1990-1992 period (see Table 5.9), this again suggests that during adolescence Denver offenders have been arrested frequently for offenses that are not crimes in Bremen, such as status offenses.

Arrests by Offender Type

Preceding sections of this chapter have indicated that the offenses that most frequently lead to arrest differ between the two sites. In this section we briefly examine how much the frequency of committing particular kinds of offenses determines the risk of being arrested. To accomplish this, the cohort members were divided into eight types based on the frequency of their self-reported offending in regard to property, violence and other kinds of delinquency (including drugs). On each of the three scales, persons are considered either low frequency (scores of 0 or 1) or high frequency (scores of 2 or more) offenders. The “cut-point” of 2 was selected because it was the median of the property and violence scales for offenders in Denver and provided a reasonable “cut-point” in Bremen.

By combination (see Table 5.11), this creates one group (Type 1) with low offending rates for all three types of offenses, three groups (Types 2-4) with a high offending rate for one offense type but a low rate for the others, three groups (Types 5-7) with a high offending rate for two offense types and a low rate for the third, and finally one group (Type 8) with a high rate of offending for all three offense types. The arrest rates of these types can be examined to determine (a) whether frequent offenders have a higher probability of arrest and (b) if particular offender types have a higher probability of arrest. If the number of individuals of a particular type is small, the prevalence rates were considered unreliable, and hence are not tabulated. The years 1987-88 are used in Bremen and 1989 in Denver, corresponding to a period during adolescence for the samples. Although a “cut” of 2 or more was used to identify higher frequency offenders, as can be seen in Table 5.11, the group means usually far exceed this minimum requirement.

In Denver there is a clear effect of frequency of offending on the probability of arrest, and this holds for arrests in general and for arrests for specific types of offenses. For example, the prevalence of arrest for any offense, for offenders who have a low frequency of offending in all categories of offense (Type 1) or offenders who have higher frequencies of offending in only one category (Type 2) is in the 10-14% range. In contrast, the prevalence of arrest for those who have higher frequencies of offending in two categories (Types 5 and 6) is about 30%, and the prevalence of arrest for those who have high frequencies of offending in all three categories is about 63%. Similarly, in general, within types of offenses, groups with higher frequency scores have a greater proportion of their members arrested for that kind of offense (e.g., compare the frequency of offending and prevalence of arrest for property offenses for Types 1, 6 and 8). Also, in general, within a delinquency type, the higher the frequency of participation in a given kind of delinquency, the higher the probability of arrest for that kind of offense. Thus, in Denver, as frequency of offending increases in either sheer frequency or in the variety of high level offending, the probability of arrest correspondingly increases.

In Bremen, the findings are not as consistent. For those who are low level offenders in all categories of offending, approximately 5% are arrested. For those who are more frequent offenders in one, two, or three types of offending, the prevalence of arrest ranges from 10 to 16%. Thus at a rather gross level, greater frequency of offending is related to probability of arrest. However, the very high frequency offenders who are engaged at high frequencies in all three types of delinquency have an arrest probability of only about 11%, which is less than the probability of other offender types with lower frequencies of offending. Also, for offender groups that have high frequencies of involvement in violence or in other non-property offenses,

their arrests are almost exclusively for property offenses (e.g., see types 6 and 8). Thus, in Bremen, it appears that during adolescence there is only a very small chance of being arrested for any kind of offense other than a property offense. (Of all arrests in Bremen reported in Table 5.13, 79% are for property offenses.)

Thus, all in all, it appears that frequency of offending does affect the probability of arrest in Denver, but has only a small and inconsistent effect in Bremen. If a particular offense type drives the arrest probability, in Bremen, it is property rather than violence that makes a difference. In Denver, the probability of arrest and kind of presenting offense are, generally, proportional to the frequency of involvement in each kind of delinquency. In comparing the two sites, it is also clear that those involved at a high frequency in all kinds of delinquent behavior, the highest frequency and presumably most serious offenders, have a much smaller chance of arrest in Bremen than in Denver (11% in Bremen, but 63% in Denver).

Table 5.11
Probability of Arrest for Offender Types in Bremen (1987-88) and Denver (1989)

SRD Offender Type ^a				Offender N	Probability of Arrest for Specific Type of Offense			
Type	Property Offense (Mean ^b)	Violent Offense (Mean)	Other Offense (Mean)		Property Offense	Violent Offense	Other Offense	Any Offense
Bremen								
1.	Low (0.21)	Low (0.00*)	Low (0.00)	189	3.7%	0.0%	1.1%	4.8%
2.	Low (0.62)	Low (0.13)	High (8.00)	8	--	--	--	--
3.	Low --	High --	Low --	2	--	--	--	--
4.	High (14.33)	Low (0.01)	Low (0.01)	113	11.3%	2.6%	1.7%	15.9%
5.	Low --	High --	High --	0	--	--	--	--
6.	High (25.71)	Low (0.23)	High (12.17)	48	10.4%	0.0%	0.0%	10.4%
7.	High --	High --	Low --	5	--	--	--	--
8.	High (88.83)	High (10.11)	High (36.28)	18	11.1%	0.0%	0.0%	11.1%
Denver								
1.	Low (0.12)	Low (0.03)	Low (0.19)	167	3.6%	1.8%	4.8%	9.6%
2.	Low (0.19)	Low (0.10)	High (34.99)	211	0.9%	0.9%	12.3%	13.7%
3.	Low --	High --	Low --	4	--	--	--	--
4.	High (2.88)	Low (0.20)	Low (0.42)	11	--	--	--	--
5.	Low (.43)	High (7.04)	High (44.81)	32	6.1%	6.3%	24.3%	30.3%
6.	High (7.32)	Low (0.33)	High (47.92)	57	12.1%	0.0%	22.6%	28.1%
7.	High --	High --	Low --	0	--	--	--	--
8.	High (38.75)	High (16.45)	High (158.87)	41	28.6%	14.3%	56.1%	63.4%

^a Offender types are defined by combinations of low (0 and 1) and high (2 or more) scores on three delinquency measures – property, violence, and other. There is not perfect overlap in the offenses included in the other SRD category and the other arrest category, because individuals may be arrested for an offense that is not included in the list of SRD items.

^b The means are the within group means of the delinquency measures.

* Mean frequencies of less than 0.005 have been tabled as 0.0, but all such values are, in fact, greater than 0.

5.4 For What Offenses Are Youth Arrested?

Information about the particular offenses that draw the attention of police for different ages and genders is given in Tables 5.12 and 5.13. In general, the presenting offense for arrest (that is the offense that triggered police action) changes with age. For Denver males, for the ages up through age 18, status offenses are the most frequent offense leading to arrest, followed by property and then violent offenses. In general, starting at age 19, the most prominent presenting offense becomes court violations, indicating that for young adult males, regulations in the context of probation gain importance. The next most frequent offense for young adult and adult males are forms of public disorder (which include alcohol offenses), followed by violent and then property offenses.

For females in Denver, the picture changes slightly. Similar to males, up through the age of 18, status offenses are, in general, the most frequent presenting offense, followed by property and then violent offenses. Thereafter, no particular offense consistently dominates. This is partly due to the smaller arrest rates for females aged 19 or older.

For neither gender are drug offenses a frequent presenting offense. Quite interestingly, rates of arrest for violence do not differ very much between genders, and violence becomes even the dominant offense for females of the ages 20 and 21.

Quite obviously, there will be differences in presenting offenses between Denver and Bremen simply because status and some public disorder offenses are not part of the criminal code in Bremen, and thus no arrests can be based in Bremen on these kinds of behavior. This also is true for court order violations; they are not considered reasons for arrest or to be addressed by criminal proceedings (and therefore are not recorded in the BZR, from which these data were taken). Therefore it is not surprising to find in the Bremen sample that up through the age of 18, for both genders, arrests for property offenses dominate, followed by a variety of other offenses. For the older ages the dominant presenting offense seems to be traffic offenses that are the most frequent offense among all “other offenses” at these ages. It is interesting that at the younger ages through age 17 there are no arrests for drug offenses.

A summary for the age ranges based on an average of the annual periods for adolescent, young adult, and adult age ranges is given in Table 5.14. That is, the tabled values give the expected percentage for any given age within the age range specified. For this table, status offenses and court violations have been removed from the Denver data to provide greater comparability across sites. Some interesting site differences can be observed. First, in Bremen, the preponderance of arrests during adolescence is for property offenses, almost three-quarters for males and over 90% for females. In contrast, although the relative prevalence (excluding status and court violations) of arrest for property offenses is high in Denver, it is less than 50% for both genders. Also, although not as dramatic, the higher prevalence of arrest for property offenses in Bremen continues across the all the age periods examined.

Table 5.12
Prevalence of Presenting Offense Among Arrestees by Age and Gender in Denver*
Denver Males

Age	Property	Violence	Drug	Public Disorder	Status	Court Violation	Other
10 ⁺	--	--	--	--	--	--	--
11	55%	17%		10%	17%		
12	24%	54%		17%			5%
13	20%	19%	5%	5%	38%	5%	9%
14	31%	7%	3%	10%	38%	4%	7%
15	23%	16%	3%	10%	39%	3%	8%
16	16%	12%	2%	11%	53%	5%	2%
17	12%	10%	2%	16%	47%	7%	5%
18	29%	17%	2%	14%	23%	8%	8%
19	17%	22%	5%	12%	9%	24%	10%
20	7%	13%	6%	16%	13%	26%	19%
21		9%	11%	30%		38%	13%
22	13%	10%	9%	17%		37%	14%
23	6%	28%	18%	30%		7%	12%
24	9%	28%		30%		33%	

Denver Females

Age	Property	Violence	Drug	Public Disorder	Status	Court Violation	Other
10 ⁺	--	--	--	--	--	--	--
11	56%						44%
12	40%			31%	29%		
13	20%	18%			54%	3%	5%
14	28%	12%		21%	36%		3%
15	30%	12%		9%	42%	5%	2%
16	10%	17%		12%	51%	10%	
17	12%	10%		6%	69%	3%	
18	10%	8%		21%	60%		
19		11%		64%	11%	14%	
20		53%	23%	23%			
21		66%				22%	12%
22		16%		16%		21%	48%
23	8%		10%	52%		19%	10%
24	18%	18%		14%		50%	

* These data are "event-arrest" data at each age, giving percentage of total number of arrests, where arrest means police contact that is referred to court. Also, for individuals 21 and over, alcohol offenses (open containers, etc.) have been coded as public disorder. For those 20 and under, alcohol possession, etc. has been coded as a status offense. Thus those 18-20 can have a status offense.

+ Insufficient information was collected from 10 year olds to permit accurate classification by type of offense, and thus this data is not available.

Table 5.13
Prevalence of Presenting Offense Among Arrestees by Age and Gender in Bremen*

Bremen Males

Age	Property	Violence	Drug	Other
14	100%			
15	77%	10%		13%
16	71%	3%		26%
17	43%	7%		50%
18	47%	10%	3%	40%
19	47%	9%		44%
20	44%	16%	4%	36%
21	52%	4%	4%	40%
22	24%	9%	9%	59%
23	36%	11%	7%	46%
24	36%	9%	5%	50%
25	40%	15%	5%	40%
26	14%		29%	57%

Bremen Females

Age	Property	Violence	Drug	Other
14	100%			
15	100%			
16	70%	10%		20%
17	100%			
18	71%		14%	14%
19	40%			60%
20	50%			50%
21	100%			
22	50%			50%
23	20%			80%
24	50%			25%
25	40%			60%
26 ⁺				

* These data are “event–arrest” data at each age, giving percentage of total number of arrests. Arrest = police contact that is referred to Prosecutor (BZR data).

+ There were no arrests of females at age 26.

Table 5.14
Mean Annual Prevalence of Presenting Offenses Across Age Ranges
With Status & Court Violations Removed in Denver

During Age Period	Property		Violence		Drugs		Other	
	Male	Female	Male	Female	Male	Female	Male	Female
Age 14-17								
Bremen	73%	93%	5%	3%	0%	0%	22%	5%
Denver	39%	43%	22%	31%	6%	0%	34%	28%
Age 18-20								
Bremen	46%	54%	12%	0%	2%	5%	40%	41%
Denver	26%	9%	26%	30%	7%	8%	40%	54%
Age 21-24								
Bremen	37%	55%	8%	0%	6%	0%	49%	39%
Denver	10%	12%	26%	35%	13%	3%	53%	50%

Another rather striking difference can be seen in the prevalence of arrest for violence. For both genders, the prevalence of arrest for violence is substantially lower in Bremen than in Denver across all age groups. What seems particularly noteworthy is that, except for a few arrests at age 16 (see Table 5.13), there are no arrests of females for a violent offense. Given the general similarity of offending observed in earlier chapters, this suggests some discretion on the part of victims and police in Bremen in reporting or taking action for violent behavior of females. In contrast, in Denver, roughly one-third of the arrests of females are for violent offenses in each age group.

There are thus some substantial between-site differences in the types of offenses that most frequently lead to arrest. The larger proportion of property in comparison to violent arrests in Bremen, may affect the nature of sanctions that are considered appropriate for apprehended individuals between the two sites.

5.5 Other Variables Influencing the Probability of Arrest

In addition to the influence of age, gender, and pattern and frequency of offending, the question may be asked whether there are additional factors that influence the probability of arrest. Guided by the literature (but restricted by the variables available in both data sets) the following factors were considered in addition to age, gender, and frequency of offending: (1) minority (indicators referring to Hispanics, blacks, and other minorities in Denver and to immigrants in Bremen); (2) prior arrests (arrest history prior to the period under study, measured by number of prior arrests), and (3) gang membership during the period under study. In these analyses, frequency of offending was measured categorically by quartiles of total SRD frequencies.

These variables were entered simultaneously in logistic regressions predicting arrest at each site. Thus, the effect of each of the variables could be interpreted in the context when all of the other variables are controlled. As can be seen in Table 5.15, there is a fair degree of similarity between the sites, but also some differences. At both sites, gender, gang membership, and number of prior arrests all significantly increased the probability of being arrested. The importance of minority status for being arrested is apparent only in Denver. Blacks and Hispanics have significantly higher rates of arrest compared to whites (the reference group), even at similar levels of all the other variables. For Bremen, there is no comparable increase in arrest probabilities for the immigrant group.

At both sites, the odds of being arrested are substantially raised by prior arrests and gang membership. This suggests that police at both sites use accumulated knowledge about the persons or groups in the decision to arrest. Those who have been arrested in prior years and gang members may be known to police, may be under closer supervision, and run a higher risk of arrest if apprehended for a crime. Being known to police seems to increase the risk of future arrest at both sites. It is not surprising that frequency of offending increases the risk of arrest, as has been seen in earlier analyses. However, although the odds ratios are in the anticipated direction (the comparison group are those in the first quartile), only in Bremen for those in the highest quartile is the effect of frequency on arrest significant. It must be remembered, however, that these effects are in the presence of all other variables, so that the effect of frequency may be moderated by gender, gang membership, and arrest history (all of which predict frequency of offending as well as arrest).

Overall it appears that the probability of arrest is dependent not only on frequency and type of offending pattern, but also on being male, having an arrest record, being a gang member, and, in Denver, being a member of a minority group (African American or Hispanic).

Table 5.15
Variables Increasing Risk of Arrest Among Offenders (Odds Ratios)
Logistic regressions of arrests in Denver and Bremen, 1990/91.

Variable	Bremen Odds (Signif.)	Denver Odds (Signif.)
Male	2.4 (.11)	2.5 (.00)
Minority	1.2 (.77)	-
Black	--	3.4 (.01)
Hispanic	--	2.3 (.09)
Other	--	1.2 (.75)
Gang membership	3.0 (.02)	2.6 (.02)
Number of prior arrests	3.2 (.00)	1.4 (.00)
Delinquency		
Del. 2 nd Quartile	1.4 (.64)	1.6 (.17)
Del. 3 rd Quartile	2.6 (.15)	1.1 (.62)
Del. 4 th Quartile	3.1 (.08)	1.4 (.31)

5.6 Summary of Findings About Arrest

The comparisons provided in this chapter have established important similarities and differences in policing and arrest between Bremen and Denver. In general, the same age-crime curve as indicated by arrest was observed at both sites for both genders, with a peak in late adolescence. As would be anticipated, males at both sites were more likely to be arrested. Controlling for the prevalence of delinquent offending, that is, looking at the probability of arrest only among active offenders, did not change these basic findings. Also, being known to the police through prior arrests and being a gang member increased the probability of arrest at both sites.

While there are these general similarities, there are also striking differences. Arrests for a delinquent offense begin at younger ages in Denver and across the entire age range considered, in Denver, police arrest individuals at substantially higher rates, often two to three times more often than in Bremen. This is especially true for females where the arrest rates are often four to five times higher in Denver. Although a large proportion of individuals are arrested at some time at both sites, the higher arrest rates in Denver at each age lead to considerably higher rates of cumulative prevalence of arrest in Denver. By age 18, 34% of Bremen males had been arrested, but 73% in Denver, and 9% of females had been arrested in Bremen, but 43% had in Denver. Thus overall, there seems clear indication that police and arrest play a significantly larger role in the social control of children, adolescents, and young adults in Denver than in Bremen. The consequences of this tighter and more frequent control of youth in the U.S. are not clear. It may be that juveniles become acquainted with being stopped by police quite often and with being

arrested, and as a result, the effect of a particular arrest might be small. It may also be that they become more and more annoyed, especially if some are selected for arrest because of social characteristics, as indicated by the greater prevalence of arrest among minorities in Denver. The consequences of different uses of arrest are examined in the next chapter.

The significantly higher rates of arrest in Denver, even when age, gender, and type and frequency of offending are controlled, results, in part, from arrests for status offenses. These behaviors are not considered illegal or delinquent in Bremen, but account for roughly one-third of all arrests in Denver during the adolescent years. This could be seen in comparisons of arrest rates for behavior that is delinquent (proscribed by law) at both sites. The differences in prevalence of arrest became much smaller and even similar across sites when only offenses common to both sites were considered.

There were also substantial cross-site differences in the kinds of behaviors for which youth were arrested. In Bremen, the preponderance of arrests was for property offenses and there were very low rates of arrest for violent offenses. In Denver, arrests were more uniformly spread across status, property, violent, and other kinds of offenses. Interestingly, arrests for drug offenses were relatively infrequent at both sites, and were essentially zero in Bremen throughout the teen years.

The findings suggested that Denver police may approach youth much more in a proactive orientation, checking on and watching for violations of status offenses and breaches of public order. In contrast police in Bremen react more to information by victims of property offenses or of violence. The proactive style of policing in Denver and the orientation toward status offenses and some public disorder offenses leads to much higher arrest rates. It also implies that more young citizens who are essentially conforming rather than deviant are contacted and arrested by police in Denver. In contrast, such victimless offenses seldom lead to prosecution in Germany, where it is necessary (with the exception of drug offenses) that the offender has done some damage to a victim. For adults, however, traffic offenses (e.g. drunken driving) carry the majority of arrests.

To what extent do these similarities and differences across sites in prevalence of arrest affect future behavior? This is the focus of the next chapter where the impact of arrest on subsequent delinquent behavior is examined.

Chapter 6

Effects of Arrest on Subsequent Delinquency

Arrest is an intervention by police or other law enforcement personnel to enforce the laws of a locality. A person supposedly responsible for a given offense is apprehended, his or her identification is taken and, if necessary, the person is detained for further questioning or to protect society from further offending. Through the identification of a suspect, prosecution and further processing by the court is made possible. As noted in earlier chapters, taking individuals into custody is a common part of criminal prosecution in the U.S., while in Germany police can more easily identify the offender on the spot by checking the offender's I.D. against a rather perfect register of inhabitants. Therefore German police can postpone questioning until a later date and thus predominantly take individuals into custody only if the attempt to take identification on the spot fails or if there is some legal cause for detaining them. In either case, arrest has a particular function in criminal proceedings -- to make sure that the offender can be brought before a court, if the evidence is sufficient, and that the offender cannot easily avoid prosecution by remaining unknown.

