The Future of Children
PRINCETON-BROOKINGS

Juvenile Justice

VOLUME 18 NUMBER 2 FALL 2008

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A COLLABORATION OF THE WOODROW WILSON SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS AT PRINCETON UNIVERSITY AND THE BROOKINGS INSTITUTION

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Introducing the Issue

Laurence Steinberg

American juvenile justice policy is in a period of transition. After a decade of declining juvenile crime rates, the moral panic that fueled the "get-tough" reforms of the 1990s and early 2000s—reforms that eroded the boundaries between juvenile and criminal court and exposed juvenile offenders to increasingly harsh punishments—has waned. State legislatures across the country have reconsidered punitive statutes they enacted with enthusiasm not so many years ago. What we may be seeing now is a pendulum that has reached its apex and is slowly beginning to swing back toward more moderate policies, as politicians and the public come to regret the high economic costs and ineffectiveness of the punitive reforms and the harshness of the sanctions.

Several concrete indicators of this shift are noteworthy. First, in the wake of the Supreme Court's 2005 *Roper v. Simmons* opinion abolishing the juvenile death penalty, several state legislatures have repealed, or are considering repealing, statutes imposing sentences of life without parole on juvenile murderers.[1] Other states have scaled back, often in response to mounting economic costs, automatic transfer laws that send youth to the adult criminal system by statutory exclusion.[2] Many states have increased funding for community-based treatment programs as alternatives to institutional placement.[3] In a few states where youth under eighteen are prosecuted in adult criminal court instead of juvenile court, promising efforts are under way to increase the age to eighteen, as it is in most states.[4] Finally, several states have expanded procedural protection for juveniles in criminal court by enacting statutory provisions authorizing findings of incompetence to stand trial on the basis of developmental immaturity.[5] Although many of the punitive reforms of the 1990s still remain in place, a policy shift appears to have taken place.

Several developments have converged to change the direction of the nation's youth crime policy. Among the most important was the steady decline in juvenile crime beginning in 1994. In the same way that the upward trend in juvenile violence during the 1980s set the stage for the spate of punitive legislation during the 1990s, this downward trend has opened the door to discussions about returning to more moderate policies. Advocates for reform also have been successful in focusing media and political attention on a broad range of emerging social science evidence about

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adolescent development and juvenile crime. Editorials and op-eds in local and national newspapers have pointed to this evidence in arguing that adolescents lack the emotional and mental maturity of adults, that juvenile offenders should be given a second chance, that the public supports rehabilitative efforts, and, perhaps most important, that trying juveniles as adults is simply not cost-effective. Evidence of the high economic cost to the government of the wholesale incarceration of juveniles with adults—together with studies finding that adolescents released from adult correctional facilities are more likely to re-offend than those sentenced to juvenile facilities—have influenced the public debate.[6]

Those who applaud the trend toward justice policies that recognize the differences between adolescents and adults may be heartened by these developments, but they should not naively assume that this trend will proceed unabated. Juvenile crime rates, which have risen and fallen cyclically for four decades, will likely rise again, though perhaps not to the extremes of the early 1990s. Indeed, although rates continue to be low, they have crept up recently; in the past year or two, violent crime by juveniles has edged above the 2004 rates, which were the lowest in nearly two decades.[7]

It is too early to tell whether recent reports of an uptick in juvenile crime indicate a reversal of the downward trend that the United States enjoyed for well over a decade, or, instead, a transient fluctuation. But stories about rising juvenile crime rates have begun to appear with increasing frequency in newspapers around the country, and publicity about juvenile crime quite often triggers swings in policy. If the current upturn in juvenile offending is indeed the beginning of a worrisome trend, it will take only a couple of widely publicized juvenile crimes and a few outspoken pundits and politicians to push the pendulum back in the other direction. That is how tenuous and reactive juvenile justice policymaking has been in recent years.

The scientific study of adolescent development has burgeoned in the past two decades, but its findings have not yet influenced juvenile justice policy nearly as much as they should.

I have set the stage for this volume in this way to emphasize how important it is to ground the discussion about the future of juvenile justice in a solid evidence base rather than have it shaped by the "crime of the month" or a moral panic. Only relatively recently, however, has the evidence base become both broad enough and deep enough to inform the discussion. To be sure, researchers have for some time now been accumulating a substantial literature on the causes of juvenile crime, a topic that was deliberately excluded from this volume, precisely because the findings from this research are well known among scientists and policymakers alike. What has been in short supply is systematic research on the topics addressed in this volume: the ways in which normative adolescent development can guide sensible policymaking, the reliability of assessing juveniles' risk for re-offending and amenability to treatment, the prevalence of mental illness and substance abuse in the juvenile offender population, the distinctive characteristics of female juvenile offenders, the extent and causes of disproportionate

minority contact with the juvenile justice system, the impact of trying and sanctioning juveniles as adults, and the effectiveness of interventions designed to prevent or treat delinquency. As the articles in this volume make clear, although much remains to be learned, researchers now know enough about all of the topics covered in this volume—with the possible exception of female juvenile offending—to offer some evidence-based perspectives on policy and practice.

Within any field of public policy there is always some gap between rhetoric and reality, and between science and practice, but the gulf is especially wide where juvenile justice is concerned. To help close this gap, in 1997 the John D. and Catherine T. MacArthur Foundation established the MacArthur Foundation Research Network on Adolescent Development and Juvenile Justice. This volume of *The Future of Children* grew out of the MacArthur Network's activities; all of the contributors have had some connection with that enterprise, either as members of the network or as scientists whose work the network funded.

The overarching goal of the MacArthur Network has been to consider the ways in which scientific knowledge about adolescent development and juvenile crime could inform policy and practice within the juvenile and criminal justice systems. Over the course of the network's tenure, this broad aim led its members to pose a wide variety of policy questions, many of which are addressed in the articles in this volume. Are adolescents different from adults—cognitively, emotionally, and socially—in ways that bear on their criminal responsibility, their competence to stand trial as defendants, and the appropriate venue (juvenile court or adult court) for the adjudication of their crimes? What does research reveal about juveniles' capacity to change—in juvenile justice parlance, their "amenability to treatment"—and about how to predict which juveniles desist from crime, either on their own or as a result of the justice system's efforts to change them, and which ones recidivate? What are the specific challenges to policy and practice presented by the disproportionate contact of ethnic minority youth with the justice system, the increasing number of female juvenile offenders, and the large numbers of juveniles in the system with substance abuse and other mental health problems?

The MacArthur Network brought to its work a particular perspective that is reflected in all of the contributions to this volume, three elements of which are especially noteworthy. First, all contributors to the volume start from the premise that adolescents are different from adults in ways that ought to be taken into account in crafting sensible and effective policy. That theme is explicit in the article by Elizabeth Scott and myself, which presents a developmental perspective on juvenile justice, but it comes into play in several other articles, most notably those by Edward Mulvey and Anne-Marie Iselin (on assessment), Jeffrey Fagan (on jurisdictional boundary), and Peter Greenwood (on prevention and intervention). The scientific study of adolescent development has burgeoned in the past two decades, but its findings have not yet influenced juvenile justice policy nearly as much as they should.

Second, we take the stance that policy and practice in the juvenile justice system should be guided by solid evidence. Much of what policymakers and the public believe to be true just isn't so. For example, contrary to widespread belief, as Elizabeth Cauffman notes, the causes of crime among male and

female offenders are far more similar than different; as Peter Greenwood points out, there is no truth to the notion that, when it comes to delinquency prevention, "nothing works"; and, as explained by Alex Piquero, the causes of disproportionate minority contact are far more complicated than is often claimed both by those who insist that disparities in contact with the system are entirely due to racial bias on the part of the system and by others who contend that the disparities simply reflect racial differences in criminal involvement.

Third, to be effective, the juvenile justice system must be better integrated into the larger network of public institutions and agencies that deal with children, youth, and families—most important, those that provide education, child protective services, and mental health treatment. The antisocial acts that bring young people into contact with the justice system are often accompanied by other problems, most of which the justice system is ill-equipped to address. Among the most prevalent of these problems are mental illness, discussed by Thomas Grisso, and substance abuse, discussed by Laurie Chassin; child maltreatment and difficulties in school are not discussed in this volume, but they are also important. The nation's failure to address these problems, whether because of poor coordination between systems, inadequate resources, or inter-agency turf wars, is one reason so many youngsters enter, exit, and re-enter the justice system through what many observers have correctly described as a revolving door.

A Developmental Perspective on Juvenile Justice

In the first article of this volume, Elizabeth Scott, of Columbia Law School, and I offer a developmental perspective on juvenile justice that lays the groundwork for the articles that follow. After briefly reviewing the history of American juvenile justice policy and the events that transformed society's view of adolescent offenders from immature children who should not be punished for their misdeeds into fully mature individuals who should be held to the same standards of responsibility as adults, we argue that contemporary research on the science of adolescent development points to the need for a new model. In our view, the bright line distinction between children and adults that works well in many parts of the law has not worked well in regulating juvenile crime. Indeed, we suggest that forcing courts to view adolescents as children or as adults has led to poor policymaking that has either threatened public safety (by treating adolescent offenders too leniently) or jeopardized the future prospects of young people who have gotten into trouble (by treating them too harshly).

In place of the current regime, we propose a model in which adolescents are held responsible for their antisocial acts, but with the degree of their responsibility mitigated by their diminished decision-making capacity, their susceptibility to peer influence, and their unformed character, all of which make them less responsible for their conduct than are adults who commit similar offenses. Our contention that most adolescent crime is the product of developmental immaturity—a conclusion borne out by research showing that very few adolescent offenders grow into adult criminals—has implications not only for our view of juveniles' culpability but also for our view of how to sanction young people. Punishing adolescents for their misdeeds and protecting the public from juveniles who are at high risk to re-offend are essential components of sensible juvenile justice policy, but it

is important not to lose sight of the fact that most adolescent offenders will desist from crime as they mature psychologically, merely in the course of normal development. To protect society in the long run and to promote social welfare, the response to juveniles' antisocial behavior must not imperil their development into productive adulthood.

Assessing Risk and Amenability to Treatment

The model of juvenile justice that Scott and I propose requires that the justice system be able both to make distinctions between offenders based on whether they represent a serious threat to public safety because of their risk for recidivism and to match juveniles effectively with appropriate sanctions and interventions. Because the juvenile justice system is charged not only with punishing the guilty and protecting the public, but also with rehabilitating young offenders, practitioners working within the system must make judgments about offenders' risk of future violence and their likely amenability to treatment.

Critics of contemporary juvenile justice policy and practice frequently bemoan the disappearance of individualized decision making by judges, prosecutors, and probation officers, but as Edward Mulvey and Anne-Marie Iselin, both of the University of Pittsburgh School of Medicine, note in the second article, professionals working within the juvenile justice system are constantly asked to make predictions about offenders' future behavior and to assess their likely responsiveness to various types of sanctions and treatments. Mulvey and Iselin ask whether these decision makers now have the ability to make valid and reliable individualized assessments; they also review evidence about how best to make such assessments.

There is no doubt that the use of objective risk assessment tools by juvenile justice practitioners has become more prevalent, but as the authors point out, the sharp contrast made in academic circles between clinical and actuarial prediction does not exist in the real world of juvenile justice decision making. In fact, many decision makers use idiosyncratic amalgams of the two forms of prediction that often combine the worst of both, so that they base decisions on actuarial tools of unproven reliability or validity and on unstructured intuitive judgment that is easily subject to bias. The authors conclude that combining clinical and actuarial decision making is in fact a reasonable approach to assessment, but that decision makers need to be aware that within both of these realms, instruments and methods vary tremendously in their effectiveness. According to their review, the decision-making sciences have made great progress in assessing risk and amenability, but that progress has not been reflected in changes in practice. The decision facing practitioners, then, is not how to choose between using an actuarial risk assessment system *or* relying on subjective clinical assessment, but, rather, how to combine them in a systematic and structured way that takes advantage of the new knowledge base.

Disproportionate Minority Contact

One reason practitioners came to favor the use of actuarial approaches to dispositional decision making is the consensus that the use of subjective approaches has led to disparities in the treatment of minority and nonminority youth. As Alex Piquero, of the University of Maryland–College Park, points out in the third article, what began as a concern about disproportionate minority *confinement*—that is, the fact that juveniles of color were more likely to be locked up than were white

juveniles with similar records—has expanded over time to a concern about disproportionate minority *contact*—that is, the fact that at *all* points in the system minority and nonminority youth are treated differentially. For decades social scientists have debated whether and to what extent racial disparities in the treatment of juvenile offenders are due to differences in the offenders' criminal behavior or to differences in the ways in which they are treated by law enforcement and the courts. Piquero argues that they are debating the wrong question. It is clear by now, he says, that both processes contribute to the problem and that fine-tuning estimates of how much of the situation is due to one or the other is unlikely to lead to better or fairer policy. He suggests, instead, that researchers should move onto other concerns: understanding the underlying mechanisms that contribute both to differential involvement in crime and to differential treatment by decision makers and, more important, studying the effect of various types of interventions designed to reduce disparities in both arenas and at different points in the process.

Trying Juveniles as Adults

Racial disparities exist at virtually every stage in the juvenile justice system, but they are particularly striking with respect to the waiver of juveniles to adult court. In his article, Jeffrey Fagan, of Columbia Law School, examines recent efforts to redraw the boundary between the juvenile and criminal justice systems and the findings of studies comparing juveniles who have been tried and sanctioned as adults with those who have committed comparable crimes but are retained in the juvenile justice system. As Fagan notes, juvenile court judges have always had the option of transferring or waiving juveniles to criminal court, so in that sense, the fact that some juveniles are tried as adults is not new. What has changed in recent decades is the increase in the wholesale movement of large numbers of juveniles into the adult system, either because a state lowered the age boundary dividing juvenile and criminal court jurisdiction, because certain offenses and offenders are automatically excluded from the juvenile court and remanded to the criminal court for prosecution, or because wider discretion has been given to prosecutors in making decisions about the venue in which to charge particular crimes. Although, as Fagan notes, it is difficult to obtain precise figures, some recent estimates indicate that between 20 and 25 percent of all juvenile offenders younger than eighteen are prosecuted in adult court, mainly because they reside in states where the jurisdictional boundary is either sixteen or seventeen.

There is no doubt that the prevalence of mental illness is much greater among juvenile offenders than in the general population, but the reasons for this overlap are many.

After reviewing the history and extent of adult prosecution of juveniles, Fagan then turns to the main policy question: how effective are transfer laws? According to his review, the evidence is quite clear. Juvenile offending is not lower in states where it is relatively more common to try adolescents as adults, and juveniles who have been tried as adults are no less likely to re-offend than their counterparts who have been tried as juveniles—findings that call into question the wisdom of transferring juveniles to adult court as a means of

crime control. Indeed, as Fagan notes, the few empirical studies that have compared juveniles released from adult facilities with matched samples of those released from juvenile facilities find that the former are *more* likely to re-offend than the latter.

Understanding the Female Offender

Elizabeth Cauffman, of the University of California–Irvine, explores the topic of female offenders, a portion of the juvenile offender population that has not been subjected to a good deal of systematic empirical study. Indeed, as noted, Cauffman's article stands in contrast to the others, in that the author cautions against making broad policy changes until more evidence is available. Although it is indisputable that the juvenile justice system is now processing relatively more females than it has in the past, neither the causes of this change, nor its implications for policy and practice, are at all clear. Researchers do not know, for example, whether girls are committing a bigger share of crimes now than in the past or whether they simply are being policed and prosecuted more aggressively, either of which would shift the relative balance of boys and girls in the system. As to whether female offenders need a different mix of services than male offenders, the evidence is equally muddy. The few studies of risk factors for offending that compare male and female juveniles, which Cauffman reviews, do not suggest sweeping gender differences in the causes of crime, and research on whether females benefit relatively more from gender-specific programs than from generic ones is virtually nonexistent. There is no reason to think, for instance, that female offenders would benefit any less from effective family-based interventions than would male offenders, given the strong evidence of the contribution of family dysfunction to delinquency among both genders. It does seem, however, that mental illness may be a relatively greater problem among female than male offenders, a conclusion also reached by Thomas Grisso in his analysis of the overlap between mental illness and juvenile offending. That finding may indicate that female offenders may need *more* services than male offenders, if not necessarily different ones.

Mental Illness and Juvenile Offending

In addition to describing the nature and extent of mental health problems with the offender population, Grisso, of the University of Massachusetts Medical School, elucidates the complexity inherent in studying the overlap between offending and mental illness, and, accordingly, the uncertainty about the best way for the justice system to respond to the situation. There is no doubt that the prevalence of mental illness is much greater among juvenile offenders than in the general population, but the reasons for this overlap are many. Some mental illnesses, especially those that involve difficulties in emotion regulation or impulse control, are associated with aggression and therefore elevate the risk for criminal behavior. Other mental illnesses may be the result of involvement in criminal activity (an antisocial child may develop depression as a result of exclusion by peers) or a consequence of contact with the justice system (which may expose juveniles to trauma and violence). Still other illnesses have causes that also contribute to offending; maltreatment, for example, is associated with both conduct problems and depression. Thus the population of mentally ill offenders is actually very heterogeneous.

