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THE END OF THE LINE: AN EMPIRICAL STUDY OF JUDICIAL WAIVER

MARCY RASMUSSEN PODKOPACZ*
BARRY C. FELD**

I. INTRODUCTION

When young offenders commit serious or violent offenses, should the justice system respond on the basis of "just deserts" or on the "real needs" of the offender? Waiver decisions—affecting the most serious or persistent juvenile offenders—require a sentencing policy choice between punishment in adult criminal court or rehabilitation in juvenile court. If one adopts a criminal court's point of view, the emphasis on punishment prevails, and the seriousness of the present offense or one's prior record controls the decision to transfer adolescents from juvenile to adult court. When offense considerations dominate, transfer decisions lend themselves to relatively mechanical decisional rules or presumptive sentencing guidelines. Alternatively, if one adopts a juvenile court's point of view, the emphasis on rehabilitation predominates, and individualized assessments of an offender's "amenable to treatment," "dangerousness," and future welfare control the sentencing decision. When offender characteristics are paramount, courts require more open-ended, indeterminate, and discretionary processes.

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1 Courts analogize waiver decisions to sentencing decisions. See, e.g., Kent v. United States 383 U.S. 541 (1966) (stating that it is a "critically important action"); In re S.R.J., 293 N.W.2d 92, 35 (Minn. 1980) ("A reference hearing is a dispositional hearing."); In re D.M., 373 N.W.2d 845, 851 (Minn. Ct. App. 1985); In re Hartung, 304 N.W.2d 621, 624 (Minn. 1981) ("A reference hearing is a dispositional type hearing which is forward looking.").

The recent increase in youth violence has provoked legislative re-
actions to "get tough" or to find the "right" solution. Every state has
adopted one or more statutory strategy to transfer some chronological
juveniles to criminal courts. The alternatives include: (1) judicial
waiver of juvenile court jurisdiction; (2) legislative exclusion of spe-
cific offenses from jurisdiction in juvenile court; and (3) prosecu-
torial choice of forum between concurrent jurisdictions in deciding
whether a youth is a criminal or a delinquent.

Judicial waiver is the most common waiver mechanism across the
nation. A juvenile court judge may waive juvenile court jurisdiction
on a discretionary basis after a hearing to determine whether a youth
is "amenable to treatment" or poses a threat to public safety. A
judge's case-by-case clinical assessment of a youth's rehabilitative po-
tential and dangerousness reflects the individualized sentencing dis-
cretion characteristic of juvenile courts.

Proponents of judicial waiver emphasize its consistency with juve-
nile court sentencing philosophy and contend that individualized
judgments provide an appropriate balance of flexibility and severity.
By contrast, critics argue that juvenile courts lack valid or reliable

JUSTICE 11-26 (1976); ANDREW VON HIRSCH, PAST OR FUTURE CRIMES; DESERVEDNESS AND
DANGEROUSNESS IN THE SENTENCING OF CRIMINALS (1985); Barry C. Feld, The Juvenile Court
Meets the Principle of Offense: Punishment, Treatment and the Difference it Makes, 68 B.U. L. REV.

3 DONNA M. HAMPARIAN ET AL., YOUTH IN ADULT COURT: BETWEEN TWO WORLDS 96-97
(1982); Melissa Sickmund, How Juveniles Get to Criminal Court (1994). See, e.g., Barry
C. Feld, Reference of Juvenile Offenders for Adult Prosecution: The Legislative Alternative to Asking
Unanswerable Questions, 62 Minn. L. Rev. 515, 523 n.22 (1978); Howard Snyder & Melissa
Sickmund, Juvenile Offenders and Victims: A National Report 84-89 (1995) (summariz-
ing juvenile court transfer laws).

4 Legislative waiver, or offense exclusion, emphasizes the seriousness of the offense
committed and reflects the retributive values of the criminal law. Because legislatures cre-
ate juvenile courts, they possess considerable latitude to define its jurisdiction in various
ways, and to exclude youths from juvenile court on the basis of their age and certain off-
fenses. With prosecutorial waiver strategy, both juvenile and criminal courts share concur-
rent jurisdiction over certain offenses, and a prosecutor's decision to charge a youth in
juvenile or criminal court determines the forum. To the extent that a prosecutor's discre-
tion to charge the case in criminal courts divests the juvenile court of jurisdiction, however,
this waiver mechanism is often treated as a variant of offense decision-making.

5 Snyder & Sickmund, supra note 3, at 84-89; Erick Fristch & Craig Hemmens, Juvenile

6 See Barry C. Feld, The Juvenile Court Meets the Principle of the Offense: Legislative Changes
court waiver legislation).

7 See, e.g., Jeffrey Fagan, Social and Legal Policy Dimensions of Violent Juvenile Crime, 17
CRIM. JUST. & BEHAV. 93 (1990); Franklin E. Zimring, The Treatment of Hard Cases in Ameri-
can Juvenile Justice: In Defense of Discretionary Waiver, 5 NOTRE DAME J.L. ETHICS & PUB. POL'Y
clinical tools with which to assess amenability to treatment or to predict dangerousness, and that the standardless discretion courts exercise results in abuses and inequalities.\(^8\)

As the public debate about serious and violent delinquents intensifies, legislatures increasingly exclude certain combinations of present offense and prior record from juvenile court jurisdiction or emphasize offense criteria to structure judicial discretion in waiver hearings.\(^9\) Despite these legislative modifications of the most consequential sentencing decisions juvenile courts make, there is remarkably little research on the determinants of waiver, the sentences that young offenders received in juvenile or criminal courts, or their subsequent criminal careers.\(^10\)

This Article addresses this paucity with an analysis of judicial waiver policy and processes in Hennepin County (Minneapolis), the largest metropolitan county in Minnesota. First, we discuss the legal framework for judicial waiver decisions and describe prior research on waiver practices. Second, we explore significant determinants of the waiver decision, analyzing 330 transfer motions filed between 1986 and 1992 to identify the offender and offense variables that affect judicial waiver decisions. In our analysis we include indicators of the judicial waiver process, including: the timing of the process, the role of clinical assessments, and the ways in which individual judges affect transfer decisions. Finally, we examine the subsequent juvenile or criminal court processing, sentencing, and recidivism of youths against whom prosecutors filed waiver motions.

II. Judicial Waiver

Two United States Supreme Court cases provide the constitutional framework for making the individualized sentencing decisions involved in judicial waiver hearings. In *Kent v. United States*,\(^11\) the Court held that states must provide juveniles with some procedural

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due process protections in judicial waiver hearings, thereby “formalizing” this special sentencing decision.\textsuperscript{12} In \textit{Breed v. Jones},\textsuperscript{13} the Court applied the double jeopardy provisions of the Constitution to the adjudication of juvenile offenses and required states to decide whether to try a youth in juvenile or criminal court before proceeding on the merits of the charge.\textsuperscript{14}

Although \textit{Kent} and \textit{Breed} provide the procedural framework for judicial waiver decisions, the substantive bases for these decisions pose much greater difficulties. Most jurisdictions allow juvenile court judges to waive jurisdiction based on assessments of a youth’s dangerousness or amenability to treatment. These discretionary decisions focus on the offender’s age, the amount of time left for treatment within juvenile jurisdiction, treatment prognosis as reflected in clinical evaluations, and threat to others as reflected in the seriousness of the present offense and prior record.\textsuperscript{15}

Asking the court to decide whether a youth is dangerous or amenable to treatment implicates some of the most difficult issues of sentencing policy and juvenile jurisprudence. The underlying legislative assumptions—that effective treatment programs exist for serious or persistent juvenile offenders, that classification systems can differentiate the treatment potential or dangerousness of various youth, and that validated and reliable diagnostic tools enable a clinician or juve-

\textsuperscript{12} \textit{Id.} at 554. In \textit{Kent}, the Supreme Court concluded that the loss of the special protections of the juvenile court—private proceedings, confidential records, and protection from the stigma of a criminal conviction—through a waiver decision was a “critically important” action that required a hearing, assistance of counsel, access to social investigations and other records, and written findings and conclusions capable of review by a higher court. \textit{Id.} at 554-57. “[T]here is no place in our system of law for reaching a result of such tremendous consequences without ceremony—without hearing, without effective assistance of counsel, without a statement of reasons.” \textit{Id.} at 554; see generally Monrad G. Paulsen, \textit{Kent v. United States: The Constitutional Context of Juvenile Cases}, 1966 \textit{Sup. Ct. Rev.} 167 (1966).

\textsuperscript{13} 421 U.S. 519 (1975).

\textsuperscript{14} In \textit{Breed v. Jones}, 421 U.S. 519 (1975), the Court held that the protections of the Double Jeopardy Clause of the Fifth Amendment prohibited adult criminal reprosecution of a youth after a prior conviction in juvenile court. At issue was the applicability of the Double Jeopardy Clause of the Fifth Amendment to state proceedings, and the Court resolved the question by establishing a functional equivalence between an adult criminal trial and a delinquency proceeding. The Court described the virtually identical interests implicated in a delinquency hearing and a traditional criminal prosecution—“anxiety and insecurity,” a “heavy personal strain,” and the increased burdens as the juvenile system became more procedurally formalized. \textit{Id.} at 530-31 (quoting \textit{Green v. United States}, 355 U.S. 184, 187 (1957); \textit{United States v. Jorn}, 400 U.S. 470, 479 (1971)). In light of the potential consequences of a delinquency proceeding, the Court concluded that there was little basis to distinguish it from a traditional adult criminal prosecution. \textit{Id.} at 530.

nile court to determine the proper disposition for a particular youth—are all highly problematic and controversial. Alternatively, waiving juvenile court jurisdiction because a youth poses a threat to public safety assumes that courts reliably and accurately can predict future dangerousness.

Juvenile courts exercise broad, standardless discretion when making waiver decisions on the basis of statutory criteria such as amenability to treatment or dangerousness. Adding long lists of amorphous and contradictory substantive factors, such as the standards appended in *Kent*, reinforces rather than constrains judicial discretion because courts can justify any decision by selectively emphasizing one set of attributes over another.

The subjective nature of waiver decisions allows unequal application of the law to similarly situated youths without any effective check. Juvenile courts cannot administer these discretionary statutes on a consistent, even-handed basis. Hamparian's nationwide analysis of waiver in 1978 provides compelling evidence that judicial waiver practices are inherently arbitrary, capricious, and discriminatory.

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18 Franklin E. Zimring, *Notes Toward a Jurisprudence of Waiver, in Readings in Public Policy 193* (John C. Hall et al. eds., 1981) (waiver of serious juvenile offenders as "the capital punishment of juvenile justice").

19 "Collectively, 'lists' of this length rarely serve to limit discretion or regularize procedure. By giving emphasis to one or two of the guidelines, a judge can usually justify a decision either way." *Task Force on Sentencing Policy Toward Young Offenders, Twentieth Century Fund, Confronting Youth Crime 56* (1978). Zimring notes that "[T]he substantive standards are highly subjective, and the large number of factors that may be taken into consideration provides ample opportunity for selection and emphasis in discretionary decisions that shape the outcome of individual cases." Zimring, *supra* note 18, at 195.

20 See *infra* note 41 and accompanying text, analyzing empirical data of transfer decision in Minnesota in 1986. See generally HAMPARIAN ET AL., *supra* note 3; Fagan & Deschenes, *supra* note 8, at 345-47 (no strong or consistent determinants of judicial transfer decisions); Feld, *supra* note 3, at 546-56.

21 HAMPARIAN ET AL., *supra* note 3, at 102-07. Among the states that rely on judicial waiver for the transfer decision, the rates of waiver vary from a high of 13.5 to a low of .07 per 10,000 youths at risk; youths in Oregon have nearly 200 times the probability of being waived for trial as adults as do youths in Montana. *Id.* at 102-08.

Fagan and Deschenes analyzed waiver decisions involving a sample of violent youths in four different jurisdictions and concluded that there were no uniform criteria guiding the transfer decision:

What we found was a rash of inconsistent judicial waiver decisions, both within and
dition, a juvenile's race may also influence the waiver decision.\textsuperscript{22} Furthermore, Jeffrey Fagan reports that the length of time from age at offense to the jurisdictional age limit, rather than the offender's prior record, strongly influences judicial transfer decisions; courts transfer juveniles where the seriousness of the offense requires a longer sentence than is available in the juvenile court.\textsuperscript{23}

A second problem posed by discretionary waiver is the inconsistency between the criteria used to make transfer decisions and the criteria used by criminal courts to impose prison sentences. Despite public concerns in many jurisdictions about youth violence, most youths judicially waived to criminal court are chronic property offenders rather than violent offenders.\textsuperscript{24} When criminal courts sentence recidivist property offenders who appear as adult first-offenders, these youths often receive shorter sentences as adults than they could have received in juvenile court.\textsuperscript{25} This lack of integration between juvenile court waiver and criminal court sentencing practices gives rise to a

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Fagan & Deschenes, \textit{supra} note 8, at 347.