In this sense, arrest is not a sanction for offending but a procedural device. This is not to say that arrest may not function as a sanction or that in some cases arrest may not be used as a sanction. However, the usefulness of arrest does not completely depend on its sanctioning effect, since one function of arrest is to permit later prosecution and court sanctioning of an offender. Therefore, if arrest was not effective in reducing further delinquency that would not necessarily be a reason to revise arresting policies. However, if arrest is followed by an increase or persistence, rather than a decrease, in offending, it does suggest that neither arrest and imposition of court ordered sanctions, nor the side effect of arrest by itself, provide specific deterrence.

There is, however, one aspect of specific deterrence that directly depends on arresting offenders. A law-breaker ought to realize that he or she cannot engage in delinquency without being held responsible for the delinquent act. That is, arrest can serve as a signal for the degree of certainty of criminal prosecution. According to the majority of research on deterrence, certainty, rather than resulting severity, of being apprehended may have some effect at least in regard to petty offenses (Paternoster et al. 1987, Schumann and Kaulitzki 1990). Thus, the experience of being arrested may affect the perception of certainty for the person and thereby influence recidivism. We do not know if being arrested increases the perceived certainty or decreases it. This may depend on the proportion of undetected offenses the person has committed, that is, the ratio between undetected and detected offenses. However, it seems reasonable to expect a rise in the level of expected certainty following an arrest rather than the opposite. Thus, presuming that perceived certainty affects future offending, a decline in delinquency following arrest might be reasonably expected.

In this chapter we report a variety of analyses that examine the effects of arrest on subsequent delinquency. The same statistical analyses are conducted separately for each site and the results compared, with the anticipation that similar effects would be consistently apparent at both sites³¹. However, such consistency may not necessarily occur. Since arrest plays a somewhat different role in the two juvenile justice systems, there may also be differences in the effects of arrest. For example, for children, adolescents and young adults in the U.S., arrest may serve as a form of social control meant to fill gaps in parental and other controls. In this case, arrest may be less offensive to juveniles because police control may be considered a normal feature of routine activities and youth may become accustomed during their early years to themselves and others being stopped and controlled by police. In contrast, in Germany, to be arrested may indicate a stronger degree of police suspicion and is a more special occurrence, because arrest is not used that frequently. Because of these circumstances, effects of arrest may be different in Bremen as compared to Denver.

To examine the effect of arrest on future delinquent behavior in each of the two sites, it is helpful to recall some definitions and considerations of earlier chapters. Arrest is defined as contact with police that results in referral to the prosecutor or court intake. This definition was adopted to provide a common definition that was applicable at both sites (see Chapter 3). This means that examinations of the effect of arrest include the effects of prosecutor/court actions and sanctions on delinquent behavior. However, focusing on the outcome of simply whether an offender is arrested provides useful information. First, since arrest initiates juvenile justice system processing, the examination of the outcome of arrest vs. non-arrest serves as an examination of the outcome of the full experience that occurs in arrest and further juvenile justice processing. Whether such experience alters further involvement in delinquency and delinquent/criminal careers, in comparison to offenders who are not apprehended, is the question addressed in this chapter. Examination of the effect of specific sanctions applied by the court is considered in the next chapter. Second, as noted above, arrest in itself may have deterrent effects, by indicating to

³¹ This strategy of analysis was adopted for the following reasons. First, whether to combine data across sites into one data set to permit joint analyses and statistical tests of site differences is a problematic issue. Although appropriately permitting more formal tests of site differences, this option has been criticized in cross-national studies because of the necessary assumption that the same measure taken in two different societies is in fact measuring the same thing. Because of social or cultural differences, it may not be. Second, for ages 14-17, it was desired to examine the effects of arrest on behaviors defined as delinquent at a particular site (site specific measures) as well as behaviors that are considered delinquent at both sites (common measures). Pooling the cross-site data could only be appropriately done for the common measures. But then, findings about the about the impact of arrest at a given site could not be interpreted without some unknown way of estimating the influence of arrests for offenses not included among the common offenses. Third, comparisons during the age 18-20 period require separate analyses because, in Bremen, juvenile law is usually applied at these ages, while in Denver, adult law is applied. The effect of arrest may therefore be quite different across sites for these ages, and the meaning of statistical significance difficult to interpret. For these reasons we opted for the comparative approach, although recognizing that this results in an absence of tests of the statistical significance of site differences.

offenders the certainty of apprehension.³² Third, the group of “arrestees” is broader than the group of those who are formally sanctioned beyond arrest, and includes those whose cases are dismissed by the prosecutor. Thus, examining the effect of arrest without regard to specific sanctions is worthy of investigation.

For this chapter the description of measurement in Chapter 3 should also be recalled. Because of distributional considerations and “regression to the mean” concerns, delinquency change scores from one year to the next were defined for use in some analyses. These change scores distinguish between conformity (non-delinquent in both years) and those that decrease (have a lower level of delinquency in the second year) persistence (same level at both years) and increase (higher level in the second year), as measured by the difference in the quartiles of a person’s delinquency across two consecutive years under study. (See Chapter 3 for details of scoring procedures). Also, given the findings of the relationship between frequency of offending and arrest in the previous chapter, we may expect that persons in the upper quartile with the most frequent delinquency might have a higher risk of being arrested. Although the use of the categorical change scores reduces distributional problems, they do not totally resolve the fact that, by definition, individuals in the upper quartile cannot increase their delinquency and can only persist in the upper quartile or decrease to a lower quartile.

6.1 Bivariate analysis

To begin the analysis of the effect of arrest and examine the question of how does delinquency develop in the year following arrest, we first examined, in a sequence of simple cross-tabulations, the age-specific effects of being arrested. For this examination, the ages of being arrested range from 16 to 23 in Denver and from 16 to 24 in Bremen. (These are the ages for which delinquency and arrest data are available from both sites.) The effect of arrest is measured as the change in delinquency in the following year, as described above.

The cross-tabulation for the ages 17-18 (from adolescence to young adulthood) is presented first as an example. As would be expected, there is a relationship between being arrested and being in the conform group. That is, since these individuals report no involvement in delinquency at either age 16 or 17, it is not surprising that very few of them are arrested. Also, as can be seen in Table 6.1, at both sites, arrestees are more likely than other youth to persist in their delinquent behavior. However, the inclusion of the Conform group alters the percentages and significance levels from those that would be obtained if only offenders or those “at risk of arrest” were examined. To more fairly portray the effect of arrest, we also examined, in a sequence of simple cross-tabulations, the age-specific effects of being arrested in which only those “at-risk” of being arrested were included. That is, at each age the analyses were restricted to those who engaged in delinquency as reported in the total SRD measures. These cross-tabulations are summarized in Table 6.2.

³² It is acknowledged that for Denver, “certainty” will be underestimated, since not all “arrests” are referred to the prosecutor or court intake, which the definition of arrest used here requires.

Table 6.1
Effect of Arrest at Age 17 on Delinquency Change from Ages 17 to 18

	Bremen N=327				Denver N=227			
	Conform	Decrease	Increase	Persist	Conform	Decrease	Increase	Persist
No Arrest	24.7*	34.4	20.1	20.7	22.2	38.9	20.0	18.9
Arrest	7.1	39.3	17.9	35.7	2.4	42.9	19.0	35.7
All	23.2	34.9	19.9	22.0	18.5	39.6	19.8	22.0
Signif. (p)	Chisq=6.26 p=.100				Chisq=11.77 p=.008			

* Figures indicate row percent.

Table 6.2
Change in Delinquency by Arrest Status at Different Ages
Among Delinquent (“At-Risk”) Individuals

Age	Bremen				Chisq./ Signif.	Denver			
	Decrease	Increase	Persist			Decrease	Increase	Persist	Chisq./ Signif.
16 No arrest Arrest	N = 121			0.87 p=.649	N = 329			4.51 p=.105	
	43% 53%	14% 7%	42% 40%		39% 39%	28% 17%	34% 44%		
17 No arrest Arrest	N = 206			1.01 p=.603	N = 173			1.89 p=.388	
	57% 46%	9% 13%	34% 42%		54% 45%	20% 18%	26% 38%		
18 No arrest Arrest	N = 143			3.53 p=.172	N = 144			3.51 p=.173	
	39% 18%	22% 46%	39% 36%		46% 50%	23% 10%	31% 41%		
19 No arrest Arrest	N = 190			3.67 p=.160	Data Not Available				
	44% 21%	26% 37%	30% 42%						
20 No arrest Arrest	N = 218			9.38 p=.009	N = 114			6.05 p=.049	
	45% 6%	18% 38%	37% 56%		64% 50%	16% 5%	20% 45%		
21 No arrest Arrest	N = 217			0.03 p=.983	N = 84			0.46 p=.797	
	39% 42%	17% 17%	44% 42%		56% 64%	21% 14%	23% 21%		
22 No arrest Arrest	N = 216			7.29 p=.026	N = 98			0.82 p=.663	
	36% 6%	14% 12%	50% 82%		51% 42%	15% 25%	34% 33%		
23 No arrest Arrest	N = 198			6.23 p=.044	N = 93			2.55 p=.279	
	44% 25%	12% 0%	44% 75%		60% 56%	14% 4%	26% 39%		
24 No arrest Arrest	N = 171			1.93 p=.381	Data Not Available				
	41% 29%	14% 7%	45% 64%						

As can be seen in Table 6.2, at most ages and at both sites, there are no significant differences between arrestees and non-arrestees in the distribution of change scores. Thus, in general, arrest does not appear to have had a major effect on the delinquent behavior of arrestees. In Bremen, for those ages where a significant effect is observed (age 20,22, or 23), substantially fewer arrestees than non-arrestees decreased their delinquency and considerably greater proportions of arrestees persisted or increased their delinquent level. This trend is also apparent even in most years when statistical significance is not achieved. In Table 6.2, for ease in identifying differences, the percentages of arrestees that are different from those of non-arrestees by 10% or more are listed in bold-face. In Denver, only at age 20 is the comparison significant. At this age, arrestees are less likely to decrease and less likely to increase their delinquency than non-arrestees, but are more likely to persist at the same level of delinquency than are non-arrestees. Also in Denver, at most ages, arrestees are more likely to persist at the same level of delinquency, although these differences are insufficient to result in statistical significance for the full comparison.

A cautious interpretation of these findings suggests that at both sites there are few significant changes in the level of delinquency that can be attributed to arrest; and, if anything, that in comparison to non-arrestees, arrestees are more likely to persist or increase their delinquency in the year following arrest. Apparently, arrest does very little to decrease delinquency, and this is particularly in evidence in Bremen.

However, the validity of this interpretation requires additional analyses. Although useful to provide a general picture, these simple cross-tabulations do not control for other variables, such as gender or prior arrest history. Nor are arrestees and non-arrestees matched on their prior delinquency level or on their delinquency level at the time of arrest. Also, as previously noted, the categorical change scores defined by quartiles do not eliminate the occurrence that persons in the upper quartile with the most frequent delinquency have a higher risk of being arrested, but by definition can only persist in the upper quartile or decrease into a lower quartile. Even if their frequency increases further there is no higher category to which they can move. Thus, persistence and decrease are the most probable situation for persons who are already high frequency delinquents. For these reasons, in the next sections we examine the effect of arrest on frequency of involvement in delinquency in regression models, examine the effect of arrest using precision matched control groups, and employ event-history models to further examine the impact of arrest.

6.2 Multiple regression models

To examine, within the context of individual lives, the impact of arrest on subsequent delinquency, it is important to control for other factors that may also affect delinquency. Among these factors are gender, given the well-known gender gap, and minority status, given the contention that minority youth may have different delinquency patterns than whites or for the Bremen models that immigrants may have different delinquency patterns than resident Germans. Also, some of our earlier results indicate effects of minority status on being selected for arrest (see Chapter 5). Another very important influence, as documented in many studies of delinquency, is the relationship with delinquent friends (see e.g. Thornberry and Krohn, 1997), which is measured for early years in

Bremen as gang membership and in later years as membership in a clique, and in Denver as involvement with delinquent peers. In addition, in these models predicting delinquency levels at time 2 (the year following arrest), it is necessary to control for previous delinquency.

To examine the effect of arrest in the context of control variables, multinomial logistic regressions were used. Although we had originally envisioned conducting analyses using the delinquency change score categories, this is problematical. As noted for the cross-tabulations presented above, because most arrestees are in fact delinquent, a relationship occurs between being arrested and not being conform. That is, since arrestees are, almost by definition, delinquent at time 1, they cannot be “conform” individuals who are non-delinquent both at time 1 and time 2. This relationship artificially inflates the significance levels of the impact of arrest on change scores and alters estimates of structural parameters in these models³³. Although perhaps technically incorrect, the results of a regression predicting change scores among those who were delinquent at age 17 are presented in Table 6.3 that is generally illustrative of the findings at other ages for this type of model and sample.

As can be seen in Table 6.3, the effect of arrest on changes in the level of delinquent behavior is not significant at either site. In Bremen and Denver, arrestees are slightly more likely to persist at the same level rather than either decrease or increase their level of delinquency, but as noted, these differences are not significant. In Bremen, gang members are significantly more likely to persist than decrease their delinquency and more likely to persist than increase in their delinquency than are non-gang but delinquent individuals. Bremen delinquent males are also significantly more likely to persist than decrease their delinquency and more likely to increase than persist in their delinquency than are delinquent females. In Denver, delinquent males are significantly more likely to persist than to either increase or decrease their delinquency than are delinquent females. For the purpose here, however, the important observation is that among delinquents, arrest did not have a significant effect on changes in delinquency in the subsequent year.

In a second examination of the effect of arrest in the context of control variables, multinomial logistic regressions were used to predict time 2 quartile-based SRD measures using arrest at time 1 and time 1 SRD and control variables as predictors. A summary of the findings about the impact of arrest from these analyses is given in Table 6.4. This table lists the statistical significance of arrest as a predictor of future delinquency in the following year, together with the relevant odds ratios and their statistical significance.

³³ We considered the option of identifying arrestees in the conform group as delinquents, thus eliminating this analytic problem. However, because it was uncertain what delinquent score to assign to non-delinquent arrestees and because this introduces a structural zero in the model and such models cannot be estimated in the multinomial regression procedure of SPSS, which we were using, this option was not followed. As indicated in the text, the models could be run using only the sample of identified delinquents, but this runs the risk of mis-specification, since parameter estimates of the control variables would be altered by the change in the sample used for analyses. For example, the relationship of delinquent peers to delinquency is significantly reduced if only offenders are included in the analyses.

Table 6.3
 Prediction of Delinquency Change from Ages 17 to 18
 For Those Who Are Delinquent at Age 17

Predictor	Global Significance: p (likelihood ratio)	Delinquency Change Comparisons Ages 17 to 18			
		Decrease vs. Persistence		Increase vs. Persistence	
		Odds Ratio	p*	Odds Ratio	p*
BREMEN:					
Arrest Age 17	0.93	0.82	0.71	0.90	0.89
Prior Arrest	0.70	1.42	0.41	1.24	0.74
Gang	0.02	0.25	0.01	0.63	0.51
Male Gender	0.02	0.46	0.02	1.34	0.49
Minority	0.89	1.18	0.71	1.55	0.67
DENVER:					
Arrest Age 17	0.82	0.80	0.63	0.71	0.55
Prior Arrest	0.77	1.15	0.75	1.50	0.47
Delinquent Peers	0.42	0.61	0.20	0.66	0.37
Male Gender	0.03	0.35	0.01	0.43	0.09
Minority	0.24	2.25	0.16	3.43	0.15

*p indicates the significance of the Wald statistic.

Note: McFadden Pseudo R-Square: Bremen-.05; Denver-.04

As can be seen in Table 6.4, at both sites and for most ages, arrest is not significantly related to the level of subsequent delinquent involvement. However, in Bremen arrest is a significant predictor of subsequent delinquency for the ages 16-17, 19-20, and 20-21, and in Denver is almost significant (at the .08 level) for the ages 21-22. Examination of the odds ratios for the significant models indicates that in Bremen, arrestees are always more likely to be in the 4th quartile than in a lower quartile than non-arrestees. For example, at ages 16-17, arrestees are 3.3 (1/.30) times more likely to be in the 4th quartile than in the 2nd and 12.5 times more likely to be in the 4th quartile than the 3rd. Similarly, at ages 19-20, arrestees are more than 10 times as likely to be in the 4th quartile than non-delinquent, 2 times as likely to be in the 4th than the 1st, 2.6 times as likely to be in the 4th than the 2nd, and 4.6 times more likely to be in the 4th than the 3rd. Similar results occur at ages 20-21, although at this age arrestees are less likely to be in the 4th than in the 3rd quartile.

In Denver, almost all of the odds ratios are not statistically significant, in keeping with the observation that almost none of the models indicated a significant effect of arrest. For the one year (ages 21-22) where the effect of arrest approaches the “magic” .05 significance level, none of the odds ratios are significant, although arrestees are somewhat more likely to be in the 1st than the 4th quartile and less likely to be in the 3rd than the 4th quartile.

Overall these findings suggest that, in general, (1) arrest has little effect on subsequent delinquency, and (2) especially in Bremen, for those years when arrest has an effect, on average and controlling for gender, minority status, prior delinquency, arrest history and gang membership, arrestees have higher delinquency scores than non-arrestees in the subsequent year.

Table 6.4
Impact of Arrest on Delinquency in the Following Year
Summary of Multinomial Logistic Regression Models

	Likelihood Ratio Test Chi-Square Signif: p		Delinquency Level Comparisons							
			Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
			Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
BREMEN:										
Ages 16 to 17	11.10	0.03	0.48	0.24	0.39	0.27	0.30	0.11	0.08	0.01
Ages 17 to 18	1.64	0.80	0.67	0.62	0.49	0.39	1.14	0.85	0.98	0.98
Ages 18 to 19	6.03	0.20	0.11	0.02	0.32	0.20	0.49	0.42	0.25	0.14
Ages 19 to 20	9.27	0.06	0.10	0.02	0.48	0.40	0.38	0.28	0.22	0.03
Ages 20 to 21	13.73	0.01	0.04	0.02	0.22	0.21	0.33	0.25	1.66	0.44
Ages 21 to 22	3.57	0.47	7.10	0.07	2.88	0.44	2.95	0.34	2.03	0.53
Ages 22 to 23	3.31	0.51	0.32	0.22	0.20	0.19	0.20	0.19	0.47	0.37
Ages 23 to 24	2.73	0.60	0.60	0.64	1.98	0.52	0.80	0.84	1.79	0.53
Ages 24 to 25	3.07	0.55	0.31	0.26	0.20	0.23	0.33	0.34	0.14	0.14
DENVER:										
Ages 16 to 17	3.00	0.56	1.18	0.71	1.92	0.16	1.12	0.80	1.60	0.26
Ages 17 to 18	1.92	0.75	1.03	0.97	1.44	0.62	2.07	0.26	1.24	0.74
Ages 18 to 19	0.95	0.92	0.89	0.86	1.61	0.52	1.17	0.82	1.24	0.74
Ages 19 to 20	---	---	---	---	---	---	---	---	---	---
Ages 20 to 21	5.74	0.22	0.23	0.04	0.42	0.39	0.48	0.40	1.49	0.69
Ages 21 to 22	8.37	0.08	0.94	0.94	3.52	0.17	0.56	0.57	0.18	0.16
Ages 22 to 23	4.17	0.38	0.42	0.35	#	#	1.16	0.87	0.94	0.95
Ages 23 to 24	2.72	0.61	1.10	0.90	1.03	0.98	0.51	0.51	3.15	0.24
Ages 24 to 25	---	---	---	---	---	---	---	---	---	---

*p indicates the significance of the Wald statistic.

#Odds Ratio is not adequately estimated due to empty cells.

---Data not available.