As Grisso points out, this heterogeneity argues against the simple conclusion that treating mental illness will necessarily result

in a large drop in juvenile crime. Some crime is probably the result of mental illness, but, as Grisso notes, most of it is not, and the majority of juveniles who commit crimes are not mentally ill. That conclusion does not mean that mentally ill juvenile offenders should not be treated, of course, but it does raise difficult questions about whose responsibility such treatment is. If the juvenile justice system's main charge is crime reduction, and if allocating resources to providing mental health services to offenders with mental health needs does not appreciably reduce crime, it is not at all clear that the justice system should shoulder this considerable financial burden. Indeed, Grisso argues that the main role of the juvenile justice system regarding offenders with mental health problems should not be to treat mental illness, but to help identify three groups of young offenders. The first group is those who, at the point of intake into the system, need emergency mental health services (because they may represent a threat to themselves or others). The second is those whose mental health needs require long-term treatment that is best delivered outside the justice system and who can be diverted from justice system custody without threatening public safety. And the third is those who are mentally ill and need secure confinement, who should be placed in facilities specifically designed to treat violent, mentally ill adolescents. The notion that the juvenile justice system should focus its mental health resources on screening, rather than treatment, is a significant departure from current practice, and it deserves serious consideration by policymakers and practitioners.

One impediment to effective juvenile justice policy is that policymakers are often unaware of research evidence on programs and policies that are not only effective but also cost-effective.

Substance Abuse and Juvenile Offending

In her article on substance abuse among juvenile offenders, Laurie Chassin, of Arizona State University, confronts a similar issue. As with other types of mental illness, the prevalence of substance abuse in the population of juvenile offenders is substantially higher than in the general population—according to some estimates, by a factor of three. But the overlap between substance abuse and offending differs from that between offending and other forms of mental illness, because, as Chassin points out, adolescent substance use is itself an illegal behavior. As a consequence, the connections between substance use and juvenile offending are clearer and the case for providing substance abuse treatment under the auspices of the juvenile justice system is more compelling. By definition, reducing adolescent substance use reduces crime. Thus, whereas Grisso's article quite reasonably asks whether the juvenile justice system should be in the mental health services business, Chassin takes this responsibility as a given and asks, instead, whether the services delivered are consistent with what is known about best practices in the treatment of alcohol and drug problems.

Her assessment is not exactly bleak, but it is far from laudatory. First, although many adolescents receive substance abuse treatment within the juvenile justice system (either

in residential facilities or in the community), the treatment they receive does not routinely incorporate what expert reviews have identified as best practices, and the justice system does not do a good job of distinguishing between offenders who do and do not need treatment; as Chassin notes, not all offenders who use alcohol or other drugs need to be in treatment. Second, as is the case with mental illness, many substance-abusing offenders are not dangerous and would be better and more cost-effectively served by programs that divert them into community-based treatment—assuming such treatment programs were available and grounded in evidence-based practices. Finally, and most important, because most offenders who enter the justice system do so for relatively short periods of time, or move in and out of the system's custody, the lack of coordination between the justice system and other systems that provide substance abuse treatment in the community creates interruptions in the management of individuals' care. The absence of aftercare for substance-abusing offenders exiting the justice system is especially problematic in light of the emerging consensus among health care specialists that substance abuse is a chronic condition that requires long-term management. Promising programs now in the field are attempting to remedy this problem, but few have been subject to rigorous independent evaluation, and their use is not widespread.

Does Anything Work?

The final article of the volume, by Peter Greenwood, of the Association for the Advancement of Evidence Based Practice, is another example of a good news, bad news story. The good news is that, according to several comprehensive reviews of an array of delinquency prevention and treatment programs, there clearly are programs that both produce positive results and are cost-effective. Different reviews conducted by different groups of investigators come more or less to the same five conclusions. First, for youth in the community, family-based programs, such as Functional Family Therapy, Multisystemic Therapy, or Multidimensional Treatment Foster Care, are more consistently effective than those that focus on treating the individual juvenile alone. Second, for youth in institutional settings, treatments that follow basic principles of cognitive-behavioral therapy are generally superior to those that take a different approach. Third, programs that are excessively harsh or punitive, like boot camps, either have no effects or iatrogenic effects; this finding echoes Fagan's conclusion about sanctioning juveniles as adults. Fourth, incarceration in and of itself is an expensive proposition that yields little benefit other than the short-term effect of incapacitation; that is, incarceration has no lasting deterrent effect once a juvenile is released back into the community. Finally, even the best evidence-based programs must be correctly implemented to be effective. As Greenwood points out, this last point is often overlooked by agencies that fail to budget adequately for the training of treatment providers or the monitoring of quality control.

The bad news is that the use of evidence-based practices is the exception, rather than the rule. Greenwood estimates that only about 5 percent of youth who are eligible to enroll in an evidence-based treatment program receive treatment that has an empirically proven track record. And because agencies rarely invest in developing data systems that permit them to monitor which programs are working and which are not (by, for instance, comparing recidivism rates among juvenile exiting from different programs), most states' juvenile justice systems

have no idea if they are spending their money wisely. Greenwood notes that one impediment to effective juvenile justice policy is that policymakers are often unaware of research evidence on programs and policies that are not only effective but also cost-effective.

Implications for Policy and Practice

The developmental perspective on juvenile justice advanced in this volume can serve as the conceptual basis for widespread policy reform. One of its most important insights is that setting up a dichotomy between protecting the public and rehabilitating adolescent offenders is a false and short-sighted way of viewing matters. It is time to take the research findings that have accumulated during the past decade and transform the American juvenile justice system in ways that will both reduce crime and help many of society's most vulnerable young people become productive adults. In the long run, this approach will best serve both young people and society.

It is painfully clear that the gap between what researchers know about the causes and treatment of juvenile crime and what policymakers and practitioners do in many locales is a large part of the problem. As Greenwood notes in his article on delinquency interventions, "The authority of science is undermined on a daily basis by those who refuse to distinguish the difference between fact and opinion." The same criticism applies with equal accuracy across many of the policy and practice areas discussed by the contributors to this volume. As their articles make clear, although a great deal remains to be learned, researchers know much more about how to assess offenders' future risk for violence and their amenability to treatment, about the impact of transfer on recidivism, about screening and treating offenders with mental illness or substance abuse problems, and about the sources of disproportionate minority contact than is widely believed or than is reflected in contemporary policy and practice. In the exceptional case of female offending, where research has really just begun, it is fair to say—quoting Donald Rumsfeld—that at least we know what we don't know.

The good news is that the policies advocated in this volume are not just proven to be effective—they are proven to save taxpayer dollars as well. More carefully matching offenders with the programs that meet their specific needs will improve the system's effectiveness, which is bound to save money. Diverting offenders who are not dangerous into community-based programs to treat family problems, mental illness, and substance abuse is far less expensive than sending them into institutional placement. Keeping juveniles out of the adult correctional system will save dollars in the long run by reducing rates of recidivism. It is time for policymakers to acknowledge that the "get-tough" reforms implemented during the past two decades—reforms that criminalized delinquency and ignored the developmental realities of adolescence—have been both unnecessarily costly and of questionable effectiveness.

The specific implications of the articles that make up this volume are many, but three broad principles of reform are fundamental to effective and fair juvenile justice policy.[8] First, ample evidence attests that adolescents are different from adults in ways that need to be reflected in policy and practice. The juvenile justice system is not without its problems, but it is better equipped to respond to adolescents' antisocial behavior than the adult system is. Trying juveniles as adults should be an infrequent practice reserved for adolescent offenders who have clearly demonstrated that they are unlikely to benefit from the services

available within the juvenile system. Raising the minimum age of criminal court jurisdiction to eighteen in states that now set it lower will keep hundreds of thousands of adolescents out of the adult system annually, likely reducing recidivism and increasing young people's chances of making a successful transition into productive adulthood.

Second, maintaining a separate juvenile justice system, while critical, is not in and of itself sufficient; the system also needs to be revamped. One reason for the movement to transfer large numbers of juvenile offenders to the criminal court was the widely held perception that the juvenile system was ineffective. Strengthening the juvenile system is a prerequisite for policies that would reverse the movement of juvenile offenders to the criminal court. As several contributors note, there is no mystery about what practices the system needs to adopt. Solid empirical evidence confirms what the best practices are, but those practices are seldom used. How much of the gap between science and practice is attributable to problems in getting the research findings into the hands of the people who most need to be informed and how much to policymakers' reluctance to insist that best practices be implemented (that is, decision makers have the necessary information, but politics is trumping policy) is not known. What is clear, however, is that current practice in most states is far more costly than it need be, and that millions of taxpayer dollars are being wasted on unnecessary, and often iatrogenic, policies. One prime example is the excessive use of incarceration, especially with nonviolent offenders who can be effectively treated in the community.

Finally, it is clear that policymakers must do a better job of coordinating the activities of the juvenile justice system with other youth-serving institutions, including those involved in mental health, child protection, and education. Many juveniles who enter the justice system bring with them a host of other problems, some of which likely contributed to their antisocial activity, and virtually all of which will influence the effectiveness of any sanctions and interventions provided by the justice system. One reason the juvenile justice system has such a mixed track record in preventing recidivism is that many of the young people it is charged with rehabilitating have problems that are well beyond its own expertise and resources. Reforming juvenile justice policy will require changes not only within the justice system but in the relation between the justice system and other government agencies.

Endnotes

1. Legislation abolishing life-without-parole sentences for juvenile offenders was approved in Colorado in 2006; it is pending in other states, including California, Florida, Illinois, and Michigan.

2. Comprehensive summaries of recent developments in juvenile justice legislation are published annually by the National Juvenile Defender Center, and are available at www.njdc.info.

3. Ibid.

4. Connecticut passed legislation increasing the jurisdictional age to eighteen in 2007. S.R. 1500, Gen. Ass., June Sp. Sess. (CT 2007) amended Conn. Gen. Stat. Ann. §46b-120 (West 2007). Four other states that now set their jurisdictional boundary either at sixteen or seventeen— Illinois, Missouri, North Carolina, and Wisconsin—are considering legislation to raise it to eighteen.

5. See note 2.

6. Centers for Disease Control and Prevention, "Effects on Violence of Laws and Policies Facilitating the Transfer of Youth from the Juvenile to the Adult Justice System," *Morbidity and Mortality Weekly Report, 36 (RR9)*, 1–11; Elizabeth Scott and Laurence Steinberg, *Rethinking Juvenile Justice* (Harvard University Press, 2008).

7. National Juvenile Justice Network, "Is There a New Juvenile Crime Wave on the Horizon? Overview of Recent Reports and Responses," May 29, 2007.

8. For a detailed discussion, see Scott and Steinberg, *Rethinking Juvenile Justice* (see note 6).

Adolescent Development and the Regulation of Youth Crime

Elizabeth S. Scott and Laurence Steinberg

Summary

Elizabeth Scott and Laurence Steinberg explore the dramatic changes in the law's conception of young offenders between the end of the nineteenth century and the beginning of the twenty-first. At the dawn of the juvenile court era, they note, most youths were tried and punished as if they were adults. Early juvenile court reformers argued strongly against such a view, believing that the justice system should offer young offenders treatment that would cure them of their antisocial ways. That rehabilitative model of juvenile justice held sway until a sharp upswing in youth violence at the end of the twentieth century led both public opinion and public policy toward a view that youths should be held to the same standard of criminal accountability as adults. Lawmakers seemed to lose sight of developmental differences between adolescents and adults.

But Scott and Steinberg note that lawmakers and the public appear now to be rethinking their views once more. A justice system that operates on the principle of "adult time for adult crime" now seems to many to take too little note of age and immaturity in calculating criminal punishment. In 2005 the United States Supreme Court abolished the juvenile death penalty as cruel and unusual punishment, emphasizing that the immaturity of adolescents made them less culpable than adult criminals. In addition, state legislatures recently have repealed or moderated some of the punitive laws they recently enacted. Meanwhile, observe the authors, public anger has abated and attitudes toward young offenders have softened somewhat.

In response to these changes, Scott and Steinberg argue that it is appropriate to reexamine juvenile justice policy and to devise a new model for the twenty-first century. In this article, they propose what they call a developmental model. They observe that substantial new scientific evidence about adolescence and criminal activity by adolescents provides the building blocks for a new legal regime superior to today's policy. They put adolescent offenders into an intermediate legal category—neither children, as they were seen in the early juvenile court era, nor adults, as they often are seen today. They observe that such an approach is not only more compatible than the current regime with basic principles of fairness at the heart of the criminal law, but also more likely to promote social welfare by reducing the social cost of juvenile crime.

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During the closing decades of the twentieth century, juvenile justice policy underwent major change. In less than a generation, a justice system that had viewed most young lawbreakers as youngsters whose crimes were the product of immaturity was transformed into one that stands ready to hold many youths to the same standard of criminal accountability it imposes on adults. These changes took place through far-reaching legal and policy reforms in almost every state that have facilitated adult prosecution and punishment of juveniles and expanded the use of incarceration in the juvenile system. As the reforms proceeded, often in a frenzy of public fear and anger about violent juvenile crime, lawmakers appeared to assume that any differences between adolescents and adults were immaterial when it comes to devising youth crime policies.

Today, lawmakers and the public appear to be having second thoughts about a justice system in which age and immaturity often are ignored in calculating criminal punishment. In 2005, the United States Supreme Court, in *Roper v. Simmons,* abolished the juvenile death penalty as cruel and unusual punishment in an opinion that emphasized that the immaturity of adolescents made them less culpable than adult criminals.[1] Further, legislatures recently have repealed or moderated some of the punitive laws enacted with enthusiasm just a few years ago. Meanwhile, opinion polls show that public anger has abated and that more paternalistic attitudes toward young offenders have resurfaced.

At such a time, it seems appropriate to reexamine juvenile justice policy and, if the contemporary regime proves unsatisfactory, to devise a better model for the twenty-first century. In this article, we undertake this challenge, proposing what we call a developmental model of juvenile justice policy.[2] Our thesis is that a substantial body of new scientific knowledge about adolescence and about criminal activity during this important developmental period provides the building blocks for a new legal regime superior to today's policy. Under the developmental model, adolescent offenders constitute an intermediate legal category of persons who are neither children, as they were under the traditional rehabilitative model, nor adults, as they often are today. Not only is this approach more compatible than the current regime with basic principles of fairness at the heart of the criminal law, it is also more likely to promote social welfare by reducing the social costs of juvenile crime.

A Brief History of Juvenile Justice in America

The history of juvenile crime policy over the course of the twentieth century is a narrative about the transformation of the law's conception of young offenders. At the dawn of the juvenile court era in the late nineteenth century, most youths were tried and punished as adults. Much had changed by 1909 when Judge Julian Mack famously proposed in a *Harvard Law Review* article that a juvenile offender should be treated "as a wise and merciful father handles his own child."[3] Like the other Progressive reformers who worked to establish the juvenile court, Judge Mack viewed youths involved in crime first and foremost as children; indeed, by his account, they were no different from children who were subject to parental abuse and neglect. The early reformers envisioned a regime in which young offenders would receive treatment that would cure them of their antisocial ways—a system in which criminal responsibility and punishment had no place. Because

of the juvenile court's rehabilitative purpose, procedures were informal and dispositions were indeterminate.

The rehabilitative model of juvenile justice seemingly thrived during the first half of the twentieth century, but it began to unravel during the 1960s. Youth advocates challenged the constitutionality of informal delinquency proceedings, and, in 1967, the Supreme Court agreed, holding, in *In re Gault,* that youths in juvenile court have a right to an attorney and other protections that criminal defendants receive.[4] But the sharpest attacks on the juvenile court came from another direction. As youth crime rates rose during the 1980s, conservative politicians ridiculed the juvenile system and pointed to high recidivism rates as evidence that rehabilitation was a failure. According to some observers, the juvenile court may have met the needs of a simpler time when juveniles got into school yard fights, but it was not up to the task of dealing with savvy young criminals who use guns to commit serious crimes. Although in truth, the juvenile justice system had evolved considerably since the early days, its paternalistic rhetoric persisted, obscuring the changes; even to a sympathetic ear, descriptions of young criminals as wayward children who would respond to the caring treatment of the juvenile court seemed to bear little relation to the reality of youth crime during the late twentieth century.

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Proponents of more punitive policies cast the available options as either adult punishment or a "slap on the wrist," suggesting that if teens are not held fully responsible for their crimes, they bear no criminal responsibility at all. Youth advocates often appeared to accept these constrained policy choices, so the debate pitted self-styled "child" advocates against those who favor "adult time for adult crime." Thus, both sides implicitly accepted that youths charged with serious crimes would either be treated as children in juvenile court or tried and punished as adults. The new generation of reformers went beyond rejecting the paternalistic characterization of young offenders; some advocates for tough policies seemed to view juveniles involved in crime as *more* culpable and dangerous than adult criminals. John DiIulio's description of "superpredators" in the mid-1990s captured the image of remorseless teenage criminals as a major threat to society and was invoked repeatedly in the media and in the political arena.[5]

As juvenile crime rates—particularly homicide—rose during the 1980s and early 1990s, politicians across the country rushed to enact tough policies through several legislative strategies.[6] First, the age of judicial transfer was lowered in many states to allow the criminal prosecution of teens aged fourteen and younger. Some legislatures expanded the range of transferrable offenses to include a long laundry list of crimes. But perhaps the most dramatic changes came in the form of automatic transfer statutes, under which many youths are categorically treated as adults when they are charged with crimes—

either generally (all sixteen-year-olds) or for specific crimes (all thirteen-year-olds charged with murder).[7] These legal reforms resulted in the wholesale transfer of youths into the adult criminal system—more than 250,000 a year by most estimates. The new statutes avoid individualized transfer hearings, shifting discretion from juvenile court judges, who are seen as soft on crime, to prosecutors, who are assumed not to have this deficiency. At the same time, juvenile court dispositions today include more incarceration and for longer periods—extending well into adulthood under some statutes. Questions about whether juveniles should be subject to the same punishment as adults occasionally do get attention—usually when a very young juvenile commits a serious crime. Thus a national conversation was sparked by the case of Lionel Tate, the twelve-year-old Florida boy who was given a life sentence (later reversed) for killing a six-year-old neighbor girl.[8] But the new policies play out in many more mundane cases involving drug sales and property crimes, which make up about half of the criminal court cases involving juveniles.