Fagan and Deschenes tested seven offense and offender variables to identify determinants of the transfer decision within a sample of violent youths. They report that "[n]either multivariate analysis nor simple explorations identified strong or consistent determinants of the judicial transfer decision. Except for a relationship between extensive prior offense history and the transfer decision, none of the identified variables could significantly describe differences between youths who were or were not transferred." \textit{Id.} at 345.

\textsuperscript{22} \textit{See generally} Joel Eigen, \textit{The Determinants and Impact of Jurisdictional Transfer in Philadelphia}, in \textit{Readings in Public Policy}, \textit{supra} note 18, at 339-40 (Eigen reports an interracial effect in transfers: black youths who murder white victims are significantly more at risk for waiver); Hamparian et al., \textit{supra} note 3, at 104-05 (Hamparian reported that nationally, 39\% of all youths transferred in 1978 were black and that in 11 states, minority youths constituted the majority of juveniles waived); Robert Keiter, \textit{Criminal or Delinquent? A Study of Juvenile Cases Transferred to the Criminal Court}, 19 \textit{Crime & Delinq.} 528 (1973).

Fagan's study of transfer of violent youths also found substantial disparities in the rates of minority and white offenders. Although there was no direct evidence of sentencing discrimination, "it appears that the effects of race are indirect, but visible nonetheless." Jeffrey Fagan et al., \textit{Racial Determinants of the Judicial Transfer Decision: Prosecuting Violent Youth in Criminal Court}, 33 \textit{Crime & Delinq}. 259, 276 (1987). U.S. General Accounting Office, \textit{Juvenile Justice: Juveniles Processed in Criminal Court and Case Dispositions} (Aug. 1995) (courts waived blacks more often than whites for violent, property, and drug crimes).

\textsuperscript{23} Feld, \textit{Violent Youth and Public Policy}, \textit{supra} note 16, at 1014.

\textsuperscript{24} \textit{See, e.g., Snyder & Sickmund, supra} note 3; Feld, \textit{supra} note 6; Feld, \textit{Violent Youth and Public Policy, supra} note 16, at 1011-12.

“punishment gap” when chronic young offenders make the transition from one system to the other.

A. JUDICIAL WAIVER IN MINNESOTA

Minnesota’s judicial waiver statutes, criteria, and procedures typify the way most states decide to prosecute some chronological juveniles in criminal courts. Subject to the constitutional constraints of Kent and Breed, Minnesota’s statute and Juvenile Court Rule 32 govern the process of waiving juvenile court jurisdiction and prosecuting a young offender as an adult. The county attorney initiates a reference proceeding by filing a motion for adult prosecution. Following a finding of probable cause, the juvenile court may order a social study of the child and within thirty days of filing the motion must conduct a hearing to determine whether the youth meets the

26 At the time of this study, juvenile court judges could waive a youth if they found that “the child is not suitable to treatment or that the public safety is not served” by retaining the youth in juvenile court. Minn. Stat. §260.125(d)(2) (1994). Minn. R. P. Juv. Cr. 32.05(2) elaborates a nonexclusive list of the “totality of the circumstances” that a juvenile court may consider in determining a youth’s dangerousness or amenability to treatment:

- (a) the seriousness of the offense in terms of community protection,
- (b) the circumstances surrounding the offense,
- (c) whether the offense was committed in an aggressive, violent, premeditated or willful manner,
- (d) whether the offense was directed against persons or property, the greater weight being given to an offense against persons, especially if personal injury resulted,
- (e) the reasonably foreseeable consequences of the act,
- (f) the absence of adequate protective and security facilities available to the juvenile treatment system,
- (g) the sophistication and maturity of the child as determined by consideration of the child’s home, environmental situation, emotional attitude and pattern of living,
- (h) the record and previous history of the child,
- (i) whether the child acted with particular cruelty or disregard for the life or safety of another,
- (j) whether the offense involved a high degree of sophistication or planning by the child, and
- (k) whether there is sufficient time available before the child reaches age nineteen (19) to provide appropriate treatment and control.

See also supra note 2; Kent v. United States, 383 U.S. 541, 566-67 (1966) (In an appendix to its opinion, the Court indicated some of the substantive criteria that a juvenile court might consider.). The above listed criteria mirror the criteria listed in the Kent appendix.

27 Minn. Stat. §260.125(2) (1994). Rule 32 provides: “Proceedings to refer a delinquency matter . . . may be initiated only upon motion of the county attorney after a delinquency petition has been filed.” Minn. R. P. Juv. Cr. 32.01; see In re Sweats, 293 N.W.2d 67, 70 (Minn. 1980) (decision whether to prosecute as an adult is within discretion of prosecutor).

28 The rule provides: “If probable cause has been shown, pursuant to Rule 19.03 or Rule 32.05, Subd. 1, the court, on its own motion or on the motion of the child’s counsel or the county attorney, may order a social, psychiatric or psychological study concerning the child who is the subject of the reference.” Minn. R. P. Juv. Cr. 32.03. The rule also provides that the social report is to be paid for “at public expense,” shall be filed 48 hours before the time scheduled for the hearing, and must be made available to both parties. Id.
waiver criteria. The juvenile court may grant adult reference if it concludes that the child is "not suitable for treatment" or that "public safety is not served" by retaining the youth in juvenile court.

Prior to 1980, Minnesota's waiver law provided minimal guidance for juvenile courts trying to decide whether to certify a youth for criminal prosecution. In In re Dahl, the Minnesota Supreme Court confronted some of the procedural and substantive problems in the juvenile waiver process. The court clearly indicated to the legislature that the waiver criteria needed modification and greater specificity, concluding that "re-evaluation of the existing certification process may be in order."

In 1980, the Minnesota legislature amended the certification pro-

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**Footnotes:**
29 MINN. R. P. JUV. CT. 32.01.
30 MINN. R. P. JUV. CT. 32.05(2) (1994); see MINN. STAT. § 260.125 (2)(d) (Supp. 1983). For a general discussions of the waiver procedure in Minnesota, see Feld, Dismantling the "Rehabilitative Idea," supra note 16; Feld, supra note 3.
31 278 N.W.2d 316 (Minn. 1979). The court commented that "it is clearly apparent that [Dahl] is not the typical delinquent seen by the Juvenile Court. This offense [first degree murder] . . . appears to be an isolated delinquent act." Id. at 317-18.
32 See id. at 321. In State v. Hogan, the Minnesota Supreme Court indicated that the presence of several criteria, including consideration of the offense allegedly committed, allowed the lower court to certify a youth on public safety grounds. 212 N.W.2d 664, 669-70 (Minn. 1973). The Supreme Court subsequently incorporated the Hogan and Kent criteria into Rule 32.05(2) of the Minnesota Rules of Procedure for Juvenile Court. See Barry C. Feld, Criminalizing Juvenile Justice: Rules of Procedure for the Juvenile Court, 69 MINN. L. REV. 141, 266-72 (1984); see also In re J.B.M., 263 N.W.2d 74, 76 (Minn. 1978) ("Although the nature of the offense is certainly a factor to be considered in this determination and may serve as a basis for statutory reference . . . this court has not held that reference is mandatory when a serious crime is involved.").
33 See Dahl, 278 N.W.2d at 318. Despite its concern about the adequacy of the standards, in 1983 the Minnesota Supreme Court promulgated rules of procedure for juvenile courts that included a list of factors courts should consider in making waiver decisions. See MINN. R. P. JUV. CRS. § 32.05(2) (1992). These factors were drawn from Hogan, 212 N.W.2d at 669-70; and Kent v. United States, 383 U.S. 541, 566-67 app. (1966).
34 When the Minnesota Supreme Court adopted Rule 32, Feld strongly criticized it for failing to address the deficiencies of which it clearly was aware. In his critique, he noted:

The catalogue of miscellaneous factors promulgated by the Minnesota Supreme Court provides neither a "central guiding principle" nor much practical guidance to juvenile court judges struggling with this difficult sentencing decision. Instead, Rule 32's emphasis on vague, discretionary, and ultimately unquantifiable factors simply compounds all the preexisting problems of the process and submits the most important dispositional decision in the juvenile court to the subjective reaction of each individual juvenile court judge.
Feld, supra note 32, at 272.
34 Dahl, 278 N.W.2d at 319. The Dahl court observed that "the standards for referral adopted by present legislation are not very effective in making this important determination." Id. at 318. The court went on to note that "[d]ue to these difficulties in making the waiver decision, many juvenile court judges have tended to be overcautious, resulting in the referral of delinquent children for criminal prosecution on the erroneous, albeit good faith, belief that the juveniles pose a danger to the public." Id. at 319.
cess. The revised juvenile code retained, unchanged, the basic waiver criteria of nonamenability to treatment or dangerousness, and placed the burden of proof on the prosecution to establish by "clear and convincing evidence" that juvenile court jurisdiction should be waived. However, the legislature added a third subdivision to the certification statute to enable prosecutors to establish a prima facie case, or rebuttable presumption, of nonamenability and dangerousness by proving that a youth possessed various combinations of present offense and prior record. Despite the legislative attempt to use offense criteria to rationalize waiver decisions, the rebuttable presumption strategy did not reduce judicial discretion.

36 Minn. Stat. § 260.125(2) provides:

[T]he juvenile court may order a reference only if:

   d) The court finds that

      (1) there is probable cause . . . to believe the child committed the offense alleged by delinquency petition and

      (2) the prosecuting authority has demonstrated by clear and convincing evidence that the child is not suitable to treatment or that the public safety is not served under the provisions of laws relating to juvenile courts.

38 The legislature adopted an offense matrix that establishes a prima facie case for certification under the amenability and dangerousness provisions when various combinations of a youth's present offense and/or prior record are present. Under the amended statute, the prosecution can establish a prima facie case of both nonamenability and dangerousness simply by proving that the juvenile is at least 16 years of age, that the present crime charged is a serious offense, and that the combination of the present crime charged and the prior record brings the case within one of the subdivision's clauses. See Minn. Stat. § 260.125 (3) (1992); see generally Feld, Dismantling the "Rehabilitative Ideal," supra note 16 at 194-95 n.96. But see 1994 Laws of Minnesota Ch. 576 (legislation repeals § 260.125 (3)).
40 Feld has noted the following:

[A] prima facie case creates a rebuttable presumption that shifts the burden of producing substantial, controverting evidence to the party opposing the prima facie case . . . . If substantial, countervailing evidence is presented, then the matter is to be determined by the trier of fact on the basis of the entire record and not by reference to the prima facie case . . . . Functionally, then, the procedural operation of a prima facie case is equivalent to a presumption in civil actions.


Several subsequent Minnesota court decisions endorsed Feld's analysis. See, e.g., In re J.F.K., 316 N.W.2d 563 (Minn. 1982) (when state has established a prima facie case which the defense rebutted with substantial evidence, court must decide waiver issue on basis of the entire record, not simply by reference to the prima facie case); In re Givens, 307 N.W.2d 489 (Minn. 1981) (unrebutted prima facie case authorizes reference on both grounds of nonamenability and dangerousness); In re K.J.K, 357 N.W.2d 117, 119 (Minn. Ct. App. 1984) (where a prima facie case is not established, the court must consider totality of circumstances).
Evaluations of Minnesota's waiver process before and after the 1980 legislative amendments characterized judicial waiver decisions as idiosyncratic, geographically variable, and in conflict with criminal court sentencing practices. These studies consistently found that the largest group of juveniles waived to adult court throughout Minnesota were property offenders, not violent offenders, and that the criteria for transfer differed between urban and rural jurisdictions. Moreover, because waived juveniles committed less serious offenses and had less extensive criminal history scores, they often received shorter sentences in adult courts than they could have received in juvenile court.

B. MINNESOTA’S JUDICIAL WAIVER IN CONTEXT

Although violent crime comprises a much smaller component than property crime of the overall serious crime index as reported by the FBI, the rates of juvenile violence have surged dramatically since the mid-1980s. While nationally, Index Property Crime by juveniles

41 From 1975 to 1976, the Minnesota Supreme Court's Study Commission found that juvenile court judges' discretion frequently yielded pronounced differences in certification outcomes in urban and rural counties throughout Minnesota. Juvenile Justice Study Comm'n, Minn. Supreme Court, Report to the Minnesota Supreme Court (Nov. 1976). Shortly after the Minnesota legislature amended the transfer statutes in 1980, the Supreme Court Study Commission reexamined certification practices. It reported that in 1979, 1980, and 1981: (1) very few rural juveniles met the prima facie case criteria; (2) prosecutors in urban counties did not file reference motions against many juveniles who met the criteria; and (3) two-thirds of the youths referred to adult criminal courts did not meet the presumptive criteria. Juvenile Justice Study Comm'n, Minn. Supreme Court, Changing Boundaries of the Juvenile Court: Practice and Policy in Minnesota (Mar. 1982)

In a study that examined juvenile court data from 1986, Professor Barry Feld compared the present offense, prior records, and treatment histories of juveniles waived to criminal court with all delinquents who remained in juvenile courts. Feld reported that judges waived most youths for property offenses rather than for crimes against the person, and that urban-rural geographic disparities continued. However, the multivariate analyses could explain very little of the variance (only 3.1%) in the differences between waived youths and the remaining juvenile offenders. Feld, Bad Law Makes Hard Cases, supra note 8, at 37-40.