Findings for the complete analyses for the significant models are presented in Tables 6.5 through 6.7, to permit examination of the effect of additional independent measures in these models. Because of the small number of arrests at ages 14 and 15 in Bremen, the arrest variable at age 16 is a composite of all arrests for ages 14-16, thus including current and prior arrests. As can be seen in Table 6.5, using this measure of arrest, arrest is a significant predictor of the level of future delinquency, as previously described. In Bremen, as would be anticipated, prior delinquency is a significant predictor of future delinquency. Examination of the odds-ratios for prior delinquency indicates some stability in delinquent behavior from one year to the next, especially for non-delinquents and those in the first two quartiles. Gender is also a significant predictor, with males less likely to be non-delinquent.

Table 6.5
Prediction of Delinquency Levels at Age 17
Delinquency Level Comparisons at Age 17

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
<u>BREMEN:</u>									
Arrest Through Age 16	0.03	0.48	0.24	0.39	0.27	0.30	0.11	0.08	0.01
Delinquency Age 16	0.00								
Non-Delinquent		88.15	0.00	4.33	0.28	2.18	0.38	1.36	0.69
1st Quartile		101.30	0.00	179.37	0.00	6.12	0.19	1.13	0.93
2nd Quartile		37.46	0.00	14.18	0.03	7.37	0.02	0.73	0.75
3rd Quartile		15.15	0.03	12.11	0.05	3.10	0.21	3.25	0.11
Gang	0.55	0.24	0.09	0.56	0.50	0.64	0.55	0.59	0.45
Male Gender	0.04	0.29	0.03	0.92	0.90	0.78	0.70	1.07	0.91
Minority	0.38	0.93	0.91	1.32	0.75	1.30	0.75	3.32	0.13
<u>DENVER:</u>									
Arrest at Age 16	0.56	1.18	0.71	1.92	0.16	1.12	0.80	1.60	0.26
Prior Arrest	0.58	0.50	0.12	0.81	0.65	0.80	0.61	0.69	0.39
Delinquency Age 16	0.00								
Non-Delinquent		64.71	0.00	34.76	0.00	12.83	0.00	6.63	0.00
1st Quartile		56.74	0.00	80.72	0.00	30.35	0.00	14.02	0.00
2nd Quartile		6.82	0.00	18.10	0.00	19.07	0.00	11.53	0.00
3rd Quartile		1.55	0.44	2.69	0.15	6.74	0.00	3.11	0.02
Delinquent Peers	0.85	0.81	0.56	0.84	0.66	0.91	0.80	1.18	0.65
Male Gender	0.18	0.47	0.03	0.54	0.11	0.61	0.18	0.87	0.70
Minority	0.04	5.99	0.01	4.26	0.06	1.99	0.24	4.03	0.05

*p indicates the significance of the Wald statistic.

Note: McFadden Pseudo R-Square: Bremen-.24; Denver-.18

Although arrest is not a significant predictor of time 2 delinquency in Denver at this age, the model is included in Table 6.5 to illustrate the influence of the control variables at that site. As in Bremen, prior delinquency is a significant predictor of subsequent delinquency. Gender is not a significant predictor in Denver, although as in Bremen (and as would be expected) males are more likely to be delinquent. Also, at this age in Denver, minority status influenced future delinquency. In comparison to whites, minorities are consistently more likely to be in a lower category of delinquency than in a higher category of delinquency. Although this finding was not expected, additional analyses indicated that this ethnic effect resulted from lower levels of participation by minorities in status offenses, mainly high frequency curfew violations.

Findings from the significant models for ages 19-20 and 20-21 in Bremen are given in Tables 6.6 and 6.7. The findings from these models are similar to those at age 16-17, with arrest, prior delinquency, and being male having significant effects on subsequent delinquency. In addition, minority status is significant in the age 20-21 model. In comparison to resident Germans, immigrants or members of immigrant families are more likely to be non-delinquent, or in the 1st, 2nd, or 3rd quartile than in the 4th quartile, suggesting that at this age immigrants are less delinquent than their German counterparts. Also at age 21, arrest history becomes a significant predictor, and the significant odds ratios indicate that those with prior arrests are less likely to be in the 1st or 3rd than in the 4th quartile. That is, in some instances, those with an arrest history are more likely to be involved in a higher level of delinquency in the following year.

These various findings about the “control” variables at each site are, for the most part, what might be anticipated. Future delinquency is quite strongly predicted by current delinquency, and when current delinquency is included in models, other variables - gender, gang membership or delinquent peers, arrest history and minority status - are significant for some years but not for others. As noted above, however, what is important here, is that when these control variables and arrest are simultaneously included in regression models, the effect of arrest on subsequent delinquency is either non-existent or results in higher levels of delinquency in the following year.

Table 6.6
 Prediction of Delinquency Levels at Age 20: Bremen

Delinquency Level Comparisons at Age 20

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
<u>BREMEN:</u>									
Arrest Age 19	0.06	0.10	0.02	0.48	0.40	0.38	0.28	0.22	0.03
Prior Arrest	0.38	1.24	0.68	0.97	0.95	0.91	0.88	2.22	0.11
Delinquency Age 19	0.00								
Non-Delinquent		23.51	0.00	49.88	0.00	6.75	0.02	1.63	0.46
1st Quartile		23.15	0.00	58.65	0.00	11.72	0.01	4.39	0.03
2nd Quartile		3.65	0.14	35.78	0.00	14.87	0.00	3.97	0.06
3rd Quartile		1.07	0.94	6.02	0.13	4.92	0.05	2.22	0.16
Gang	0.33	1.20	0.85	#	#	3.01	0.24	1.73	0.49
Male Gender	0.06	0.30	0.01	0.48	0.15	0.33	0.04	0.70	0.49
Minority	0.07	1.77	0.28	0.43	0.19	0.86	0.81	1.01	0.98

*p indicates the significance of the Wald statistic.

#Odds Ratio is not adequately estimated due to empty cells.

Note: McFadden Pseudo R-Square: Bremen-.17

Table 6.7
Prediction of Delinquency Levels at Age 21: Bremen

Delinquency Level Comparisons at Age 21

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
		BREMEN:							
Arrest Age 20	0.01	0.04	0.02	0.22	0.21	0.33	0.25	1.66	0.44
Prior Arrest	0.03	1.02	0.97	0.32	0.07	0.82	0.72	0.34	0.04
Delinquency Age 20	0.00								
Non-Delinquent		295.67	0.00	42.85	0.00	10.75	0.01	8.92	0.00
1st Quartile		297.12	0.00	119.94	0.00	58.69	0.00	15.52	0.00
2nd Quartile		108.60	0.00	67.80	0.00	45.16	0.00	24.55	0.00
3rd Quartile		16.06	0.00	10.53	0.00	12.28	0.00	9.60	0.00
Clique	0.97	0.98	0.97	1.20	0.71	1.20	0.72	1.16	0.75
Male Gender	0.01	0.27	0.01	0.40	0.08	0.99	0.98	0.81	0.68
Minority	0.02	6.51	0.00	4.09	0.04	4.79	0.02	2.03	0.27

*p indicates the significance of the Wald statistic.

Note: McFadden Pseudo R-Square: Bremen-.24

6.3. Matched Pair Analysis

The findings from the multinomial regression models were fairly consistent in indicating that, in general, there was little effect of an arrest on subsequent delinquency. Although these models controlled for several other possible explanatory variables, there remains the possibility that these controls are insufficient, because the level of prediction by each of these control variables for the total samples is not very high. For this reason, matched pairs analyses were also conducted. For these analyses, at each site, each individual arrestee was matched with the individual in the sample that was most similar to the arrestee and who had not been arrested (controls). Arrestees and controls were matched on (1) gender, (2) age, (3) minority status, (4) annual involvement in delinquency since age 14 up to the age of arrest, (5) history of any prior arrest (since age 14 in Bremen and since age 10 in Denver), up to the age of arrest, and (6) annual history of involvement with delinquent peers in Denver and involvement in delinquent gangs or cliques in Bremen, again since age 14 up to the age of arrest. In addition, neighborhood type was used as a matching variable in Denver.

This matching process results in the pairing of arrestees and non-arrestees who are very similar, and in fact, often identical up to the point of arrest on historical patterns of several variables presumed to affect future delinquency. The question then can be asked if there is a difference in the change in delinquency between these two groups of arrestees and controls in the period following arrest. Matched pairs of arrestees and controls were created in each of the age periods

examined in this project. For the adolescent period, age 14-17, arrestees at age 16 and their matching controls were used. Because of the design and missing data periods of the two studies, the exact same ages could not be used at both sites for the young adult (age 18-20) and adult (age 21 or older) periods. For the young adult period, arrestees at age 20 in Bremen and age 18 in Denver were used (it should be noted that at this age in Bremen most cases are handled under juvenile law while in Denver the cases are handled under adult law), and for the adult period, arrestees at age 22 in Bremen and age 23 in Denver were used. The comparisons of the arrestees and matched controls on subsequent delinquency in the form of changes in delinquent behavior in the year following the arrest are given in Table 6.8 for each of the three age periods.

Table 6.8
Examination of the Effect of Arrest on Subsequent Delinquency in Matched Pairs Analyses

Bremen Age 16
Crosstabs of Bremen Arrestees and Matched Controls
By Change in Delinquency in the Year Following Arrest: For Those Arrested at Age 16

		Conform	Decrease	Persist	Increase	Total
Arrestees	N	3	8	6	4	21
	%	14.3	38.1	28.6	19.0	100
Matched Control	N	3	4	7	7	21
	%	14.3	19.0	33.3	33.3	100
Total	N	6	12	13	11	42
	%	14.3	28.6	31.0	26.2	100

Chi-sq. (3df) 2.228 Sig. .526

Denver Age 16
Crosstabs of Denver Arrestees and Matched Controls
By Change in Delinquency in the Year Following Arrest For Those Arrested at Age 16
(1972 & 1974 Cohorts at Age 16)

		Conform	Decrease	Persist	Increase	Total
Arrestees	N	2	31	28	17	78
	%	2.5	39.7	35.8	21.7	100
Matched Control	N	4	31	22	21	78
	%	5.1	39.7	28.2	26.9	100
Total	N	6	62	50	38	156
	%	3.8	39.7	32.0	24.4	100

Chi-sq. (3df) 1.807 Sig. .766

Table 6.8 (Continued)
Examination of the Effect of Arrest on Subsequent Delinquency in Matched Pairs Analyses.

Bremen Age 20

Crosstabs of Bremen Arrestees and Matched Controls

By Change in Delinquency in the Year Following Arrest: For Those Arrested at Age 20

		Conform	Decrease	Persist	Increase	Total
Arrestees	N	1	1	8	8	18
	%	5.6	5.6	44.4	44.4	100
Matched Control	N	3	7	5	3	18
	%	16.7	38.9	27.8	16.7	100
Total	N	4	8	13	12	36
	%	11.1	22.2	36.1	30.6	100

Chi-sq. (3df) 7.504 Sig. .057

Denver Age 18

Crosstabs of Denver Arrestees and Matched Controls

By Change in Delinquency in the Year Following Arrest: For Those Arrested at Age 18 (1972 Cohort)

		Conform	Decrease	Persist	Increase	Total
Arrestees	N	0	22	15	12	49
	%		44.9	30.6	24.5	100
Matched Control	N	6	24	14	5	49
	%	12.2	49.0	28.6	10.2	100
Total	N	6	46	29	17	98
	%	6.10	46.9	29.6	17.3	100

Chi-sq. (3df) 9.004 Sig. .029

Bremen Age 22

Crosstabs of Bremen Arrestees and Controls

By Change in Delinquency in the Year Following Arrest: For Those Arrested at Age 22

		Conform	Decrease	Persist	Increase	Total
Arrestees	N	4	1	10	2	17
	%	23.5	5.9	58.8	11.8	100
Matched Control	N	2	4	9	2	17
	%	11.8	23.5	52.9	11.8	100
Total	N	6	5	19	4	34
	%	17.6	14.7	55.9	11.8	100

Chi-sq. (3df) 1.217 Sig. .813

Denver Age 23

Crosstabs of Denver Arrestees and Matched Controls

By Change in Delinquency in the Year Following Arrest: For Those Arrested at Age 23 (1972 Cohort)

		Conform	Decrease	Persist	Increase	Total
Arrestees	N	1	13	7	3	24
	%	4.2	54.2	29.2	12.5	100
Matched Control	N	2	12	7	3	24
	%	8.3	50.0	29.2	12.5	100
Total	N	3	25	14	6	48
	%	6.3	52.1	29.2	12.5	100

Chi-sq. (3df) 0.373 Sig. .946

As can be seen, for the adolescent period there is no significant difference in the change in delinquency between the arrested and control comparison groups at either site. In Bremen there is a very slight tendency for the control group to persist or increase their delinquency in comparison to arrestees, and in Denver arrestees are somewhat more likely to persist in and slightly less likely to increase their delinquency, but these differences are small and not significant.

During the young adult period, significant differences between arrestees and controls are found. At both sites, during this period, arrestees are more likely to persist or increase their delinquency than are members of the matched control group. For example, in Bremen, 88.8% of arrestees persist at the same level or increase their delinquency in the year following arrest, in comparison to 44.5% of the control group. Correspondingly, controls are more likely to decrease their involvement in delinquency (38.9%) in comparison to arrestees (5.6%). In Denver, the results are not as striking, but roughly twice as many arrestees increase their delinquency (24.5%) as do individuals in the matched control group (10.2%). During adulthood (age 21 or higher) the differences between the arrestees and matched controls are not statistically significantly different at either site.

Thus, overall, regardless of age group considered, in the year following arrest, changes in delinquency among arrestees as a group are not very different than changes among matched controls who are not arrested. As observed in previous analyses, there is little evidence of any specific deterrence as a result of an arrest.

6.4 Event History Models

The preceding analyses of the effect of arrest were based on a standard panel analysis approach in which causal relationships are examined by employing a time order between cause and outcome. Thus, most of the analyses were within the time frame of two consecutive years, where delinquency in the second year was related to factors in the prior year presumed to impact delinquency. The detection of moderate but consistent effects of arrest leading to persistence of criminal offending in some of these analyses raises additional questions. Do these findings imply long-term tendencies of continued offending, or are they limited to some specific years and thus episodic? Are these effects accumulating and becoming stronger over time or are they fading with increasing age?

The following event history analysis provides a possibility for studying "transitions" in delinquent behavior in a more long-term perspective. Due to the measurement on an annual basis, the dependent variable under study, delinquency, is restricted to discrete points or periods of time. Nevertheless, transitions of the same kind (e.g. increases in delinquency) occurring at different points in time can be analyzed together, and the relationship of each change in delinquency to possible causes in the respective prior year can be examined, as well as, in case of arrest, accumulated measures of arrest in the period prior to the change. This approach makes it possible to examine if annual effects are temporary or if they are a rather continuous dynamic over time.

For the purpose of studying the impact of arrest on the development of delinquency, meaningful transitions include increases, persistence, and decreases in delinquency. The "risk sets," meaning the number of years where individuals are "at risk" for these transitions, differ due to their origin state of either non-delinquent or delinquent. Only when examining "increase" are non-delinquents as well as delinquents taken into account. For the other two possible transitions, non-delinquents are excluded since they are neither at risk to decrease nor to persist.

These changes in delinquency are examined for each site at specific age periods corresponding to periods when juvenile and adult laws are applied. As described in Chapter 3, juvenile law is applied at both sites during the adolescent years of ages 14 to 17 (except cases in the US that are transferred to adult court)³⁴. Young adulthood at ages 18 to 20 is the most different period across sites in terms of the legal framework, since in Denver adult law *must be* applied, whereas in Bremen it *can be* applied but is the exception rather than the rule. Beginning at age 21 the legal frameworks are similar, requiring the use of adult law.

At each age period, differing accumulated arrest experiences up to that stage of the life course may affect the further development of delinquency. For the study of formal interventions we distinguish between *arrest* in the prior year and arrest history (*arresth*), coded for analyses as a dummy variable, if any arrest leading to court contact had occurred before. This is of relevance because if prior arrests have occurred, the influence of the current arrest might have less impact than the first. Moreover, sanctions may become harsher since the lawbreaking may not be regarded by the court as a once in a lifetime "slip up."

As in previous models, we include a number of relevant control variables: biographical age, delinquency in the prior year, gender, and being a member of a group of friends. Biographical *age* refers to the number of years passing on the time axis of the respective model. Delinquency in the prior year (named *predel* in the analyses) is an important control for the original level of delinquency in the year of arrest. As in the preceding analysis it is coded ordinally using quartiles of the average annual delinquency across the respective age periods. Prior delinquency is of particular importance for the research question addressed here, since the group of arrestees might be anticipated to have a higher offense rate in the year of arrest than other delinquents. Thus, to study their development it is important to control for the original levels. Gender is a control as well as a substantive variable (named *females* in the analyses) and is important for several reasons. First, other independent variables can be gender-biased (e.g. prior delinquency, peer group membership) and their effect could not be clearly interpreted without controlling for gender. Second, the question of different gender tendencies in the development of delinquency is of relevance. The influence of peers (named *Peers* in the analyses) has a strong impact on self-reported delinquency, which could be even stronger than the impact of formal interventions. Due to the lack of age related information in Bremen – the delinquent behavior or attitudes of these friends cannot always be taken into account in these analyses.

³⁴ Denver data for the two comparable cohorts born 1972 and 1974 cover ages 15 to 17 only.

6.4.1. Bremen Models on the Development of Delinquency

In the following set of models employing Bremen data, we estimated transition rates of delinquency defined as the probabilities to decrease, persist or increase in relation to arrests during the age period of young adulthood 18-20 when Bremen juvenile law is still mainly applied.³⁵ The model covers ages 18 to 21, using delinquency at age 21 as an outcome measure for arrest at age 20.

Studying this biographical period there are three points in time where changes in levels of delinquency can be examined: between ages 18/19, 19/20 and 20/21. Information about respondents at all consecutive ages with valid data about their delinquent behavior serve as episodes. Altogether there are 502 episodes that are at risk to increase.³⁶ The general probability of increasing delinquency from one year to the next is 32% (N=160) during this time span. Excluding year to year episodes involving individuals who are not at risk to decrease or persist, that is non-delinquent in the initial year, there are 379 remaining³⁷ (comparing consecutive delinquent ages only) with the probabilities of 38% to decrease and 40% to persist.

The question addressed is whether these dynamics of delinquency during the life span under study (ages 18-21) are affected by formal interventions. Both *arrest* in the prior year as well as arrest history (*arresth*) are included in the model for this purpose.

Examination of the effect of the control variables in Table 6.9 indicates no effect of biographical *age* in any model. *Prior delinquency* does not seem to affect the likelihood to decrease but has strong and significant effects on persistence and increase. In these two models the effect direction seems logical: the higher the offense level in the prior year, the more likely are offenders to persist and the less likely are they to further increase. *Gender* has the effect that females are significantly less likely than males to increase their delinquency and they are more likely to decrease (significance=0.07). Being a member of a group of friends (*Peers*) has no relevant impact on changes of delinquency. It has to be noted again, that in these analyses this variable does not distinguish between pro- or antisocial peers – opposing effects might balance each other out.

³⁵ Due to retrospective measurement of Bremen SRD data below age 18, there are no annual figures available for the examination of delinquency dynamics in the age period of adolescence. However, the model for young adulthood represents the use of juvenile law in Bremen, Germany.

³⁶ Here, as well as in the following models estimating probabilities to increase, episodes that are not at risk to increase, because they are already in the highest category of delinquency in the prior year are excluded.

³⁷ It must be noted that here, as in the following models on persistence/decrease, episodes that are in the highest category of delinquency in the prior year are included. They are at risk to persist or decrease. Only episodes that involve non-delinquency in the initial year are excluded.

Table 6.9

Bremen:

Event History Analysis of Delinquency Changes in Relation to Arrest- Juvenile Law

<i>Bremen ages 18-21</i>						
<i>Coefficients</i>	<i>Decrease</i>		<i>Persistence</i>		<i>Increase</i>	
	β	p	β	p	β	p
Intercept	-0.70	0.07	-1.86	0.00	-0.16	0.59
AGE	-0.01	0.91	0.11	0.38	-0.11	0.36
PREDEL	0.08	0.43	0.47	0.00	-0.26	0.00
FEMALE	0.44	0.07	0.09	0.72	-0.46	0.03
PEERS	-0.05	0.82	-0.11	0.63	0.10	0.62
ARREST	-1.86	0.00	0.34	0.39	1.47	0.00
ARRESTH	0.05	0.87	0.21	0.42	-0.38	0.18

It is important to note that arrest in the prior year leads to a significantly lower probability of decreases and a higher probability of increases in delinquency over this biographical period. As opposed to what may be common assumptions about their deterrent effect, formal interventions not only drive delinquency increases but also inhibit tendencies of desistance.