The upshot of this reform movement is that the mantra "adult time for adult crime" has become a reality for many young offenders. Through a variety of initiatives, the boundary of childhood has shifted dramatically in a relatively short time, so that youths who are legal minors for every other purpose are adults when it comes to their criminal conduct.

Supporters defend the recent reforms as a rational policy response to a new generation of dangerous young criminals that the juvenile court was unable to control. There is some truth to this claim. Young offenders today do cause more harm than their predecessors, largely because, with the ready availability of firearms, the injuries they inflict are more likely to be fatal. Moreover, the juvenile system's failure to deter or incapacitate violent young criminals fueled outrage that sometimes was legitimate. But close inspection reveals that the process of legal reform has been deeply flawed and often has had the hallmarks of what sociologists call a moral panic, a form of irrational collective action in which politicians, the media, and the public reinforce each other in an escalating pattern of alarmed response to a perceived social threat.[9] Other features of a moral panic are evident in the response to juvenile crime that has led to the reforms—intense public hostility toward young offenders (often identified as members of minority groups), exaggerated perceptions about the magnitude of the threat, and the conviction that drastic measures in response are urgently needed. Reform initiatives often have been triggered by a high-profile crime that stirs public fears. In Arkansas, for example, legislative reforms lowering the minimum age of criminal adjudication for juveniles followed the Jonesboro school shootings in which two youths, aged eleven and thirteen, killed four schoolmates and a teacher. In some states, racial biases and fears appear to have played a role in reform initiatives. In California, for example, enthusiasm for Proposition 21, a sweeping referendum expanding criminal court jurisdiction over juveniles, was generated by sensational television ads in which African American gang members killed innocent bystanders in drive-by shootings.[10] But by the time that California voters approved Proposition 21, juvenile crime had been on the decline for several years.[11]

The politics of contemporary juvenile justice law reform leaves little reason to be confident about the soundness of the new regime—or even to believe that it reflects stable public desires for harsh policies. Although politicians

claim that the public demands tough policies, moral panics tend to dissipate when the crisis passes. As we will show at the end of this article, the evidence suggests that the public may demand tough policies in the short term, but not support them in the long term.

The fact that the law reform process has been deeply flawed and that the policies themselves are anomalous as a form of legal regulation of minors does not answer the critical question of whether the criminalization of juvenile justice is *substantively* deficient as legal policy. We turn now to this question.

Adolescence and Culpability: The Case for Mitigation

A substantive assessment of contemporary youth crime regulation begins by examining the punitive reforms in the framework of criminal law doctrine and principles. The heart of the analysis is the principle of proportionality, which, as first-year law students learn in their criminal law class, is the foundation of fair and legitimate state punishment. Proportionality holds that criminal sanctions should be based on the culpability of the actor as well as the harm he causes. It recognizes that two defendants who cause the same harm (killing another person, for example) can vary in their blameworthiness and in the punishment that society thinks they deserve.[12] Most criminals, of course, are held fully responsible for their crimes and receive whatever punishment the state deems appropriate for the harm they cause. But actors who are thought to be blameless (children, for example, or someone who kills in self-defense) deserve no punishment— and their crimes are excused. As we have seen, the history of youth crime policy during the twentieth century was an account of radical change in lawmakers' conception of young offenders—from innocent children under the rehabilitative model to (often) fully responsible adults today.

But the criminal law does not view culpability in such binary terms; the concept of *mitigation* plays an important role in the law's calculation of blame and punishment and should be at the heart of youth crime policy. Mitigation applies to persons engaging in harmful conduct who are blameworthy enough to meet the minimum threshold of criminal responsibility, but who deserve less punishment than a typical offender would receive. Developmental research clarifies that adolescents, because of their immaturity, should not be deemed as culpable as adults. But they also are not innocent children whose crimes should be excused. The distinction between excuse and mitigation seems straightforward, but it is often misunderstood. In the political arena, as we have suggested, it is often assumed that unless young offenders are subject to adult punishment, they are off the hook—escaping all responsibility. Instead, under the developmental model, youths are held accountable for their crimes but presumptively are subject to more lenient punishment than adults. A justice system grounded in mitigation corresponds to the developmental reality of adolescence and is compatible with the law's commitment to fair punishment.

Research in developmental psychology supports the view that several characteristics of adolescence distinguish young offenders from adults in ways that mitigate culpability. These adolescent traits include deficiencies in decision-making ability, greater vulnerability to external coercion, and the relatively unformed nature of adolescent character. As we will show, each of these attributes of adolescence corresponds to a conventional source of mitigation in criminal law. Together

they offer strong evidence that young offenders are not as culpable as adults.

Diminished Decision-Making Capacity

Under standard criminal law doctrine, actors whose decision-making capacities are impaired—by mental illness or retardation, for example—are deemed less blameworthy than typical offenders. If the impairment is severe, their crimes are excused. Considerable evidence supports the conclusion that children and adolescents are less capable decision makers than adults in ways that are relevant to their criminal choices.

Although few would question this claim as applied to children, the picture is more complicated for sixteen- or seventeen-year-olds. The capacities for reasoning and understanding improve significantly from late childhood into adolescence, and by mid-adolescence, most teens are close to adults in their ability to reason and to process information (what might be called "pure" cognitive capacities)—at least in the abstract.[13] The reality, however, is that adolescents are likely less capable than adults are in *using* these capacities in making real-world choices, partly because of lack of experience and partly because teens are less efficient than adults in processing information. In life, and particularly on the street, the ability to quickly marshal information may be essential to optimal decision making.

Other aspects of psychological maturation that affect decision making lag behind cognitive development and undermine adolescent competence. Research documents what most parents of adolescents already know—teenagers are subject to psychosocial and emotional influences that contribute to immature judgment that can lead them to make bad choices. Thus, even at ages sixteen and seventeen, adolescents' developmental immaturity likely affects their decisions about involvement in crime in ways that distinguish them from adults.

First, teens tend to lack what developmentalists call "future orientation." That is, compared with adults, adolescents are more likely to focus on the here-and-now and less likely to think about the long-term consequences of their choices or actions—and when they do, they are inclined to assign less weight to future consequences than to immediate risks and benefits. Over a period of years between mid-adolescence and early adulthood, individuals become more future oriented.[14]

Substantial research evidence also supports the conventional wisdom that teens are more oriented toward peers and responsive to peer influence than are adults. Several studies show that susceptibility to peer influence, especially in situations involving pressure to engage in antisocial behavior, increases between childhood and mid-adolescence, peaks around age fourteen, and declines slowly during the late adolescent years.[15] Increased susceptibility to peer pressure in early adolescence may reflect changes in individuals' capacity for self-direction (as parental influence declines) as well as changes in the intensity of pressure that adolescents exert on each other. Some research evidence suggests that teens who engage in certain types of antisocial behavior may enjoy higher status among their peers as a consequence, perhaps because they appear to be independent of adult authority.[16] The result is that adolescents are more likely than *either* children or adults to change their decisions and alter their behavior in response to peer pressure.

Peer influence affects adolescent judgment both directly and indirectly. In some contexts,

adolescents might make choices in response to direct peer pressure, as when they are coerced to take risks that they might otherwise avoid. But desire for peer approval (and fear of rejection) affects adolescent choices indirectly as well. Teens appear to seek peer approval especially in group situations. Thus, perhaps it is not surprising that young offenders are far more likely than adults to commit crimes in groups.[17]

Consider the case of Timothy Kane, a fourteen-year-old junior high school student who never had any contact with the justice system until one Sunday afternoon in January 1992. Tim was hanging out with a group of friends when a couple of older youths suggested that they break into a neighbor's house; Tim agreed to go along. On entering the house, the boys were surprised to find the elderly neighbor and her son at home—whereupon the two older boys killed them while Tim watched from under the dining room table. Interviewed years later as he served a life sentence under Florida's draconian felony murder law, Tim explained that he went along because he didn't want to stay behind alone—and he didn't want to be called a "fraidy-cat." Tim's fatal decision to get involved in the break-in appears to be, more than anything else, the conduct of a fourteen-year-old worried about peer approval.[18]

Another psychosocial factor contributes to immature judgment: adolescents are both less likely to perceive risks and less risk-averse than adults. Thus, it is not surprising, perhaps, that they enjoy engaging in activities like speeding, unsafe sex, excessive drinking, and committing crimes more than adults do. The story is actually a bit more complicated. In the abstract, on paper and pencil tests, adolescents are capable of perceiving risks almost as well as adults. In the real world however, risk preference and other dimensions of psychosocial immaturity interact to encourage risky choices.[19] Thus, a youth who might be able to identify the risks of stealing a car if presented with a hypothetical case in a psychology lab may simply never consider these risks when he is on the street with his friends planning the theft.

Another (compatible) account of why adolescents take more risks than adults is that they may *evaluate* the risks and benefits of risky activity differently. Psychologists refer to the outcome of weighing risks and rewards as the "risk-reward ratio." The higher the ratio, the less likely an individual is to engage in the behavior in question. Studies suggest that in calculating the risk-reward ratio that guides decision making, adolescents may discount risks and calculate rewards differently from adults. In studies involving gambling games, teens tend to focus more on potential gains relative to losses than do adults.[20] So, for example, in deciding whether to speed while driving a car, adolescents may weigh the potential rewards of the behavior (for example, the thrill of driving fast, peer approval, or getting to one's destination quickly) more heavily than adults would. Indeed, sometimes adults may view as a risk—fast driving, for example—what adolescents see as a reward. What distinguishes adolescents from adults in this regard, then, is not the fact that teens are less knowledgeable about risks, but, rather, that they attach different value to the rewards that risk-taking provides.[21]

In addition to age differences in susceptibility to peer influence, future orientation, and risk assessment, adolescents and adults also differ with respect to their ability to control impulsive behavior and choices. Thus, the conventional wisdom that adolescents are more reckless than adults is supported by research

on developmental changes in impulsivity and self-management. In general, studies show gradual but steady increases in the capacity for self-direction through adolescence, with gains continuing through the high school years. Research also indicates that adolescents are subject to more rapid and extreme mood swings, both positive and negative, than are adults.[22] Although the connection between moodiness and impulsivity is not clear, it is likely that extreme levels of emotional arousal, either anger or elation, are associated with difficulties in self-control. More research is needed, but the available evidence indicates that adolescents may have more difficulty regulating their moods, impulses, and behaviors than do adults.

These psychosocial and emotional factors contribute to immature judgment in adolescence and probably play a role in decisions by teens to engage in criminal activity. It is easy to imagine how an individual whose choices are subject to these developmental influences —susceptibility to peer influence, poor risk assessment, sensation seeking, a tendency to give more weight to the short-term consequences of choices, and poor impulse control —might decide to engage in criminal conduct.

The following scenario is illustrative. A teen is hanging out with his buddies on the street, when, on the spur of the moment, someone suggests holding up a nearby convenience store. The youth does not go through a formal decision-making process, but he "chooses" to go along, even if he has mixed feelings. Why? First and most important, like Tim Kane, he may assume that his friends will reject him if he declines to participate—a negative consequence to which he attaches considerable weight in considering alternatives. He does not think of ways to extricate himself, as a more mature person might do. He may fail to consider possible options because he lacks experience, because the choice is made so quickly, or because he has difficulty projecting the course of events into the future. Also, the "adventure" of the holdup and the possibility of getting some money are exciting. These immediate rewards, together with peer approval, weigh more heavily in his decision than the (remote) possibility of apprehension by the police. He never even considers the long-term costs of conviction of a serious crime.

This account is consistent with the general developmental research on peer influence, risk preference, impulsivity, and future orientation, and it suggests how factors that are known to affect adolescent decision making in general are likely to operate in this setting. As a general proposition, it is uncontroversial that teens are inclined to engage in risky behaviors that reflect their immaturity of judgment. Although it is not possible to study directly the decisions of teens to get involved in criminal activity, it seems very likely that the psychosocial influences that shape adolescents' decision making in other settings contribute to their choices about criminal activity as well. Not every teen gets involved in crime, of course. That depends on a lot of things, including social context. But these psychosocial and emotional influences on decision making are *normative*—as psychologists use this term—that is, typical of adolescents as a group and developmental in nature.

Research over the past few years has increased our understanding of the biological underpinnings of psychological development in adolescence. Very recent studies of adolescent brain development show that the frontal lobes undergo important structural change during this stage, especially in the prefrontal cortex.[23] This region is central to

what psychologists call "executive functions"— advanced thinking processes used in planning ahead, regulating emotions, controlling impulses, and weighing the costs and benefits of decisions before acting. Thus, the immature judgment of teens may to some extent be a function of hard wiring.

Mitigation on the Basis of Extraordinary Circumstances

Another source of mitigation in the criminal law also applies to adolescents—and reinforces the conclusion that young offenders are less blameworthy than their adult counterparts. This form of mitigation involves situations in which a person offends in response to extreme external pressures. For example, a person who robs a bank in response to a credible threat that otherwise he will be physically injured may qualify for the defense of duress. The criminal law does not require exceptional forbearance or bravery—a defense (or a reduced sentence) may be available if an ordinary (that is, "reasonable") person might have responded to the unusual situation in the same way the defendant did. Because of the coercive circumstances, the actor is deemed less blameworthy than other offenders.

Ordinary adolescents are subject to peer pressure, including pressure to commit crimes, to a far greater extent than adults. As we have suggested, most juvenile crimes are committed in groups, while most adult criminals act alone. In some high-crime neighborhoods, peer pressure to commit crimes is so powerful that only exceptional youths escape. As Jeffrey Fagan and others have explained, in such settings, resisting this pressure can result in loss of status, ostracism, and even vulnerability to physical assault.[24] The circumstances many teens face in these social contexts are similar to those involved in adult claims of mitigation due to duress, provocation, necessity, or domination by co-defendants—and appropriately are deemed mitigating of culpability. As the Supreme Court recognized in *Roper v. Simmons*, in holding that imposing the death penalty on juveniles was unconstitutional, the case for mitigation on this ground is all the more compelling because, unlike adults, teens as legal minors are not free to leave their schools, homes, and neighborhoods.[25] When teens cross the line to legal adulthood, of course, the formal disabilities of youth are lifted. Young adults can avoid the pressure by removing themselves from social settings that make it difficult to avoid involvement in crime. Thus, adults have no claim to this kind of situational mitigation.

Unformed Character as Mitigation

A third source of mitigation in the criminal law is evidence that a criminal act was out-of-character. At sentencing, offenders often can introduce evidence of their general good character to demonstrate that the offense was an aberrant act and not the product of bad character. Here mitigation applies to the crimes of young offenders as well—not because of their good character *per se*—but because their characters are unformed.

Beginning with Erik Erikson, psychologists have explained that a key developmental task of adolescence is the formation of personal identity—a process linked to psychosocial development, which for most teens extends over several years until a coherent "self" emerges in late adolescence or early adulthood.[26] During adolescence, identity is fluid—values, plans, attitudes, and beliefs are likely to be tentative as teens struggle to figure out who they are. This process involves a lot of experimentation, which for many adolescents means engaging in the risky activities we have described, including

involvement in crime. Self-report studies have found that 80–90 percent of teenage boys admit to committing crimes for which they could be incarcerated.[27]

But the typical teenage delinquent does not grow up to be an adult criminal. The statistics consistently show that seventeen-year-olds commit more crimes than any other age group—thereafter, the crime rate declines steeply.[28] Most adolescents literally grow out of their antisocial tendencies as individual identity becomes settled. How many adults look back on their risky adventures or mishaps as teenagers with chagrin and amazement—and often with gratitude that they emerged relatively unscathed?

Researchers find that much juvenile crime stems from experimentation typical of this developmental stage rather than from moral deficiencies reflecting bad character. It is fair to assume that most adults who commit crimes act on subjectively defined values and preferences—and that their choices can be charged to deficient moral character. Thus an impulsive adult whose "adolescent" traits lead him to get involved in crime is quite different from a risk-taking teen. Adolescent traits are not typical of adulthood. The values and preferences that motivate the adult criminal are not transitory, but fixed elements of personal identity. This cannot be said of the crimes of typical juvenile offenders, whose choices, while unfortunate, are shaped by developmental factors that are constitutive of adolescence. Like the adult who offers evidence of good character, most adolescent offenders lack a key component of culpability—the connection between the bad act and the offender's bad character. In *Roper v. Simmons*, the Supreme Court recognized that adolescents' unformed character mitigates culpability. The court observed that it is not possible to be confident that "even a heinous crime by an adolescent is the product of an irretrievably depraved character."[29]

The reality, of course, is that not all young offenders grow up to be persons of good character. Some grow up to be criminals. Psychologist Terrie Moffitt, in a major longitudinal study, has placed adolescent offenders into two rough categories: a large group of what she calls "adolescence-limited" offenders—typical delinquents whose involvement in crime begins and ends in adolescence—and a much smaller group of youths that she labels "life-course-persistent offenders." Many youths in this latter group are in the early stages of criminal careers: their antisocial conduct often begins in childhood and continues through adolescence into adulthood. In adolescence, the criminal conduct of youths in these two groups looks pretty similar, but the underlying causes and the prognosis are different.[30]

This insight raises an important issue. Even if adolescents generally are less mature than adults, should immaturity not be considered on an individualized basis, as is typical of most mitigating conditions? Not all juvenile offenders are unformed youths. Adolescents vary in the pace of psychological development and character formation, and some may not deserve lenient treatment on the basis of immaturity.