42 In 1992, the Minnesota legislature created an Advisory Task Force on the Juvenile Justice System to examine the certification process and recommend changes in the waiver statutes. The Juvenile Justice Task Force conducted several studies of waiver practices and the criminal court sentences of waived juvenile offenders. Despite public fears of youth violence, prosecutors charged the majority of juveniles certified to stand trial as adults in Minnesota in 1992 with property offenses; juvenile courts waived only about one-third (35%) of youths for crimes against the person. The Juvenile Justice Task Force also examined the sentences imposed upon waived juveniles who were convicted of felonies in adult court. Consistent with the waiver data, the majority of juveniles (62% in 1991) sentenced as adults were property offenders. By virtue of prosecutorial and judicial selection, the relatively few waived juveniles typically were convicted of more serious offenses than all adult felons, yet they experienced a lower rate of imprisonment than did adults. Feld, Violent Youth and Public Policy, supra note 16.
increased 11% between 1983 and 1992, violent crime increased by 57%. In a special section on Juveniles and Violence in 1991, the FBI reports that:

In 1990, the Nation experienced its highest juvenile violent crime arrest rate, 430 per 100,000 juveniles . . . . The 1990 rate was 27% higher than the 1980 rate . . . . Of particular note is the upward trend that started in 1988 for both white and black youth . . . . In 1990, the juvenile violent crime arrest rate reached 1,429 per 100,000 black juveniles, five times that for white youths.44

The most frightening change in juvenile crime patterns is the increase in murder rates accompanying the proliferation of guns among youths.45 The murder arrest rate for juveniles increased over 300% in the twenty-five years between 1965 and 1990. In 1990, African-American juveniles’ arrest rate for homicide was 7.5 times higher than that of white juveniles. Additionally, the number of juveniles who use guns to commit murder has increased 79% in the last decade; “[i]n 1990, nearly 3 of 4 juvenile murder offenders used guns to perpetrate their crimes.”46 Although chronological juveniles only account for about one murder arrest in seven,47 the dramatic rise in homicide by mid- to late-adolescents, the racial concentration of perpetrators and victims of violence, and arrests of increasingly younger juveniles for violence certainly justify public concerns.48


47 See Fed. Bureau of Investigation, U.S. Dep’t of Just., Crime in the U.S.: 1992, Uniform Crime Rep., at 1, 227 (1993) [hereinafter FBI, UCR: 1992] (Juvenile homicide arrests accounted for about 14.5% of all murder arrests; juveniles were arrested for 2,829 murders while adults over 18 years of age were arrested for 16,662 murders.) Id. These arrest rates may overstate somewhat juveniles’ violent criminal involvement since youths, more than adults, tend to commit their crimes in groups, and one criminal event may produce several juvenile arrests. See Franklin E. Zimring, Kids, Groups and Crime: Some Implications of a Well-Known Secret, 72 J. Crim. L. & Criminology 867, 868-75 (1981).

48 See FBI, UCR: 1992, supra note 47, at 227; Barbara Allen-Hagen et al., Juveniles and Violence: Juvenile Offending and Victimization (1994) ("Between 1988 and 1992, the number of Violent Crime Index arrests of juveniles increased by 47%—more than twice the increase for persons 18 years of age or older. Most alarming, juvenile arrests for murder increased by 51%, compared to 9% for adults."); Peter W. Greenwood, Juvenile Crime and Juvenile Justice, in Crime 91, 96 (James Q. Wilson & Joan Petersilia eds., 1995) ("In 1980, juveniles accounted for just 10% of all arrests for homicide. By 1990, juveniles accounted for 13.6% of all homicide arrests. Between 1984 and 1992 the number of juveniles arrested for homicide, who were under the age of fifteen, increased by 50%.")
Changes in Minnesota's racial composition affect both crime rates and political reactions to youth and crime. Only 6.3% of Minnesotans are members of racial minorities, although the state had the fourth highest rate of minority population growth in the nation during the 1980s. African-Americans are Minnesota's largest minority group and are heavily concentrated in the Twin Cities of Minneapolis and St. Paul, whose total minority population nearly doubled between 1980 and 1990.

The growing concentration of minority children in urban settings and the disproportional involvement of minority youths in crime—especially violent crime—sustain public and political perceptions of a threatening structural "underclass." Professors Robert Sampson and John Laub contend that structural inequality affects official social control. They argue that in settings marked by racial inequality, public and political leaders will use the juvenile justice system to increase the social control of members of the underclass. These demographic

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49 Minnesota State Demographer, Population Notes 1 (1991) (6.3% compared with 24.4% of the United States, giving it the seventh smallest minority population in the nation).

50 Id. at 3. The minority population in Minnesota grew 71.7% compared to the non Hispanic white population, which rose only 4.7%, about the same as the national average (4.4%).

51 Id. at 7. The 1990 census counted 94,944 African-American Minnesotans. While African Americans are Minnesota's largest minority group, they constitute only 2.2% of the population, well below the national average of 12.1%. Id. As a result of natural increase and net migration, the African-American population increased 78% during the decade of the 1980s. Id. at 6.

52 Id. at 7. Seventy-two percent of African-Americans reside in Minneapolis or St. Paul, and an additional 23% are in the Twin Cities' suburbs. Only 6% are outside the seven county metropolitan area and most of that group live in either Duluth or Rochester. Id. The Twin Cities' minority population increased from 12.5% to 21.3%. Id.; see also Marcy R. Podkopacz, Strategic Plan for the Bureau of Community Corrections (1993).

53 Professor Alfred Blumstein recently cautioned:

[T]here are many factors currently in place that should make the crime problem become increasingly serious over the coming decade. . . . The effect of the changing demographic composition will increase crime rates as the population in the 15-19 age range (the one with the highest age-specific offending rates) will be growing over at least the next decade, especially in the [racial] groups with the highest offending rates.


55 See id. at 298. In an earlier article, Professor Feld analyzed a number of the structural features—racial composition, poverty, female-headed household, and the like—that Sampson and Laub hypothesized would affect juvenile justice administration.
changes, and projections of more poor and minority urban youths in the decade to come, provided the impetus for recent changes in Minnesota's juvenile waiver and criminal sentencing policies.56

The next section of this Article analyzes judicial waiver practices between 1986 and 1992, when the prima facie case or rebuttable presumption law prevailed. It provides a comprehensive assessment of judicial discretion in operation in an urban context.

III. EMPIRICAL ANALYSES OF JUDICIAL WAIVER PRACTICES

Minnesota's judicial transfer law and process is typical of the waiver strategy used by a majority of other states. Accordingly, the information we collected and analyzed may generalize to the many other jurisdictions that make similar judicial transfer decisions. Various methodological short-comings limit the usefulness of past studies, such as small samples, limited access to critical variables, a reduced view of the offense both in terms of the present offense (including only violent felonies for instance) and in the prior record of offenses. This analysis focuses on the single most populous county in Minnesota, Hennepin County,57 which is composed of Minneapolis and its surrounding suburbs, and mirrors many other major metropolitan urban areas. Hennepin County accounts for over a quarter of the state's population and over a third of the FBI Part I crime. Over 42% of Part I Violent Crime for the state occurs in Hennepin County, and juveniles accounted for nearly a quarter of all clearances for these violent crimes.58

For this study, we pre-tested an extensive data collection protocol and then gathered data from Juvenile Court files.59 Court psychologists conducted a psychological examination and wrote a full report for about half of the juveniles against whom the prosecutors filed a reference motion. The Juvenile Probation department completed an in-depth reference study on almost all of those juveniles evaluated by

56 Feld, Violent Youth and Public Policy, supra note 16, at 982.
57 Our analyses are based largely on a study initiated and conducted in Hennepin County in 1993-1994. See Marcy R. Podkopač, Juvenile Reference Study, Hennepin County Department of Community Corrections (1994).
59 We trained five employees loaned from the Departments of Community Corrections, County Attorney's Office, and Juvenile Court to collect the data used in this study. Data collection averaged about three and one-half hours per court file, with the range being between half an hour and six hours. A copy of the coding form used to collect the data is available from the authors upon request.
Psychological Services. The Juvenile Court files contained the psychological report and the reference study, as well as information on delinquency charges, adjudications, dispositions, and social history reports. In addition, we reviewed all disposition reports, probation progress reviews, program progress reviews, and program exit summaries for any other information to supplement the primary sources; these various reports provided rich sources of information for this study. We also interviewed the various participants in the waiver process and observed court proceedings and pre-hearing conferences.

Although prima facie case statutory definitions attempt to guide prosecutors' selection of which juveniles to file motions against for adult reference, prosecutors are neither expected to charge all youths whose delinquency background fits the criteria, nor precluded from charging other youths who do not meet the criteria. Thus, the prosecutors' initial discretion necessarily defines the population of youth included in this study and determines their characteristics. Our sample includes all juveniles against whom the prosecutors filed a reference motion for the first time between 1986 and 1992.60

As Table 1 shows, during the period of our study, white juveniles comprised 81% of the ten to seventeen year old youth population in Hennepin County.61 African-American adolescents comprised 9% and other minority adolescents an additional 10% of the county's

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60 Juveniles can be motioned for certification more than once if additional serious offenses are charged while they are chronologically still juveniles. This study carefully designed data collection on the first reference motion filed. Any subsequent motions are captured in the recidivism sections. The determinants and likelihood of being transferred to adult court are different for subsequent reference motions. See PODKOPACZ, supra note 57.

One possible criticism of this study, as in much of social science research, is that it may suffer from population selection bias; when observations are selected in a manner that is not independent of the outcome variable, in this case certification, selection bias is present. The county attorney decides which offenders to file motions against for reference for adult prosecution, and their decisions introduce selection bias. Because we lack information about the other youths against whom the prosecutor did not file reference motions, we cannot determine what factors influenced their charging decision. We do not know, for example, how juveniles against whom prosecutors did not file reference motions differ from those against whom they did file, or whether or how many of them the juvenile court would have certified if the prosecutors had filed reference motions. In a preliminary examination, for example, we found that in 1992 alone the prosecutors charged over 300 juveniles with presumptive offenses, yet filed reference motions against less than 10% of those offenders. See, e.g., Feld, Bad Law Makes Hard Cases, supra note 8, at 40 (comparing certified juveniles with all delinquents and concluding that "no single factor or group of factors explains why or how certified juveniles are selected from the larger universe of juveniles"). Our future research will attempt to identify and model processes of selection bias. We will attempt to ascertain what, if any, legal or social characteristics distinguish these two groups of serious young offenders.

61 Census information provided courtesy of Hennepin County Office of Planning and Development per a special request by the authors in 1994.
youth. However, police apprehension of juveniles in Hennepin County for FBI Part I Index offenses 62 reveals a different pattern. Police arrested white youths for 55% of all serious crimes, African-American youths for 32%, and other minority youths for the remaining 12%. This disproportionality between population percentages and arrest percentages is striking and becomes even greater when viewing

62 Federal Bureau of Investigation, U.S. Dep’t of Justice, Uniform Crime Reports for the United States 1993 (1994). Local law enforcement agencies transmit data to state agencies and the FBI based on reports from victims of crimes or investigation. Id. at 1-3. The FBI’s Serious Crime Index includes both violent and property crimes and provides the most widely cited measure of offenses. Id. at 1. The Crime Index records four violent crimes: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Id. It also reports four property crimes: burglary, larceny-theft, motor vehicle theft, and arson. Id. Typically, both reported crimes and arrests are standardized as rates per 100,000 persons to control for changes in population composition.
the percentages of youths motioned for adult reference. Of those youths against whom prosecutors filed transfer motions, 28% were white, 55% were African-American, and 17% were of some other minority group.