The second set of Bremen models examines the age period of early adulthood from age 21 to 24, which provides a time frame of four consecutive SRD years. Correspondingly, there are three points in time where changes in levels of delinquency can be observed and used in analyses (between ages 21/22, 22/23 and 23/24). During this biographical period there are 865 episodes at risk to increase. The general probability to increase among these is 22% (N=192). Excluding episodes involving an initial non-delinquent year, there are 618 remaining with a probability to decrease of 38% and 47% to persist.

Interestingly, as can be seen in Table 6.10, biographical *age* has a significant effect on increase during this age period that was not observed during young adulthood. Increasing age makes them less likely to further increase their number of delinquent offenses. *Prior delinquency* as well as *gender*, show nearly the same effects as in young adulthood. *Prior delinquency* has significant effects on persistence and increase and in these two models the effect direction indicates that the higher the offense level in the prior year, the more likely are offenders to persist and the less likely they are to further increase. Females are significantly more likely to decrease and less likely to increase their delinquency than males (although the gender variable is only significant at the .08 level for both the increase and decrease models). Surprisingly a peer effect comes into play although neither their legal behavior nor attitudes towards lawbreaking are taken into account. Being a member of a group of friends contributes to persistence of delinquency (at a 0.05 level of significance).

Table 6.10

Bremen:

Event History Analysis of Delinquency Changes in Relation to Arrest - Adult Law

<i>Bremen ages 21-24</i>						
<i>Coefficients</i>	<i>Decrease</i>		<i>Persistence</i>		<i>Increase</i>	
	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
Intercept	-0.65	0.05	-1.40	0.00	-0.18	0.49
AGE	0.09	0.40	0.06	0.57	-0.28	0.01
PREDEL	0.04	0.63	0.35	0.00	-0.30	0.00
FEMALE	0.33	0.08	0.04	0.85	-0.31	0.08
PEERS	-0.17	0.32	0.34	0.05	-0.16	0.35
ARREST	-0.51	0.20	0.49	0.18	-0.15	0.76
ARRESTH	-0.23	0.27	0.19	0.36	-0.01	0.96

At the beginning of the biographical period of adulthood *arrest* has no significant impact on the development of delinquency. This might be surprising, since for the first time in their lives for the vast majority of delinquents adult law is applied.

6.4.2 Denver Models on the Development of Delinquency

For Denver two comparable sets of models are presented. The first covers the juvenile years from ages 15 to 17, providing two points in time at which changes in SRD can be studied. This period represents the effect of *juvenile law* as the legal framework, since only for exceptionally serious or violent offenders is adult law applied at this young age. The use of this rather short period of time results from the fact that for the 1974 Denver cohort, data for age 18 is dependent on a long retrospective recall. To avoid possible measurement effects on delinquency dynamics, age 18 data were excluded in this first set of models. The legal situation for the Denver sample (application of juvenile law) at the 15-17 age period corresponds with the first Bremen set for ages 18 to 21.

The second Denver set from ages 18 to 21 covers three points in time where dynamics of delinquency can be observed. Since in Colorado age 17 marks the upper age of juvenile court jurisdiction, adult law is applied beginning at age 18. Accordingly, this second set matches the legal framework of *adult law* of the Bremen model for ages 21 to 24.

Corresponding legal age periods do not necessarily imply identical legal responses. Rather they refer to the distinction of juvenile and adult jurisdiction, which are closely related to the assumed maturity and consequential legal responsibility of the offender. However, even equivalent societal concepts of offender maturity at the two sites may not result in equivalent reactions. As noted in earlier chapters, the more widespread use of arrest in Denver and potential differences in sanction severity across sites might contribute to discrepant impacts on the development of delinquency – even during matching legal age periods. The magnitudes of the effects of sanctions are examined in Chapter 8.

To cover the age span 18 to 21 in Denver, it was necessary to employ the retrospective SRD data for the years 1992 and 1993 that was collected in 1995. These data provide estimates of delinquency at the ages of 20 and 21 for the oldest 1972 cohort, while data for ages 18 and 19 for this cohort are the

standard SRD measures of delinquency in the prior year. Similarly, for the 1974 cohort, the retrospective data provide estimates of delinquency for ages 18 and 19, while data for ages 20 and 21 for this cohort are the standard SRD measures. As noted in Chapter 3, the longer term retrospective data requiring recall of two or three years is known to provide lower than anticipated prevalence levels of delinquent involvement.

For this reason, the following set of models for ages 18 to 21 is restricted to individuals who were reported being offenders in both years of an episode definition, since reports of non-offending in 1992/1993 are considered invalid. In addition, presuming that the effect of longer recall is most severe for infrequent offenders, and presuming some general stability in offending, individuals in the first quartile in 1991 and 1994 were excluded. In this way, only those with higher frequencies in 1991 and 1994, for whom measurement error (especially in the form of quartiles) in 1992 and 1993 should be less severe, are included. Although this restriction to offenders that were above the first quartiles in 1991 and 1994 might lead to differing results for some control variables, it does permit an examination of the impact of arrest on a major segment of delinquent individuals³⁸.

In addition, each of the age-specific measures used in this set of models from ages 18 to 21 result from the combination of standard SRD years for one cohort with the longer retrospective SRD from the other cohort. For example, age 18 data is a combination of standard SRD data from the 1972 cohort with the longer retrospective SRD data from the 1974 cohort. This combination of data attenuates measurement problems at specific ages, since analyses are never based on problematic years only. However, the restrictions applied to this set of models for the age period 18 to 21 can not eliminate the validity concerns about 1992/1993 SRD completely. Rather they serve as a pragmatic way of handling measurement effects and utilizing the information available.

During the biographical period from age 15 to 17, there are 820 episodes that can be examined to identify an increase in offense level. The probability of increasing among these episodes is 32% (N=263). Excluding episodes involving an initial non-delinquent year, results in 674 delinquent episodes of which 42% are decreasing and 36% persisting. The effects of the control and arrest variables on these changes are provided in Table 6.11. As can be seen, biographical *age* has no effect, which matches the earlier Bremen model. The effects of *prior delinquency* as well as *gender* hardly differ from the Bremen models described earlier. Prior delinquency matters more for persistence and increase, while gender seems to play more of a role for decrease and increase tendencies than for persistence. There are no *peer* effects, but it must be noted again, that peer delinquency is not taken into account in these analyses.

³⁸ Theoretically a restriction to offenders seems reasonable since the impact of arrest is of interest and offending seems a precondition for being "at risk" of arrest. However there are some offenses not covered by the SRD questionnaire for which individuals can be arrested, e.g. certain civil violations. Also, since some SRD reports of zero involvement in delinquency during 1992/93 are considered invalid, it was necessary to exclude all who reported desisting, and this exclusion is made for all years under study in this particular model.

Table 6.11

Denver:

Event History Analysis of Delinquency Change in Relation to Arrest / Juvenile Law

<i>Denver ages 15-17</i>						
<i>Coefficients</i>	<i>Decrease</i>		<i>Persistence</i>		<i>Increase</i>	
	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
Intercept	-0.55	0.12	-1.65	0.00	-0.31	0.29
AGE	-0.08	0.60	0.08	0.64	-0.10	0.51
PREDEL	0.11	0.10	0.33	0.00	-0.19	0.01
FEMALE	0.37	0.02	-0.08	0.65	-0.43	0.01
PEERS	-0.03	0.87	0.05	0.82	0.11	0.53
ARREST	-0.20	0.33	0.37	0.06	0.12	0.61
ARRESTH	-0.21	0.36	0.18	0.45	0.21	0.40

In Denver the two arrest variables do not appear to impact either decrease or increase in delinquency. Only the persistence model shows a positive effect of arrest in the prior year at a significance level of 0.06.

For the interpretation of the second Denver model, it is important to keep in mind that the model is based on young adults who are offenders in all years under comparison (18/19, 19/20 and 20/21) and in the higher quartiles of SRD 1991 and 1994 as opposed to the whole population under study. As seen in Table 6.12, during these ages, biographical *age* seems to matter, offenders are still increasing their delinquency over the years of young adulthood. *Prior delinquency* is not just a measure of delinquent behavior in the year of arrest, but in this specific set of models is in addition an indicator of subsequent changes in delinquency. This suggests an overall decrease in delinquent behavior, since higher prior delinquency is related to higher levels of decrease and lower levels of increase.

The result that females are significantly more likely to persist has to do with the specific offender definition mentioned above. Looking at a restricted group of females that fit this definition of "high frequency" offending in each year under comparison, results in different dynamics. At these ages, the majority of females are non- or low-level delinquents and they are excluded here. Also, it is known from prior analysis that when desisting, females more often reduce to zero, and, as previously noted, given the data restrictions in this set of models this dynamic is not possible. Also, as seen in Table 6.12, peers do not have an impact on any transition.

Concerning our main research question, the impact of arrest seems rather similar to prior event history models. Interestingly arrest history has stronger effects now than arrest in the prior year. Arrest experiences in the past seem to make high frequency offenders less likely to decrease (0.06 significance level) and significantly more likely to remain at their level of offending.

Table 6.12

Denver:

Event History Analysis of Delinquency Changes in Relation to Arrest / Adult Law

<i>Denver ages 18-21</i>						
<i>Coefficients</i>	<i>Decrease</i>		<i>Persistence</i>		<i>Increase</i>	
	β	p	β	p	β	p
Intercept	-2.36	0.00	-1.65	0.01	0.93	0.28
AGE	-0.18	0.58	-0.37	0.20	1.05	0.01
PREDEL	0.71	0.00	0.47	0.00	-1.15	0.00
FEMALE	-0.51	0.19	0.78	0.02	-0.69	0.15
PEERS	-0.21	0.55	0.16	0.60	0.11	0.80
ARREST	0.41	0.27	-0.05	0.88	-0.65	0.19
ARRESTH	-0.66	0.06	0.62	0.05	-0.22	0.60

6.4.3 *Conclusions*

Event history analysis provides the potential for additional insights about the effect of arrest, providing examination of effects in a more long-term perspective. In this section, the impact of arrest on "transitions" in the development of delinquency over time, within the context of other factors that may influence delinquency, were examined. These event-history models were employed at different age periods and within differing legal frameworks (i.e. juvenile and adult law).

The Bremen models for young adulthood clearly indicated that arrest has counterproductive impacts. Arrest was not only positively related to subsequent increases in delinquency but also inhibited its decline throughout this period. However, at the beginning of the biographical period of adulthood, arrest has no clear impact on subsequent involvement in delinquency/crime.

The Denver analysis for the juvenile years also provided instructive findings. In Denver, arrest contributed to the persistence of illegal behavior. The tendency to commit offenses at a similar level as before is much stronger for arrestees than for delinquents who were not apprehended. Even the set of models covering the age span 18 to 21 restricted to high frequency offenders confirmed this result. At these ages, arrest experiences in the past, rather than an additional arrest in the prior year, significantly increased the propensity to persist and inhibited tendencies to decrease.

Overall, these results added a part to our understanding of the longitudinal relationship of formal interventions to the development of delinquency. In general, arrest does not have an effect, and when it does it does not lead to decreases, but rather, to increases or persistence in delinquent involvement. This is, in general, consonant with the trends observed in the crosstabulation and other previous analyses for these ages.

6.5 Summary

In general, arrest does not appear to have much of an effect on subsequent delinquency, and when such effects do occur they lead to persistence or an increase in the level of delinquent offending. The different statistical procedures used in this chapter to examine the effect of arrest confirmed this general judgement quite consistently.

The cross-tabulations indicated no effects of arrest during adolescence, and during young adulthood and adulthood in Bremen, arrest consistently led to fewer decreases and greater persistence or increases in delinquent/criminal behavior. The regression models also indicated little effect of arrest on delinquency at any of the ages, but for Bremen during adolescence and young adulthood, arrestees were more likely to have higher involvement in delinquency in the year following arrest than non-arrestees. The matched-pair analyses also indicated no significant effects of arrest on subsequent delinquency, except at age 18 in Denver and age 20 in Bremen, where a greater proportion of arrestees increased or persisted in their delinquency than did their matched controls. It is important that the matched-pair analyses controlled more comprehensively for delinquency in prior years. Since in pairs with comparable delinquent history over a several year period, there was either no difference between the arrestees and controls or the arrested persons increased their subsequent delinquency, the possibility that the findings are due to the police arresting the more active youth or youth on a different trajectory is minimized. The event-history models further confirmed the general pattern. Arrest was not a significant predictor of change in delinquency except over the ages of 18-21 in Bremen, where arrest led to a smaller probability of decreasing and a greater probability of increasing delinquency in the following year, and in Denver at ages 15-17 ($p=.06$), where arrest resulted in increased probabilities of persistence at the same offending level. Also, in Denver, "arrest history" seemed to become more important at ages 18-21, by putting offenders at significantly higher risk of persistence and reduced tendencies to decrease ($p=.06$).

It is interesting that the event history results for Bremen indicate, as do some of the findings from the other statistical tests, that arrest may in fact lead to increases in subsequent delinquency. Because we do not find such an effect at both sites, it seems conceivable that the counterproductive consequences of being arrested may depend on the "normality" of arrest in a given society, region or neighborhood. In Bremen, arrest is a relatively rare event, while in Denver, arrest is more common. Thus the observed influence of arrest may partly depend on its "rarity."

One result, however, needs to be clearly understood. In general, arrest certainly does not appear to help individuals reduce or desist from delinquency. Rather it furthers persistence. If a person is arrested the probability that his or her subsequent delinquency stays at the same level or increases appears to be increased. This finding is important, but its understanding requires additional information. Arrest is often only the beginning of criminal prosecution, and the sanctioning that follows arrest may be more important for subsequent delinquent behavior. By looking only at arrest, all cases, which may have different outcomes resulting from different sanctioning levels, are combined together. The next chapters will elaborate sanction levels and the effects various dispositions and sanction levels in Bremen and Denver may have on those who have been arrested.

Chapter 7

Sanctioning patterns in Denver and Bremen

Chapter 1 elaborated how the sanctioning patterns in Germany and the U.S. differ in many respects. First, the jurisdiction of juvenile law ends for most states in the U.S. and for Colorado at the age of 17, while in Germany the juvenile courts have jurisdiction for young adults as well as for juveniles. That is, juvenile judges have to determine in all cases involving persons aged 18 to 20 if either (1) the offense is akin to offenses typically committed by juveniles or (2) the offender has only reached a state of maturity that is below the level usually expected by adults. In such cases, juvenile law will be applied. In fact, in practice the majority of offenses by young adults are handled on the basis of juvenile law. Second, in the U.S. particular offenders below the age of 18 may be sentenced under adult law (certain violent offenders and chronic offenders in Colorado), if the application of juvenile law is waived. In such cases the sanctions applied may exceed in severity those adjudicated by juvenile law. Finally, the sanctions against adult offenders seem to be more severe in the U.S. than in Germany because custodial sanctions are used much more often in America than in many other Western societies. One indicator of this is the fact that the incarceration rate (645 per 100,000 population) in the U.S. is more than six times higher than in comparable Western societies (Caplow and Simon 1999: 63; Stern 1998: 31 *passim*).

Given these differences, a first step for the comparative study of sanctions between Bremen and Denver has to be a comparison of the actual use of sanctions of differing severity in the two sites. For such a comparison it is necessary to have for use a common scale or measure of sanction severity.

7.1 Arriving at a Common Scale for Sanctions

We have sketched the common scale for sanctions previously in Chapter 3, but it seems necessary to further elaborate the meaning of all codes included in the scale to be able to judge the comparative potential of the scale. The scale was constructed based on three different dimensions. First, the particular agency of social control was considered: police, prosecutor or court. Second, the procedural way in which the imposition of a sanction occurred was taken into consideration. That is, in some instances the same general sanction (e.g. community service) can be imposed by different procedures. Of importance was the distinction between dismissal, adjudication and conviction. Third, the intensity of the intrusion into the rights and life of the offender was considered. That is, the severity of the intervention was at issue: behavioral directives versus fines versus probation versus custodial sentences. By combining all three dimensions we arrived at a scale with 12 levels of severity.

This scale will be used in this chapter to provide a detailed picture of sanctions applied to adolescents, young adults and adults in Bremen and Denver. Because of the limited use of some sanctions at one or the other of the two sites, we will use in the next chapter a condensed measure of common sanctions, which essentially distinguishes between (1) dismissal / diversion, (2) intermediate sanctions and (3) custodial sanctions or even simply between diversion and sanctioning. However, for a better understanding of these condensed sanction measures used for

the analyses of sanctioning effects, it seems useful to know the levels of the detailed sanction scale as well as the frequencies of those sanctions applied to persons of differing ages, thereby being able to better relate a category of the condensed measures to the specific sanctions that comprise the category.

The scale of common sanctions was given in Chapter 3 but is replicated here for easy reference as Table 7.1.

Table 7.1
Common Sanctions Scale

Code	Behavioral type	Sanction in Germany	Sanction in the U.S.
0	Police dismiss after arrest	Not available in Bremen	Police warn, lecture, may notify parents, but no court referral
1	Prosecutor dismisses without further intervention	Prov.45 I JGG (or if no subparagraphs specified): Prosecutor dismisses, may lecture	Data not available in Denver (included under police dismissal)
2	Diversion: Prosecutor dismisses after a behavioral directive has been completed. No Court Referral	Prov.45 II, III JGG Prosecutor with consent of court demands community services, victim-offender agreement, etc.; dismissal follows completion	Youth receives services as a result of police contact, or by court intake, but is not referred to court
3	Court dismissal without sanction	Court dismissal without sanctions	Court dismissal without sanctions
4	Court dismissal with sanction. Not convicted/adjudicated	Prov. 47 JGG Court dismisses after counseling, treatment, fulfillment of behavioral directives	Informal probation Data not available for Denver (Included under codes 6 or 8)
5.	Conviction/adjudication. Sentenced to fine by juvenile court.	Prov.15 I no.4 JGG Disciplinary measure: to pay amount to non-profit organization	Juvenile fine
6.	Conviction/ adjudication plus disciplinary order	Community service, restitution, apology to victim, social training, etc.	Community service, family counseling, restitution, etc.
7.	Conviction / adjudication sentenced to fine by adult/criminal court	Prov. 40 StGB Fine based on Criminal Law	Fine imposed by Adult/District Court
8.	Conviction/ adjudication Referred to social services	Prov 10 I no. 5; 12 no. 1 JGG Put under guardianship and in a group home	Referred to social services or community treatment provider, may be put under guardianship
9.	Conviction / adjudication, placed on probation and monitoring by probation officer	Prov.27 and 21 JGG Probation (suspension of sentencing to / or suspension of serving a prison term)	Probation
10.	Conviction plus short term incarceration (up to 1 month)	Prov. 16 JGG Youth custody	Detention in juvenile facility or county jail
11.	Incarceration for a period exceeding 1 month	Prov. 18 JGG; 56 StGB Youth prison / prison / locked up in psychiatric facility, etc.	Incarceration in juvenile correctional facility / prison.

The first code (0) refers to reactions by the police and is only measurable in Denver. We are not able to apply this code to the Bremen data, because the data source in Bremen is the general register of sanctions (BZR) in Berlin which documents all decisions by prosecutors and courts based on juvenile law (JGG) called Erziehungsregister, as well as the registration of criminal sanctions against adults (Strafregister). Neither of those registers provides data about police reactions to norm breaking behavior. However, the rule of the so called legality principle in German criminal procedure demands that police are not entitled to dismiss cases but instead must submit every file (officially registered contact) to the prosecution who thereafter may dismiss the case. Thus, lacking knowledge about police dispositions seems to be irrelevant for the comparison of formal sanctions. More important is the fact that the German BZR does not record cases which have been dismissed because they lack legal sufficiency (prov. 170 II German Code of Criminal Procedure). These cases for adults are unknown for Bremen but may be included in Denver, at least in the category of police dismissals. In Denver the data used in identifying sanctions is taken from information provided by the respondents. As a part of this information, they report on police contacts that result in being lectured or warned with no further action. This then is meant by police dismissal.