The problem with individualized assessments of immaturity is that practitioners lack diagnostic tools to evaluate psychosocial maturity and identity formation on an individualized basis. Recently, courts in some areas have begun to use a psychopathy checklist, a variation of an instrument developed for adults, in an effort to identify adolescent psychopaths for transfer or sentencing purposes. This

practice, however, is fraught with the potential for error; it is simply not yet possible to distinguish incipient psychopaths from youths whose crimes reflect transient immaturity. For this reason, the American Psychiatric Association restricts the diagnosis of psychopathy to individuals aged eighteen and older. Evaluating antisocial traits and conduct in adolescence is just too uncertain.[31]

Other problems may arise if maturity is litigated on a case-by-case basis. Research evidence suggests that racial and ethnic biases influence attitudes about the punishment of young offenders; thus decision makers may be particularly inclined to discount the mitigating impact of immaturity in minority youths. The integrity of any individualized decision-making process is vulnerable to contamination from racist attitudes or from unconscious racial stereotyping that operates even among those who may lack overt prejudice.[32]

In sum, the developmental evidence indicates that the immaturity of adolescent offenders causes them to differ from their adult counterparts in ways that mitigate culpability. Scientific knowledge also supports recognizing this difference through categorical classification of young offenders. The presumption underlying the punitive reforms—that no substantial differences exist between adolescents and adults that are relevant to criminal responsibility—offends proportionality, a core principle of criminal law. The developmental psychology evidence does not support a justice system that treats young offenders as children whose crimes are excused, but it does support a mitigation-based model that places adolescents in an intermediate legal category of offenders who are less blameworthy and deserve less punishment than typical adult offenders. Under our developmental model, adolescence is a separate legal category for purposes of responding to youthful criminal conduct.[33]

Social Welfare and the Regulation of Youth Crime

In reality, although the scientific evidence of adolescent immaturity is substantial, principle alone will not dictate juvenile crime policy. Ultimately, the most compelling argument for a separate, less punitive, system for dealing with young criminals is utilitarian. An important lesson of the research on juvenile crime by Moffitt and others is that most delinquent youths, even those who commit serious crimes, are "adolescence-limited" offenders who are likely to mature out of their antisocial tendencies. These youths are not headed for careers in crime—unless correctional interventions push them in that direction. This lesson is reinforced by developmental research showing that social context is critically important to the successful completion of developmental tasks essential to the transition to conventional adult roles associated with desistance from crime.[34] For youths in the justice system, the correctional setting is their social context. Youth crime policy should not lose sight of the impact of sanctions on the future life prospects of young offenders. Sanctions that effectively invest in the human capital of young offenders and facilitate their transition to adulthood are likely to promote the interests of society as well as those of young offenders—as long as they do not unduly compromise public safety.

Supporters of tough sanctions argue that contemporary policies promote society's interest and point to the declining juvenile crime rates in the past decade as evidence of the effectiveness of the reforms. There is no question that reducing crime is a critical justification for more punitive sanctions, but

evaluating the impact of the reforms on the recent crime-rate trend is an uncertain business, with studies giving mixed reports. A few researchers have studied the effect of automatic transfer statutes, either by comparing two similar states with different laws, or by examining crime rates in a single state before and after a legislative reform. Their studies have found that punitive reforms have little effect on youth crime.[35] Only one substantial study has found that crime rates appear to decline under harsh statutes, and the methodology of that study has been sharply criticized.[36] Interview studies of incarcerated youths find that many express intentions to avoid harsh penalties in the future, but the extent to which these intentions affect behavior is unclear. Studies comparing recidivism rates of similar juveniles sentenced to adult and juvenile facilities have found higher rates of re-offending for youths sentenced to prison.[37] In short, little evidence supports the claim that adolescents are deterred from criminal activity by the threat of harsh sanctions, either generally or because their experience in prison "taught them a lesson."

If the recent reforms have reduced juvenile crime at all, it is mostly through incapacitation. Long periods of incarceration (or incarceration rather than community sanctions) keep youths off the streets where they might be committing crimes and do indeed reduce crime, at least in the short run—but the costs are high in several respects. The economic costs of the recent law reforms have been substantial, as many states have begun to realize. According to a careful analysis of the costs and benefits associated with one state's policy reforms increasing juvenile sanctions, serious youth crime declined 50 percent between 1994 and 2001, while spending in the juvenile justice system increased 43 percent.[38] The increased spending has opportunity costs as well; resources spent to build and staff correctional facilities to incarcerate more juveniles for longer periods are not available for other social uses. Economists explain that some amount of incarceration yields substantial benefits in terms of reducing crime, but that the benefits decrease (that is, fewer crimes are avoided) for each unit of increased incarceration.[39] Thus, incarceration may be justified on social welfare grounds for youths who are at high risk of re-offending. But no social benefit is gained, in terms of crime reduction, when youths are confined who would *not* otherwise be on the streets committing crimes. Moreover, if less costly correctional dispositions effectively reduce recidivism in some juvenile offenders, incarcerating those youths may not be justified on utilitarian grounds.

A substantial body of research over the past fifteen years has showed that many juvenile programs, in both community and institutional settings, can substantially reduce crime; the most promising programs cut crime by 20–30 percent.

Harsh policies carry other social costs as well—particularly if incarceration itself contributes to re-offending or diminishes youths' future prospects. Almost all young offenders *will* be released at some point to rejoin society. Thus the impact of incarceration on re-offending and generally on their future lives must be considered in calculating its costs and benefits. The research on the

impact of adult incarceration on normative adolescent offenders is not yet extensive, but the available evidence suggests that imprisonment undermines social maturation and educational progress and likely contributes to recidivism. This finding is not surprising: adolescence is a critical developmental stage during which youths acquire competencies, skills, and experiences essential to success in adult roles. If a youth's experience in the correctional system disrupts educational and social development severely, it may irreversibly undermine prospects for gainful employment, successful family formation, and engaged citizenship—and directly or indirectly contribute to re-offending.

The differences between the juvenile and adult systems have blurred a bit in recent years, but, even today, juvenile facilities and programs are far more likely to provide an adequate context for development than adult prison. Prisons are aversive developmental settings. They are generally large institutions, with staff whose function is custodial and who generally relate to prisoners as adversaries; programs are sparse, and older prisoners are often mentors in crime or abusive to incarcerated youths.[40] The juvenile system, although far from optimal, operates in many states on the basis of policies that recognize that offenders are adolescents with developmental needs. Facilities are less institutional than prisons, staff-offender ratio is higher, staff attitudes are more therapeutic, and more programs are available.[41]

The effectiveness of juvenile correctional programs has been subject to debate for decades. Until the 1990s, most researchers concluded that the system had little to offer in the way of effective rehabilitative interventions; the dominant view of social scientists during the 1970s and 1980s was captured by the slogan "nothing works" to reduce recidivism with young offenders.[42] Today the picture is considerably brighter. A substantial body of research over the past fifteen years has showed that many juvenile programs, in both community and institutional settings, can substantially reduce crime; the most promising programs cut crime by 20–30 percent.[43] In general, successful programs are those that heed the lessons of developmental psychology. These programs seek to provide young offenders with supportive social contexts and authoritative adult figures and to help them acquire the skills necessary to change problem behavior and attain psychosocial maturity. Some effective programs focus directly on developing skills to avoid antisocial behavior, often through cognitive-behavioral therapy, a therapeutic approach with substantial empirical support.[44] Other interventions that have been shown to reduce crime focus on strengthening family support. One of the most effective treatment programs with violent and aggressive youths is Multisystemic Therapy, the dual focus of which is to empower parents with skills and resources to help their children avoid problem behaviors and to give youths the tools to cope with family, peer, and school problems that can contribute to reinvolvement in criminal activity.[45] Effective juvenile programs offer good value for taxpayers' dollars, and the benefits in terms of crime reduction far exceed the costs.[46]

The success of rehabilitative programs does not mean that we should return to the traditional rehabilitative model of juvenile justice; punishment is an appropriate purpose when society responds to juvenile crime. Both adult prisons and juvenile correctional programs impose punishment, however, and the juvenile system is better situated to invest in the human capital of young offenders and facilitate the transition to conventional adult

roles—a realistic goal for youths who are adolescence-limited offenders. To be sure, the future prospects of juveniles in the justice system are not as bright as those of other adolescents. But developmental knowledge reinforces a growing body of empirical research indicating that juvenile offenders are more likely to desist from criminal activity and to make a successful transition to adulthood if they are sanctioned as juveniles in a separate system.

Under a mitigation model, most young criminals would be dealt with in the juvenile system. From a developmental perspective, punishing a sixteen-year-old car thief or small-time drug dealer as an adult is likely to be short-sighted—because these are typical adolescent crimes. But a justice policy that takes mitigation seriously is viable only to the extent that it does not seriously compromise public protection. In our view, older violent recidivists *should* be tried and punished as adults. These youths cause a great deal of harm and are close to adults in their culpability. They are also less likely to be normative adolescents and more likely to be young career criminals than most young offenders.[47] The authority to punish violent recidivists as adults constitutes a safety valve that is essential to the stability of the juvenile justice system. An important lesson learned from the collapse of the rehabilitative model is that juvenile justice policy must pay serious attention to the public's legitimate concerns about safety.

Looking to the Future

This is a good time to reflect on youth crime policy. The alarm that fueled the punitive juvenile justice reforms of the past generation has subsided as juvenile crime rates have fallen for several years. Even supporters of tough policies have had second thoughts. John DiIulio recently expressed regret about characterizing young offenders as "superpredators" and acknowledged that his predictions about the threat of juvenile crime had not been realized.[48]

The public too may be less enthusiastic about punitive policies than politicians seem to believe. In 2006, with colleagues, we conducted what is called a "contingent valuation survey," probing how much 1,500 Pennsylvania residents were willing to pay (from their tax dollars) for either an additional year of incarceration or a rehabilitation program for juveniles. The alternatives were described (accurately, according to the research) as offering a similar prospect for reducing crime. We found that participants were willing to pay more for rehabilitation than for punishment—a mean of $98.00 as against $81.00. Of course, this kind of survey is somewhat artificial, since the willingness-to-pay question is hypothetical. Nonetheless, these findings should be interesting to policymakers, particularly in light of a fact that we did *not* disclose to our participants—that a year of juvenile incarceration actually costs five times as much as a year-long rehabilitation program.[49]

Our study, together with other recent survey evidence, suggests that the public cares about safety but is quite open to rehabilitative programs as a way of reducing juvenile crime.[50] Politicians claim that the public has demanded "get-tough" policies, but this demand may often be a transitory response to a highly publicized juvenile crime. The research suggests that the political risk that policymakers face in responding cautiously to public pressure in the wake of these incidents may not be as great as they might surmise.

Legislatures also appear to be having second thoughts about the punitive laws that they

have enacted—partly because the juvenile crime rate has fallen and partly because adult prosecution and punishment of juveniles carry a high cost. In several states, punitive laws have been repealed or scaled back. For example, in 2005, Illinois repealed a statute mandating adult prosecution of fifteen-year-olds charged with selling drugs near schools or public housing projects, acknowledging that the statute had a substantial budgetary impact and was enforced disproportionately against minority youths.[51] Other states have also changed course. Colorado abolished the sentence of life without parole for juveniles, and Connecticut recently raised the age of adult court jurisdiction from sixteen to eighteen.[52] Lawmakers may be ready to approach juvenile justice policy more thoughtfully today than they have in a generation. If so, a large body of recent research that was not available twenty years ago offers insights about adolescence and about young offenders. Using this scientific knowledge to shape the direction of juvenile justice policy will promote both social welfare and fairness.

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Improving Professional Judgments of Risk and Amenability in Juvenile Justice

Edward P. Mulvey and Anne-Marie R. Iselin

Summary

The dual requirement to ensure community safety and promote a youthful offender's positive development permeates policy and frames daily practice in juvenile justice. Balancing those two demands, explain Edward Mulvey and Anne-Marie Iselin, requires justice system professionals at all levels to make extremely difficult decisions about the likely risk and amenability to treatment of adolescent offenders.

Mulvey and Iselin point out that although various forms of "structured" decision-making instruments are used widely in other fields, juvenile justice professionals today make limited use of these tools. Instead, they make decisions based mainly on their intuition about whether the adolescent before them is more likely to harm the community or to use justice system services to turn his life around. The reluctance of busy court professionals to use these structured decision-making tools, they say, arises partly from their heavy work load. But it also grows out of the ethos of the juvenile court itself. Restricting an adolescent's freedom or access to interventions based on a tallying of empirical data is antithetical to viewing each adolescent as a unique individual whose life chances may remain intact with developmentally appropriate intervention.

Mulvey and Iselin recommend and examine three ways to integrate structured judgment approaches into the juvenile justice system that both capitalize on their strengths and support the court's attempts to provide fair, individualized justice. First, more reliance on actuarial methods at detention and intake would promote more efficient and equitable screening of cases for subsequent court involvement. Second, the use of structured decision making by probation officers could provide more consistent and valid guidance for the court when formulating dispositions. Finally, implementing structured data systems to chart the progress of adolescents in placement could allow judges to oversee service providers more effectively.

The challenge for the juvenile system, say the authors, will be to harness the new capacities of the science of decision making and of computer technology to increase the efficiency of its limited resources for the benefit both of the community and of the adolescents in the system.

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To paraphrase Mark Twain, the report of the death of individualized justice for juvenile offenders is greatly exaggerated. Despite a strong trend toward a more punitive and process-oriented juvenile justice system, both the philosophy of the juvenile court and the actions of the professionals working in it are still guided by the goal of providing the right sanctions and the right services to the right offenders.[1] During the course of juvenile justice processing, professionals still make a series of judgments about whether a particular adolescent is likely to harm someone in the community (risk of future violence or crime), to benefit from certain interventions (amenability to treatment), or both.

In today's overburdened system, these judgments are often made rather haphazardly. To even a casual observer, it seems that, especially given recent advances in technology and the decision-making sciences, the juvenile justice system should approach such judgments more systematically. Yet the system has been slow to adopt more structured methods for assessing risk and amenability to treatment.

In this article, we explore how more structured methods of screening and assessment could be introduced into the juvenile justice system without disturbing its ethos of individualized justice. We review developments in ways to improve decision making regarding adolescent offenders and propose that many more structured strategies could be introduced into juvenile justice practice with positive results. Toward that end, we examine where particular forms of structured judgment fit best with existing juvenile justice policy and practice. We also examine whether the juvenile court might serve more effectively as an advocate for appropriate service provision than as an insightful parent, as originally envisioned.

A Historical Perspective

In the vision of individualized justice that animated the juvenile courts at the turn of the twentieth century, the court served as a forum where judges could focus on the characteristics of the adolescents before them rather than on the characteristics of the actions committed. In his early writings about the role of the juvenile court, Judge Julian Mack recommended that the court evaluate the physical, mental, genetic, and environmental factors that might be related to juveniles' delinquent behavior. Given this information, the judge must then, as Judge Mack put it, "be able to understand the boys' point of view… willing and patient enough to search out the underlying causes of the trouble."[2] The early juvenile court was a social service agency for children and their families,[3] and it provided services both to delinquent youth and to those at risk of delinquency.[4] The underlying philosophy was that each child's life was malleable, able to develop in either a negative or positive direction.

Keeping the juvenile system separate from the adult system had two express aims.[5] One was to keep adolescents from serving sentences in prison with adults, thus preventing their exposure to adult criminal activity and negative role models. The other was to provide them with positive interventions to help them leave delinquency behind, thus keeping their life chances intact.

Juvenile court judges were powerful in the community and were figuratively perceived as parents, directed to make decisions as if the juveniles before them were their own children.[6] Courts functioned in this way until they came under critical scrutiny during the

1960s, by which time the courts' resources were severely strained and the ideal of extensive services directed to fulfill each adolescent's needs was usually more a rhetorical goal than a reality.[7] In an era of increased concern with individual and civil rights, it also became apparent that the considerable individualized discretion given decision makers in the juvenile court often meant that youths received the "worst of both worlds."[8] Juveniles received neither the procedural protections guaranteed adults nor the regenerative and individualized treatments originally promised by the juvenile system.[9] Landmark legal cases introduced procedural rights, such as due process, into the juvenile court and turned attention toward the process and consequences of court actions.[10]

Juvenile justice professionals must make well-reasoned judgments about two key issues: the risk of future harm to the community posed by an adolescent and how likely that adolescent is to benefit from interventions.

The juvenile court came increasingly to resemble the adult criminal court. Punishment and penal proportionality—matching the severity of punishment to the seriousness of the crime—became accepted as explicit goals.[11] Statutory revisions elevated community safety as a priority over individualized interventions, resulting, for example, in more liberal criteria for transferring youth to adult court. Punishment was increasingly recognized as acceptable in the juvenile court because it was believed to deter future delinquent behaviors.[12]

Certain procedures, such as transfer to adult court, were restructured to allow for broader application of sanctions, and more punitive interventions, such as boot camps, gained widespread popularity. The increased focus on community safety, however, did not completely override the juvenile court's original goal of individualized rehabilitation. The juvenile system, at its core, continued to devote the bulk of its resources to sorting adolescents according to their likelihood to develop into adult criminals and to redirecting each youth toward positive adult adjustment within the bounds of what it could provide.[13] Juvenile justice professionals still make a broad array of decisions on an individual-by-individual basis, as several articles in this volume make clear. (For a discussion of decisions about mental health problems, see the article by Thomas Grisso; for decisions about substance use treatment, see the article by Laurie Chassin; and for complexities of transfer decisions, see the article by Jeffrey Fagan.)