Additionally, there are differences in the type of offense common to the various racial groups. Police cleared most of the property crimes with arrests of white juveniles (57%), and cleared most of the violent crimes with arrests of African-American juveniles (54%), indicating that race-crime specificity is evident at very early stages of the juvenile justice process.\(^6\) When we analyze the racial characteristics of youths against whom the prosecutors filed reference motions, the race-offense nexus emerges even more graphically. Although about one-third (34%) of the arrests for violent crimes involved white juveniles, less than one-fifth (19%) of the violent offenders against whom prosecutors filed reference motions were white. While African-American youth account for a majority (54%) of all juvenile arrests for violent crimes, they made up nearly two-thirds (65%) of the population against whom prosecutors filed reference motions for felonies against the person. The percentage of arrests and motions for serious property crimes are similar.

These differences reflect both the prosecutors’ decision to file reference motions predominantly for violent crimes, as well as a different and larger proportion of violent offenses in African-American juveniles’ prior records. Table 1 reports the prior delinquency record for juveniles included in our study. Although the three racial groups appear very similar in terms of the proportion that had any type of past felony adjudication and the average number of past felony adjudications or out-of-home delinquency placements, they do differ in their likelihood of having a prior person felony. Twice as many minority youths as white youths (34%, 31% vs. 15%) had an adjudication for a felony against a person (p=.004), whereas whites were twice as likely as African-Americans (50% vs. 27%) to have a delinquency history of property felonies (p<.001). Juveniles other than whites or African-Americans had a less crime-specific delinquency background than either of the latter groups; they were as likely as African-Americans to have a history of person felonies and nearly as likely as whites to have a background of property felonies.

The Minnesota Sentencing Guidelines used to sentence adult offenders presume that defendants convicted of certain violent crimes, for example, murder, criminal sexual conduct, or felonies using a fire-
arm, should be committed to prison.\textsuperscript{64} We ascertained whether the juveniles against whom prosecutors filed reference motions were charged with presumptive commitment to prison offenses or had these types of offenses in their prior delinquency records. Using this criteria, prosecutors filed reference motions for presumptive offenses against 66\% of the African-American juveniles, 18\% of other minority juveniles, and 16\% of white juveniles. While only 15\% of all the juveniles had a prior adjudication for a presumptive commitment offense, African-American youths constituted three-quarters of that group. Twenty percent of all African American juveniles had presumptive commitment offenses in their delinquency history compared with 11\% of other minority juveniles and 7\% of white juveniles. This is a significant difference in past adjudications for presumptive offenses by racial groups (p=.009).

Table 1 also reports information on the average number of prior delinquency out-of-home placements for each racial group. Children classified as other minorities had the highest average of prior delinquency placements and differed significantly only from the average for African-Americans (p=.04). White youths were placed out of their home for delinquency related matters nearly as often as other minority youths. The average number of out-of-home placements is larger than the average number of felony adjudications, indicating that youths may be placed out of the home for misdemeanor level adjudications as well.

Although the racial groups differ qualitatively in terms of the type of present offenses charged and prior delinquency records (person offenses for African-Americans and property offenses for whites), they appear very similar in terms of the quantity of their prior delinquency involvement (average number of prior felonies, percent of each group that had any prior felonies, and the average number of prior juvenile court placements). Finally, Table 1 shows 71\% of white juveniles against whom prosecutors filed a motion for referral to adult court were certified, compared with 68\% of African-American and 64\% of other minority juveniles. The racial difference in referral rates was not statistically significant. Possibly, this indicates a ceiling of total felony level offenses acceptable within juvenile court, regardless of the specific type of felonies.

Prosecutors typically filed a reference motion against a youth for a single delinquent incident, although they may allege more than one offense. In the typical case, the juvenile appears in court on the refer-

\textsuperscript{64} \textsc{Minn. Stat.} § 244 App. Minn. Sentencing Guidelines V (1992) (Offense Severity Reference Table).
### Table 2
**Changes Across Time in Offense and Offender Characteristics and in Court Process Variables**

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<td>Percent Retained</td>
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<td>43%</td>
<td>30%</td>
<td>28%</td>
<td>55%</td>
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<td>Percent Referred to Adult Court</td>
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<td>78%</td>
<td>57%</td>
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<td>46%</td>
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<td>Percent Presumptive Offense</td>
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<td>54%</td>
<td>73%</td>
<td>74%</td>
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<td>Percent Person Felony</td>
<td>66%</td>
<td>61%</td>
<td>54%</td>
<td>54%</td>
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<td>80%</td>
<td>80%</td>
<td>65%</td>
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<tr>
<td>Percent Property Felony</td>
<td>28%</td>
<td>32%</td>
<td>33%</td>
<td>28%</td>
<td>26%</td>
<td>7%</td>
<td>11%</td>
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<td>Percent Using a Weapon</td>
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<td>34%</td>
<td>48%</td>
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<td>Average Number of Felonies</td>
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<td>1.59</td>
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<td>1.65</td>
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<td>Percent Two or More Felonies</td>
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<td>Presumptive-Little history</td>
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<td>Average Number of Placements</td>
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<td>Percent White</td>
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<td>33%</td>
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<tr>
<td>Percent African American</td>
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<td>Percent Other Minority</td>
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<td>22%</td>
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<td><strong>AGE OF MOTIONED JUVENILE</strong></td>
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<td>Percent 14 or 15 years old</td>
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<td>13%</td>
<td>4%</td>
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<td>Percent 17 years old</td>
<td>58%</td>
<td>58%</td>
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<td>61%</td>
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<td>Percent Completed</td>
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<td>#2-3-4</td>
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</table>

* A large delinquency history is defined as having 2 or more felony adjudications prior to the filing of the reference motion whereas little delinquency history is defined as 1 felony adjudication or less (misdemeanors only or no prior adjudications).

** There were various other judges who heard reference hearings throughout the seven year period, but none of them presided over Juvenile Court during these years and the number of cases they heard individually were small.

ence motion on the present offenses with no other unresolved outstanding offenses; 85% of the cases fit this pattern. For the remaining 15% of the youths, prosecutors simultaneously filed multiple reference motions for crimes arising out of several different behavioral incidents, or they filed a single motion with other outstanding charges pending.65

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65 Because of these atypical situations, we defined the present offense to include all offenses that had the following: 1) identical adjudication dates as the offense listed on the reference motion (the delinquency decisions occurred together); or 2) all reference motion decisions occurring on the same date as the first reference motion decision (separate reference motions handled together at the same time). This definition allowed us to capture the full account of decisions that, for 15% of the cases, often were pled down to
A. RATE OF TRANSFER

Table 2 displays a series of variables about the offense, the offender, and the transfer process across the seven years of the study. The first row is the number of first motions across each year, and the third row reports the percentage of youths whom juvenile court judges referred to adult criminal court over the seven year period. The juvenile court handled an average of forty-seven reference motions per year, and waived about two-thirds (65%) of these youths for adult prosecution. Except for 1988, when prosecutors filed a larger number of reference motions, the certification rate from 1986 through 1990 was relatively stable and above 70%. The transfer rate was somewhat lower in 1991 and 1992.

Two factors account for the change in certification rates in the later years. First, the judge who presided from 1986 until 1990 left the juvenile court bench. In the remaining two years, three other judges heard most of the reference motions. Second, the County Attorney’s Office changed its reference motion filing policy in 1991 to concentrate primarily on youths who met the prima facie offense criteria.66

B. OFFENSE CHARACTERISTICS

1. Present Offense

In 1991 and 1992, the County Attorney’s Office filed more reference motions against youths who met the prima facie case criteria, emphasizing the seriousness of the present offense rather than the cumulative record of persistence. As a result, the percentage of cases that met the serious offense criteria increased from less than 3% in 1986-1988 to about half of the cases in 1991-1992.

Reflecting this policy change, prosecutors charged significantly more youths with presumptive commitment offenses (p=.02). Between 1986 and 1990, prosecutors filed reference motions against about half of the juveniles for presumptive commitment offenses; while by 1991 and 1992, they charged nearly three-quarters of all juveniles (73% and 74%, respectively) with presumptive commitment offenses.67

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66 Interview with Dianne Ward, Assistant County Attorney, Chief of Juvenile Prosecution Division, County Attorney’s Head of Juvenile Prosecution (1993).

67 While they charged nearly a quarter of these juveniles (22%) with only one presumptive commitment offense, the remaining 33% faced two or more presumptive commitment to prison offenses (the number of allegations ranged from one to 31 charges). Again, this change reflects the County Attorney’s policy decision to focus reference motions on juveniles who met the prima facie case criteria and explains the corresponding decrease in the total number of reference motions filed in later years.
Prosecutors filed reference motions most often for felonies against the person (63%). The proportion of reference motions filed for violent crimes increased from about 60% in the earlier years to about 80% by the end of our study. Prosecutors filed reference motions against 25% to 30% of the youths for property felonies in the earlier years, but these charges declined significantly by 1991 and 1992 (p=.005) to only about 10% of the reference motions filed. Although about one-third (31.2%) of the reference motions alleged only a single felony, prosecutors filed multiple counts against most of the youths in this sample and charged over one quarter (26.4%) of the juveniles with four or more felonies.

2. Weapons

Prosecutors filed most reference motions for violent crimes; the juveniles used some type of weapon in about half (48.2%) of these offenses. This percentage remained relatively constant across the study years until the final year of 1992 when the percent of juveniles who used weapons increased to nearly 70%. Our multivariate analyses indicate that a juvenile's use of a weapon significantly influenced the court's decision to refer to adult court.

C. OFFENDER CHARACTERISTICS

1. Prior Delinquency Adjudications

We used three different indicators of juveniles' past delinquency records. First, to measure seriousness, we determined whether the prior record included a presumptive commitment offense. Second, to measure persistence, we simply counted the number of prior misdemeanor or felony adjudications and weighted all felonies equally. Third, we distinguished prior offenses by the type of crime, such as felony offenses against the person, property, or drugs. We classified juveniles' prior record on the basis of the most serious crime and used these alternative constructions of prior records to test whether

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68 Prosecutors charged nearly all the youths against whom they filed reference motions with felony level offenses, although prior to 1991, they charged a few (2.7%) only with misdemeanor offenses.

69 Juveniles' first choice of weapon was firearms (46%), followed by knives (22%), blunt instruments (15%), or some other type of weapon such as a chain (17%). Juveniles used their weapons to threaten 17% of their victims, to injure 21% of their victims, and to kill 11% of their victims.

70 For example, we classify a juvenile with one felony adjudication and multiple misdemeanor adjudications in the "one felony" group. While we categorize offenses into groups in the descriptive section to aid in the display of this information, in the multivariate analyses, we use the actual number of offenses (interval level data), or other methods, such as dummy coding, as appropriate.
the court considered the "quality" of the delinquency history or simply the "quantity" in making reference decisions.

There is a straight forward trade-off between charging policies emphasizing seriousness and persistence; the seriousness of the present offenses and the length of the prior record are inversely related. As prosecutors' reference motion policy emphasized the seriousness of the present offense rather than cumulative persistence, the number of prior felony adjudications in the juveniles' delinquency records decreased significantly over time, from 2.11 prior felonies in 1986 to 1.57 in 1992 (p=.005).

Most juveniles did not have prior adjudications for violent crimes, and this did not change over the course of the study. Only about 15% of all the motioned juveniles had prior adjudications for presumptive offenses. However, the proportion of juveniles with prior property felony adjudications significantly decreased (p=.002), and the number of juveniles with prior drug felony convictions increased between 1986 and 1992.

Interviews with the prosecutors, judges, and court service personnel indicated that prosecutors filed reference motions against two "types" of juveniles. One group consisted of "persistent" offenders: juveniles with an extensive prior delinquency history, mainly property offenses, who were motioned on another property offense that simply constituted the "last straw." These chronic offenders had exhausted the juvenile treatment programs and resources. The other group consisted of "serious" offenders: juveniles with a limited prior delinquency history who were motioned on a presumptive commitment violent crime. The combined present offense and adjudication history data in Table 2 reflect this bi-modal distribution. These two categories combined comprise over two-thirds of the motioned juveniles. In the earlier years of the study, prosecutors filed reference motions mainly against non-presumptive offenders with two or more prior delinquency adjudications, but by the end of the study, this flipped and prosecutors charged over half of the juveniles, who had a limited (one prior felony or less) delinquency history, with presumptive offenses.

This trend is reflected in the average number of prior out-of-home placements across the study years as well. The persistent offender of the earlier years averaged nearly three and one-half delinquency placements prior to the filing of the reference motion. In 1991, the average had dropped to only about one and one-half prior placements before the prosecutor filed the reference motion, and the overall decrease in the number of past program placements was significant (p<.001). Conversely, the percent of motioned juveniles with no prior placements increased from only 15% in 1986 to 48% and 40% in
1991 and 1992, respectively.