Code 1 (prosecutor dismissal) is important in Bremen, but inadequately measured by the self-report data in Denver and is confounded with Code 0, police dismissal. This results from the nature of the data collection and from the fact that respondents do not necessarily know the actions of prosecutors/court intake. Since the structure of case flow differs in Germany and the U.S. regarding the roles of prosecutors and juvenile courts, as well as in the sequences of their decision making, some categories fit better for Germany and others better for the U.S. In Germany the prosecution office handles all decisions regarding dismissal, diversion or accusation of formally registered cases; and they are made before – if at all – the case goes to the juvenile court. Consequently in Germany the least severe reaction of the justice system is that the prosecutor dismisses the case without or with lecturing the offender, but without any contact with the juvenile court. In Colorado court intake may also dismiss the case, but this cannot be determined based on self-reports of the offenders who might subsume these cases under police dismissal.

If, however, the German prosecution considers that diversion without any further reaction would not be appropriate, it may – after having secured the consent of a juvenile judge (e.g. by calling him on the phone) – demand community services, victim-offender agreements or other behavioral directives as a precondition for dismissal. In these cases the final decision to dismiss is delayed by the prosecution until after the completion of the demanded service. This is implied by code 2. In Denver, these cases are not common, but do exist with some frequency. Following arrest, police or court intake order that some counseling or other treatment program be undertaken, without sending the case to court.

Code 3 (court dismissal without sanction) refers to cases brought before the juvenile judge who either does not accept the legal judgement of the prosecution as to the legal sufficiency of the case or for other reasons dismisses the case without further sanction. This option is rare in Bremen but used more commonly in Denver.

Code 4 (court dismissal with sanction, but the youth is not convicted/adjudicated) is available in Bremen. Here juvenile court dismisses the case usually after demanding that the offender attend training programs, get counseling, provide community services or fulfill other behavioral directives. In Bremen these informal reactions are available as condition for dismissal. Actually the bulk of court diversion cases applied by judges are handled this way. In Denver, accurate measurement of this option is not available because of confusion in the self-reports between being referred to court and formal adjudication.

By reviewing the codes 0 to 4, we find in Germany and Colorado different but similar procedural structures to organize diversion. The common feature is that the offenders get off without being adjudicated or convicted. In fact, avoiding that formal disposition is the very essence of diversion. Thus, although some Denver cases (informal probation) may be incorrectly identified as belonging to a more severe sanction, it seems reasonable to group these codes together as forms of dismissal and diversion, as a collapsed measurement, and thereby arrive at an equivalent measure for dismissal/ diversion.

Codes 5 and 7 (sentences to a fine) refer to material sanctions. We distinguish between juvenile fines and adult fines because there is a particular difference between these two in Germany. In Germany, juvenile fines imply that the money is given to charity organizations. The reason for this is based on the idea that a young offender will get an educational message by being required to pick a beneficiary who, for example, helps victims of offenses cope with such events or who works for the prevention of crime. Adult fines are paid to the court and thus add to the budget of the criminal justice system.

Code 6 (sentences to a disciplinary order) refers to a variety of sanctions like community services, behavioral demands, restitution, etc., which are used by judges in Denver as well as in Bremen. If the sanctions measure were based only on the content of the particular sanctions, there would be little distinction between codes 4 and 6, because the severity of the intervention would probably not be very different. The difference between 4 and 6 is based solely on the fact that in code 6 the sanctions are a consequence of adjudication or conviction.

Code 8 (conviction with social services) refers to guardianship-type sanctions. In Germany a person is put under the control and guidance of a social worker for a certain period up to a year or sent to a group home, which is not secure. In Denver this sanction has the form of community treatment.

Code 9 (formal probation) poses a problem. While the term probation is used in Germany as well as in the U.S., the uses differ. In Germany probation has almost exclusively the form of a suspended prison term, while in the U.S., probation may also be used to provide social services and control. We decided to locate probation on the scale next to custodial sentences. This follows the sanctioning level of Germany and provides a reasonable rank order of the sanction for Denver as well. For the later purpose of a condensed measurement, categories 5 through 9 are collapsed, and thus the exact position of this sanction in this range would not be important.

Codes 10 and 11 (the custodial sanctions) do not need much explanation. The distinction regarding the length of the term helps specify the level of punitiveness of this form of criminal and juvenile justice sanction.

7.2 Sanctioning patterns in Bremen

The juvenile courts in Bremen (like those in Hamburg or Berlin) are known for their preference for diversion-oriented sanctions. Thus it is no surprise to see that sanctions applied to adolescents are almost exclusively at the level dismissal/ diversion, while for young adults intermediate sanctions are more frequently used. Adult offenders are sanctioned, as is usual in Germany, predominantly by fines (see Table 7.2).

Table 7.2
Age Distribution of Maximum Sanctions Among Arrestees in Bremen

	14	15	16	17	18	19	20	21	22	23	24	25	26
BREMEN													
(1) Prosecutor Dismissal	80.0%	70.0%	76.3%	60.0%	27.6%	11.1%		5.0%					
(2) Diversion		3.3%	2.6%	3.3%	6.9%	8.3%	8.7%						
(4) Court Dismissal w/ Sanction	20.0%	23.3%	18.4%	33.3%	62.1%	61.1%	56.5%	45.0%	3.8%	3.8%			
(5) Adjudication-Juvenile Fine						8.3%	8.7%	5.0%				5.3%	
(6) Adjudication-Behav Directv						2.8%	8.7%	5.0%	3.8%				
(7) Adjudication-Adult Fine							4.3%	30.0%	80.8%	69.2%	68.2%	78.9%	83.3%
(8) Adjudication-Social Services			2.6%	3.3%	3.4%	2.8%							
(9) Adjudication-Probation						2.8%	4.3%	5.0%	11.5%	26.9%	31.8%	15.8%	
(10) Custody up to 1 month		3.3%				2.8%							
(11) Custody longer than 1 mo							8.7%	5.0%					16.7%
Number of Arrestees	10	30	38	30	29	36	23	20	26	26	22	19	6

By looking at Table 7.2, we find an age-graded use of particular sanctions. Prosecutor dismissal without further action is used in the majority of cases in early ages and becomes less frequent after the age of 16. Diversion with consent of the court, as well as diversion by the court, increase until the age of young adulthood (18 and 19 years) and drop thereafter. It may seem puzzling that at the age of 21 court dismissal (code 4) still plays the major role. This is due to the delay in the decision-making by the justice system. Since for the application of juvenile law the date of the offense is relevant, not the age of the offender at the time of the court decision, a substantial number of decisions are handed out only after the offender has reached the age of 21.

Sentencing to fines becomes relevant only for the young adults. Starting at the age of 22, adult fines are used in four out of five cases, as is usual in Germany. Probation becomes important for adults only, because the diversity of sanctions available under juvenile law boils down in adult criminal law to only three options: fines, probation and incarceration. Very few offenders in Bremen are incarcerated. During adolescence and also partly during young adulthood, the first instance of incarceration commonly would be a form of youth custody (“Jugendarrest”), with a maximum length of one month. This legally is not considered a prison term, but a disciplinary measure. Only in the young adult age period will longer prison terms be handed out.

Essentially one may conclude that almost exclusively in Bremen sanctioning has the form of diversion (including diversion with no services or sanctions) as long as the offenders are adolescents. For young adults diversion as well as some intermediate sanctions (e.g. fines) dominate the sanctioning pattern. For adults fines are the predominant sanction, with probation or custody being applied to only one out of five convicted persons. It has to be added that there is some distortion in the picture. Whereas dismissals of cases against adults in Germany account generally for 45% of court decisions, the data base unfortunately excludes those cases. The Bundeszentralregister in Berlin (BZR) registers dismissals only for persons up to the age of 20, and only if juvenile law is applied. Dismissals based on Criminal Law (e.g. prov. 153, 153a StPO) are excluded from registration. There is no way that this information can be obtained from official sources and thus the sentencing pattern regarding adults in Germany, as documented by our data, is biased against the dismissal of cases.

7.3 Sanctioning patterns in Denver

We would expect that the sanctioning patterns in Denver are more severe. In fact the situation is more diverse than a first glance indicates. For example, as can be seen in Table 7.3, police dismissal decreases as adolescents become older but jumps again at the young adult ages. This effect resembles the well-known mediating practices of crime control agencies: the stiffer and the more determinate sanctions demanded by penal law become, the less willing the police, prosecutors or courts seem to invoke such consequences for offenders.³⁹ Law enforcement in use may ignore principles laid down by law in the books.

Before commenting further on the sanction patterns in regard to age, it needs to be noted that the findings for all ages are not based on the two oldest cohorts of the DYS. The larger data base for both cohorts is available only for the ages 16, 17 and 22. Because interviews were not conducted in 1993 and 1994 and no retrospective data on sanctioning was collected in 1995, data are missing for 1992 and 1993. Fortunately, the accelerated cohort design helps overcome this “hole” in the data set. By relying on the 1974 cohort for ages 20 and 21 and the 1972 cohort for the ages 18 and 19, we have data for every age under study from at least one cohort. However, the estimates based on just one cohort may be considered less reliable than for other ages.

Dismissal of cases by the court without sanctions plays a small role. The proportions of this type of sanction fluctuate over the ages at about 10 percent (plus or minus 5 %). Fines become more important as the persons become older, ranging from 12.6 % at the age of 14 and rising to 40% by age 17. That is, in two out of five cases, offenders who are aged 17 and older are punished by fines as the maximum sanction in Denver. As might be expected, behavioral directives – as a typical sanction for juveniles – are important but decrease from about 30% at age 14 to 20% at age 17 and drop substantially at ages 18 and 19.

For all ages, probation and placement in custodial care play a consistent role in the sanctioning pattern. Generally, about one out of six offenders at each age is placed on formal probation and over 10% are incarcerated, with the majority of those incarcerated receiving short term sentences. These figures translate into approximately 30-40% of the adjudicated/convicted and sentenced cases being placed on formal probation or in custodial care.

³⁹ This tendency has been recently demonstrated by Austin (1999) in regard to the “three-strikes-laws”.

Table 7.3
Age Distribution of Maximum Sanctions in Denver*

	14	15	16	17	18	19	20	21	22	23	24	25	26
DENVER													
(0) Police Dismissal	16.3%	14.3%	13.9%	9.6%	17.0%	11.2%	10.9%	9.3%	14.4%		11.9%		
(2) Diversion		1.9%	3.2%	1.3%	2.1%				8.5%		6.0%		
(3) Court Dismissal	11.7%	7.4%	7.1%	5.0%	10.9%	6.6%	14.8%	9.3%	5.9%	12.2%	6.0%		
(5) Adjudication-Juvenile Fine	12.6%	33.4%	21.0%	39.1%	14.1%								
(6) Adjudication-Behav Directv	29.3%	27.6%	21.7%	20.5%	4.1%	8.7%							
(7) Adjudication-Adult Fine					30.1%	42.8%	38.2%	38.7%	26.2%	39.5%	41.1%		
(9) Adjudication-Probation	15.5%	12.3%	17.2%	8.2%	10.9%	19.1%	16.1%	17.3%	33.2%	12.2%	21.4%		
(10a) Any Custody (1988 only)	14.6%		8.8%										
(10) Custody up to 1 month			4.4%	9.6%	6.8%	8.7%	10.0%	17.3%	2.6%	28.3%			
(11) Custody longer than 1 mo		3.0%	2.9%	6.6%	4.1%	2.9%	10.0%	8.1%	9.2%	7.8%	13.7%		
Number of Arrestees	31	60	91	89	44	31	30	22	35	26	15		

* Ages 16,17,22-data from both cohorts; Ages 18,19,23,24-data from 1972 cohort; Ages 14,15,20,21-data from 1974 cohort.

7.4 Comparing the sentencing patterns at both sites

We turn now to a comparative analysis of the sanction patterns in Denver and Bremen. To summarize the findings and compare Bremen and Denver, dismissals and diversion by the police in Denver have been removed from consideration, since, as noted, earlier, this option is not available in Bremen. Also, the sanction categories have been collapsed into prosecutor and court dismissal and diversion, intermediate sanctions, and incarceration, as described above. This summary is provided in Table 7.4.

It has already become apparent that there are striking differences in the use of diversion/dismissal at both sites. In comparison to Denver, Bremen shows an impressive preference for this strategy of juvenile justice system decisions that are designed to spare adolescents being sentenced and punished. This preference follows from the anticipation that the experience of prosecution and imposition of only low-level disciplinary measures and behavioral directives without conviction, will result in an offender's reduced involvement in delinquency. In fact, as can be seen in Tables 7.2 and 7.4, in Bremen from age 14 (the age of criminal responsibility) through age 17, over 96% of all cases referred to the prosecutor (and thus of almost all cases formally recorded by the police) are either dismissed by the prosecutor, diverted, or dismissed by the court with a sanction, and the majority of these are simply dismissed by the prosecutor. Thus, even allowing for legal insufficiency, almost all juvenile cases are formally diverted from juvenile court prosecution. Even at ages 18-20, court diversion is still the most common sanction, accounting for over half of all cases. In strong contrast to Bremen's 96% dismissal/diversion rate for adolescents and over 50% for those aged 18-20, in Denver, roughly only 6-16% of cases referred to court intake are dismissed or diverted over these ages. In Denver, the juvenile and criminal justice systems seem to rely primarily on intermediate sanctions, notably fines, behavioral directives for adolescents, and probation to correct the behavior of offenders.

It should be emphasized that the finding of greater use of dismissal and diversion during adolescence and young adulthood in Bremen does not result from the definition of arrest as referral to the prosecutor or court intake. Even if all the cases dismissed by the police in Denver are included for consideration, still only 12-30% of cases are diverted/dismissed, in comparison to the 96% rate for adolescents and 50% for young adults in Bremen.

In addition, in Denver, sentencing to some kind of incarceration seems to be a regular feature of the sanctioning pattern throughout all ages, with a tendency to increase in adulthood. In contrast, the judges in Bremen only very rarely sentence to incarceration. One reason for this seems to be that many juvenile judges are aware of the negative effects of imprisonment on youths. It has been a rather consistent finding in evaluation research that the rate of recidivism among persons released from youth prisons approaches 80% (see PSB 2001). Thus to send a young person into prison implies a high risk of continuing delinquency. Another reason may be that in Germany there is a gap between short-term custody (2 – 4 weeks) and youth prison with its minimum length of 6 months. This gap precludes detaining youths for durations between 1 and 5 months. Moreover, also Criminal Law determines for adults that sentences shorter than 6 months should only be used in rare exceptions. In cases where short-term incarceration might be considered, fines are to be preferred. Generally, legal regulations stress the tendency to avoid short incarceration terms in favor of intermediate sanctions. Prison terms are thus longer and are restricted to the most severe forms of lawbreaking.

This is not so in Denver. A good portion, usually over 10% and often almost 20%, of adolescents (ages 14-17) referred to court intake are punished by imprisonment at each age.⁴⁰ After turning age 18, they continue to run quite persistently a 10% or higher risk (over 25% at some ages) of being incarcerated when apprehended. This substantial feature of the Denver sentencing pattern indicates the stronger degree of punitiveness of crime control in Colorado and presumably in the rest of the U.S.

⁴⁰ This may, in part, be an effect of waiver of juvenile law, however a small one. Unfortunately we have no way to check on this because in the self-reports on arrest and subsequent prosecution and sanctioning the purely legal issue of waiver of juvenile law was not raised. Such waiver, however, has a very low prevalence in Colorado.

Table 7.4
Age Distribution of Maximum Sanctions Among Arrestees
Referred to Prosecutor/Court in Bremen and Denver

	14	15	16	17	18	19	20	21	22	23	24	25	26
BREMEN^a													
Dismissal/Diversion	100%	96.7%	97.4%	96.7%	96.6%	80.6%	65.2%	50.0%	3.8%	3.8%	0.0%	0.0%	0.0%
Intermediate Sanction	0.0%	0.0%	2.6%	3.3%	3.4%	16.7%	26.1%	45.0%	96%	96%	100%	100%	83.3%
Incarceration	0.0%	3.3%	0.0%	0.0%	0.0%	2.8%	8.7%	5.0%	0.0%	0.0%	0.0%	0.0%	16.7%
Number of Arrestees	10	30	38	30	29	36	23	20	26	26	22	19	6
DENVER^b													
Dismissal	14.5%	9.0%	8.5%	5.6%	13.4%	7.5%	16.6%	10.2%	7.7%	12.2%	7.3%		
Intermediate Sanction	67.4%	87.4%	72.3%	76.1%	73.1%	79.5%	60.9%	61.8%	77.0%	51.7%	76.1%		
Incarceration	18.1%	3.6%	19.2%	18.3%	13.4%	13.1%	22.4%	28.0%	15.3%	36.1%	16.7%		
Number of Arrestees	25	50	76	80	35	28	26	20	27	26	12		

^a Ages 14 to 26 from all Bremen cohorts, 1971 to 1974

^b Ages 16,17,22-data from both cohorts; Ages 18,19,23,24-data from 1972 cohort; Ages 14,15,20,21-data from 1974 cohort.

7.4 Gender Differences in the Sanctioning Patterns at Both Sites

It perhaps goes without saying that the sanction patterns discussed so far reflect the sanction patterns for males. As can be seen in Table 7.5, at both sites, the proportion of females among the arrestees is so small that their influence on the general patterns of sanctioning is very limited. Actually, the sanctioning patterns in Denver do not differ very much by gender. Females have a slightly higher dismissal rate especially at the ages 15, 18 and 20. They also are less often punished by imprisonment at the ages 14 and 15 as well as 18–22. Thus there is a weak tendency of the criminal and juvenile justice systems in Denver to treat females more leniently, although this gender difference may reflect the possibility that the gravity of offenses committed by females may be less serious. However, in general, the vast majority of both males and females receive intermediate sanctions.

In Bremen the situation in regard to gender is relatively similar. The sanctioning patterns do not differ very much by gender, although females are treated somewhat more leniently. Regardless of age, none of the females has been punished by imprisonment, while in Denver this happened at least occasionally. The German juvenile justice system, almost by principle, seems to use diversion for female offenders through the age of 20. Thereafter intermediate sanctions are applied.

Thus, at both sites there is some indication of greater leniency for females, but, in general, sanctioning of the two genders follows the “preferred” sanction at each site – dismissal/diversion in Bremen through age 20 or 21, followed by intermediate sanctions at later ages, and, in Denver, intermediate sanctions for all ages.

Table 7.5
Age by Gender Distribution of Maximum Sanctions Among Arrestees in Bremen and Denver

BREMEN^a	14	15	16	17	18	19	20	21	22	23	24	25	26
Males:													
Dismissal/Diversion	100%	96.2%	96.6%	100%	95.8%	80.6%	63.2%	52.6%	4.3%	4.5%	0.0%	0.0%	0.0%
Intermediate Sanction	0.0%	0.0%	3.4%	0.0%	4.2%	16.1%	26.3%	42.1%	95.7%	95.5%	100%	100%	83.3%
Incarceration	0.0%	3.8%	0.0%	0.0%	0.0%	3.2%	10.5%	5.3%	0.0%	0.0%	0.0%	0.0%	16.7%
Number of Arrestees	8	26	29	26	24	31	19	19	23	22	19	14	6
Females:^c													
Dismissal/Diversion	100%	100%	100%	75.0%	100%	80.0%	75.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--
Intermediate Sanction	0.0%	0.0%	0.0%	25.0%	0.0%	20.0%	25.0%	100%	100%	100%	100%	100%	--
Incarceration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--
Number of Arrestees	2	4	9	4	5	5	4	1	3	4	3	5	0
DENVER^b													
Males:													
Dismissal	16.7%	7.7%	8.5%	7.5%	10.7%	8.7%	13.0%	12.5%	8.7%	10.5%	0.0%		
Intermediate Sanction	61.1%	87.2%	71.2%	67.9%	71.4%	73.9%	60.9%	50.0%	73.9%	52.6%	87.5%		
Incarceration	22.2%	5.1%	20.3%	24.5%	17.9%	17.4%	26.1%	37.5%	17.4%	36.8%	12.5%		
Number of Arrestees	18	39	59	53	28	23	23	16	23	19	8		
Females:^c													
Dismissal	16.7%	18.2%	5.9%	3.7%	25.0%	0.0%	33.3%	0.0%	0.0%	14.3%	25.0%		
Intermediate Sanction	83.3%	81.8%	76.5%	88.9%	75.0%	100%	66.7%	100%	100%	57.1%	50.0%		
Incarceration	0.0%	0.0%	17.6%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	28.6%	25.0%		
Number of Arrestees	6	11	17	27	8	5	3	5	4	7	4		

^a Ages 14 to 26 from all Bremen cohorts, 1971 to 1974.