To make such determinations effectively, juvenile justice professionals must make well-reasoned judgments about two key issues: the risk of future harm to the community posed by an adolescent and how likely that adolescent is to benefit from interventions. In the next section, we highlight the relation between these two issues and discuss how professionals make such judgments today. We also discuss alternative methods for judging risk and treatment amenability, noting the current debate about their merits and presenting empirical evidence on each. We then go on to discuss how these judgments can be made in a way that better aligns the ideal of

individualized justice and the reality of how the system works.

Judging Risk and Amenability

The balance between ensuring community safety and promoting an offender's positive development permeates policy and frames daily practice in juvenile justice. Decisions weighing risk and amenability to treatment are made throughout the justice process—from deciding whether and how to charge a juvenile with an offense (for example, charge with a misdemeanor, felony, or as an adult), to deciding whether to hold him in secure confinement or permit a return home while awaiting disposition, to deciding when to refer him for more in-depth evaluations, to selecting dispositions (that is, type of supervision, treatment, and placement), to planning for aftercare (for example, level of follow-up monitoring). Throughout the process, determinations are rooted in judgments about how much risk an adolescent poses to the community and what available services might move him back onto a positive path.

Although we present these concepts separately, judgments about an individual's risk for future offending and treatment amenability overlap substantially and are not mutually exclusive either theoretically or in the mind of the professional.[14] Both judgments focus on the likelihood of particular outcomes in response to certain conditions that might be imposed by the court; both are framed by a decision point and a community. They are also ultimately balanced against each other. For example, in an ideal situation, a particular institutional placement may limit an adolescent's opportunities for future offending while providing services particularly appropriate to positive development. In most cases, however, judgments of risk and amenability rarely coincide so neatly, and one assessment usually takes priority. In some cases, for instance, the nature of the offense or the adolescent's history simply overwhelms other considerations about the possible gains from a particular treatment program.

Although the two determinations are related to each other, assessing risk and amenability are still somewhat distinct clinical tasks. Most often, risk for future offending is based on the nature and severity of the offense as well as the number of past offenses and whether the offenses were violent, against a person, willful, and premeditated.[15] Amenability to interventions and sanctions is most often related to the adolescent's offense history, environmental and personality characteristics, willingness to engage in treatment, past treatments, availability of services, and age. Also relevant to each determination are the organizational characteristics of the juvenile justice system, such as the limited availability of services and the competence of service providers.[16]

Current Practice in Assessing Risk and Amenability

Although various forms of "structured" decision-making instruments, such as rating scales and decision trees, are available and are used widely in such fields as medicine or adult corrections, juvenile justice professionals today make limited use of these decision-making tools to assess risk for future offending or amenability to treatment, although they are frequently relevant to legal decisions and have a direct bearing on individualized justice. Instead, at successive points along the path of juvenile justice processing, professionals make decisions based mainly on their intuition about whether the adolescent presents a significant likelihood of future harm to the community or whether he would make good use of available services, or both. It is the exception, rather than the rule, to consider a

consistent set of carefully assessed, empirically verified data.

This practice results partially from the heavy demands placed on the juvenile system. Of the almost 950,000 petitions filed in U.S. juvenile courts every year, about two-thirds are formally adjudicated delinquent; the remaining youths are either diverted from the system or handled informally.[17] The resources allocated to assess and process these cases are regularly described as inadequate. Making a detailed assessment of each adolescent requires gathering verifiable information from multiple informants about multiple aspects of an adolescent's life, which simply cannot be done given the tight deadlines and high caseloads in the court.

But juvenile justice professionals make limited use of structured instruments not just because of the court's insufficient resources. The ethos of the court also reinforces a reliance on unstructured professional judgment. As noted, from its beginnings, the ideal of the juvenile court has been to provide individualized justice for adolescents by considering their unique capacities and life situations rather than just the characteristics of their offenses. The use of standardized instruments thus runs counter to the identity of the juvenile system as a whole and to the professional identities of those who carry out its mission. Restricting an adolescent's freedom based on a tallying of empirical data is antithetical to viewing each adolescent as a work in progress whose life chances may remain intact with developmentally appropriate intervention. Individualized justice demands that the court's actions make sense for each individual case, rather than for a class of cases that fit the adolescent's "profile." The rationale of the juvenile system rests on its ability to respond with discretion to that one case that needs a unique solution.

Two Common Methods for Structuring Judgment

The juvenile court may find it easier to move away from its reliance on intuition given recent increases in methods and scales for structured decision making.

Many instruments for assessing future risk and treatment amenability, including both straight *actuarial* methods and combined actuarial and *clinical* judgment methods, are becoming readily available.

The actuarial approach rates and groups individuals according to the likelihood of a specified event happening in the future. It uses a consistent and systematic method for collecting and combining information, much like actuaries do in setting insurance rates. The most common such approach is to assign points to particular characteristics of an individual and combine these points (usually by adding them together or weighting each piece of data and then adding them together) to obtain an overall score. The total score reflects how likely a particular outcome, such as an automobile accident or a re-arrest, is for that person. Data in actuarial models are not required to be theoretically connected to the outcome of interest; rather, they must simply be able to predict that outcome. As both computer technology and statistical methods continue to advance, more sophisticated and accurate actuarial methods, like "neural networks" or other intensive methods for combining information and refining prediction models based on new information, will appear in practice.[18]

The clinical approach, by contrast, reaches a judgment about the likelihood of an event happening by constructing a coherent picture of how different characteristics of an individual and his situation increase or decrease the

chances that it will happen. The clinical approach attempts to develop a theory of why an event might happen for an individual, based on the regularities seen in past cases and what is known about the current case. An adolescent, for example, might be extremely sensitive to personal slights, have a history of fighting when confronted, and be returning to live with a highly critical parent who also has a history of violence. All of these variables fit together to form a picture of likely future violence by this adolescent. These variables might not be relevant in another case, but in this one they form a logical picture of how likely the adolescent is to commit a violent act in the near future and what might increase that risk. Assessments by probation officers, mental health professionals, and judges usually rely heavily on clinical approaches to determine both the likelihood that a youth will commit future violence and that youth's amenability to treatment.

In their most basic forms, actuarial and clinical methods in many ways address opposite sides of the coin. Whereas actuarial methods provide straightforward estimates of future behavior based largely on what is known about groups of individuals, clinical methods provide complex assessments based largely on what is known about an individual. Actuarial methods are largely inductive; clinical methods are largely deductive. Actuarial methods fit well in situations where processing demands are high and resources are low, whereas clinical methods fit well within the objective of individualized care. Not surprisingly, academics and clinicians are often at odds about the values of each method.

Since the 1950s, practitioners and researchers in several different fields, such as suicide risk assessment and student admissions, have debated the merits of actuarial and clinical methods for predicting events. Research has consistently demonstrated that actuarial methods outperform clinical methods, in terms of the proportion of correct to incorrect predictions, in a variety of tasks.[19] Furthermore, actuarial methods outperform clinical judgment even when the actuarial model is tested against the clinical judgment of the skilled professionals on which it was based.[20] From a strict utilitarian viewpoint, adopting actuarial methods makes sense for many areas where accurate prediction in the aggregate is the major goal.[21]

But the discussion about the relative merits of actuarial and clinical approaches is more an academic exercise than a substantive debate with real implications for juvenile justice practice and policy. In practice, actuarial and clinical methods are often merged to enhance assessment information and subsequent recommendations, both at the level of individual professional assessments of offenders and at the level of designing systems to allocate resources for assessment and intervention.

Combining Clinical and Actuarial Methods in Assessment

The individual assessment process has two phases: data collection and data combination. Data gathered about a case can be either actuarial or clinical—for example, an individual's score on a risk assessment instrument or clinical impressions about the level of thought disorder—or some combination of the two. The data are then combined, again using actuarial or clinical methods. An assessor can review relevant scores on structured instruments and deduce a clinical profile. Or the assessor can combine clinical ratings of several dimensions using a standard weighting scheme. Improving practice in general, and ultimately combining individualization with efficiency, rests on integrating clinical

and actuarial approaches, rather than choosing between them, both in collecting and combining data.

Whereas actuarial methods provide straightforward estimates of future behavior based largely on what is known about groups of individuals, clinical methods provide complex assessments based largely on what is known about an individual.

The systematic integration of actuarial and clinical information is often termed structured clinical judgment.[22] Using structured clinical judgment, a decision maker follows guidelines for collecting information consistently (either scores on assessment tools or ratings based on clinical impressions) across a set of predetermined domains and then combines this information the same way across each case. The same domains relevant to the decision being made are considered as a matter of course, the rules for collecting information are clearly stated, and the process for combining information is structured and explicit.

One way to combine the diverse information gathered in risk assessments is for the clinician to formulate a set of reasons why the results of an actuarial instrument might or might not be misleading.[23] Using the actuarial instrument as an "anchor," the clinician presents an argument that justifies a higher or lower assessment of the probability of future violence. In the absence of such justifications, clinical judgments are often made in a "backward" fashion. For example, information that a clinical evaluator might have about a treatment option, such as a group home that is readily available, would determine the outcome of interest—that the adolescent be referred to that group home—and case variables, or judgments such as risk of future violence, would then be chosen selectively to support the logic of this decision.[24] Structured clinical judgment provides a more consistent evaluation of the information regarding a case and more reliable judgments across the set of cases seen. Structuring clinical judgments also improves how well clinical methods predict future outcomes, putting them on nearly equal footing with actuarial methods.[25]

Actuarial and clinical methods can also be combined to target assessment or intervention resources efficiently. Using a routine, easily administered actuarial screening tool, such as a self-report history form or a standardized intake rating form, nonprofessional staff can identify groups of cases requiring further, more intensive assessment or treatment. Cases identified as high-risk at the initial screening phase can then be evaluated by a professional using more sophisticated clinical approaches. Results from this more detailed evaluation may be used to make referrals to specialized interventions.

Using actuarial instruments for screening reserves the more expensive and involved clinical approaches for cases most likely to benefit from closer scrutiny. Screening tools are *meant* to "over-identify" cases at high risk for a particular problem. Youths who are initially classified as positive for the problem but are found not to have it after a more detailed assessment are called "false positives."

Screening tools can also register "false negatives" by classifying youths as not having the problem when in reality they do. The ratio of "false positives" to "false negatives" that is acceptable in different situations can often be set by adopting different cut-points on the screening tool that determine when a case should be provided services or receive further assessment. Thus scarce resources can be allocated to those most in need.

Current Practices for Assessing Risk and Amenability in Juvenile Justice

In several areas of juvenile justice processing, more structured methods for screening and assessment are beginning to be put into practice. Most commonly, locales have devised risk assessment instruments that tally items and calculate an overall risk score regarding the appropriateness of institutional placement or detention, with some locales even requiring such an instrument.[26] Items and scores are derived for a specific locale, based on a combination of local data about re-arrest or re-institutionalization and local values regarding the acceptable level of community risk from juvenile crime.[27] The logic behind these measures is simple: the more risk factors endorsed, the more likely the juvenile is to re-offend, and therefore the more justification there is to detain or place the juvenile in an institution. Overall, actuarial instruments of this sort have been shown to be moderately predictive of re-arrests.[28]

Developing and testing these sorts of tools for specific points in juvenile justice processing, however, can be costly.[29] Therefore, many locales simply adopt tools used by a comparable city or state. Although such an approach almost inevitably increases consistency within the court, it does not achieve the full payoff of implementing structured judgment approaches. A locale's failure to develop local standards undercuts the considerable potential gain to be had from using its own data and a consensus process to develop instruments tailored to its juvenile justice system.[30]

In several areas of juvenile justice processing, more structured methods for screening and assessment are beginning to be put into practice.

An actuarial decision-making system can often be developed as part of a broad-based reform of a community's juvenile justice system.[31] Having stakeholders identify appropriate risk indicators and choose thresholds for particular actions, such as detention, can increase collaboration and produce a shared sense of mission. Carefully introducing actuarial risk assessments can also effectively address the continuing issue of disproportionate minority confinement in a community.[32] Regardless of the strength of the underlying causes of minority overrepresentation (a subject covered in the article by Alex Piquero in this volume), a community can implement detention standards fairly and objectively using a structured instrument, thereby affecting the rates of minority adolescents locked up in the process.

One comprehensive approach to developing assessment instruments, the combined risk-and-need approach, goes beyond calculating a single score of how likely a juvenile might be to re-offend to include an assessment of protective factors or treatment needs.[33]

Rather than treating risk as a stable characteristic of the adolescent, the risk-and-need approach assumes that risk might be lowered by particular interventions or by careful monitoring in the community. An adolescent with a drug or alcohol problem may be at higher risk for re-offending but may also be a good candidate for positive community adjustment if that problem can be addressed effectively. The risk-and-need assessment strategy goes beyond simply sorting adolescents into lower or higher risk groups by providing information about how to select interventions to reduce risk. It allows the evaluator to use results from the assessment to identify treatment interventions specific to an individual's needs rather than just to offer a binary decision about the need for incarceration.

Although structured decision making and risk-and-need assessment strategies are not yet used widely in the juvenile justice system, they are beginning to be put into practice. Mental health clinicians, for example, are increasingly likely to integrate structured clinical judgment into their practice when doing assessments for courts.[34] Used properly, these approaches can increase the scientific soundness and practical utility of their assessments.[35] Numerous interview and rating systems, such as the Early Assessment Risk List (EARLS) or the Structured Assessment of Violence Risk in Youth (SAVRY), now provide systematic methods for assessing the future risk of violence with acceptable predictive accuracy.[36] Several brief, self-report measures related to risk of future violence, such as the Antisocial Process Screening Device, are also predictive of antisocial behavior and likelihood of successful involvement in treatment.[37] Although there is no self-report measure of treatment amenability, there are measures of motivation to change, a key component of treatment amenability. Such measures as the University of Rhode Island Change Assessment (URICA) and Treatment Motivation Questionnaire (TMQ) have variable predictive ability, and few studies have examined motivation to change in adolescents.[38]

We know of one interview-based rating system for assessing treatment amenability: the Risk, Sophistication, and Treatment Instrument (RST-I).[39] Preliminary data show that it is predictive of important juvenile justice and clinical outcomes, such as treatment compliance.[40] It is, however, relatively new, and more research is needed on its predictive validity, especially in comparison with other risk-and-need measures.

Research on the utility and validity of risk-and-need instruments in court systems in general remains rather limited. Only a few structured risk-and-need instruments have undergone careful recalibrations and repeated validity testing.[41] The benefit of introducing these systems at this point may simply be to increase the uniformity of decision making at certain stages in juvenile justice processing, but that is still a plus: more consistent application of decision-making rules has been shown to increase overall accuracy even if the model used is less than optimal.[42] Much of the value of using these risk-and-need systems may lie in the fact that they are used at all, rather than in the exact specificities or sensitivities of their algorithms.[43]

One important limit of some of these highly structured instruments that must be addressed before they can be adopted widely is that they may not be equally valid across different racial and ethnic groups. Although there is some evidence that comprehensive risk-and-need assessments may predict outcomes equally well across gender and ethnicity, screening instruments may not do as well. For example,

brief risk measures predict recidivism better for whites and males than for blacks and females.[44] Clinical assessments too appear to predict recidivism better for white samples than for ethnically diverse samples.[45] Two papers in this volume discuss these matters in more detail. Elizabeth Cauffman addresses the assessment of female offenders, and Alex Piquero addresses the assessment of youths from diverse ethnic backgrounds.

Changing Policy and Practice

This review leads to two general conclusions, one encouraging and one not. On one hand, there *are* methods for structuring judgments to make them more consistent and valid, and these methods are applicable to juvenile justice practice. On the other hand, because their value is not readily apparent, these methods are rarely adopted enthusiastically by juvenile justice professionals.

To increase the likelihood that these technologies will become more accepted in juvenile justice practice, we next address two issues. First, we stress both the promise and limits of these technologies. Structured judgment strategies are not panaceas. To avoid unrealistic expectations and misapplications, practitioners must know when these strategies work well and when they do not. Second, we explore how these technologies can enhance the explicit goals of the court. As noted, the realities of the juvenile justice system often undermine its philosophy. Recognizing how these technologies can promote the espoused goals of juvenile justice is critical to their being adopted. Ideally, professionals would use effective methods in situations where they are likely to perform well and would understand clearly the value and reasons for doing so.

Characteristics of Effective Structured Assessments

Consistency. The foundation of any effective structured judgment system, whether an actuarial table or a structured judgment guide, is consistency. Information must be consistently defined, and the methods for combining that information must be consistently applied. The components being measured must be readily understood and obtainable by the personnel gathering and combining the information. This requirement is often undermined in practice, however, when systems use highly inferential constructs, such as an adolescent's level of criminal sophistication, or information beyond the immediate access of the person making the determination, such as school grades for the past three years. People can use information consistently only when they can easily assess or obtain it. Consistency also means that all evaluators within the decision-making system are using the same methods for combining information every time they perform an assessment. Weighting information in different ways or defining factors differently introduces considerable "noise" into the formulation of a final risk or treatment amenability score. The more noise there is in the information used to make decisions, the more difficult it is to predict policy- and practice-relevant outcomes accurately in the long run. The most informative assessments therefore combine and distill the available case information using consistently defined constructs and methods.