2. Racial Background

The County Attorney's policy change to emphasize the seriousness of the present offense affected the proportion of minority juveniles over the period of our study because of the greater propensity of minority youths to be arrested for and charged with the most serious, violent crimes. Even in 1986, minority juveniles comprised nearly two-thirds (64%) of the youths against whom prosecutors filed reference motions; by the end of our study period, minority juveniles comprised nearly nine out of ten (88%) of the youths whom prosecutors sought to waive.

3. Age of Motioned Juveniles

The juvenile's age at the time of the present offense is an important variable in the waiver process, because it indicates the length of time remaining to treat the youth in the juvenile system. The minimum age to file a reference motion is fourteen years old; at the time we conducted this research, the juvenile court's maximum dispositional jurisdiction extended until age nineteen. Prosecutors in Hennepin County filed very few reference motions against juveniles younger than sixteen years of age. Indeed, in the seven year span of our study, prosecutors filed reference motions against only thirty-four juveniles (10%) for crimes they committed when less than sixteen years of age; twenty-four of those youths were fifteen years old and only ten were fourteen years old. The vast majority of juveniles (296 youths or 90%) against whom prosecutors filed a reference motion were sixteen or seventeen years old at the time of the present offense; fully 60% of juveniles were seventeen years old.

D. COURT PROCESS VARIABLES

Despite the number of studies that analyze waiver outcomes, surprisingly few examine the process by which courts reach those decisions. We examined the impact of the presiding juvenile court judge and the effects of clinical and psychological evaluations on the most important sentencing decision of juvenile courts.


1. Court Service Evaluations and Studies

At the request of juvenile court, either the Juvenile Probation or the Psychological Services divisions of the Department of Community Corrections evaluates the personal or psychological characteristics of the offender, family background, education, and delinquency background of youths against whom the prosecutor files a reference motion.

The Juvenile Probation department may provide a detailed social report, called a reference study. The juvenile court requested reference studies in only 43% of the cases, although the number of reference study requests increased to about 50% in the final two years of our study, when more youths faced charges for violent crime. A request for a reference study did not significantly affect the outcome of waiver decisions. The court retained jurisdiction over 34% of those juveniles for whom it requested reference studies and over 37% of those juveniles for whom it did not request a study. Probation officers collected and summarized the available social, behavioral, and clinical information about the youths and recommended retention or transfer to the juvenile court. Probation officers' recommendations statistically influence juvenile court decisions ($p < .0001$). These consistent relationships may reflect either heavy judicial reliance on probation staff's recommendations, or the probation staff's familiarity with and anticipation of judicial waiver and practices.

The juvenile court ordered psychological evaluations for nearly all of the youths for whom it requested reference studies, and for a few additional youths as well. Overall, the courts requested psychological evaluations of 46% of the juveniles with some increases in the latter years of our study (63% in 1991 and 57% in 1992). Whether or not the court requested a psychological evaluation did not significantly affect the reference decision. Juvenile courts retained jurisdiction over 37% of the youth who were examined by a court psychologist and 33% of those who did not see a clinician.

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73 For a comprehensive description of the types of clinical information available to Minnesota juvenile court judges in reference hearings, see Feld, Bad Law Makes Hard Cases, supra note 8, at 54-69.

74 The court retained jurisdiction in 87% of the cases in which the probation officer recommended that the juvenile be retained, and waived jurisdiction in 94% of the cases in which the probation officer recommended that the court refer the juvenile to adult court.

75 See, e.g., Robert M. Emerson, Role Determinants in Juvenile Court, in HANDBOOK OF CRIMINOLOGY 621, 647 (Daniel Glaser ed., 1974) (discussing clinical anticipation of courts' likely disposition and organizational pressures to "conform to prevailing court standards of what is reasonable and to eschew risk-taking"); DAVID MATZA, DELINQUENCY AND DRIFT (1964).

76 Whether or not the court requested a psychological evaluation did not significantly affect the reference decision. Juvenile courts retained jurisdiction over 87% of the youth who were examined by a court psychologist and 83% of those who did not see a clinician.
ical examinations (22%), no specific recommendation appeared. In those cases in which psychologists made clear-cut recommendations, the court retained jurisdiction in 80% of the cases in which psychologists recommended retaining a youth in juvenile court and waived jurisdiction in 94% of the cases in which the psychologist recommended a youth’s transfer to criminal court (p<.001).

Psychological Services staff agreed with probation officers 63% of the time when recommending transfer to criminal court and 77% of the time when recommending that the juvenile court retain jurisdiction over a youth. Almost all of the instances of nonagreement occurred when probation staff made a recommendation and the psychologists declined to make a recommendation.

2. Juvenile Court Judge

One judge presided over the juvenile court for about half of the period covered by our study and several other judges served for shorter tenures. The four judges in Table 2 heard 85% of all the first reference motions filed (Table 2 shows the years of their tenure). Judge #1 handled over half of all the reference cases in our study (55%) and referred about three quarters (75%) of the youths against whom prosecutors filed a reference motion. By contrast, Judge #4 referred only about half (54%) of the cases he decided. Thus, the presiding judge’s judicial and administrative philosophy may be an important variable affecting the reference process.

The variability of waiver rates requires further explanation. There is no standard waiver rate, and research in other jurisdictions indicates substantial variation. The seriousness of youth crime, County Attorney charging policies, defense attorney plea negotiation strategies, and juvenile placement options all affect transfer rates. In our study, for example, prosecutors filed reference motions alleging presumptive commitment to prison offenses against only 46% of the juveniles whose cases Judge #1 decided, compared with 74% of those Judge #2 decided, 69% that Judge #3 heard, and 77% of those before Judge #4. Juveniles charged with presumptive commitment offenses are often younger offenders who have less extensive prior records and fewer treatment placements; consequently, the decision whether to waive them to criminal court may be more difficult.

The philosophy and policies of the presiding judge also affect re-

77 Hennepin County judges now serve a three year rotating schedule in juvenile court that allows each judge to handle approximately 35 to 50 reference motions.

78 See, e.g., Fagan, supra note 7, at 112 (transfer rates in other cities ranges from 21% (Boston), 31% (Detroit), 41% (Newark) and 71% (Phoenix)).
ferral rates. For example, after controlling for the seriousness of the reference motion offense, Judge #1 referred 76% of those youths charged with presumptive commitment to prison offenses, while Judge #2 referred 64% of the youths charged with presumptive offenses, Judge #3 referred 79%, and Judge #4 waived 55%. The juveniles in the latter years also had less extensive prior delinquency records. Moreover, the waiver decision is only part of the overall sentencing process. In many instances, after the juvenile court judge refers a youth for adult criminal prosecution, he or she will preside as a criminal court judge over the adult component of the case. Because the waiver decision often is part of a plea-bargained “package deal,” reference decisions cannot be viewed in isolation from the subsequent sentences of a youth as a juvenile or as an adult.79

Table 3 shows each of the six independent variables found to be significant in our multivariate analysis. We defined these six indicators as part of the court process, attributes of the offender, or characteristics of the offense. This Table examines each of the three categories of variables individually. These bivariate analyses report the percentage of juveniles that were referred to criminal court within the various combination of characteristics.

The first part of the Table shows the court process variables; the rows indicate which judge presided over the reference decision. Because Judge #1 presided over 55% of the reference decisions and referred juveniles at a higher rate than the other judges, we created a dummy code for Judge #1. The columns describe the type of recommendation made by the probation department and psychological services.

These professionals evaluated about half of the juveniles against whom prosecutors filed reference motions and recommended whether the court should refer or retain them. A request for a clinical evaluation was not a de facto waiver decision; youths who received additional clinical services are neither more nor less likely to be certified because they are evaluated.80

79 For example, although Judge #1 certified a larger proportion (75%) of juveniles and more chronic property offenders, when he sentenced these youths as adults, he committed 78% to a county jail (where the sentence is one year or less) and sentenced only 16% to prison. By contrast, Judges #3 and #4 initially referred a lower proportion of youths to criminal court (61% and 54% respectively), but sentenced a much larger proportion of those they certified to prison (50% and 64% respectively), rather than to shorter term jail sentences (38% and 29%).

80 However, the juveniles for whom the courts ordered reference studies or psychological evaluations differed from those who did not receive these services in other ways. For example, courts requested these evaluations more often for younger juveniles with less extensive prior records whom the prosecutors charged with violent crimes against the
Table 3
THE CERTIFICATION RATE OF MOTIONED JUVENILES
(Percent of juveniles in each cell transferred to adult court)

1. The Effect of COURT PROCESS Variables
What are the Probation/Psychologist Recommendations?

<table>
<thead>
<tr>
<th>Who is the Judge?</th>
<th>Both Juvenile N=54</th>
<th>No Recommendation* N=189</th>
<th>Both Adult N=87</th>
<th>TOTAL N=330</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judge #1 N=179</td>
<td>8%</td>
<td>80%</td>
<td>100%</td>
<td>75%</td>
</tr>
<tr>
<td>Other Judges N=151</td>
<td>14%</td>
<td>40%</td>
<td>93%</td>
<td>50%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11%</td>
<td>63%</td>
<td>97%</td>
<td>65%</td>
</tr>
</tbody>
</table>

2. The Effect of OFFENDER CHARACTERISTICS
Number of Prior Out-of-Home Delinquency Placements

<table>
<thead>
<tr>
<th>Age of Offender</th>
<th>None N=111</th>
<th>One to Three N=113</th>
<th>Four or More N=106</th>
<th>TOTAL N=330</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 or 15 Years Old N=34</td>
<td>31%</td>
<td>17%</td>
<td>17%</td>
<td>24%</td>
</tr>
<tr>
<td>16 Years Old N=98</td>
<td>48%</td>
<td>47%</td>
<td>82%</td>
<td>61%</td>
</tr>
<tr>
<td>17 Years Old N=198</td>
<td>62%</td>
<td>76%</td>
<td>85%</td>
<td>74%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>54%</td>
<td>62%</td>
<td>80%</td>
<td>65%</td>
</tr>
</tbody>
</table>

3. The Effect of Present OFFENSE CHARACTERISTICS
Type of Present Offense and Whether a Weapon was Used

<table>
<thead>
<tr>
<th>Number of Charges</th>
<th>Non-Person N=121</th>
<th>Person-No Weapon N=54</th>
<th>Person-Weapon N=155</th>
<th>TOTAL N=330</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Felonies or Less N=192</td>
<td>51%</td>
<td>55%</td>
<td>70%</td>
<td>59%</td>
</tr>
<tr>
<td>Three Charges or More N=138</td>
<td>83%</td>
<td>68%</td>
<td>73%</td>
<td>74%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>59%</td>
<td>61%</td>
<td>72%</td>
<td>65%</td>
</tr>
</tbody>
</table>

* The no recommendation category includes the eleven juveniles who were evaluated and the probation officer and psychologist disagreed on the court recommendation. In the multivariate model these eleven youth are kept as a unique category.

To detect agreement or disagreement between court services personnel, we combined their appraisals.81 We constructed the categories as follows: 1) both the probation officer and the psychologist

81 Although probation and psychological services personnel conducted their assessments separately, members of each department often shared information between them. For example, if a probation officer reviewed possible treatment programs for the offender and did not find any options available, he or she could communicate the information to the psychologist. We could not determine how often or to what extent probation and psychological personnel shared information, nor how much the shared information influenced their respective recommendations.
agreed that the juvenile should be referred to adult court; 2) both court employees agreed the youth should remain in juvenile court; 3) the probation officer and the psychologist disagreed on the reference recommendation; and finally, 4) neither conducted an assessment. Keeping the disagreement category separate from the other categories allows a more exact interpretation of each. In Table 3, the third and fourth categories have been combined for display purposes. In the multivariate analysis (see Table 4) they remained separate.

The first part of Table 3 indicates that Judge #1 referred juveniles at a much higher rate (75%) than the other judges as a group (50% referral rate). This difference was even more striking when there were no recommendations solicited from the probation department or psychological services (Judge #1 referred 80% while other judges referred 40%). In addition, when the court service personnel recommended transfer, there was near certainty that a juvenile would be referred to criminal court regardless of which judge presided. Likewise, when these court officers recommended retaining a juvenile, very few judges opposed that decision. Clearly, including variables that assess court processes in the analysis of the factors determining certification are important.

The second section of Table 3 displays the age and prior placement history of the offenders in this study. The court referred to adult court only about one quarter of the younger motioned offenders, 61% of the sixteen year old youths, and 74% of those who were seventeen when they committed their present offense. There are several possible explanations for the relationship between age and waiver decisions. First, a youth’s age may act as a proxy for prior delinquency: older juveniles have a longer opportunity to acquire a more extensive prior record. Second, a youth’s age determines the length of time remaining for treatment within juvenile jurisdiction. Finally, judges may view younger offenders as less culpable for their crimes and decline to certify them as readily.