^b Ages 16,17,22-data from both cohorts; Ages 18,19,23,24-data from 1972 cohort; Ages 14,15,20,21-data from 1974 cohort.

^c For comparability reasons, percentages are listed although the number of arrestees is very low.

7.5 Conclusion

Essentially the results of the comparison reflect the expected disposition patterns in Germany and the U.S. to react to offenses committed by adolescents, young adults and adults. In Bremen, up to the age of 20, diversion is the strategy used by prosecutors and courts to handle criminal cases. For adults, intermediate sanctions, especially fines are used. In Denver, there are no great differences between the sanctioning patterns of adolescents and of adults. Consistently, about 70% of the cases, at all ages, are handled by intermediate sanctions, with few cases handled by diversion, and between 10 and 20 percent of the cases handled by incarceration (see Table 7.4).

These differences certainly suggest a more punitive orientation of the Juvenile and Criminal Justice Systems in the U.S. in handling cases involving adolescents and certainly of young adults and adults. In contrast, Germany is strongly oriented towards diverting cases away from conviction for offenders up to the age of 20, because the negative effects of punishments and especially of incarceration are well-known and considered an important obstacle to successful justice system practice. Given these differences, the question arises if the two orientations may have different consequences for prevention of future offending. This question is addressed in the next chapter.

Chapter 8

Sanctioning and Subsequent Delinquency

The previous chapter described the sanctioning options available in Bremen and Denver and the sanctioning patterns actually used at the two sites in reacting to offenses committed by adolescents, young adults, and adults. Rather striking differences between the two sites were observed. In Bremen, during adolescence through the age of 17, nearly all cases were handled by diversion from the juvenile court. During young adulthood (ages 18-20) diversion continued to play a major role but with intermediate sanctions slowly becoming more prevalent. During adulthood (ages 21- 26) intermediate sanctions became the rule, accounting for almost all sanctions. Very few individuals were incarcerated. In contrast, in Denver, intermediate sanctions were the rule across all age groups. Relatively few cases were diverted during the juvenile years and incarceration was used in roughly 10-20% of cases across the entire age range examined.

In this chapter, the question addressed is whether there are different outcomes resulting from the different sanctions and whether the influence of similar sanctions results in similar outcomes at the two sites. Conceivably, the use of sanctions in a more lenient system where the use of more severe sanctions is relatively rare, as in Bremen, may differ from the use of sanctions in a system that makes a wider use of a range of sanction severity, as in Denver. In the examination of the influence of arrest and sanctions on subsequent behavior, it also seemed useful to examine longer-term outcomes, rather than more immediate outcomes. Many evaluations of intervention and prevention programs have indicated very diminished effects after a year or two, and presumably this outcome could be observed for arrest and sanctioning as well. For this reason, the effects of arrests and sanctions during adolescence are examined during young adulthood and adulthood, and the effects of arrest and sanctioning during young adulthood are examined during adulthood.

Given the very restricted use of more severe sanctions in Bremen, in order to have similar cross-site categories of sanctions that are actually used by the courts, it is necessary to combine the common cross-site sanction categories, described in Chapters 3 and 7, into relatively large collapsed indicators of sanction severity. For this categorization, the attempt was made to maintain a semblance of severity by combining sanction categories on the basis of the extent of intrusion into offenders' lives. The following categories were developed: (1) No Arrest, (2) Dismissal with no stipulations (by the prosecutor or court in Bremen and by either the police, court intake, or court in Denver), and (3) Sanction. The sanction category is thus quite broad, encompassing behavioral directives required as a part of diversion through incarceration.

The need for such a broad category, however, may be recalled from Chapter 7, where it was noted that through age 18, over 90% of all cases in Bremen were dismissed, diverted, or dismissed by the court with a behavioral directive, and for ages 19-21, these categories made up the majority of all dispositions. Thus, the only sanctioned group with sufficient size for analysis

is the group sanctioned by behavioral directives (e.g. community service) or other more severe sanctions, and this is the group of all sanctioned individuals. The use of this broad category for comparative analyses does mean, however, that the sanction category for Denver includes more severe sanctions than in Bremen.

Also, the difference between sites in the use of diversion for young adults (extensive use in Bremen, almost non-existent in Denver) provides the opportunity to examine the impact of the use of diversion, in contrast to other sanctions, during these ages. Thus for some analyses, a sanction measure of (1) No Arrest, (2) Diversion (dismissal, diversion by prosecutor, court dismissal with sanction), and (3) Convicted (with more severe sanctions – fine through incarceration) is used.

Because the focus of this chapter is on sanctioning, the analyses reported are limited to those who are at risk for arrest and further sanctioning; that is, to those who are offenders during the age periods predicting later outcomes.

8.1 The Effects of Arrest and Sanctions During Adolescence on Young Adulthood Crime

For the purpose of determining the effects of arrest and sanctions during adolescence on young adult crime, the “quartile” measure of delinquency and crime described in earlier chapters is used. These measures are created separately for adolescence, young adulthood, and adulthood. For each individual, the mean frequency across the years of each age category is determined and the percentile rank is based on these mean scores. Thus, in examining the influence of sanctions, it should be observed that the delinquency/crime measures are normed separately for each age period. This means, for example, that a change score reflects the relative position of an individual at each age, and a change in level does not necessarily mean an increase or a decrease in absolute frequency of offending. Rather, it reflects the change in the ranking at one age to the ranking at a later age. In this way, changes within the population at large in offending frequency, that occur with increasing age, are partially controlled.

As a start in examining the influence of sanctions, it is interesting to examine the stability of offending over time. For this purpose, the transition matrix of delinquent types from adolescence to early adulthood is given in Table 8.1.

Table 8.1
Transition to Young Adult Delinquency Levels by Adolescent Delinquents
Bremen

Adolescent Delinquency	Young Adult Delinquency				
	None	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
1 st Quartile	16.7%	53.3%	21.7%	8.3%	0.0%
2 nd Quartile	14.3%	32.7%	26.5%	20.4%	6.1%
3 rd Quartile	14.8%	16.7%	13.0%	37.0%	18.5%
4 th Quartile	2.0%	10.0%	12.0%	20.0%	56.0%

Chisq.= 93.47 ρ =.000

Denver

Adolescent Delinquency	Young Adult Delinquency				
	None	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
1 st Quartile	43.4%	30.2%	11.3%	8.5%	6.6%
2 nd Quartile	28.9%	25.3%	16.9%	19.3%	9.6%
3 rd Quartile	13.5%	22.9%	18.8%	24.0%	20.8%
4 th Quartile	9.8%	15.2%	6.5%	25.0%	43.5%

Chisq.= 89.11 ρ =.000

As might be expected, there is a significant relationship between delinquency level during adolescence and delinquency level during young adulthood at both sites. Those adolescent offenders in the lower quartiles tend to remain in the lower quartiles and those in the upper quartiles tend to remain in the upper quartiles. In Bremen, 76% of those in the 4th quartile during adolescence, who can only maintain or reduce their level of delinquency, remain in the 3rd or 4th quartile. Similarly, in Denver, 69% of those in the 4th quartile during adolescence, remain in the 3rd or 4th quartile during young adulthood. There is thus a good deal of stability over time in the level of delinquency, although movement to other, often adjacent levels is not uncommon.

How does sanctioning affect this stability? Table 8.2 provides a first look at the outcome of sanctions on subsequent delinquency during young adulthood. Although prior delinquency is not controlled in this table, as can be seen in Bremen, adolescent offenders who are not arrested are fairly evenly spread across all levels of young adult crime, while those who are arrested and those sanctioned are substantially more likely to be in the upper two quartiles during young adulthood. Before concluding that arrest and sanctioning have a deleterious effect, however, it must be noted the findings in Table 8.2 may simply reflect the fact that during adolescence arrest and sanctioning are related to the level of offending, with more frequent offenders receiving more severe sanctions. Thus, the findings may simply reflect the stability of delinquent behavior. Nevertheless, it is interesting that among adolescent offenders in Bremen, arrest resulting in sanctioning appears to result in higher levels of offending during young adulthood. In Denver, the results are not as clear. However, among those arrested and given a sanction, there is a steady increase in the proportion at each higher offending level, with 50% of these individuals having delinquency ranks in the 3rd and 4th quartiles in frequency of offending during young adulthood. (Because of low “cell sizes” valid statistical significance could not be computed for these tables).

Table 8.2
Cross-tabulation Among Adolescent Offenders of Sanctions by Young Adult Delinquency/Crime

Bremen

Juvenile Sanction	N	Young Adult Crime Quartile				
		No Crime	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
No Arrest	156	12.8%	34.0%	18.6%	17.9%	16.7%
Arrest – No Sanction	34	8.8%	11.8%	26.5%	38.2%	14.7%
Arrest – With Sanction	21	9.5%	19.0%	4.8%	19.0%	47.6%

Because of low “cell sizes” valid statistical significance could not be computed for this table.

Denver

Juvenile Sanction	N	Young Adult Crime Quartile				
		No Crime	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
No Arrest	180	32.2%	26.1%	9.4%	15.0%	17.2%
Arrest – No Sanction	23	21.7%	30.4%	17.4%	21.7%	8.7%
Arrest – With Sanction	116	14.7%	17.2%	18.1%	21.6%	28.4%

Because of low “cell sizes” valid statistical significance could not be computed for this table.

To better examine the influence of arrest and sanctioning, their effect on changes in the relative level of delinquency/crime from adolescence to young adulthood are given in Table 8.3. In Bremen, the major difference appears to be between those not arrested and those arrested. Although not statistically significant, there is a substantial difference between arrestees and non-arrestees, with a greater percentage of non-arrestees decreasing their delinquent involvement from adolescence to young adulthood. There is very little difference between arrestees that are further sanctioned and those that are not. In Denver, there are few large differences among the adolescent offender groups, with perhaps the arrestees who are not sanctioned being somewhat less likely to increase their delinquency. But the differences are not sufficient to result in statistical significance. Thus, overall at both sites, when control for the level of adolescent delinquency through the use of change scores is introduced, the statistical difference in the outcomes of different sanction levels is non-significant.

Table 8.3
Cross-tabulation Among Adolescent Offenders of Sanctions by Young Adult Delinquency/Crime:
Change Scores

Bremen				
Juvenile Sanction	N	Change Scores – Adolescent to Young Adult		
		Decreasing	Persistent	Increasing
No Arrest	156	41.0%	40.4%	18.6%
Arrest – No Sanction	34	23.5%	55.9%	20.6%
Arrest – With Sanction	21	23.8%	52.4%	23.8%

Chisq. 5.54 p=.236

Denver				
Juvenile Sanction	N	Change Scores – Adolescent to Young Adult		
		Decreasing	Persistent	Increasing
No Arrest	181	55.2%	25.4%	19.3%
Arrest – No Sanction	23	60.9%	30.4%	8.7%
Arrest – With Sanction	117	47.0%	31.6%	21.4%

Chisq. 3.86 p=.425

To examine the effects of sanctions in more complete models controlling for additional variables, multinomial logistic regression was used. These models employed the change scores predicted by arrest and sanctioning, gang membership (Bremen) or involvement with delinquent peers (Denver), and gender⁴¹. The results from these analyses are displayed in Table 8.4. As can be seen, the overall effect of sanctioning is not significant at either site, nor are any of the odds ratios contrasting arrest, or arrest and dismissal, with arrest and sanctioning. Thus, quite clearly in these analyses, the imposition and severity of adolescent sanctions have not affected delinquency participation during young adulthood in any major way.

⁴¹ Initially it was planned to also examine the effect of sanctioning using a model predicting Time 2 (young adult) delinquency from Time 1 (adolescent) delinquency and other control variables. However, the sample sizes available for these analyses were too small to permit reliable estimates of the full cross-classification proportions needed for the analyses, so these analyses are not reported. Of particular concern was the small number of individuals arrested and given a sanction in Bremen and the small number of individuals arrested but given no sanction in Denver. This same sample size issue for models involving Time 2 delinquency measures occurs in later sections of this chapter as well, and as a result these models are not presented.

Table 8.4
Impact of Sanctions on Delinquency Change From Adolescence to Young Adulthood

Predictor	Global Significance: p (likelihood ratio)	Delinquency Change Comparisons			
		Decrease vs. Persistence		Increase vs. Persistence	
		Odds Ratio	p*	Odds Ratio	p*
<u>BREMEN:</u>					
Max. Adol. Sanction	0.60				
No Arrest ¹		1.64	0.41	1.02	0.97
Dismissal ¹		0.79	0.75	0.73	0.66
Gang	0.00	0.04	0.00	0.51	0.19
Male Gender	0.16	0.68	0.27	1.54	0.32
<u>DENVER:</u>					
Max. Adol. Sanction	0.49				
No Arrest ¹		1.29	0.38	1.13	0.74
Dismissal ¹		1.28	0.63	0.38	0.26
Delinquent Peers	0.82	0.97	0.93	1.21	0.63
Male Gender	0.05	0.54	0.03	0.91	0.79

*p indicates the significance of the Wald statistic.

¹Reference group is 'sanctioned'.

8.2 The Effects of Arrest and Sanctions During Adolescence on Adulthood Crime

Although there appears to be little effect of sanctions applied to offenders during adolescence on their delinquent behavior during young adulthood, conceivably there may be some longer term effects that are not seen until adulthood (ages 21-24). To examine this possibility, the same sequence of analyses conducted for young-adulthood outcomes was repeated for adult outcomes. The results of these analyses are presented in Tables 8.5 through 8.7. As can be seen in Table 8.5, in Bremen those juvenile offenders who are arrested and sanctioned end up in adulthood with higher levels of involvement in crime, replicating the earlier observation made for the adolescent to young adulthood transition. Among adolescent offenders in Denver, the pattern is not as clear, although greater proportions of offenders not arrested have lower frequencies of offending in adulthood, while greater proportions of those arrested with or without sanctions are in the 3rd or 4th quartile during adulthood. In Table 8.6, where a comparison of the changes in delinquency/crime resulting from different levels of adolescent sanctions can be observed, the effects of arrest and sanctioning are not statistically significant at either site, although in Bremen

the effects approach a significance level of .10. Correspondingly in the multinomial regressions summarized in Table 8.7, in Bremen, significant odds ratios are found indicating that offenders that are not arrested are about 4 times more likely than those arrested and given a sanction to decrease rather than persist in their delinquency. Similarly, those arrested and simply dismissed are about 8 times more likely to decrease their delinquency rather than persist than are those arrested and sanctioned. Thus in keeping with the findings from Table 8.3, there appears to be a greater chance in Bremen for those arrested and sanctioned to maintain instead of decrease their delinquency. In Denver, no significant effects of arrest and sanctioning are found. Thus, at both sites, there is little evidence of an effect of sanctioning during adolescence on levels of delinquency/crime in adulthood in these models, although for Bremen there is some evidence that sanctioning during adolescence may result in a greater chance of persistence in delinquent/criminal behavior during adulthood.

Table 8.5
Cross-tabulation Among Adolescent Offenders of Sanctions by Adult Crime

Bremen						
Juvenile Sanction	N	Adult Crime Quartile				
		No Crime	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
No Arrest	146	15.1	19.9	23.3	22.6	19.2
Arrest – No Sanction	28	17.9	0.0	28.6	17.9	35.7
Arrest – With Sanction	19	10.5	0.0	5.3	21.1	63.2

Denver						
Juvenile Sanction	N	Adult Crime Quartile				
		No Crime	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
No Arrest	183	33.9	15.8	19.1	18.0	13.1
Arrest – No Sanction	25	20.0	16.0	16.0	40.0	8.0
Arrest – With Sanction	118	30.5	19.5	11.9	11.0	27.1

Table 8.6
 Cross-tabulation Among Adolescent Offenders of Sanctions by Adult Crime:
 Change Scores

Bremen

Juvenile Sanction	N	Change Scores – Adolescent to Adult		
		Decreasing	Persistent	Increasing
No Arrest	146	39.0	32.9	28.1
Arrest – No Sanction	28	39.3	25.0	35.7
Arrest – With Sanction	19	10.5	47.4	42.1

Chisq. 6.94 p=.139

Denver

Juvenile Sanction	N	Change Scores – Adolescent to Adult		
		Decreasing	Persistent	Increasing
No Arrest	183	57.9	20.2	21.9
Arrest – No Sanction	25	64.0	12.0	24.0
Arrest – With Sanction	117	59.0	20.5	20.5

Chisq. 1.09 p=.895

Table 8.7
Impact of Sanctions on Delinquency Change From Adolescence to Adulthood

Predictor	Global Significance: p (likelihood ratio)	Delinquency Change Comparisons			
		Decrease vs. Persistence		Increase vs. Persistence	
		Odds Ratio	p*	Odds Ratio	p*
BREMEN:					
Max. Adol. Sanction	0.12				
No Arrest [†]		4.21	0.08	0.91	0.86
Dismissal [†]		7.97	0.03	1.59	0.51
Gang	0.69	0.87	0.79	0.64	0.40
Male Gender	0.06	0.46	0.04	1.02	0.96
DENVER:					
Max. Adol. Sanction	0.78				
No Arrest [†]		0.86	0.63	1.04	0.92
Dismissal [†]		1.76	0.41	2.13	0.33
Delinquent Peers	0.00	0.80	0.54	0.32	0.01
Male Gender	0.02	0.62	0.12	1.40	0.37

*p indicates the significance of the Wald statistic.

[†]Reference group is 'sanctioned'.

Note: McFadden Pseudo R-Square: Bremen-.04; Denver-.03

8.3 The Effects of Arrest and Sanctions During Young Adulthood on Adulthood Crime

As noted earlier, there is a substantial difference in the handling of arrested offenders in Bremen and Denver during the 18-20 year old age period. In Bremen, juvenile law may be and most commonly is applied, while in Denver adult law is applied. The question of whether the more lenient handling and consideration of such individuals as “juvenile” results in different outcomes during later adulthood then arises. Because “diversion” as practiced by the juvenile court is not an available option for offenders in Denver, generally isomorphic cross-site sanction codes can not be constructed. Instead, the sanctioning codes were collapsed into the following categories for Bremen: (1) No Arrest; (2) Dismissal/Diversion (prosecutor or court dismissal with or without a sanction); and (3) Sanction (conviction plus additional sanction). The collapsed sanction codes used in Denver are the same as those defined earlier – (1) No Arrest, (2) Arrest but dismissed without sanction and (3) Arrest followed by some sanction.

The outcomes of these different sanctions can be seen in Tables 8.8 through 8.10. Although, in Bremen, those given a sanction by the court are few in number, the same pattern observed earlier for other age transitions is again observed, with a greater proportion of those sanctioned having higher crime participation in adulthood (i.e., being in quartiles 3 and 4) than those not sanctioned. Interestingly, for the first time this is also observed in Denver. Examination of change scores by level of sanctioning also indicates some effect of sanctions, with a greater level of persistence in offending occurring among those sanctioned at both sites. At both sites, this effect approaches significance at the .10 level, as listed in Table 8.9. However, when other variables are controlled in the multinomial regressions, the significance of these findings disappears in Bremen (see Table 8.10). In Denver, the overall significance is only .13 and the one significant odds ratio suggests that those offenders that are not arrested are more likely to decrease than persist than are those who are sanctioned.