Connection to management strategies. Effective assessments also take into account change in the lives of the individuals being evaluated. Because risk state can change as an individual's life changes, the task of predicting violence is therefore best framed as assessing and managing violence potential,

rather than foreseeing a discrete event.[46] Rather than providing likelihoods about whether an individual will commit a violent act within a given time period, professionals are now more inclined to identify variables that raise or lower the probability of violence and methods for managing them.[47] This is an ambitious undertaking, the limits of which are just now being sorted out by researchers and practitioners.[48]

To be effective in the long run, any structured judgment approach must be consistently implemented and adaptable to change and ongoing management. Assessing adolescents in the juvenile justice system poses challenges on both counts. First, adolescents change a great deal over the course of their teens, and, second, the ethos of the court discourages consistency in decision making. We discuss these two challenges to implementing structured assessments of risk and treatment amenability in the next section.

Two Challenges for Implementation in Juvenile Justice

Variability and change in adolescence. A variety of individual characteristics, such as skills and motivation, and social characteristics, such as family functioning and peer affiliations, come together to determine the likelihood of someone being involved in crime or violence at any given time. Adolescents, including juvenile offenders, are particularly subject to change, physically, emotionally, and psychologically, as they move toward adulthood. Measuring aspects of personality and functioning and assessing their effects on the likelihood of offending are thus especially challenging when considering adolescents. There can be wide variability both within groups of adolescents and in any individual adolescent over time. Depending on what is being assessed, the teen one sees this week or month may differ greatly from the teen one sees the next week or month. Because adolescents mature in predictable ways but often at very different rates, it is difficult to be certain about whether observed characteristics, such as low impulse control, reflect an innate characteristic or simply a developmental phase. An adolescent who appears disengaged and aloof may within a year's time become focused and engaged in numerous activities. While adolescents do not change greatly in terms of their rank ordering in a number of characteristics, it is still often difficult to say with certainty what the pattern of change will be for a particular adolescent. Given rapid developmental changes as well as vast individual differences, adolescents are moving targets.[49]

These patterns of change pertain also to antisocial activity. Although studies find identifiable patterns of both criminal offending and substance use over adolescence and young adulthood,[50] it is clear that, even for serious adolescent offenders in late adolescence, the rule is change, not constancy.[51] Considerable evidence exists, for instance, that a high proportion of offenders curtail their illegal behavior (and substance use) as they progress into their twenties.[52] Late adolescence brings socially constructed transitions, such as from one school to another or from school to work, as well as developmentally driven changes, such as increased investment in romantic relationships, that together make antisocial activity less likely.[53]

This simple regularity of change has an important implication for assessments of adolescent offenders: determinations of likely future offending during late adolescence and early adulthood have a limited shelf life. The events and transitions in an adolescent's life often make any given assessment less

relevant as time goes on. Assessments of risk and treatment amenability are thus most valid when they focus on short-term outcomes and explicitly incorporate the types of events that might precipitate or reduce the likelihood that an event will happen. To be most informative to public policy and psycholegal practice, adolescent assessments must therefore be done regularly. Furthermore, the measures being used in these assessments must be updated frequently.[54]

Matching the method with court goals. Findings about the utility of structured judgment approaches have led to far more change in decision-making practices in the adult justice system than in the juvenile justice system. Part of the explanation for this difference lies in the congruence between the goals of the court and the methods of structured judgment. In the adult system, the use of actuarial methods promotes the valued principles of proportionality (sufficient, but not excessive, punishment for the gravity of the crime) and equality (individuals committing the same crime receiving the same level of punishment). To policymakers and practitioners in juvenile justice, however, actuarial methods seem to undercut the longstanding commitment to providing individualized justice and services and to the focus on the actor rather than the act.[55] Actuarial methods also contradict the view of the professional, whether the judge, the probation officer, or the social service provider, as having unique knowledge and skill gained from years of experience. Observers in the court often see structured judgment methods as empirically sophisticated, but theoretically vacuous, and as unable to recognize the ability of skilled professionals to formulate individualized, theoretically based formulations about the behavior in question, which is the essence of individualized justice.

As important as the ideal of individualized justice is, however, is how well that ideal gets put into the practice of the juvenile court. While espousing the ideal, the court must also efficiently and effectively sort juvenile offenders, operating as both a "people processing" and a "people changing" organization.[56] It is both a triage unit for distributing sanctions and interventions and a public display of symbolic and real authority meant to redirect the lives of adolescent offenders. Within this framework, there is a place for structured judgment approaches as long as they promote the overall operational goals of the court, while not directly assaulting the notion of individualized justice.

The simple regularity of change in adolescence has an important implication for assessments of adolescent offenders: determinations of likely future offending during late adolescence and early adulthood have a limited shelf life.

The court processes cases through a series of successive determinations about transfer, detention, intake, adjudication, and disposition. At each stage, the sample of offending adolescents is refined to arrive at a group deserving sanctions or rehabilitation. The sorting rules are generally consistent—more numerous past offenses and more severe current crimes eventually lead to more supervision or institutional placement, either through transfer to the adult system or through institutional placement at disposition

in the juvenile system. These successive judgments move adolescents and families through the routine process connected with juvenile crime and hand out "going rate" punishments for particular forms of illegal behavior. If it operates well, the process should sort cases fairly—for example, without bias for race, ethnicity, or gender.

At the same time, the juvenile court system also tries to provide a corrective experience for adolescents. It tries to fulfill a "people changing" function by providing the right service at the right time or by instilling a sense of social responsibility in the adolescents and families coming before it. Juvenile courts are often seen by professionals both within and outside the system as "conduits" to appropriate services: a way to get an adolescent a needed intervention with the added clout of the court attached to enforce service involvement.[57] In the best case, court involvement can be a turning point for an adolescent, prompting an end to criminal activity through either appropriate service provision or a powerful socializing experience.

Fulfilling both of these roles well is a demanding enterprise. Processing cases efficiently, while still promoting a sense of procedural justice, takes an enormous amount of resources. Identifying adolescents who will benefit from particular services or sanctions at each point in the system is also daunting. To use resources efficiently, and to incorporate structured judgment effectively, the court must clarify when it is primarily concerned with equitable processing and when it is attempting to assess future risk or amenability to influence an adolescent's development.

It is often claimed that individualized judgments directed at both these goals are made on every case at each point in the process. But adopting this position may lead to adolescents receiving the clinical analogy of what the Supreme Court in *Kent* termed "the worst of both worlds."[58] They receive neither the in-depth examination of their character and situation needed to make a sound judgment nor the equity inherent in a consistently applied empirical determination. There are, though, several ways to focus the screening and assessment of risk and amenability to serve adolescents more effectively.

Integrating Structured Judgment into Practice

There are three ways to integrate structured judgment approaches into the juvenile justice system that both capitalize on their strengths and support the court's attempts to provide fair, individualized justice. First, more reliance on actuarial methods at detention and intake would promote more efficient and equitable screening of cases for subsequent court involvement. Second, the use of structured decision making by probation officers could provide more consistent and valid guidance for the court when formulating dispositions. Finally, implementing structured data systems to chart the progress of adolescents in placement could allow judges to oversee service providers more effectively. We outline below how each of these approaches might work.

Using Actuarial Methods at Detention and Intake

Adopting easily administered and interpreted screening instruments at detention and intake would both capitalize on the new technologies of risk assessment and accomplish the goal of equitable processing at these early points of contact with the juvenile system. Structured instruments for determining the need for detention have proved useful in reducing detention center populations, often by

reducing racial disparities, while ensuring that certain adolescents housed in less restrictive environments still show up for court. In addition, routine mental health screens, such as the Massachusetts Youth Screening Instrument–Version 2 (MAYSI-2),[59] have been useful for identifying adolescents who might require increased supervision or immediate crisis intervention while in detention. Intake screening instruments have also shown promise in identifying cases with high risk of future offending. Straightforward, self-report, or direct behavioral rating scales can promote efficient case processing and diversion at the early stages of juvenile justice system processing.

More involved assessments of risk or amenability to treatment at these early stages of court processing are probably *not* worth the investment, even on teens scoring high on screening instruments. The main goal of the system in these early stages is primarily to identify consistently the youths who should go on to more involvement with the court. Although it would be ideal to identify adolescents with clear service needs early to intervene and prevent future problems, the structure of the juvenile and social service systems makes this difficult and unlikely. Little, if any, evidence suggests that assessing service needs for adolescents at detention or intake assures coordinated service delivery for the identified problems. At this early point the juvenile justice system is simply not organized to communicate in detail and follow through on any assessment information that it may obtain. The service providers responsible for following up on the needs of the adolescents do not work directly for the juvenile court (they are usually in the schools or the mental health system), and juvenile justice personnel are simply unable to follow up on the overwhelming number of adolescents who pass through the system. Moreover, agencies receiving a referral from the juvenile justice system invariably conduct their own assessment before providing services. Referrals can be made based on sound screening instruments, whose findings should be provided in the referral, but in-depth risk-and-needs assessments at this early point in processing probably have little chance to make a real difference in the life of the adolescent. Just about all they can guarantee is more paper work and meetings for professionals.

We inject one important caveat about implementing more structured screening at detention and intake. More work is needed to assess possible racial and ethnic disparities resulting from such screening tools. As noted, existing screening tools may have different predictive validities with different racial and ethnic groups,[60] and any use of such tools must therefore correct for these differences.

Using Structured Decision Making at Disposition

Building more structure into the assessment of risk and amenability at the disposition phase of court processing would provide better guidance to the court in making decisions about placements and services. The twin reality of large caseloads and few judges means that court disposition hearings are rather short. Most information about the appropriateness of placements or community supervision options is spelled out in the report submitted by the probation officer to the court. These reports usually contain a workable recommendation or a few options for placement or services, and, in the vast majority of cases, the judge orders the recommended services. The adolescent's attorney has in most cases already been informed of, and negotiated aspects of, the recommended

disposition. These hearings are not an extended inquiry into the dynamics of the adolescent's antisocial behavior or a probing analysis of the match between an offender's characteristics and the likely disposition. Most often, they are more like an acceptance of a plea agreement than a systematic judgment of future likelihood of harm or amenability.

Given this reality, it does not seem reasonable to develop elaborate structured judgment instruments for judicial decision making. This is not a situation in which consistently defined information can be combined in a uniform way. Judges do not have the time to compile the types of ratings that might be required, and they often do not have access to the information that might be needed to make a structured assessment. It would seem reasonable, however, for probation officers to provide the judge with results of standardized assessments so that cases can be compared quickly and consistently. Because the disposition hearing is largely a review of the appropriateness of a recommended placement or service, it would seem essential to provide the judge with a consistent "ruler" for assessing the fit between the particulars of the case and the recommendation. Instruments that provide a judge with scores on such things as the likelihood of re-offending if no intervention is provided or the success experienced in certain types of placements for adolescents with the characteristics seen in this case would certainly provide a useful touchstone for reviewing the reasonableness of the proposed disposition plan. Such instruments could be constructed using information already being reviewed by the probation officer for the court report and from official data bases about re-arrests or court re-appearances of the youth in that locale. Knowing how well a particular case matches the regularities seen in past cases can help the judge make a more informed review of the proposed service plan for the adolescent.[61]

The ethos of the judge as a wise decision maker about the particulars of each case has made it hard for some to see the pragmatic payoff of such an approach. The judge fulfills an extremely important role as a community representative and standard bearer, and undermining this position would certainly erode the symbolic impact of appearing in court for an offense. Nonetheless, holding on to the notion that the judge is also a fully informed and insightful clinical decision maker seems to place too large a burden on any individual in this position. Using structured assessments of risk and amenability on each case, a judge may be able to make more effective use of the limited time given to each case. With this standard information, a judge could ask why the results of a structured instrument are at odds with a proposed plan or why a mismatch of an offender's characteristics and the profile of a service's ideal client are reasonable in this case. Used this way, structured assessment instruments could provide an anchored starting place for inquiry and judgment during the disposition hearing.

Using Structured Information about Service Effectiveness in Review Hearings

The realities of an overburdened court and the need for systematic, consistent information also suggest that judges might usefully play a more administrative oversight role regarding the provision of services to high-risk offenders. As noted, assessments of risk are most useful when they are revised periodically, taking note of changes in a juvenile's life that might elevate or reduce the risk of antisocial activity. Court review hearings, while held regularly for many serious cases, are often rather perfunctory

reports on overall assessments of an adolescent's progress in the community or in an institutional program. These reviews could be much more useful if they were tied into information developed from structured instruments about the variables related to continued offending or treatment success for that adolescent. Extending the information provided at disposition into an ongoing assessment instrument to track progress on key intervention goals for that adolescent could focus review proceedings on how well these goals are being accomplished.

This approach would also give the judge an opportunity and structure for inquiring about the appropriateness and intensity of services provided by contracted agencies. Meta-analyses of juvenile justice interventions demonstrate that appropriate services for the most serious offenders provide the greatest benefits in terms of reduced offending.[62] Monitoring whether a serious adolescent offender is receiving the services identified as necessary is thus a critical task for ensuring effective use of intervention resources.

Yet most court reviews of adolescents in institutional care focus on how well the adolescents are "adjusting" or "performing" in the program. The adolescent who does not make progress may be brought back to court for "failure to adjust" and placed in another facility. Having a profile of the types of services needed by that adolescent, however, could enable the review hearing to explore whether the needed services have actually been provided. Structured assessment instruments completed at disposition can be an ongoing tool for assessing how well serious adolescent offenders are progressing in treatment and how well treatment programs are providing the needed services. The court can then more actively promote the appropriate provision of services to fulfill its obligations to use resources effectively to protect the community. Over time, information from these reviews can reveal how effective agencies are at providing service over their contracted periods with the court. Using information based on the risk and needs of its most serious cases, the court could move away from the model of a fully informed judge and toward a model of a fully informed system.

Implementing these last two approaches—structured decision making by probation officers and ongoing monitoring of service provision by judges—requires a greater commitment to accurate data collection and refined data management. Currently, juvenile justice systems vary widely in the sophistication and focus of their data management systems. We therefore reserve comment on the specifics of how to implement data systems and instead refer the reader to examples of such systems that are already in place.[63] Each juvenile justice system will vary greatly in its application of improvements in its data systems. If done well, though, these systems will provide an accurate, ongoing view of the court's efficiency given the idiosyncrasies of resources available in a particular locale. The explosion of technologies for storing and processing information presents juvenile courts an opportunity to move toward more technologically advanced and streamlined operations. Just as investments in information technology have pushed businesses to new levels of productivity, they could also help courts accomplish their goals in new ways, opening the door to more sophisticated, focused, and effective practice.

Conclusion

The idea of structuring judgments in juvenile justice is still in its infancy, but its potential

seems clear. The science of decision making will continue to develop methods that can be applied in the real world of court decision making. Computer technology will continue to make case information more readily accessible and integrated. The challenge for the juvenile system will be to harness these capacities to increase the efficiency of its limited resources for the benefit both of the community and of the adolescents in the system.

Responding to this challenge does not mean abandoning the goal of individualized justice but rather facing the reality of where and how this goal can be realized. Providing poorly grounded, cursory judgments about the risk and needs of adolescents at numerous points as they proceed through the system does not seem to be a service of great value. Using different forms of structured judgment systems appropriately at different points in the system may instead make it possible to accommodate the often unique risks and needs posed by adolescent offenders.

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51. Certainly, some adolescent offenders have extensive prior damage (either neurological or socioemotional), limited skills, undeveloped conscience, or irrational rage that overwhelms the possibilities for positive

developmental change. The amount of potential change surrounding these individuals' future delinquent behavior is therefore more limited and predictable than that of most juvenile offenders. However, these adolescents are very rare and are certainly not the majority of serious adolescent offenders. They are not defined well by the severity of the committing offense but are rather generally identifiable based on the intensity, chronicity, and severity of their prior delinquent behaviors.

52. See Piquero, Farrington, and Blumstein, *Cambridge Studies in Criminology* (see note 50).

53. Edward P. Mulvey and others, "Theory and Research on Desistance from Antisocial Activity among Serious Adolescent Offenders," *Youth Violence and Juvenile Justice* 2, no. 3 (2004): 213–36.

54. Mulvey, "Risk Assessment in Juvenile Justice Policy and Practice" (see note 30). Although these are not new conclusions, a disconnect between this knowledge and the implementation of this knowledge still exists. Perhaps the clearest example of a policy *ignoring* the realities of clinical judgment and adolescent development is when particular locales give mandatory life sentences without parole to adolescents convicted of certain offenses in adult court. The logic for this practice is that it promotes the legitimate justice system goals of retribution, deterrence, and incapacitation. Based on what we know about adolescent decision making and judgments of future risk, however, it seems that the arguments for the policy as a method of retribution are certainly stronger than those for deterrence or incapacitation. Regarding deterrence, little research supports the idea that adolescent decision making at the time of committing an offense is affected by direct knowledge of the specifics of the punishment schemes under the law. If the goal is to achieve the maximum incapacitation benefit from imposing this sentence on juveniles at the beginning of a long criminal career, basing this determination on the current presenting offense is an inexact way to achieve this end. Adolescents who commit very serious offenses, like aggravated assault with a weapon, are still capable of, and likely to experience, developmental change. Regular reassessments of these individuals' level of risk and treatment amenability through early adulthood might foster more efficient uses of prison resources with little compromise to the gains in deterrence from such a policy.