We analyzed a number of alternative measures of prior delinquency history. Because a youth’s “amenability to treatment” is a crucial issue in the waiver decision, the extent of previous dispositions may indicate a juvenile’s exhaustion of treatment resources and pro-

82 There were a few cases in which one assessor gave a recommendation and the other did not provide a recommendation even though they completed an evaluation (five of the probation studies and 34 of the psychological evaluations). In these cases, we assigned the recommendation we had as an agreement category according to the one that was provided.

83 This could occur unless a measure of prior delinquency is also included. In our multivariate analysis we controlled for prior delinquency in the form of prior out-of-home placements.
vide a rationale to transfer a youth to criminal court. We found that prior program placement was the most robust indicator of prior juvenile court involvement. It was highly correlated with prior delinquency record \((r = .7)\), and when we included both variables in the model, we gained no additional information from prior delinquency history. We included only prior program placements in our model as the single indicator of past juvenile justice involvement, because it provided a stronger predictor of the reference decision than prior delinquency.

Juvenile court referred about half (54%) of those youths with no prior delinquency placement history. This referral rate jumped to 80% for those youths with four or more prior delinquency placements. The cells inside the Table indicate that sixteen year old juveniles were transferred as frequently as seventeen year olds when they both had four or more placements (82% and 85%, respectively). Therefore, as important as age is in determining who is certified, at a certain point, prior history with the juvenile court becomes as important.

The final part of Table 3 reports information about the offense most common to other certification studies. We analyzed both the number of charges alleged in the reference motion and the type of crime charged. The court referred three quarters (74%) of the youths against whom prosecutors filed three or more charges, compared with 59% of those juveniles charged with two or fewer felony offenses. We first categorized the present offense into non-person and person offenses and secondly considered whether or not a weapon was used. The transfer rate for juveniles charged with a non-person offense (59%) was very similar to the transfer rate for those youths with a person offense who did not use a weapon (61%). The rate increased to 72% for those youths charged with a person felony who used a weapon.

The highest referral rate in the third section of Table 3 occurred for youths who were charged with a non-person offense and who had three or more charges against them on the present offense (83%). These particular juveniles had significantly \((p=.0001)\) more prior delinquency placements than either of the other two offense categories (3.2 prior placements for those whose present offense was non-person, 2.3 for person offense with no weapon, and 1.3 for person offense with a weapon), which may explain the high certification rate.

E. MULTIVARIATE ANALYSIS

The multivariate technique used in this analysis was logistic re-
gression. It is most appropriate when the dependent variable, reference decision, is a binary indicator (refer or retain). Multivariate analyses assess the relative impact of each independent variable (the present offense, judge presiding, number of prior delinquency placements, age, and the like), while controlling for the effects of the other independent variables. In addition, multivariate regression techniques allow us to evaluate the combined strength and significance of all the independent factors in explaining or predicting the dependent variable. Table 4 provides the coefficients for the significant independent variables included in the logistic regression analyses of the reference decision.

The interpretation of these coefficients can be described within the framework of the odds of an event occurring. Unlike the normal use of the term "odds" indicating probability, in this setting "odds" indicates the ratio of the probability of an event occurring (a juvenile being referred to adult court) compared with the probability of the event not occurring. A positive logistic coefficient indicates greater or higher odds while a negative coefficient indicates reduced or lower odds. For categorical variables, the coefficient is interpreted in relation to the excluded category. Using categorical variables in logistic regression is appropriate for truly categorical variables, such as court services recommendation, and for non-linear, continuous variables, such as age. This allows us to determine if the variable as a whole is significant, but also if and how each of the included categories differ from the excluded category.

Table 4 compares two different models. Model 2 shows our data using indicators most common to other waiver studies, that is, offender and offense factors. Model 1 includes our two indicators of court process in addition to the Model 2 variables. Various methods exist to compare the two models: we can compare the percent correctly classified, we can compare the model chi-squares between the two scenarios, and we can compare the actual coefficients for changes. The next section provides a full discussion of Model 1, followed by a discussion of these comparisons.

84 In the case of dichotomous variables, linear or ordinary least squares regression can lead to incorrect analyses of the effects of the independent variables upon the dependent variable. See John H. Aldrich & Forrest D. Nelson, Linear Probability, Logit, and Probit Models (1984).

85 In constructing our model, we attempted to maintain consistency in the excluded categories of our independent variables. Because each coefficient represents a contrast with the omitted category, this consistency allows for a clearer interpretation of the relationships in our model.
### Table 4
**Logit Estimates**
**Determinants of Waiver to Adult Court**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 1 All Variables</th>
<th></th>
<th></th>
<th>Model 2 Without Court Process</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>S.E.</td>
<td>Sig</td>
<td>B</td>
<td>S.E.</td>
<td>Sig</td>
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<tr>
<td><strong>Intercept</strong></td>
<td>.34</td>
<td>.40</td>
<td></td>
<td>1.44</td>
<td>.31</td>
<td></td>
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<tr>
<td><strong>Court Process Indicators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Courts Services Recommendations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Both Recommend Referral</td>
<td>4.72</td>
<td>1.27</td>
<td>.0002</td>
<td></td>
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<tr>
<td>Both Recommend Retention</td>
<td>-2.67</td>
<td>.56</td>
<td>.0000</td>
<td></td>
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<tr>
<td>Recommendations Disagree</td>
<td>.79</td>
<td>1.02</td>
<td>.4363</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(No recommendation - omitted)</td>
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<tr>
<td><strong>Juvenile Court Judge Presiding</strong></td>
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<td>Judge #1</td>
<td>1.43</td>
<td>.35</td>
<td>.0000</td>
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<tr>
<td><strong>Offender Indicators</strong></td>
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<tr>
<td><strong>Age at Present Offense</strong></td>
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<tr>
<td>14 years old</td>
<td>-4.07</td>
<td>1.63</td>
<td>.0126</td>
<td>-3.68</td>
<td>1.09</td>
<td>.0008</td>
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<tr>
<td>15 years old</td>
<td>-4.71</td>
<td>1.26</td>
<td>.0002</td>
<td>-2.35</td>
<td>.53</td>
<td>.0000</td>
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<td>16 years old</td>
<td>-.79</td>
<td>.38</td>
<td>.0362</td>
<td>-.87</td>
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<td>.0033</td>
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<td><strong>Prior Delinquency Out-of-Home Placements</strong></td>
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<tr>
<td>No prior placements</td>
<td>-1.12</td>
<td>.44</td>
<td>.0103</td>
<td>-1.75</td>
<td>.36</td>
<td>.0000</td>
</tr>
<tr>
<td>1-3 prior placements</td>
<td>-.98</td>
<td>.46</td>
<td>.0308</td>
<td>-1.40</td>
<td>.36</td>
<td>.0001</td>
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<td>(4 or more prior placements - omitted)</td>
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<td></td>
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<tr>
<td><strong>Offense Indicators</strong></td>
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<tr>
<td><strong>Number of Present Offense Charges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2 Felony Charges or Less - omitted)</td>
<td>.86</td>
<td>.38</td>
<td>.0228</td>
<td>.88</td>
<td>.29</td>
<td>.0026</td>
</tr>
<tr>
<td>3 Felony Charges or More</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Type of Present Offense-Weapon Use</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(Non-Person Offense - omitted)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person Offense-No Weapon</td>
<td>.30</td>
<td>.49</td>
<td>.5390</td>
<td>.20</td>
<td>.38</td>
<td>.6009</td>
</tr>
<tr>
<td>Person Offense-Weapon</td>
<td>1.03</td>
<td>.42</td>
<td>.0146</td>
<td>1.14</td>
<td>.32</td>
<td>.0004</td>
</tr>
</tbody>
</table>

|          | Model 1 |          |          | Model 2 |          |          |
| Constant -2 Log Likelihood         | 426.69   |          |          | 426.69   |          |          |
| Model -2 Log Likelihood            | 229.47   |          |          | 345.73   |          |          |
| Model Chi-Square                    | 197.23   |          |          | 80.96    |          |          |
| Degrees of freedom                 | 12       |          |          | 8        |          |          |
| Significance                        | .0000    |          |          | .0000    |          |          |
| **Total Percent Correctly Classified** | 85.45%   |          |          | 76.06%   |          |          |
| Percent Correct for Referred Youths | 92.56%   |          |          | 89.77%   |          |          |
| Percent Correct for Retained Youths | 72.17%   |          |          | 50.43%   |          |          |

### F. Significant Variables

1. **Court Services Recommendations**

One of the most powerful variables in our model was the recommendation given by court services personnel. When the probation officer
and psychologist agreed on a recommendation either to retain juvenile court jurisdiction or to refer the youth to adult court, there was a statistically significant probability that the court would follow that advice. In particular, if both the probation officer and the court psychologist recommended that a juvenile should be tried as an adult, the highly significant logistic coefficient (4.7) indicates that transfer was a near certainty. When both court personnel recommended that the juvenile court retain jurisdiction over the youth, the odds of transfer to criminal court decreased significantly (p < .0001). The negative sign of the logistic coefficient (-2.7) indicates reduced odds that the court would certify this group of youths compared with the no recommendation group. Where court officials disagreed about a youth's disposition, they did not significantly affect the likelihood of certification.

2. Juvenile Court Judge

Which juvenile court judge presided over the reference process constituted another significant process variable. We saw from Table 3 that Judge #1 referred juveniles at a higher rate than other judges who presided in subsequent years. But that view could have resulted because Judge #1 made decisions under different conditions than the other judges. Multivariate analysis allows us to test this proposition. When we control for all the other factors in our model, Table 4 shows that youths who appeared before Judge #1 had significantly higher odds of being referred when compared to the other judges as a group (1.4). This finding is consistent with our contention that judicial waiver is a highly individualized, discretionary sentencing decision in which the outcomes depend significantly upon who is the judge.

3. Age at Present Offense

A youth's age at the time the prosecutor filed the reference motion constituted a significantly powerful variable influencing reference decisions. The older the youth, the greater the likelihood that the judge would refer the case to criminal court. This was not an entirely linear relationship, however. Fourteen and fifteen year old

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86 The outcomes in the disagreement category did not differ significantly from those cases in which court services personnel did not evaluate a juvenile or make any recommendation.

There were 11 cases where the court service personnel did not agree. Categories with a small number of cases do not automatically produce insignificant effects. For example, in our data, the variable of age at present offense included only ten 14 year old juveniles, and yet produced a significant negative effect on certification when compared to 17 year old youths. A small number of cases can produce significant effects if the strength of the relationship is large.
youths were much less likely to be certified than seventeen year old youths (-4.07, -4.71). The logit coefficient for sixteen year old youths, though not as strong as the younger ages (-.79), also reflected reduced odds of being referred when compared to a seventeen year old youth.

4. Prior Program Placements

We categorized prior out-of-home placements into three groupings: 1) no prior delinquency placements; 2) one to three prior placements; and 3) four or more prior placements (the excluded category). We found that both of the first two categories differed significantly from the final category (logistic coefficients of -1.1 and -0.98, respectively). Youths with no prior placements and with only a few (one to three) prior placements experienced significantly lower odds of being certified to adult court than did those youths in the alternative category of four or more program placements. Effectively, prior placements did not become a significant factor in the certification decision until a youth crossed a threshold of four or more placements.

5. Number of Present Offense Charges

We dichotomized the number of present charges alleged in the reference motion into two or fewer felonies (the excluded category) and three or more felonies. The number of felony charges that the prosecutor alleged in the reference motion significantly affected whether or not the court certified a juvenile (.9); the odds of transfer were greater when the prosecutor alleged three or more charges against a youth. Multiple charges may provide an additional indicator of the seriousness of the case pending against a youth.

6. Present Offense Characteristics

We analyzed several different indicators of the seriousness of the present offense and ultimately constructed three categories of offenders alleged by prosecutors: 1) those who committed a felony offense against the person and used a weapon; 2) those who committed a felony offense against the person but did not use a weapon; or 3) those who committed a felony (e.g., property or drug) other than a crime against the person. Recall that prosecutors charged nearly two-

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87 This is particularly notable for the 14 year old juveniles since that category included only ten youths.


89 Four youths possessed a weapon but were not charged with a crime against the per-
thirds (63%) of the juveniles with some type of violent crime. Whether the prosecutor charged a youth with a crime against the per-
son did not necessarily increase the likelihood of transfer. In an ur-
ban setting in which prosecutors file reference motions against most 
juveniles for violent offenses and courts certify youths on the basis of 
their cumulative delinquency records, the seriousness of the present 
offense alone may be a secondary consideration. When we controlled 
for the other variables, the juvenile court was no more likely to certify 
youths charged with a felony offense against the person than to waive 
those charged with property offenses, provided that the juvenile did 
not use a weapon (.3). However, if the prosecutor alleged that the 
youth committed a crime against the person and used a weapon in the 
commission of the offense, then the court was significantly more likely 
(1.0) to waive the youth to criminal court. Thus, a weapon appears to 
be a necessary component of the seriousness of the offense.