Table 8.8
Cross-tabulation Among Young Adult Offenders of Sanctions by Adult Delinquency/Crime

Bremen						
Young Adult Sanction	N	Adult Crime Quartile				
		No Crime	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
No Arrest	220	11.8	20.9	22.3	25.0	20.0
Arrest/Dismissal/Diversion	40	7.5	2.5	22.5	20.0	47.5
Arrest – Conviction with Sanction	11	0.0	0.0	9.1	45.5	45.5

Denver						
Young Adult Sanction	N	Adult Crime Quartile				
		No Crime	1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile
No Arrest	184	21.2	19.0	20.1	23.9	15.8
Arrest – No Sanction	18	5.6	22.2	27.8	27.8	16.7
Arrest – With Sanction	58	17.2	8.6	15.5	10.3	48.3

Table 8.9
 Cross-tabulation Among Young Adult Offenders of Sanctions by Adult Crime:
 Change Scores

Bremen

Young Adult Sanction	N	Change Scores – Young Adult to Adult		
		Decreasing	Persistent	Increasing
No Arrest	220	35.9	38.2	25.9
Arrest/Dismissal/Diversion	40	22.5	47.5	30.0
Arrest – Conviction With Sanction	11	18.2	72.7	9.1

Chisq. 7.62 p=.107 (Some –3- expected cell sizes less than 5)

Denver

Young Adult Sanction	N	Change Scores – Young Adult to Adult		
		Decreasing	Persistent	Increasing
No Arrest	184	46.7	25.5	27.7
Arrest – No Sanction	18	44.4	27.8	27.8
Arrest – With Sanction	58	29.3	43.1	27.6

Chisq. 7.77 p=.101

Table 8.10
Impact of Sanctions on Delinquency Change From Young Adulthood to Adulthood

Predictor	Global Significance: p (likelihood ratio)	Delinquency Change Comparisons			
		Decrease vs. Persistence		Increase vs. Persistence	
		Odds Ratio	p*	Odds Ratio	p*
<u>BREMEN:</u>					
Max. Y.A. Sanction	0.23				
No Arrest ¹		2.95	0.18	4.88	0.15
Diversion ¹		1.82	0.51	5.44	0.14
Gang	0.01	0.83	0.66	0.16	0.02
Male Gender	0.04	0.48	0.02	0.88	0.71
<u>DENVER:</u>					
Max. Y.A. Sanction	0.13				
No Arrest ¹		2.73	0.01	1.63	0.23
Dismissal ¹		1.68	0.46	1.57	0.53
Delinquent Peers	0.61	1.10	0.79	0.79	0.51
Male Gender	0.49	0.68	0.24	0.80	0.55

*p indicates the significance of the Wald statistic.

¹Reference group is 'convicted' for Bremen and 'sanctioned' for Denver.

Note: McFadden Pseudo R-Square: Bremen-.04; Denver-.02

Given the low number of arrestees who were convicted by the court in Bremen during ages 18-20 (most being dismissed or diverted), an additional analyses examining the effects of sanctioning during the whole age period of age 14 through 20, corresponding to the ages of juvenile court jurisdiction, on adult outcomes was conducted using Bremen data. For this analysis, sanction levels of (1) No Arrest, (2) Prosecutor dismissal or Diversion, and (3) Court conviction and sanction or dismissal with a sanction, were used. These categories thus identify those diverted from court from those who faced a court-imposed sanction. The results of a multinomial regression predicting adult crime frequencies are given in Table 8.11. Although the effect of the sanction levels on adult crime level is significant, only one odds ratio indicating that those offenders that are never arrested are more likely to be in the 1st than the 4th quartile than are those sanctioned by the court is significant. This suggests, as have earlier analyses, that in Bremen those sanctioned tend to be in the upper quartiles of offending at later ages.

Table 8.11
Impact of Sanctions From Ages 14-20 on Crime in Adulthood

Crime Level Comparisons in Adulthood

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
BREMEN:									
Max. Sanction Age 14-20	0.07								
No Arrest ¹		1.94	0.43	12.54	0.03	1.65	0.41	2.03	0.21
Dismissal ¹		2.54	0.35	2.63	0.48	1.51	0.58	0.84	0.81
Delinquency Age 14-20	0.00								
1st Quartile		#	#	105.00	0.00	57.14	0.00	7.37	0.04
2nd Quartile		#	#	49.89	0.00	16.80	0.00	19.78	0.00
3rd Quartile		#	#	17.93	0.00	13.98	0.00	17.24	0.00
Gang	0.11	1.11	0.92	1.59	0.57	1.77	0.42	4.32	0.02
Male Gender	0.00	0.09	0.00	0.12	0.00	0.17	0.01	0.20	0.01

*p indicates the significance of the Wald statistic.

¹Reference group is 'court sanctioned'.

#Odds Ratio is not adequately estimated due to empty cells.

Note: McFadden Pseudo R-Square: Bremen-.23

8.4 The Effects of Arrest and Sanctions During Adolescence and Young Adulthood On Young Adulthood and Adulthood Crime: Multinomial Regression Models Predicting the Frequency of Young Adult and Adult Crime

The preceding sections examined the effect of sanctions used during the adolescent and young adult years through simple cross-tabulations and models employing change scores. Although these findings were relatively consistent across sites, for completeness, models predicting levels of adult crime were also analyzed. Because the findings across these various models are also consistent, to avoid repetitiveness they are presented in this one section rather than individually in each age group section. The outcomes of these models predicting the young adult and adult quartile crime measures are presented in Tables 8.12 through 8.14.

In contrast to the change models presented earlier, the effect of sanctions on young adult or adult crime rates, controlling for earlier delinquent level, association with delinquent peers or gang membership, and gender, is significant or approaches significance, at least at the .10 level, for almost all of these models⁴². The nature of this significance is also consistent across these

⁴² The small number of individuals convicted and sanctioned in Bremen during the young adult period makes the reliability of the results of the analysis for Bremen for this age period questionable, and this small number of convictions may also contribute to the lack of significance for the Bremen model in Table 8.14.

models. In all cases of a significant odds-ratio, the odds-ratio reflects the fact that a greater percentage of those who were arrested and sanctioned have a higher frequency of crime involvement at a later stage in life, than those who were arrested but not sanctioned. Similarly, a greater percentage of those sanctioned have higher crime involvement than those never apprehended. In keeping with previous results, these outcomes are often more pronounced in Bremen. For example, in Bremen for adolescent sanctions predicting young adult outcomes, those arrestees who have their cases dismissed are about 21 times more likely to be in the 2nd quartile than the 4th, and about 6 times more likely to be in the 3rd than the 4th, than are those arrested and sanctioned (see Table 8.12). As another example, for adolescent sanctions predicting adult outcomes (Table 8.13), in Bremen, those arrestees who have their cases dismissed are about 9 times more likely to be in the 2nd quartile than the 4th, and those who are never apprehended are about 10 times more likely to be in the 2nd than the 4th than are those arrested and sanctioned. Similarly, but at a lower level in Denver, those arrestees who have their cases dismissed are about 6 times more likely to be in the 2nd quartile than the 4th, and those who are never apprehended are about 2 times more likely to be in the 2nd than the 4th than are those arrested and sanctioned.

These models do not rule out all factors influencing life trajectories in crime. Also, the imposition of a sanction suggests a more frequent or serious offender, at least as perceived by the court, and such factors may influence life trajectories. Nevertheless, while controlling for prior delinquency and a number of other factors and across ages and across sites, these findings are quite consistent. Among offenders at a given life stage, those arrested and sanctioned display higher frequencies of involvement in crime at later stages in their life than do their delinquent age mates who were not so sanctioned. Thus if the goal of sanctioning is to prevent or reduce future crime among offenders (relative to the behavior of those not sanctioned), it does not appear to have its desired effect.

Table 8.12
Impact of Sanctions in Adolescence on Delinquency in Young Adulthood

Delinquency Level Comparisons in Young Adulthood

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
<u>BREMEN:</u>									
Max. Adol. Sanction	0.09								
No Arrest [†]		2.22	0.45	3.48	0.15	12.35	0.04	2.96	0.16
Dismissal [†]		1.93	0.61	1.61	0.68	20.55	0.02	5.83	0.06
Delinquency Adolesc.	0.00								
1st Quartile		#	#	#	#	#	#	#	#
2nd Quartile		68.19	0.00	30.76	0.00	23.84	0.00	10.00	0.01
3rd Quartile		14.58	0.02	4.22	0.05	2.21	0.28	3.81	0.02
Gang	0.00	#	#	0.10	0.01	0.11	0.01	0.20	0.01
Male Gender	0.13	0.22	0.04	0.30	0.06	0.52	0.32	0.68	0.53
<u>DENVER:</u>									
Max. Adol. Sanction	0.12								
No Arrest [†]		2.16	0.07	1.44	0.37	0.67	0.36	0.97	0.94
Dismissal [†]		5.28	0.08	6.13	0.04	3.46	0.18	3.28	0.18
Delinquency Adolesc.	0.00								
1st Quartile		11.30	0.00	6.59	0.00	5.68	0.02	1.81	0.35
2nd Quartile		10.00	0.00	5.49	0.00	8.07	0.00	2.72	0.08
3rd Quartile		2.07	0.21	2.95	0.03	4.76	0.01	1.84	0.17
Delinquent Peers	0.04	0.24	0.01	0.31	0.03	0.52	0.29	0.60	0.40
Male Gender	0.02	0.44	0.04	0.34	0.01	0.96	0.92	0.78	0.53

*p indicates the significance of the Wald statistic.

[†]Reference group is 'sanctioned'.

[#]Odds Ratio is not adequately estimated due to empty cells.

Note: McFadden Pseudo R-Square: Bremen-.22; Denver-.11

Table 8.13
Impact of Sanctions in Adolescence on Crime in Adulthood

Crime Level Comparisons in Adulthood

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
BREMEN:									
Max. Adol. Sanction	0.01								
No Arrest ¹		3.15	0.24	#	#	10.25	0.04	3.37	0.08
Dismissal ¹		2.87	0.34	#	#	9.07	0.07	1.41	0.69
Delinquency Adolec.	0.00								
1st Quartile		#	#	11.40	0.00	9.26	0.00	2.18	0.31
2nd Quartile		#	#	2.24	0.35	4.63	0.03	3.88	0.03
3rd Quartile		#	#	2.65	0.25	3.36	0.08	4.55	0.01
Gang	0.27	0.86	0.86	0.24	0.22	0.76	0.70	1.87	0.29
Male Gender	0.00	0.12	0.00	0.13	0.00	0.20	0.01	0.21	0.01
DENVER:									
Max. Adol. Sanction	0.01								
No Arrest ¹		1.29	0.50	1.11	0.80	2.43	0.05	2.74	0.03
Dismissal ¹		1.97	0.47	2.45	0.35	5.53	0.07	14.07	0.00
Delinquency Adolec.	0.00								
1st Quartile		5.58	0.00	4.03	0.03	1.44	0.56	0.80	0.73
2nd Quartile		2.55	0.07	3.35	0.04	0.81	0.72	0.66	0.48
3rd Quartile		1.27	0.63	2.59	0.09	1.08	0.88	1.09	0.86
Delinquent Peers	0.54	0.93	0.87	1.09	0.87	1.10	0.86	0.53	0.21
Male Gender	0.08	0.38	0.01	0.50	0.09	0.36	0.02	0.56	0.17

*p indicates the significance of the Wald statistic.

¹Reference group is 'sanctioned'.

#Odds Ratio is not adequately estimated due to empty cells.

Note: McFadden Pseudo R-Square: Bremen-.17; Denver-.07

Table 8.14
Impact of Sanctions in Young Adulthood on Crime in Adulthood

Crime Level Comparisons in Adulthood

Predictor	Global Significance: p (likelihood ratio)	Non-Delinquent vs. 4th Quartile		1st Quartile vs. 4th Quartile		2nd Quartile vs. 4th Quartile		3rd Quartile vs. 4th Quartile	
		Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
<u>BREMEN:</u>									
Max. Y.A. Sanction	0.20								
No Arrest ¹		#	#	#	#	2.09	0.53	0.78	0.74
Diversion ¹		#	#	#	#	1.45	0.76	0.37	0.24
Delinquency Y.A.	0.00								
1st Quartile		108.33	0.00	69.35	0.00	24.77	0.00	6.18	0.01
2nd Quartile		71.68	0.00	68.32	0.00	23.16	0.00	15.32	0.00
3rd Quartile		8.05	0.10	11.81	0.01	8.89	0.00	9.25	0.00
Gang	0.29	1.52	0.72	3.75	0.10	2.90	0.12	3.19	0.05
Male Gender	0.04	0.23	0.01	0.21	0.00	0.30	0.02	0.42	0.08
<u>DENVER:</u>									
Max. Y.A. Sanction	0.00								
No Arrest ¹		2.49	0.08	4.86	0.01	2.29	0.10	6.59	0.00
Dismissal ¹		#	#	7.90	0.04	5.28	0.07	9.90	0.01
Delinquency Y.A.	0.00								
1st Quartile		12.98	0.00	7.35	0.00	12.32	0.00	4.31	0.02
2nd Quartile		4.50	0.02	5.00	0.01	4.90	0.02	1.34	0.64
3rd Quartile		1.90	0.36	0.90	0.89	7.42	0.00	3.11	0.04
Delinquent Peers	0.64	0.61	0.30	0.50	0.16	0.83	0.69	0.65	0.36
Male Gender	0.69	0.63	0.33	1.03	0.95	0.70	0.43	1.02	0.96

*p indicates the significance of the Wald statistic.

¹Reference group is 'convicted' for Bremen and 'sanctioned' for Denver.

[#]Odds Ratio is not adequately estimated due to empty cells or cells with a single case.

Note: McFadden Pseudo R-Square: Bremen-.18; Denver-.12

8.5 Summary of the Effects of Sanctions

Overall there is some consistency in these findings. Whether examining the effects of sanctioning during adolescence on young adulthood, the effects of sanctioning during adolescence on adulthood, or the effects of sanctioning during young adulthood on adulthood, the level of sanctioning is not very strongly related to future involvement in delinquency and crime. And, particularly in Bremen, when there are effects, it is those sanctioned that tend to persist in and be at higher levels of delinquent/criminal involvement. Thus, there is almost no evidence that sanctions reduce delinquent/criminal involvement, and some indication that those offenders that altogether avoid apprehension as adolescents are among the lower level offenders during adulthood.

With this said, it must also be noted that the data limitations imposed by the extremely lenient juvenile justice system in Bremen, with very few court imposed sanctions, and other limitations of our data prevent a more ambitious examination of the effects of sanction severity that was originally planned as a part of this research. Nevertheless, the consistency of the cross-site findings about the lack of effectiveness of the imposition of sanctions, and the indication that the imposition of sanctions may result in the maintenance of higher levels of delinquent/criminal behavior, does provide some challenge to commonly held specific deterrence beliefs about sanctioning. Also, it is interesting that the use of juvenile law for individuals aged 18-20 in Bremen did not result in major differences between Denver and Bremen in crime during adulthood, since at both sites, those sanctioned during these ages were more persistent in their level of offending as adults.

Chapter 9

Effects of Sanctioning on Subsequent Work Status in Adult Life

It is known from research on the life course that having been sanctioned during adolescence may have consequences for the later life course. For example, having been imprisoned affects the level of earnings (Freeman 1992). Such effects may include chances for employment as well as the stability of one's social network. In this study, the time span investigated is rather narrow (ending at the age of 24) and we are unable to study long-term effects of sanctioning. However, it is possible to inquire into the effects of sanctioning during adolescence on later life spheres other than crime during the early twenties. Given the available cross-site data, the questions addressed concern work life and life satisfaction and include the following. Is employment during the early twenties affected by the way the JJS handled offending? More specifically, is the chance to obtain stable employment, the ability to obtain "skilled" work, or job satisfaction related to sanctioning during adolescence? In addition, the relationship between sanctioning and later general life satisfaction is examined.

Because the focus of this chapter is on sanctioning during the period of juvenile court jurisdiction, the age ranges used for "juvenile" are different across the two sites. As noted in earlier chapters, in Bremen, offenders aged 14-20 are handled by the juvenile court, and commonly are sentenced using juvenile law. Thus, in Bremen, the age range of potential sanctioning by the juvenile court is 14-20, and this age period is used in identifying juvenile sanctions. In Denver, the jurisdiction of the juvenile court occurs during age 10-17, and for comparative purposes, the age range of 15-17 is used. For these analyses, the employment and life satisfaction data are from the two-year period 1995 to 1996, when the respondents of the two surveys were in their early 20's.

Some comments about the measures used in this chapter are needed. First, a stable job refers to employment in a job for a period of ten months or more in each of the two consecutive years examined. A skilled job refers to those jobs that require formal training and experience. Job satisfaction refers to reports from working respondents about their general satisfaction with their job or work life. Unemployment, is measured only in Denver, and refers to individuals who have not been employed for at least one year, and who, at some time during this period, had actively sought work. Life satisfaction is measured only in Bremen and refers to individual reports of current general satisfaction with life.

Second, Bremen, as well as the rest of Germany, has in place an extensive apprenticeship program. Thus, for youth who are ending their formal school education at an early age (the group from which the Bremen sample was drawn), apprenticeships provide an opportunity to develop the knowledge and skills needed for a wide range of professions and trades. For those completing apprenticeships, this structured opportunity assists in providing access to skilled work positions. In contrast, in Denver and the U.S., school-to-work transitions are left more or less up to the individual, and on-the-job training becomes required for individuals to learn

needed skills. The effect of these different school-to-work transitions on delinquency is described in another of our reports.⁴³ For the purpose here, it is sufficient to note that the higher proportion of individuals in skilled work in Bremen reflects the influence of the apprenticeship system and not the results of cross-site differences in the presence or absence of juvenile or criminal sanctions.

Third, because there were very few individuals in Denver who had a skilled job in more than one year, two categories of “skilled” are used. Having a skilled job in at least one year is used in Denver, while having a skilled job in each of the two years is used in Bremen. Finally, the measure of unemployment is not available in Bremen and the measure of life satisfaction is not available in Denver. For interest, the prevalence of the various employment categories at the two sites is given in Table 9.1.

Table 9.1
Prevalence of Employment and Life Characteristics in Bremen and Denver

	Stable Employment	Skilled Job in at least one year	Skilled Job both years	Job Satisfaction (Among the Employed)	Unemployment	Life Satisfaction
Bremen	45%	59%	43%	36%		48%
Denver	25%	27%	6%	59%	11%	

Cross-tabulations of sanction levels with these young adult work experiences and life satisfaction are presented in Table 9.2. As can be seen in Table 9.2, in Bremen, those who are arrested and sanctioned are significantly less likely to have a stable job and significantly less likely to have a skilled job during young adulthood. Roughly, 44-48% of those who are not arrested or who if arrested are diverted have a stable job and the same proportion have a skilled job, while only 25-27% of those formally sanctioned are in stable or skilled jobs. Also, those sanctioned during the juvenile period are less satisfied with their current life situation.

In Denver, the only significant difference is for unemployment. For unemployment, the difference between the no-arrest and sanctioned groups is not significant and the higher rate for the dismissal group may partially depend on the relatively small number of cases that are dismissed in Denver. Thus, unlike Bremen, Denver shows little effect of absence or level of sanctions on employment variables. Although unrelated to the issue at hand, it is interesting that although a smaller proportion of young adults in Denver have a stable or skilled job, they are, nonetheless, more satisfied with the jobs they have than are young adults in Bremen.

⁴³ Training for the Labor Market and Juvenile Delinquency. Final Report submitted to The German-American Academic Council Foundation, Bonn, Germany and the Office of Juvenile Justice and Delinquency Prevention, Washington, D.C., January 2001.