55. Roscoe Pound, *An Introduction to the Philosophy of Law* (Yale University Press, 1954).

56. Yeheskel Hasenfeld, "People Processing Organizations: An Exchange Approach," *American Sociological Review* 37, no. 3 (1972): 256–63; Yeheskel Hasenfeld and Paul P. L. Cheung, "The Juvenile Court as a People-Processing Organization: A Political Economy Perspective," *American Journal of Sociology* 90, no. 4 (1985): 801–24.

57. Involvement with the court is also often seen as a mechanism to give an adolescent or family a message that the adolescent's behavior is a serious violation of societal norms and that continued antisocial activity will produce more severe consequences. When it is functioning well in this regard, court professionals and hearings convey concern, firmness, and fairness that translate into respect for the legal process. This demonstration of social disapproval is a very important role of the court, but it is not one directed to only particular individuals, so there is no discussion of it in the context of this paper.

58. *Kent v. United States* (see note 8).

59. Thomas Grisso and Richard Barnum, *Massachusetts Youth Screening Instrument–Second Version: User's Manual and Technical Report* (Worcester, Mass.: University of Massachusetts Medical School, 2003).

60. Schwalbe, Fraser, and Day, "Predictive Validity of the Joint Risk Matrix with Juvenile Offenders" (see note 28).

61. See, for example, Peter R. Jones and Philip W. Harris, "Developing an Empirically Based Typology of Delinquent Youths," *Journal of Quantitative Criminology* 15, no. 3 (1999): 251–76, which reports on a large-scale, integrated system (Philadelphia's *Pro*gram *D*evelopment and *E*valuation *S*ystem; *ProDES*) that gathers assessment data, monitors the nature of services provided to all individuals committed to juvenile justice agencies, and measures outcomes such as recidivism. The product of such systems is an empirically and clinically rich dataset that provides information on what types of treatments work or do not work for which types of offenders.

62. Mark W. Lipsey and David B. Wilson, "Effective Intervention for Serious Juvenile Offenders: A Synthesis of Research," in *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions,* edited by Rolf Loeber and David P. Farrington (Thousand Oaks, Calif.: Sage Publications, 1998), p. 313.

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Disproportionate Minority Contact

Alex R. Piquero

Summary

For many years, notes Alex Piquero, youth of color have been overrepresented at every stage of the U.S. juvenile justice system. As with racial disparities in a wide variety of social indicators, the causes of these disparities are not immediately apparent. Some analysts attribute the disparities to "differential involvement"—that is, to differences in offending by minorities and whites. Others attribute them to "differential selection"—that is, to the fact that the justice system treats minority and white offenders in different ways. Still others believe the explanation lies in a combination of the two. Differential involvement may be important earlier in the judicial process, especially in youths' contacts with police, and may influence differential selection later as individuals make their way through the juvenile justice system.

Adjudicating between these options, says Piquero, is difficult and may even be impossible. Asking how much minority overrepresentation is due to differences in offending and how much to differences in processing no longer seems a helpful way to frame the discussion. Piquero urges future research to move beyond the debate over "which one matters more" and seek to understand how each of the two hypotheses can explain both the fact of minority overrepresentation in the juvenile justice system and how best to address it.

Piquero cites many sizable gaps in the research and policy-relevant literature. Work is needed especially, he says, in analyzing the first stage of the justice system that juveniles confront: police contacts. The police are a critical part of the juvenile justice decision-making system and are afforded far more discretion than any other formal agent of social control, but researchers have paid surprisingly little attention to contacts between police and citizens, especially juveniles.

Piquero notes that some states and localities are undertaking initiatives to reduce racial and ethnic disparities. He urges researchers and policymakers to evaluate such initiatives, especially those using strategies with a track record of success. Researchers should also examine empirically the far-reaching consequences of disproportionate minority representation in the juvenile justice system, such as poor outcomes in education, labor force participation, and family formation. Finally, Piquero emphasizes that one critical research area involves updating justice system data systems and repositories, which have failed to track changes in U.S. demographic and immigration patterns.

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Few issues in the social sciences simultaneously generate controversy and silence as do those that involve race and ethnicity, especially those related to crime.[1] Across many years and data sources, statistics on criminal activity have pointed to large racial differences, with crime rates among minorities, especially blacks, consistently dwarfing those among whites. The disparity exists equally in self-reports of offending and in official records of contacts with the criminal justice system, including encounters with police, arrests, and convictions. Recognizing the strong link between juvenile and adult offending,[2] researchers and policymakers in the field of juvenile justice have devoted specific attention to racial differences during the juvenile years. Differences in youth involvement in crime and especially in the ways minorities and whites interact with the juvenile justice system have thus become a target of research and policy.

The racial differences that begin with juvenile involvement in crime become larger as youth make their way through the different stages of the juvenile justice system—from detention, to formal hearings, to adjudications, to out-of-home placements, and finally to waiver to adult court. At each stage of the system, minority representation grows larger and at a faster rate than that of whites.

Researchers investigating minority overrepresentation in the juvenile justice system initially focused solely on confinement. In 2002, however, to take account of racial differences at all stages of the juvenile justice process, the Juvenile Justice and Delinquency Prevention Act broadened the concept from disproportionate minority *confinement* to disproportionate minority *contact*.

As with racial disparities in a wide variety of social indicators, the causes of these disparities in the judicial system are not immediately apparent. Analysts have offered numerous explanations. It could be that the justice system processes minority and white offenders in different ways or it could be that the offenses of minorities and whites are different—or it could be a combination of both.[3] If the system processes minority and white offenders differently, it could be because of contemporary bias, either explicit or implicit, or because of historically rooted patterns of racial inequality. It could be that crime policies are at the root of racial disparities. For example, the system may enforce and punish offenses common in minority communities more harshly than those common in white communities. The disparities could also be due to discretion in criminal justice decision making. While minorities are confined disproportionately for all offenses, for example, the disproportion is greater when offenses are less serious, and discretion is typically built into decision making for such offenses.[4] More broadly, the disparities could be attributable to the role either of race itself or of other factors that may be confounded with race, such as socioeconomic status, family structure, neighborhood residence, or some combination.[5] Or it could be that minorities simply commit more of the sorts of crimes that come to the attention of the legal system and for which sentences are more likely to be imposed and, when imposed, of longer duration.

Adjudicating between all these options is difficult and, finally, may be impossible.[6] Asking how much minority overrepresentation is due to differences in processing and how much to differences in offending no longer seems a helpful way to frame the discussion. Analysts may thus be wise to abandon this empirical quest. Differences both in processing and

in offending are almost surely involved, and determining their relative importance would probably have little effect on policy or practice. What may be more valuable, instead, would be to understand *how* differences both in processing and in offending contribute to minority overrepresentation.

In this article I begin by summarizing what is known about disproportionate minority contact with the judicial system from the first contact with police through the final stage of the system, incarceration. Then I outline several areas in need of further research and explore the implications of the knowledge base for public policy. One critical new research area involves updating justice system data systems and repositories, which have failed to track changes in U.S. demographic and immigration patterns.

Background

Scholars have already conducted many good reviews of research on disproportionate minority contact,[7] so here I will simply review briefly the main research findings and then describe some more recent research findings on disproportionate minority contact both generally and with respect to new and emerging issues.

Historically analysis of disproportionate minority contact has been a comparative research endeavor whose aim has been to compare the share of minority youth in the juvenile justice system with their share in the general population. As noted, until 2002, the object of study was disparities in confinement. States were required by the Juvenile Justice and Delinquency Prevention Act to assess disproportionate minority confinement using an index that divided the share of a given minority group of youth detained in a state's secure detention facilities, secure correctional facilities, jails, and lockups by the share of that group in the state's population. If 12 percent of juveniles in custody were minority, for example, and the youth population generally was 3 percent minority, the index would be 4.0. States with an index greater than 1.0 were required to develop and implement a plan to reduce the disproportionality, regardless of whether the index represented real behavioral differences in offending across race and ethnicity.

Asking how much minority overrepresentation in the juvenile justice system is due to differences in processing and how much to differences in offending no longer seems a helpful way to frame the discussion.

The index, however, was beset with problems. One was the difficulty of comparing jurisdictions with different shares of minorities, as communities with low minority shares could have a very high index while those with high shares of minority youth could not. Another was that the index provided little information about the causes of racial disparity. Yet another was that it provided no information about *where* in the system the disparity was taking place. To address this failure and to open the possibility that disparity could occur at various places in the system, the Juvenile Justice and Delinquency Prevention Act of 2002 broadened the concept from disproportionate minority *confinement* to disproportionate *contact*.

At the same time the Office of Juvenile Justice and Delinquency Prevention (OJJDP) developed the Relative Rate Index (RRI) to measure disparity at each decision point in the system—arrest, referral to juvenile court, detention, petitioning, transfer to criminal court, adjudication, and out-of-home placement following adjudication. For example, the RRI can compare the rates of white and black arrests that are referred to court intake. If the rate is 60 out of 100 arrests for whites and 80 out of 100 for blacks, then disparity exists at the decision point where arrests are referred to court. The RRI can also divide the black rate by the white rate at each decision point. A ratio near or equal to 1.0, meaning that the black and white rates are nearly similar, indicates no disparity; a ratio greater than 1.0, meaning that the black rate is larger than the white rate, is evidence of disparity. The RRI, however, presents a problem of its own; there is no way to measure its statistical significance. For example, at what level above 1.0 does the index indicate a significant disparity? Is an RRI of 1.43 significantly different from an RRI of 1.98 or 2.05? And the RRI, or any other measure used to assess disproportionate minority contact, encounters a problem of a different sort. OJJDP now essentially forces states first to identify whether minority disproportionality exists and, if so, then to assess its cause by identifying and explaining differences at various points in the juvenile justice system. States must then develop an intervention plan. What this requirement does not take into account is the individual and social factors that may have helped cause the original disparities in the first place—structural factors about which state agencies can do little. Still, the new requirement does force public agencies to assess how their decisions might contribute to disparity even where they are not responsible for the underlying condition.[8]

Most reviews of research find that minority, especially black, youth are disproportionately represented at most stages of the juvenile justice system,[9] from the initial arrest, to detention pending investigation, to referral of a case to juvenile court or waiver of it to adult court, to the prosecutor's decision to petition a case, to the judicial decision and subsequent sanction, ending more often than not in incarceration. It should be noted, however, that some important exceptions to this overall pattern exist.[10] In the case of offenses themselves, research is more mixed, sometimes showing that although whites and minorities generally self-report similar levels of offending,[11] they report some differences in the type of crime committed, with minorities reporting more serious offenses and a greater persistence in offending.[12]

The most recent data to emerge from the National Council on Crime and Delinquency (NCCD) indicate that youth of color are found disproportionately at every stage of the juvenile justice system from arrest through sentencing.[13] (It is important to bear in mind that decisions throughout the system are interrelated and can affect minority overrepresentation cumulatively, with early-stage decisions influencing decisions further in the system.) Among the new NCCD findings are that black youth are detained at higher rates than are whites and Latinos and that Latinos are detained at higher rates than are whites. Black youth are more likely than whites to be formally charged in juvenile court and to be sentenced to out-of-home placement, even when referred for the same offense. Black youth are confined on average for 61 days more than whites, and Latino youth are confined 112 days more than whites. Black youth make up 16 percent of all youth in the general population but 30 percent of juvenile court referrals, 38 percent of youth

in residential placement, and 58 percent of youth admitted to state adult prison. And just over 50 percent of drug cases involving white youth result in formal processing, as against more than 75 percent of such cases involving black youth.

In a second new, and related, study focused on offenders in jails and prisons, The Sentencing Project calculated state rates of incarceration by race and ethnicity.[14] Although data limitations precluded juvenile-specific estimates, several highlights of the report are notable. First, black offenders are incarcerated at nearly six times the rate of whites, while Hispanics are incarcerated at nearly double the rate of whites, though with significant statewide variation. For example, the highest white incarceration rate (Oklahoma, 740 per 100,000) did not even approach the lowest black incarceration rate (Hawaii, 851 per 100,000). It is also worth pointing out that disproportionate incarceration may have a profound effect on community well-being.[15] The concentration among young men, in particular, presents long-term consequences for employment prospects, family formation, and general quality of neighborhood life that are more severe for blacks and Hispanics than for whites. The Sentencing Project report also shows that in 2005 Hispanics made up 20 percent of the state and federal prison population, a rise of 43 percent since 1990. The national rate of incarceration for Hispanics was nearly double that for whites, but considerably lower than that for blacks, again with significant statewide variation. A weakness of the Hispanic-specific analysis in the new Sentencing Project study, as with much existing research, is the poor data available for Hispanic offenders, including inaccurate conceptualizations of Hispanic and undercounting of Hispanics. State data limitations also kept the Sentencing Project from providing information on Native Americans, Asian Americans, and other groups.

Collectively, these data highlight several important policy issues with respect to decisions both within and outside the juvenile and criminal justice systems. First, current drug policies emphasize large-scale drug arrests and policing communities of color to the neglect of drug treatment and diversion programs that work. Second, sentencing policies appear to make the minority criminal justice experience worse rather than better. Third, consideration should be given by policymakers to race-neutral policies, or a more general consideration of the long-term effects of what will happen if certain rules are produced. Fourth, changes in resource allocation, such as providing for more adequate indigent defense and quality representation for all defendants, may help minimize undue and unnecessary harm.

In summary, for many years, with a few exceptions, much data has shown that youth of color have been overrepresented at every stage of the juvenile justice system. Minority overrepresentation has come to be considered an established fact of crime; what remains in question is *why* minorities are overrepresented. In the next section I present several explanatory hypotheses, as well as some of the empirical evidence that has been built up around them.

Theory: Explaining Disproportionate Minority Contact

Researchers, policymakers, and juvenile advocates have offered a continuum of explanations for the racial and ethnic differentials observed throughout the criminal and juvenile justice systems. On one end of the continuum, commentators argue that the system is virtually color-blind and that the idea

that the criminal justice system is racist is a "myth."[16] On the other end of the continuum, analysts believe that the system is unduly and without question discriminatory. David Cole, who reviewed a number of high-profile cases and decisions throughout the criminal justice process in various jurisdictions, contends that the United States has two systems of justice, one for the privileged class, largely whites, and another for the disadvantaged and less privileged, largely blacks.[17] Still other observers advance a more middle-ground position. Samuel Walker and several colleagues note that the criminal justice system is neither completely free of racial bias nor systematically biased.[18] The differing treatment afforded across race and ethnicity appears to vary at different stages of the criminal justice process, existing at some but not all stages. The exception to this pattern, they argue, lies with the drug policies initiated during the mid-1980s regarding crack cocaine, which affected minority—especially black—communities far more than white communities.[19]

Analysts have further considered these viewpoints within a theoretical framework made up of three hypotheses. The first, the "differential involvement hypothesis," holds that minorities are overrepresented at every stage of the criminal and juvenile justice system because they commit more crimes, for more extended periods of their lives, and more of the types of crime, such as violence, that lead to processing within the criminal justice system.[20] Why minorities commit more crime is, of course, an entirely different question that, surprisingly, has been ill-studied. In one recent study emphasizing the differential involvement argument, Elijah Anderson points out that circumstances of life among the ghetto poor, such as discrimination and racial residential segregation, spawn an oppositional culture of the street "whose norms are often consciously opposed to those of mainstream society."[21] This street culture amounts to a set of informal rules governing interpersonal behavior. When the respect of a member of the culture is challenged, the code, in effect, turns on. Scholars have identified a similar respect-based code of the streets among Hispanics.[22]

Data constraints hamper empirical researchers wishing to assess the differential involvement hypothesis. The few studies that have been done allow some summary statements, but no firm conclusions. Both official police records[23] and self-report surveys[24] indicate disproportionate involvement in serious violence among blacks[25] and somewhat less among Hispanics.[26] This finding is important because research shows that serious violence is more likely to be reported to the police, more likely to result in the offender's apprehension, and more likely to trigger severe criminal justice sanctions.[27] Researchers have found that much of the minority overrepresentation in prisons can be attributed to differences among racial groups in arrests for crimes that are most likely to lead to imprisonment.[28] The same research also shows that it is unlikely that behavioral differences account for all minority overrepresentation.

One recent study provided some unique data regarding the differential involvement hypothesis by improving over past studies that featured race and crime comparisons based solely on official or on self-reported crime information. Alex Piquero and Robert Brame[29] examined racial and ethnic differences in criminal activity using both self-reported and official record information on a sample of adolescent offenders from Philadelphia and Phoenix. That study found little evidence of racial or ethnic differences in either self-reported offending (by frequency

or variety) or officially based arrests leading to a court referral in the year preceding study enrollment. Although two of the variety-of-offending score analyses for males yielded some limited evidence that whites had higher variety scores among Philadelphia males while blacks had higher variety scores among Phoenix males, the analyses were limited because of the presence of relatively few whites in Philadelphia and relatively few blacks in Phoenix. Among Phoenix females, variety scores were somewhat higher for Hispanics, but the finding was sensitive to the technical detail of whether cases with the median score are dropped from the analysis. Finally, there were no significant differences in median self-reported offense frequency between racial and ethnic groups among Phoenix females.

Several studies of the disposition and confinement process show that black youth in the system are given more restrictive dispositions than their white counterparts even when they have committed the same offense and have the same prior record.