7. Variables Not Found To Be Significant

Contrary to our expectations, several variables were not statisti-
cally significant in our multivariate analyses. In particular, whether 
the reference motion charged a youth with a felony offense against 
property did not significantly affect the outcome of the waiver process. 
This finding differs from some previous studies that report that courts 
certified most juveniles for property offenses.90

In view of the disproportionate over-representation of minority 
youths against whom prosecutors filed reference motions, the fact that 
we did not find a positive effect for race is an important finding.91 
Our result is consistent with other multivariate analyses that reported 
no racial bias toward minorities in waiver decisions.92

G. PREDICTIVE STRENGTH OF THE STATISTICAL MODEL

Logistic regression can demonstrate the fit of the model in sev-

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90 See, e.g., HAMPARIAN ET AL., supra note 3; Bortner, supra note 25, at 59; Feld, supra 
note 2, at 821 (summarizing empirical research on determinants of waiver).

91 Because this study used three racial categories, we dummy coded for African-Ameri-
cans and other minorities, and entered each into the equation using whites as the refer-
ence category. Although the race variable, in total, was not significant we did find that 
African-Americans had significantly lower odds of being referred when compared to whites. 
Other minority youths did not differ significantly from either whites or African-Americans. 
In addition, adding the race indicator did not improve the explanatory power of the model 
and, therefore, was not included.

92 See Tammy Meredith Poulos & Stan Orchowsky, Serious Juvenile Offenders: Predicting the 
Probability of Transfer to Criminal Court, 40 CRIME & DELINQ. 3 (1994); see also Fagan et al., 
supra note 22.
eral different ways. One method commonly used is comparing the cases predicted by the model to be referred with those youths actually referred and those cases predicted to be retained in juvenile court to those actually retained. This provides us with a percentage of correctly classified cases. Our model correctly classified 85% of the cases (more than eight out of ten youths). If we possessed no information about individual youths, their backgrounds, or the juvenile court process, we would expect random accuracy of 56%. By using the information contained in our model, we can substantially improve the accuracy of the prediction by 29%, or about ninety-six more juveniles.

Another method used to test the strength of the logistic model is analyzing the model chi-square. This statistic tests the null hypothesis that the coefficients for the variables in the model are zero. A comparable statistic in linear multiple regression is the overall F statistic. Model 1 has a model chi-square of 197.23 with twelve degrees of freedom, which is highly significant and allows us to reject the null hypothesis that the logistic coefficients are zero.

Some analysts, more familiar with linear regression, assess the amount of variance ($R^2$) that the variables in the equation can explain. For logit regression, we can calculate a pseudo $R^2$ that is a proxy of explained variance. Generally, percentages representing pseudo $R^2$ are conservative measures in comparison to the $R^2$ of multiple regression. Model 1's pseudo $R^2$ is over 40%. This is a substantial improvement over the 3% of explained variance reported in an earlier analysis of reference decisions for all of Minnesota in 1986.

\begin{align*}
\text{Improvement Over Chance} &= \text{Actual Accuracy} - \text{Random Accuracy} \\
\text{where,} & \\
\text{Random Accuracy} &= \left(\frac{\text{RCV (true positives) + RCV (true negatives)}}{\text{Total youth}}\right) \times 100 \\
\text{where,} & \\
\text{RCV (Random Correct Values) for true positives} &= \left(\frac{\text{Number Observed to be Referred/Total youth}}{\text{Number Predicted to be Referred/Total youth}}\right) \times \left(\frac{\text{Number Observed to be Retained/Total youth}}{\text{Number Predicted to be Retained/Total youth}}\right) \\
\text{AND,} & \\
\text{Actual Accuracy} &= \left(\frac{\text{Model true positives + Model true negatives}}{\text{Total youth}}\right) \times 100.
\end{align*}

See Aldrich & Nelson, supra note 84; see also Alfred Demaris, Logit Modeling: Practical Applications (1992).

See Feld, Bad Law Makes Hard Cases, supra note 8, at 37-41. This study provided a one year snapshot of reference decision-making for the entire state, but possessed fewer details.
When we exclude the court process variables, the prior out-of-home placements become more important indicators of how the court made the decision to handle juveniles. When specialized social history studies, including in-depth evaluations completed by psychologists, are not available, the court is forced to use the only other indicator of past behavior and treatment—prior delinquency history in the form of prior dispositions. Age becomes less significant in Model 2 than in Model 1, although it remains the variable with the largest coefficients. There is relatively little change in the importance of the present offense characteristics. Both models report similar odds of being referred for youths charged with a non-person present offense and for youths charged with a person present offense with no weapon; both models indicate that a person offender who used a weapon has higher odds of transfer. The model chi-square for Model 1 is over twice as large as for Model 2 with only four additional degrees of freedom—a good tradeoff. In addition the pseudo $R^2$ for Model 1 is more than twice as large as for Model 2 (19%).

The most interesting comparison is the change in the percentage of correctly classified cases. Model 2 correctly predicts the outcomes of 76% of the youths in our study, while Model 1 correctly classifies over 85% of the youths (this percentage difference is equivalent to about thirty juveniles). However, this increase in correctly classified cases is composed of a nearly identical percentage to Model 1 for juveniles referred (92.56% for Model 1 and 89.77% for Model 2) and a substantial difference in the percentage of youths not referred that Model 1 correctly predicts and Model 2 does not (72% for Model 1 and 50% for Model 2).

The evaluations and social histories of youths, reported by court service personnel, provide the court with the individual information necessary to retain a juvenile—information that may go beyond the circumstances of the offense or delinquency background. It seems clear from the comparison of these two models that having family history and individualized social information allows us to predict more

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97 Our past work has indicated that very little "standardized" individual and family information is provided to juvenile court judges on motioned children. This lack of structured information does not mean that judges made reference decisions with little individualized information. On the contrary, for juveniles that had probation studies and psychological evaluations, the court was afforded volumes of information about the particular youth's history, but across these juveniles, the information could not be standardized. See Marcy R. Podkopacz & Barry C. Feld, Judicial Waiver Policy and Practice: Persistence, Seriousness and Race, 14 LAW & INEQ. J. 78 (1995).
consistently which youths the juvenile court will retain. Most likely, court service workers are able to articulate ‘extenuating’ or ‘mitigating’ circumstances not captured by the standard offense and offenders variables commonly used in waiver studies.

Because some studies indicate that racial bias exists in the waiver process and other studies suggest that it does not, we decided to test our reduced model (Model 2) for a race effect. None existed. Recall that our preferred model (Model 1) found an overall non-significant effect for race, which did not contribute to the explanatory power of the model. However, within this overall non-significant effect, one comparison indicated significance: African-Americans had reduced odds of being referred when compared to white motioned youth. We were curious as to which of our court process variables contributed to this counter-intuitive finding and found that the court service recommendations were responsible for this interesting effect. That is, when the probation/psychologist recommendations are added to Model 2, the one difference appears between African-Americans and white youths.

Recall that courts requested these in-depth studies and ultimate recommendations more frequently for juveniles charged with serious person offenses. Because prosecutors charged African-American juveniles most often with violent crimes, they also received more clinical evaluations. However, because our model controlled for the present offense, this one race effect finding must be related to some type of “extenuating circumstance” that exists for African-American youths more frequently than white youths. Recall that Model 1 accurately reflected the reference decision for thirty more youths than Model 2 and most of these youths were ultimately retained in juvenile court. Indeed, restricting our view to white and African-American retained juveniles incorrectly identified by Model 2, 70% were African-American and 30% were white youth. Providing the court with individualized information about a youth—the circumstances surrounding his or her home life—seems to warrant enough exceptions to their offense and delinquency history for retention in these cases. A model that excludes this summary recommendation of the clinicians would incorrectly predict a higher referral rate.

It is clear that Model 1, which includes the court process variables, does much better correctly predicting youths who were retained and does slightly better predicting juveniles who were referred to adult court. Future studies of juvenile transfer procedures should include these and possible other court process variables to continue to learn the intricacies of the waiver process.
I. POST-WAIVER JUVENILE OR CRIMINAL COURT SENTENCING OF YOUNG OFFENDERS

Once juvenile court decides whether or not to transfer a juvenile, what happens to the case? We followed the justice system careers of each youth to determine whether a conviction ensued in juvenile or criminal court, what sentence was imposed, and the impact of juvenile or adult sentences on subsequent recidivism.

1. Dispositions and Sentences of Youth in Juvenile and Criminal Court

Juvenile courts transfer some youths to criminal court so that they may receive longer sentences as adults than are available in the juvenile system. However, several studies report a "punishment gap" and question whether criminal courts impose more severe sanctions on waived youths than juvenile courts would if they retain jurisdiction. Chronic property offenders who constitute the bulk of waived juveniles in most states receive shorter sentences as adults than do property offenders retained in juvenile court. By contrast, youths convicted of violent offenses in criminal courts receive substantially longer sentences than do their juvenile counterparts. For juveniles and adults convicted of comparable crimes, both types of disparities—shorter sentences for waived youths than for retained juveniles adjudicated of property offenses, and longer sentences for convicted waived youths than for retained juveniles adjudicated of violent crimes—raise issues of sentencing policy and justice. Are either types of disparities justified? Are there any policy rationales for the disjunction?

We examined the types of sentences juvenile and criminal courts imposed on retained and referred youths, the proportion of offenders they incarcerated in correctional facilities, and, of those confined, the...
Table 5
COMPARISON OF INCARCERATION CERTAINTY AND LENGTH FOR REFERRED AND RETAINED JUVENILES BY SEVERITY OF OFFENSE

<table>
<thead>
<tr>
<th>Certainty of Incarceration</th>
<th>Referred to Criminal Court</th>
<th>Retained in Juvenile Court</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of all Referred Youth N=215</td>
<td>82%</td>
<td>Of all Retained Youth N=115</td>
</tr>
<tr>
<td>Of all Convicted Youth N=209</td>
<td>85%</td>
<td>Of all Adjudicated Youth N=99</td>
</tr>
<tr>
<td>Convicted on Presumptive Offense N=98</td>
<td>93%</td>
<td>Adjudicated on Presumptive Offense N=40</td>
</tr>
<tr>
<td>Convicted on Non-Presumptive Offense N=111</td>
<td>78%</td>
<td>Adjudicated on Non-Presumptive Offense N=59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of Incarceration</th>
<th>Median Sentence Length</th>
<th>Median Disposition Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convicted to Prison or Jail on Presumptive Offense N=88</td>
<td>966 days</td>
<td>Adjudicated and Sent to Correctional Facility on Presumptive Offense N=23</td>
</tr>
<tr>
<td>Convicted to Prison or Jail on Non-Presumptive Offense N=85</td>
<td>134 days</td>
<td>Adjudicated and Sent to Correctional Facility on Non-Presumptive Offense N=31</td>
</tr>
</tbody>
</table>

a There were a few referred youths who were sent to jail for a short period of time with no other conditions. These juveniles were excluded from these percentages. Those included in these incarceration percentages were either sent to state prison or were sent to a county jail with a corresponding stayed prison sentence.

b There were eight youths for whom we could not ascertain the length of their disposition.

length of sentence they received. By comparing the commitment rates and sentence lengths between the two systems, we can assess the efficacy of social control.

The juvenile court sentenced most (54%) of the delinquents to some type of long-term juvenile correctional facility.102 The court sentenced an additional one-fifth (20%) of the retained juveniles to some type of short-term local program, in-patient treatment facility, work camp, or ranch. The court placed on probation 12% of youths who did not receive sentences that resulted in out-of-home placement or correctional confinement, and imposed conditions such as a fine, letter of apology, work squad, day treatment program, or stayed sen-

102 The court committed virtually all (51%) of these youths to long-term juvenile institutions such as the Hennepin County Home School-Alpha program, County Home School-Sex Offender program, the State Training Schools at Red Wing or Sauk Center, or to out-of-state long-term placements such as Glen Mills in Pennsylvania. The court sentenced the remaining 3% to one of these facilities and included an additional stayed commitment to another correctional institution in their disposition.
sentence to a correctional facility. The remaining 14% of the retained juveniles had charges dismissed.