Table 9.2
Effect of Juvenile Sanctions on Young Adult Employment and Life Satisfaction: Cross-Classifications

Bremen					
	Stable Job	Skilled Job In Both Years	Job Satisfaction	Unemployed	Life Satisfaction
Juvenile Sanction					
No Arrest	47.7%	46.0%	38.6%		49.4%
Arrest – Diversion	46.5%	44.2%	26.7%		53.3%
Arrest – With Sanction	26.9%	25.0%	26.1%		34.0%
Chi-square	7.667	7.843	1.917		4.897
Significance	.022	.020	.383		.086

Denver					
	Stable Job	Skilled Job in At Least one Year	Job Satisfaction	Unemployed	Life Satisfaction
Juvenile Sanction					
No Arrest	19.9%	26.5%	60.6%	7.6%	
Arrest – Dismissal	8.3%	17.6%	33.3%	35.3%	
Arrest – With Sanction	14.7%	28.7%	59.2%	13.8%	
Chi-square	2.933	.901	3.466	13.670	
Significance	.231	.637	.179	.001	

These analyses, however, do not control for the possible effects of other variables. Thus in addition, logistic regressions were used to examine the effect of sanctioning while controlling for adolescent delinquent status, gang or delinquent peer involvement, gender, and minority status. The outcomes of these regressions are provided in Table 9.3. In concordance with the earlier cross-tabulations, in Bremen, controlling for the other covariates, those sanctioned are less likely to have a stable job or to have a skilled job than those who are not arrested. In Denver, sanctioning appears to have no significant effect on having a stable or skilled job, although those dismissed are less likely to be satisfied with their jobs. Also in Denver, when other variables are controlled, those dismissed and those sanctioned (i.e. those arrested) are significantly more likely to be unemployed than are non-arrestees.

Examination of the influence of the covariates indicates that, in Bremen, there are few effects of the level of delinquent involvement during adolescence on adult occupational outcomes. Thus, quite interestingly, it does not appear to be delinquent involvement, but rather sanctioning, that affects later adult employment. However, it should be noted that those in the 2nd and 3rd quartiles are less likely to be satisfied with their jobs and greater proportions of those who were delinquent during adolescence are less satisfied with life in general than are non-delinquents (with this effect reaching significance for those in the 1st, 3rd, and 4th quartiles).

In Denver, there is a consistent effect of adolescent involvement in delinquency, with delinquents having a lower risk of being unemployed than non-delinquents, and this effect reaches significance for the 1st and 3rd quartiles. Thus, as in Bremen, it appears that it is sanctioning rather than delinquent involvement that negatively affects adult employment. Also, there appears to be a somewhat greater chance for adolescent delinquents to have a skilled job in the early 20's than non-delinquents, although this effect reaches significance only for those in the 3rd quartile.

At both sites, a greater proportion of males have a stable job, and in Denver, males are more likely to have a skilled job and have a smaller chance of being unemployed. Also, although few in number, in Bremen, minorities are less likely to have a stable job. In Denver, having delinquent peers during adolescence is related to both lower levels of job stability and having a skilled job.

For the main issue of this chapter concerning sanctions, however, it appears that there is some consistency across sites. Being delinquent, during the periods defined as adolescent in the two sites, is, for the most part, unrelated to adult (early 20's) employment outcomes. Being sanctioned for such behavior, however, is related to reduced chances for a stable or skilled job in Bremen and to increased chances for unemployment in Denver. Because stable employment is often linked to reduced probabilities of adult crime, it appears that sanctioning may have a small but deleterious effect on adult employment, and potentially work to increase the probability of engaging in adult crime. The findings of this chapter are thus consistent with those of earlier chapters. Sanctions do not appear to have major effects, but when such effects occur they are likely to result in diminished opportunities that may result in increased problem behavior.

Table 9.3
Impact of Adolescent Sanctions on Employment and Life Satisfaction

Predictor	Adult Outcomes									
	Stable Job		Skilled Job		Satisfied With Job		Unemployed ^a		Satisfied ^b With Life	
	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*	Odds Ratio	p*
BREMEN										
Max. Adolescent Sanction										
Dismissed/Diverted	0.94	0.86	0.96	0.92	0.58	0.46			1.38	0.40
Sanctioned	0.40	0.03	0.41	0.04	0.79	0.71			0.94	0.87
Delinquency Adolescent										
1 st Quartile	1.29	0.54	0.95	0.89	0.71	0.56			0.45	0.06
2 nd Quartile	1.20	0.67	0.88	0.76	0.25	0.02			0.68	0.38
3 rd Quartile	0.81	0.63	0.57	0.19	0.16	0.01			0.18	0.00
4 th Quartile	0.59	0.25	0.72	0.47	0.52	0.36			0.19	0.00
Gang	1.21	0.62	0.72	0.42	0.69	0.62			1.35	0.44
Male Gender	1.60	0.09	1.17	0.57	1.10	0.84			1.10	0.73
Minority	0.43	0.01	0.89	0.71	0.79	0.69			0.71	0.29
DENVER										
Max. Adolescent Sanction										
Dismissed	0.30	0.14	0.41	0.21	0.34	0.10	10.51	0.00		
Sanctioned	0.64	0.20	0.85	0.61	1.02	0.95	2.49	0.04		
Delinquency Adolescent										
1 st Quartile	0.81	0.61	1.58	0.27	1.68	0.20	0.38	0.09		
2 nd Quartile	1.42	0.45	1.60	0.34	0.69	0.41	0.54	0.32		
3 rd Quartile	0.92	0.86	2.87	0.02	1.08	0.86	0.21	0.03		
4 th Quartile	0.72	0.55	1.88	0.23	0.47	0.11	0.71	0.60		
Delinquent Peers	0.54	0.06	0.55	0.06	1.16	0.63	1.74	0.25		
Male Gender	2.56	0.00	2.71	0.00	1.21	0.49	0.39	0.03		
Minority	0.64	0.41	0.51	0.17	0.52	0.19	3.50	0.24		

*p indicates the significance of the Wald statistic.

^aDenver

^bBremen

Chapter 10

Conclusion

The cross-national comparative research described in this report was made possible by the existence of two generally similar ongoing research projects, the Bremen School-to-Work Study at the University of Bremen, Bremen, Germany and the Denver Youth Survey at the University of Colorado, Boulder, Colorado, and by funding from the National Institute of Justice. Although the two studies were independently conceived with their own research focus, taking advantage of the similar aged high-risk samples and similar measurement provided the opportunity to examine juvenile justice systems in different settings. The overall goal of the collaborative study was to describe the similarities and differences in the juvenile justice systems of the two sites and to determine the effects of different features of the two juvenile justice systems on subsequent delinquency. In this way, the study could provide information that might prove useful in consideration or discussion of successful juvenile justice system orientations and practices at each of the sites.

As documented in the early chapters of this report, there are major differences between the juvenile justice systems in Bremen and Denver. In general, these differences might be described as a lenient, diversion-oriented system in Bremen and a more severe, punishment-oriented system in Denver. In Bremen, individuals can not be arrested until the age of 14 and juvenile law can, and most commonly is, applied to those aged 18-20. In contrast, in Denver the age of responsibility is 10, and adult court and processing begins at age 18 (although transfer to adult court for those under 18 is possible). Also, in Bremen, proscribed behaviors for juveniles are the same as those for adults, so that behaviors that are status offenses and many behaviors that are public disorder offenses in Denver are not offenses in Bremen.

Because of a generally accurate identification/registration system in Germany (and hence in Bremen), offenders are rarely taken into custody, but may be required to report to a police station or court at a later date (similar to be given a ticket in the U.S.). All cases registered by the police must be referred to the prosecutor for disposition (dismissal, diversion, or referral to court). However, as indicated in the later chapters of the report, during adolescence, ages 14-17, dismissal and diversion are the rule, and account for over 96% of all cases referred to the prosecutor, and the greatest proportion of these are dismissed. The dismissal, perhaps with a warning, or diversion with a behavioral directive (e.g. community service) often takes the form of a letter sent by the prosecutor to the offender. This quite lenient processing is in sharp contrast to Denver, where offenders may be cited and given a ticket or taken into custody. Although there is some lecture and release by police, offenders are most likely to end up in juvenile court and receive an intermediate level sanction (e.g. behavioral directive such as community service). In addition, confinement is very rare in Bremen, but used in roughly 10-20% of the cases in Denver.

What effect do such differences in juvenile justice processing have on general offending rates within larger populations? The findings from Chapter 4, describing the epidemiology of delinquency within the larger samples of the two studies, suggests not much. Because of status and some public disorder offenses in Denver, a greater proportion of youth are arrested in Denver for a delinquent offense, and the frequency of offending among offenders is higher in Denver than in Bremen. However, when similar kinds of illegal behavior are considered, differences between sites are much reduced. Bremen youth report slightly higher prevalence rates for involvement in property and assaultive offenses and Denver youth report higher rates for drug offenses. In all cases, Denver offenders report higher frequencies of involvement in (number of times committing) all of the different offenses. However, in one sense, the sites might be described as more similar than different. The delinquency rates are not of a different magnitude in the two sites. For example, for total delinquency the prevalence rate at both sites is in the 62-69% range during the 14-17 year old age period. Thus, given the substantial difference in orientation and leniency of the two systems, it is surprising that there is not a greater difference in the proportion of youth that are offenders, although the Denver offenders consistently commit a greater number of offenses every year.

Because, in Bremen, all officially recorded delinquencies must be referred to the prosecutor, a common definition of arrest was adopted. This definition required that arrest be defined at both sites as police contact that resulted in referral to the prosecutor or court intake. As described in Chapters 3 and 5, this definition excludes some “arrests” in Denver that are dismissed by the police without referral to court intake. However, because at both sites the preponderance of all police contacts resulting from participation in a delinquent act were referred to the prosecutor/court intake, this requirement to obtain site equivalence that focuses on more serious interventions does not substantially affect the findings of the report.

As a start toward the examination of the influence of arrest on subsequent behavior, a comparison of the frequency of police contact and arrest at each site was made. As would be anticipated, for arrest, a similar age-crime curve was observed at both sites for both genders, with a peak in late adolescence. Also, as would be anticipated, males at both sites were more likely to be contacted and arrested. Controlling for the prevalence of delinquent offending, that is, looking at the probability of arrest only among active offenders, did not change these basic findings. In addition, it was found that being known to the police through prior arrests or being a gang member increased the probability of arrest at both sites.

While there are these general similarities, there are also striking differences. Police contacts and arrests for a delinquent offense begin at younger ages in Denver and across the entire age range considered, in Denver, police arrest individuals at substantially higher rates, often two times or more often than in Bremen. This is especially true for females where the arrest rates are often four to five times higher in Denver. Although a large proportion of individuals are arrested at some time at both sites, the higher arrest rates in Denver at each age lead to considerably higher rates of cumulative prevalence of arrest in Denver. By age 18, 34% of Bremen males had been arrested, but 73% in Denver, and 9% of females had been arrested in Bremen, but 43% had in Denver. Thus overall, there seems clear indication that police and arrest play a significantly larger role in the social control of children, adolescents, and young adults in Denver than in Bremen.

The significantly higher rates of arrest in Denver, even when age, gender, and type and frequency of offending are controlled, results, in part, from arrests for status offenses. These behaviors are not considered illegal or delinquent in Bremen, but account for roughly one-third of all arrests in Denver during the adolescent years. This could be seen in comparisons of arrest rates for behavior that is delinquent (proscribed by law) at both sites. Differences in prevalence of police contact and of arrest were much smaller and even became similar across sites when only behaviors that are illegal at both sites were considered.

There were also substantial cross-site differences in the kinds of behaviors for which youth were arrested. In Bremen, the preponderance of arrests was for property offenses and there were very low rates of arrest for violent offenses. In Denver, arrests were more uniformly spread across status, property, violent, and other kinds of offenses. Interestingly, arrests for drug offenses were relatively infrequent at both sites, and were essentially zero in Bremen throughout the teen years.

To what extent do these similarities and differences across sites affect future behavior? The impact of arrest was examined using basic cross-tabulations, multinomial regression, a precision matched control group, and event history models. The findings from all of the analyses were quite consistent across both sites. In all of the analyses, there was very little effect of arrest on subsequent delinquent behavior, and when there was a significant effect, arrest had the effect of either maintaining the previous level of delinquency (persistence) or resulted in an increase in subsequent delinquent behavior. In general, there was essentially no indication at the individual level at either site that arrest resulted in a decrease in delinquent behavior.

To examine the effect of different sanctions following arrest, a scale of sanctions that indicated similar levels of intrusion into individual's lives that could be applied at both sites was developed. In this way, the effect of similar sanctions could be examined at each site. Construction of this scale required substantial time and consideration on the part of the investigators. What was not fully appreciated during this early effort, was the extent of leniency of the juvenile justice system in Bremen. Because the vast majority of cases in Bremen through age 20 were either dismissed or diverted, analytically the samples could not support analyses of each of the increasing sanction levels. As a result, we could only examine differences between those offenders who were not arrested, those dismissed and/or diverted, and those given some more serious sanction.

With this limitation, the findings concerning sanctions were similar to those for arrest. Controlling for other variables, the effects of sanctions during adolescence on young adult crime and separately on adult crime, and the effects of sanctions during young adulthood on adult crime, were examined. These analyses indicated that the level of sanction applied following arrest had very little influence on future involvement in delinquency and crime. And, particularly in Bremen, when there was an effect of sanctions, it was those individuals given more severe sanctions that tended to persist in or have higher levels of future delinquent/criminal involvement.

The project also examined the impact of sanctions on future employment and life satisfaction. These analyses also indicated some consistency across sites. Being delinquent, during the periods defined as adolescent in the two sites, is, for the most part, unrelated to adult (early 20's) employment outcomes. Being sanctioned for such behavior, however, is related to reduced chances for a stable or skilled job in Bremen and to increased chances for unemployment in Denver. Sanctioning is also related to reports of lower levels of life satisfaction during adulthood in Bremen. Overall, the findings about sanctioning are thus consistent with those about the impact of arrest. Sanctions do not appear to have major effects, but when such effects occur they are likely to result in diminished opportunities that may influence problem behavior.

Official punitive sanctions need not demonstrate an ameliorative effect to justify their use. The role of police and the juvenile justice system involves public safety and the perceived need of victims and society for retribution for offenses committed. In addition, the influence of police and the justice system on general deterrence can not be disregarded. Nevertheless, if arrest and sanctioning are considered interventions to reduce an offender's level of future offending, the results of this project suggest that arrest and sanctioning are not very successful intervention strategies. Rather than reduce the probability of continued offending, arrest and sanctioning either have little effect or serve to exacerbate future delinquency and crime.

The current study is not a study of general deterrence that examines the effect of arrest and sanctions on the behavior of general populations. However, although not a study of general deterrence, it is interesting from an epidemiological perspective that, as noted above, the quite lenient justice system employed in Bremen does not result in "runaway" rates of delinquency and crime within the Bremen sample, either by self-report measures or by official records. Given the contrast between the punitiveness of the system in Denver and lack of such punitiveness in Bremen, it might be expected that there would be very substantial differences in delinquency and crime over the 14 to 24-year-old age range. Yet, what are found are relatively small differences in prevalence and substantially higher frequencies of committing crimes among offenders in Denver. Increased frequency and severity of sanctions does not appear to have the effect commonly anticipated in the U.S. Although we lack the data to adequately examine the issue, it is possible that at both sites the probability of a police contact for behaviors that are offenses at both sites, may in fact, be quite similar. The data we do have suggests this possibility. Thus, it may not be the severity of sanctions (which may not be known or fully appreciated by the population), but rather – if anything at all - the simple certainty of a response for delinquent acts that is of importance both for the offender and for general deterrence in the society at large. Data from a German study on general deterrence (Schumann and Kaulitzki 1990, p.16) as well as a bulk of international research findings (e.g. Von Hirsch, Bottoms, Burney and Wikstrom 1999) suggest that at least for petty offenses the perceived certainty of being caught by police tends to curb delinquency.

To some extent, these findings might have been anticipated. After reviewing several studies, Sherman et al. (1998, p.9) conclude that "arrests of juveniles for minor offenses cause them to become more delinquent than if police exercise discretion and merely warn them or use other alternatives to formal charging." Findings concerning prevention programs for more serious offenders also suggest less punitive options may be more successful than other more restrictive justice system options (see e.g. Greenwood, Model, Rydell and Chiesa 1996). Also, as noted in

the introduction to this report, a randomized experimental study with outright release, referral to juvenile court or referral to other social services as “treatment” options found that the re-arrest rate was smaller for the outright release group than for any other group (Klein 1986). Also, findings of the benefits of less severe sanctions (diversion rather than referral to court) are reported in a German study (Crasmoeller 1996). Thus, consistent with the above and some other research (see Howell 1997, pp. 193-197, for additional reviews), this project found little evidence that increased sanctions, and perhaps even arrest with no sanctions, provides individual deterrence. The trend in the U.S. towards criminalization of behaviors and imposition of more punitive sanctions for such delinquent behavior, including the use of incarceration, may not have the desired outcome and, of some concern, the long-term outcome of such policies may not be adequately comprehended.

The findings of this study must, however, be tempered with limitations imposed by the study design. First, since this is a cross-national comparative study imposed on two independent studies, the need for identical or similar constructs and measures across sites partially limits the full capabilities of each independent study. Second, the extreme leniency of the Bremen justice system prevents the examination of a wider range of sanctions. Third, the underlying or societal meaning of arrest and sanctioning may vary between the two countries and between the two sites involved. Although we have no evidence of this, if the significance of official responses to delinquency is perceived differently at the two sites (e.g., because of the rarity of use at one site in contrast to the other), the influence of the responses might also be expected to differ. Fourth, given the size of the samples, it was not possible to examine across sites the effect of an arrest for a specific offense on future involvement in that specific illegal behavior. Also, an examination of whether effects of arrest and sanctioning are different for different types of individuals could not be adequately conducted in the equivalent cross-site data sets. Finally, restrictions resulting from the availability of data for certain ages or measurement years in one study or the other limited certain of the developmental analyses that could be undertaken.

Despite these limitations, however, the consistency of the similar findings in multiple analyses across the two different countries is remarkable and suggests quite robust findings. In fact, the similar findings in two sites, one quite lenient and the other quite punitive, suggests some greater generalization for the finding of a general ineffectiveness of arrest and sanctions. The ability to compare and contrast such sites, although providing some limitation as noted above, on the other hand provided a unique opportunity that could not have been achieved if studies within a single country had been used. The promise and importance of cross-national research is thus underscored.

In the introduction, it was noted that if two systems accomplish the same task by different strategies but with the same effect, the implication would be that it does not matter which approach is chosen to react to juvenile delinquency because neither works significantly better. While such a result would not preclude importing features or innovations from one system to the other, such importation could not really be based on the argument that the importing system would then be better able to reduce delinquency and require justification on reasons other than personal deterrence. In general, the results reported here indicate that arrest and increased sanctions either have no effect on delinquency or, in agreement with other research findings, make matters worse. Thus, if the “no effect” findings are emphasized, the value of adopting an orientation or component of either of the

systems would require arguments other than delinquency reduction. On the other hand, if the potential for more severe sanctions to make matters worse is emphasized, it would seem there are ample reasons to be concerned about the use of sanctions that are more severe than necessary, not only in terms of the potential for increased delinquency, but also in terms of fiscal costs and in terms of the personal costs to the citizens involved.

It must be noted that conceivably those caught up in the juvenile justice system may be on a different life trajectory even before justice system contact. Thus, we can not conclude from the current study that arrest and increased sanctioning are criminogenic and set up processes that result in increased criminal involvement. However, as the findings from the matched control groups in Chapter 6 and other research illustrate, the evidence points in this direction. There is clearly a need for greater concern about and discussion of the current U.S. orientation toward increased criminalization of behaviors and increased severity of sanctions, and, the need to empirically examine different options currently in use both in the juvenile justice system and in the adult system for those described as young adults. Similarly, the findings suggest that any proposal for changes in the juvenile justice system in Bremen that would focus on increasing the severity of current sanctions should be very carefully evaluated.

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