Of the 215 certified youths, the criminal courts sentenced 82% to a local or state correctional facility. The adult court can sentence certified youths to state prison where the minimum sentence length is one year or longer or to county jails where the maximum sentence length is one year. However, the criminal courts also ordered stayed prison terms for virtually all of the youths confined in local jails. If those young offenders violated the terms of their probation following release from jail, their stayed prison terms could be executed to extend their confinement. These two categories, prison and jail with a prison stayed sentence, are the basis for the incarceration rates shown in Table 5.103

Criminal courts incarcerated certified youths at much higher rates than the juvenile courts. This was true even when the severity of the offense was controlled. Eighty-five percent of the convicted referred youths were incarcerated whereas only 63% of the adjudicated retained youths were placed in a correctional facility. The adult criminal courts incarcerated 93% of the youths convicted of a presumptive offense, while the juvenile court imposed long-term confinement on 65% of the youths retained in juvenile court who were adjudicated for a presumptive offense. The adult criminal courts confined 78% of youths convicted of non-presumptive offenses in jail or prison, whereas the juvenile court committed only 61% of non-presumptive delinquents to a correctional facility. Thus, for both presumptive and non-presumptive offenses, criminal courts incarcerated youths convicted as adults significantly more often than did the juvenile court. Although the waiver process selects youths on the basis of seriousness, the differences in rates of dismissal, conviction, and incarceration between the two systems are striking.104

2. Length of Sentence

In addition to the differences in probabilities of conviction and certainty of confinement for juveniles and adults, we calculated the actual lengths of sentences imposed on those youths incarcerated in

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103 There were another 8% of referred youths who were sentenced to a county jail with no corresponding stayed prison sentence; 7% received stayed prison sentences of confinement coupled with other conditions of probation, such as restitution, community service, random urinalysis, chemical dependency treatment, or psychological treatment; and finally 3% of the referred youths had all charges dismissed in criminal court.

104 The sentencing disparities that we report are more pronounced than those found in Fagan’s comparison of sentencing of violent youths in both systems. See Fagan, supra note 7, at 116 (“Violent youths waived to and convicted in criminal court received more severe sanctions [89%] than youths who remained in juvenile court [84%].”).
both justice systems. We defined the sentence length as the amount of time a court ordered an offender committed or confined for the offense(s) for which the prosecutor filed the reference motion.\textsuperscript{105}

Our analyses of juvenile and criminal court sentences replicate the sentencing disparities reported in other studies. The lower section of Table 5 reports the median sentences imposed on youths convicted as juveniles or adults for presumptive and non-presumptive offenses.\textsuperscript{106} Those youths convicted as adults of presumptive offenses received sentences substantially longer than those imposed on juveniles convicted of comparable offenses. By contrast, the juvenile court-sentenced youths were found delinquent for non-presumptive, property offenses for terms longer than their adult counterparts.

Because the adult and juvenile systems differ, it is difficult to directly compare sentence lengths in custodial facilities. Criminal courts have two correctional confinement options—prison or jail—while juvenile courts have only one incarceration option—long-term correctional facilities. Criminal courts sentenced most youths convicted of presumptive offenses to prison (51\%) and imposed a median sentence length of 1,459 days—about four years. When they made a mitigated downward departure from the presumptive sentences, they confined those referred youths for a median sentence of one year—the maximum allowed for jail confinement. Table 5 averages these two sentencing options for certified youths. By contrast, juvenile courts sentenced youths retained and adjudicated for presumptive offenses to median terms of incarceration of 266 days, or about nine months. Thus, youths sentenced as adults either to prison or to jail served substantially longer terms than their juvenile counterparts who were adjudicated of comparable offenses.

For youths convicted as adults of non-presumptive offenses, criminal courts sentenced the vast majority (95\%) to local jails for median terms of 120 days, or about four months, and made aggravated, upward departures to send youths convicted of non-presumptive offenses...

\textsuperscript{105} The amount of time an offender actually serves in a correctional institution may differ considerably from that which the court orders due to a myriad of reasons, such as “good time,” overcrowding, escape, termination, assault against a staff member, non-compliance with treatment goals, and the like. The most complete information available about the largest group of our offenders consisted of the length of placement ordered by the court. We gathered information on the lengths of sentences from the adult court system and from the juvenile court files in Hennepin County.

\textsuperscript{106} We used the sentence median rather than the mean, because the median is less sensitive to extreme values than the average. Because criminal courts sentenced a few of these youths to life in prison, we employed a statistic less affected by these extreme values. Another method would be to remove cases with extreme values—statistical outliers. However, we did not choose this option because of the small number of cases.
to prison in only four cases (5%). By contrast, the juvenile court incarcerated the thirty-one juveniles adjudicated delinquent for non-presumptive offenses to median terms of 182 days, or about six months. Transferred youths have a higher conviction rate and a higher certainty of incarceration for all types of offenses than youths retained in juvenile jurisdiction. Youths sentenced in adult court also receive substantially longer incarcerative sentences for presumptive offenses than retained juveniles, but this is not the case for non-presumptive offenses. The juvenile courts imposed longer sentences on less serious property offenses than did the criminal court.

3. Recidivism

Do waiver policies or criminal sentencing strategies reduce subsequent recidivism by offenders? Because we individually tracked the subsequent criminal careers of each youth against whom prosecutors filed a first reference motion between 1986 and 1992, we constructed an accurate record of the subsequent official delinquent and criminal justice responses for this group of serious young offenders. We coded as recidivism all offenses that occurred after the offense for which the prosecutor filed the initial reference motion. Although other studies use rearrests as an indicator of recidivism, we used a more conservative definition of recidivism—actual adjudications or convictions.

We defined “street time” as two full years of non-incarceration time following the sentence or disposition on the motioned offense, allowing a standardized opportunity for new crime. We excluded youths motioned in 1992 since data collection stopped in 1993, and also excluded 10% of youths in our data who because of their prison times did not have two or more years at risk to commit a new crime. This means our recidivism levels are under-estimates of the recidivism level for the referred youths. Assessing the recidivism within a two year “window of opportunity” following sentencing and release standardizes the length of time available for all remaining juveniles. In this analysis, post-reference motion conviction or adjudication for any subsequent offense constituted recidivism. Using this conservative definition of recidivism, over half (52%) of the youths who had an opportunity to commit additional crimes did so. These reconviction recidivism levels fall within the broad range of re-conviction recidi-

Table 6
NEW ADJUDICATION OR CONVICTIONS WITHIN TWO YEARS
"STREET TIME" - N=266*

<table>
<thead>
<tr>
<th></th>
<th>REFERRED</th>
<th>RETAINED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=164</td>
<td>N=102</td>
</tr>
<tr>
<td>NO NEW CRIME</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>NEW CRIME</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>TYPE OF NEW OFFENSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person Felonies</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Property Felonies</td>
<td>50%</td>
<td>26%</td>
</tr>
<tr>
<td>Drug Felonies</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>Misdemeanor level</td>
<td>7%</td>
<td>21%</td>
</tr>
<tr>
<td>NUMBER OF NEW OFFENSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four or more Felonies</td>
<td>25%</td>
<td>19%</td>
</tr>
<tr>
<td>Three Felonies</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td>Two Felonies</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>One Felony</td>
<td>29%</td>
<td>30%</td>
</tr>
<tr>
<td>Misdemeanor level</td>
<td>7%</td>
<td>21%</td>
</tr>
</tbody>
</table>

* This excludes juveniles motioned in 1992 who did not have a full two years of time before data collection was complete. It also excludes juveniles who were incarcerated for the full two years (or more) following their conviction on the present offense.

vis levels reported in other studies of juvenile recidivists.108 Within the two year window following the initial reference motion offense, there were no statistically significant differences in recidivism levels between members of different racial groups. Fifty percent of the African-American youths recidivated, as did 52% of the white youths, and 60% of the youths of the other minority group.

Finally, we compared the recidivism levels of those youths waived to adult criminal court with those youths over whom the juvenile court retained jurisdiction. A larger proportion of certified youths committed new offenses within two years than did those who re-

108 See, e.g., Beck & Shipley, supra note 107 (national study completed in 1987 found a rearrest recidivism rate of 47% in the two years following prison incarceration for 17-22 year olds); John C. Steiger & Cary Dizon, Rehabilitation, Release and Reoffending: A Report on the Criminal Careers of the Division of Juvenile Rehabilitation "Class of 1982" (1991) (sample of 926 males released from Washington state division of juvenile rehabilitation in 1982 shows 68% reconvicted within two years, and 53% committed at least one violent offense); Ted Palmer & Robert Wedge, California's Juvenile Probation Camps: Findings and Implications, 35 Crime & Delinq. 234 (1989) (sample of 2,835 youths released from "probation camps," 65% reconvicted within two years); Office of the Legislative Auditor, State of Minn., Residential Facilities for Juvenile Offenders 64 (Feb. 1995) (comprehensive assessment of recidivism rates in Minnesota's juvenile correctional institutions reporting that "between 53% and 77% of male juveniles . . . received new delinquency petitions or were arrested as adults within two years. The percentage of juveniles who were adjudicated as delinquent or convicted as adults ranged from 38% to 62% for programs serving males."); id. at 113-15 (summarizing juvenile recidivism studies in other jurisdictions).
mained in the juvenile justice system. Nearly three-fifths (58%) of the youths referred by juvenile court for criminal prosecution as adults committed an additional crime, compared with 42% of those who remained in juvenile court (p=.009). There are several possible explanations of the differences in recidivism levels in the two systems. First, because juvenile courts emphasized youths' total record of offending, including the prior treatment attempts to make certification decisions, they used a valid and reliable tool with which to identify high base-rate career criminals who had a greater probability of subsequent recidivism. Thus, the discretionary certification process did a reasonably good job of identifying the most chronic and prolific offenders within the population of serious offenders. Secondly, the adult incarceration experience may better train further criminality than the juvenile correctional experience. Thirdly, some might attribute the lower recidivism levels among the retained juvenile population to the "effectiveness of treatment" within the juvenile correctional system. However, the population selection biases inherent in the waiver process and the absence of a control group make it difficult to attribute the differences in recidivism rates between the juvenile and adult groups to "treatment" effects. On the other hand, if legislatures and courts intend to deter youths from committing additional offenses by subjecting those who persist in delinquency to the more severe punishment of the adult criminal justice system, our data indicate that they are not achieving that goal.

IV. Conclusions

This study presents a complete and comprehensive analysis of the judicial waiver process and juvenile/criminal court sentencing policies. Our research improves on previous studies in a number of important respects. The quality of our data enable us to use multivariate analytic techniques to disaggregate the factors that lead juvenile courts to refer some youths to criminal court and retain jurisdiction over others. Logistic regression is specifically designed for analyses employing a dichotomous dependent variable—refer or retain. Moreover, we refined the specification of the dependent variable to analyze judicial waiver decisions the first time prosecutors file a reference motion against a juvenile, because courts' reactions to second and subsequent motions differ substantially.109 We collected considerable delinquency and criminal data for motioned youths from sources outside of Hennepin County when necessary and, therefore, have

109 See Podkopacz & Feld, supra note 97, at 166-67 (juvenile courts are much more likely to transfer youths against whom prosecutors file subsequent reference motions).
completed a better delinquency picture of more mobile youths. Additionally, because we also collected information about these youths' prior program exposures and exhaustion of placement options, we demonstrate the salience of prior dispositions as an operational indicator of "amenability to treatment."

Our analyses also examine the influence of court processes on waiver decisions by exploring the ways in which juvenile court judges affect waiver decisions. Within the same urban county and court, the various judges decided the cases of similarly-situated offenders significantly differently. These judicial differences influenced both the characteristics of youths waived or retained, and the subsequent sentences imposed on them as juveniles or adults.

Our analyses also document the crucial role that probation recommendations and psychological evaluations play in the "individualized" waiver process and outcomes; probation officers' and psychologists' recommendations to the court to retain or refer a youth significantly affect the eventual judicial waiver decision. More importantly, the statistical model including recommendations from court service personnel allowed better predictions of both categories of juveniles, referred and retained, but substantially improved the prediction of youths who were retained.

Future waiver studies should include variables that tap various court process indicators. Clearly, the judge who presides over juvenile waiver issues makes a difference, as do the recommendations provided by probation officers and clinical evaluators.

We followed and compared the subsequent sentences that these youths received as juveniles or as adults. Referred youths were incarcerated at a higher rate than retained youths, regardless of whether the conviction was for a presumptive or non-presumptive crime. Youths tried and convicted as adults for violent crimes for which the Sentencing Guidelines presume commitment to prison received sentences dramatically longer than did their juvenile counterparts convicted of similar offenses. However, for youths adjudicated of non-presumptive offenses, the juvenile courts imposed longer sentences than did the criminal courts for most young adult offenders. Thus, for non-violent offenders, the lack of integration between juvenile waiver criteria and criminal court sentencing practices perpetuate the "punishment gap" and allows chronic property offenders to "fall between the cracks." Both types of disparities for similarly-situated offenders—longer adult sentences for violent offenders and longer juvenile sentences for property offenders—occurred because the two systems lack a coherent sentencing policy that spans both.