A second hypothesis, the "differential selection and processing hypothesis," asserts that a combination of differential "selection"—differing police presence, patrolling, and profiling in minority and nonminority neighborhoods—and differential "processing"—discrimination in the courts and correctional systems—leads to more minorities being arrested, convicted, and incarcerated. This hypothesis may be especially pertinent to victimless crimes, such as drug use and sales and "public order" crimes, in which more discretion is available to formal social control agents. The hypothesis predicts that criminal justice officials will act in a discriminatory fashion—that a minority youth and a white youth charged with the same offense will be treated differently by decision makers within the criminal justice system.[30] It accounts for racial minorities' overrepresentation in official statistics by focusing on the differential deployment of police and the actions and decisions of other criminal justice officials.

Voluminous research on this second hypothesis, most of it centering on processing, has formed the backbone of the disproportionate minority contact argument. As noted, several reviews of this research report that minority, especially black, youth and adults are overrepresented at most stages of the system,[31] beginning with the decisions by police agencies to target certain high-crime neighborhoods, which tend also to be high-minority neighborhoods, and to target certain crimes, both of which bring the police into more contact with minorities, especially blacks, than whites.[32] Adverse race effects hold in the bail and pre-trial release decision stage as well.[33] Several studies of the disposition and confinement process show that black youth in the system are given more restrictive dispositions than their white counterparts even when they have committed the same offense and have the same prior record—a finding that has also been made with respect to minorities, especially blacks, being sentenced more harshly than whites.[34] Evidence also shows that black youth are more likely than white youth to be transferred to criminal court, regardless of offense type and age category[35] though some contradictory evidence also exists.[36]

Because these studies have already been reviewed elsewhere, I highlight only a few. The first study I mention does not find support for differential processing. I review in greater detail a series of studies that have examined the differential selection hypothesis.

Paul E. Tracy[37] conducted a three-county study in Texas to ascertain whether certain racial and ethnic groups were processed differently across four juvenile justice decision-making stages: detention at the pre-adjudication stage, referral to the district attorney for prosecution, referral to court for adjudication, and sentencing to secure confinement. He found that out of a possible thirty-six instances of differential handling of minority youth—that is, the four system stages times three counties times three offender groups (all, males, and females)—only five yielded unfavorable system processing for minority youth.

Other studies have assessed differential selection by examining how minority youth are perceived, described, and discussed by criminal justice agents. Here, I review three such studies. Irving Piliavin and Scott Briar[38] examined how police interacted with juveniles on the street and came to three conclusions. First, the officers exercised wide discretion with the juveniles. Second, the discretion was influenced by the prior record of the juveniles, as well as by race, grooming, and demeanor—the latter of which strongly influenced the officer's decision. Third, some differences in arrest and apprehension rates between blacks and whites were attributable to a greater offense rate among blacks and to police bias, but some differences were also attributable to black juveniles' tendency to exhibit demeanor that the officers associated with "true" delinquent boys.[39]

Two other recent studies have charted a promising avenue of research by focusing on how agents of the criminal justice system discuss and perceive minority youth. First, George Bridges and Sara Steen[40] focused on the tone and value of word choices that probation officers used to describe black and white juvenile offenders. They found strong race differences in the officers' views about what caused the youth to commit the offenses, with officers attributing offenses by black juveniles more to negative attitudinal and personality traits and offenses by whites more to the social environment. Moreover, Bridges and Steen found that these differences contributed significantly both to the officers' differing assessments of the risk of re-offending and to their recommendations about sentencing, even after controlling for case and offender characteristics. Second, Sandra Graham and Brian Lowery[41] examined unconscious racial stereotypes of decision makers in the juvenile justice system. In two separate experiments in the Los Angeles area, 105 ethnically diverse police officers and 91 ethnically diverse juvenile probation officers were subliminally exposed to words related to the category black—such as ghetto, homeboy, and dreadlocks—or to words neutral with respect to race. At the same time, the officers read two scenarios about a hypothetical adolescent who allegedly committed either a property (shoplifting) or an interpersonal (assault) crime. The offender's race was not stated and the vignettes were ambiguous about the causes of the crime. In addition to completing a self-reported measure of conscious attitudes about race, the police and juvenile probation officers rated the offender on a number of individual characteristics and made judgments about culpability, expected recidivism, and deserved punishment. Compared with officers in the neutral condition, officers in the racial prime condition reported

more negative trait ratings, greater culpability, and more expected recidivism, and they endorsed harsher punishment. Significantly, the racial primes had the same effect regardless of the officers' consciously held attitudes about blacks. The findings held even among those who reported that they were tolerant and non-biased toward nonwhites. And many of the officers were themselves black. In sum, this study shows that racial stereotypes subtly operate in the system.[42]

Yet a third, mixed-model hypothesis posits that both differential involvement and differential processing and selection operate together to produce the racial overrepresentation in official crime statistics. Assessing this third hypothesis requires deciding how much weight to attribute to each of the two competing perspectives; that is, how do we know when differential involvement matters more and less than differential selection and processing? Again data limits make it hard to conduct a strong empirical test of this hypothesis. One study noted that differential involvement may be important earlier in the judicial process and that it influences differential selection and process later as individuals make their way through the system.[43] What is sorely needed is an empirical test that follows youth over time, documenting their involvement in crime (through both self-reports and official records) as well as their experiences with the police and court systems. But assembling data for large samples of individuals who have the necessary criminal involvement is difficult.

In summary, although most researchers agree that minorities are overrepresented in the juvenile and criminal justice systems, they have not yet reached agreement about how to explain that overrepresentation. Most would agree that some sort of mixed model offers the most promise for understanding the issue, though they sometimes disagree over the relative weight of the two explanations. It is thus no surprise that a National Academy of Sciences panel recently concluded that the debate between the "behavior [differential involvement] versus justice [differential selection]" positions has led to a "conceptual and methodological impasse."[44] Future research should thus move beyond the debate over "which one matters more" and seek to understand how each of these two hypotheses can explain both the fact of minority overrepresentation in the juvenile justice system and how best to address it.

To date, difficulties in collecting data have hampered analysis of the three hypotheses. Few data sources contain both self-report and official records on the same subjects over extended periods of time. Data for nonblack minorities, including Hispanics, Native Americans, and Asian Americans, are virtually nonexistent in longitudinal self-report studies of crime and delinquency. Official measures of crime, collected by police agencies and published by the FBI, do not consistently break down data by race or ethnicity, and when they do, they do not focus on Latinos or other nonblack groups.

What Remains to Be Learned?

Largely as a result of federal efforts and encouragement, a wealth of research has documented the nature and extent of disproportionate minority contact, but analysts have been less able to explain these racial disparities, largely because of limits in data, complications associated with definitions and terminology regarding minority status, difficulties in identifying comparable youth, and, more fundamentally, the tension involved in studying issues related to race and ethnicity and crime. Many sizable gaps in the research

and policy-relevant literature need attention. Work is needed especially in three areas: description, selection and processing, and intervention.[45]

In addition, as I have already noted, disproportionate minority contact with the justice system has consequences that extend far beyond involvement in the system itself. To the extent that involvement in the justice system affects education, labor force participation, voting, and family formation, disproportionate minority contact likely produces disparities in many adult outcomes. Researchers must also examine empirically these potentially far-reaching consequences.

Description

Three separate research efforts are needed in the area of further describing disproportionate minority contact. The first is to develop and refine the underlying theory. The fundamental question is why minorities are overrepresented in the judicial system. The differential involvement hypothesis helps frame this issue, but much work remains to be done in exploring variations in criminal behavior by race and ethnicity. Researchers have thus far devised few race- or ethnic-specific theories of crime; would more such theories be appropriate?[46] Are the causes of crime the same across race and ethnicity, with only the level of risk factors varying across groups? Or do differences in the social and cultural environments of whites and minorities produce the observed behavioral differences? For example, in minority neighborhoods, is access to meaningful employment and a good education so limited as to increase involvement in crime? And do the higher rates of offending by minorities in turn lead to differential policing practices and consequent selection and processing by the criminal justice system?[47] Do differences in the way minority and white youth relate to agents of the criminal and juvenile justice system, for example, lead police to record the actions and behaviors of minorities differently than they do those of whites? More generally, are minorities overrepresented because minority status and poverty are highly correlated? Are minority youth especially likely to be picked up because police do more surveillance in poor, often minority, communities? Recent theorizing about legal socialization,[48] street codes,[49] racial stereotypes,[50] neighborhood well-being,[51] and perceived injustice[52] may be useful for understanding racial and ethnic differences.

Second, researchers must better describe the different patterns of offending that exist across race and ethnicity. Using a complement of both self-report and officially based records of crime on the same individuals over time, analysts must answer basic questions about the involvement of minorities and nonminorities in crime over the life course. For example, compared with whites, do minorities commit crime more frequently, engage more in certain forms of crime, persist in offending over longer periods of time, and desist later in the life course? Researchers should use longitudinal data to study these issues, especially because it is plausible that involvement varies over time and over the stages of the life course across race and ethnicity. At the very least, studies of this issue will begin to better describe minority and white involvement in crime. The small existing research base on this issue offers conflicting findings. Some studies show few racial and ethnic differences in self-reported offenses,[53] while others point to differences.[54] Still others report few racial and ethnic differences in both self-reported and official estimates of offending among serious adolescent offenders.[55] Because

police disproportionately patrol low-income areas, they are more likely to pick up minority youth, and the differential arrest patterns may support perceptions that minority youth should be treated more harshly throughout the system.

Third, researchers should address deficiencies in the data systems. Most crime and criminal justice data on disproportionate minority contact are broken down into only two categories: white and black. These data systems and repositories have not kept up with trends in immigration and changes in categorization of minorities, including the 2000 Census change. More and better research on Hispanics and other minorities is urgently needed. California's experience with Hispanics dominating correctional institutions is a case in point. Analysts should pay particular attention to changes in disproportionate minority contact with respect to Hispanic Americans and Asian Americans. Because of the paucity of research involving crime and ethnicity,[56] the field has not yet made any firm conclusions about disparities among Hispanics, American Indians, and Asians, and the few existing studies have under-counted Hispanic representation by coding Hispanics as white. Current data mechanisms and systems fail to separate race and ethnicity, lead to significant undercounting, and offer no systematic approach to studying the racial and ethnic differences in crime and contact with the judicial system that require the collection of such data both locally and nationally. Until these shortcomings are remedied, an understanding of disproportionate minority contact will remain elusive.

Selection and Processing and Outcome

Future researchers need to focus more on the first stage of the justice system that juveniles confront: police contacts. The police are a critical part of the decision-making system and are afforded far more discretion than any other formal agent of social control, but researchers have paid surprisingly little attention to contacts between police and citizens, especially juveniles. More and better data are needed on police patrolling, on decisions about which neighborhoods to patrol, on behaviors police look for when patrolling those neighborhoods, and on the racial and ethnic makeup of the officers on patrol. Better research at this early stage of criminal justice contact will permit a better grasp of differences in the way whites and nonwhites relate with police, as well as of how the police deal with individuals. Most juvenile justice and delinquency research skips this early stage and starts at referrals.[57] Because of the wide discretion accorded the police, it may be that racial and ethnic disparities begin at the very earliest stage and that effects accumulate as youth proceed through the system.[58]

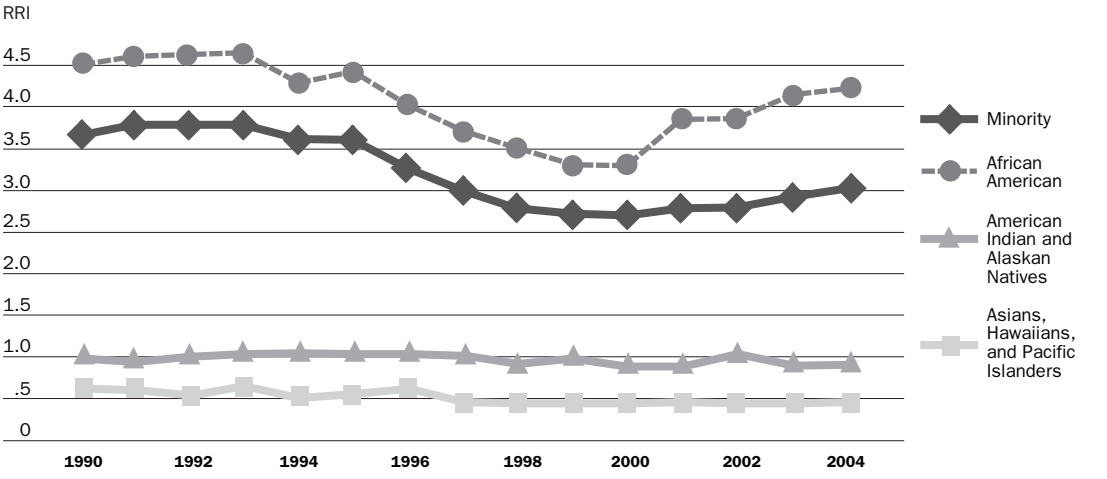
States vary widely in their level of disproportionate minority contact, thus raising the question of whether local and state systems vary in their selection and processing of minorities. It remains unclear whether minority overrepresentation is a widespread, nationwide phenomenon or a matter of certain jurisdictions and states operating in certain ways. Researchers must make a more systematic effort to examine patterns of minority overrepresentation within individual states and jurisdictions. For example, in states with highly disproportionate minority contact, are the trends a function of certain counties or of police and courtroom workgroups operating in a certain manner?

In short, researchers must improve their understanding both of the characteristics of minorities that merit attention by agents of

formal social control and of decision-making by the juvenile and criminal justice system, beginning with the police contact. To facilitate these efforts, the Office of Juvenile Justice and Delinquency Prevention has just published a *National DMC Databook,*[59] which allows users to review the processing of delinquency cases within the juvenile justice system and assess levels of disproportionate minority contact at various decision points using national data for 1990–2004. Data tables can be formed for all delinquency offenses, person-oriented offenses, property offenses, drug law offenses, and public order offenses, as well as various decision points—juvenile arrests, cases referred to juvenile court, cases diverted, cases detained, cases petitioned, cases adjudicated, adjudicated cases resulting in probation, adjudicated cases resulting in placement, and cases judicially waived. The data may also be displayed as counts, rates, or RRIs. Figure 1 presents an example of one such output, showing the RRIs for juvenile person-oriented offenses for minorities; African Americans; American Indians and Alaskan Natives; and Asians, Hawaiians, and Pacific Islanders. The available data do not make it possible to study racial disparities in arrest experiences involving Hispanic youth.

Two issues regarding processing remain particularly problematic. The first is the need to be able to compare "similarly situated" youth of different race and ethnicity—those youth who have committed the same offense, have the same prior record, and have the same personal needs. Such details are difficult to corroborate perfectly, especially in small-scale studies. Barry Feld[60] argues that "similarly situated offenders, defined as 'similar' on the basis of their present offense or prior record, can receive markedly dissimilar dispositions because of their differing 'needs.' Because the individualized justice of the juvenile court classifies youth on the basis of their personal circumstances, then in a society marked by great social, economic, and racial inequality, minority youth consistently find themselves at a disadvantage." A second problematic issue is whether the juvenile

Figure 1. Relative Rate Index (RRI): Juvenile Arrest for Person Offenses, 1990–2004



Source: Howard Snyder, C. Puzzanchera, and B. Adams, *National Disproportionate Minority Contact Databook* (National Center for Juvenile Justice for the Office of Juvenile Justice and Delinquency Prevention, 2006).

justice system actually engages in differential processing of minority youth. Kimberly Kempf-Leonard[61] argues that the system reacts differently to youth because they are not similarly situated in terms of what they need to succeed. In particular, she notes that minority youth disproportionately have more personal deficits that are being addressed by juvenile justice services.

Intervention

With researchers unable even to agree how to explain disproportionate minority contact, how are they to agree on strategies to reduce it? [62] Advocates make many efforts to address minority overrepresentation in the system, but most such efforts provide intervention and prevention services and do not address changes in the way the system operates. And few of these interventions are evaluated rigorously to see which work best. To be sure, some state juvenile justice systems have developed promising programs and initiatives. Santa Cruz, California, for example, made many changes in its juvenile justice system to reduce minority overrepresentation.[63] Areas targeted for improvement included cultural competence planning and training of staff, data tracking, sensitivity to risk factors included in risk instruments, programs to work with families, and diversion options, especially for minor and drug offenders. The reforms succeeded in reducing minority overrepresentation, but such efforts remain rare, and none has been rigorously evaluated.[64]

If states and localities undertake initiatives to reduce racial and ethnic disparities, especially using strategies with a track record of success, researchers and policymakers will be able to examine how various regulatory agencies operate as part of the initiatives and try to help them work most effectively. The aim of such initiatives would be to reduce the harm to youth caused by their involvement in the system and to change practices within the system and related agencies that exacerbate that harm.[65] The MacArthur Foundation's Model for Change Initiative is already in operation in four states. Briefly, that initiative is designed to make juvenile justice systems more rational, fair, effective, and developmentally sound and to develop models of successful systemwide reform for other systems to follow. Each of the four states involved is responsible for identifying target issues, planning reforms, and working with state and local agencies and organizations to shape and implement the reforms.

Implementing system changes, both large and small, and rigorously evaluating their results will help identify points of intervention that can be built on to keep judicial systems from inadvertently exacerbating racial and ethnic disparities. Some simple strategies that have been successfully used in other areas include providing culturally appropriate training for staff, from police officers through court and facility personnel, and hiring bilingual staff who can communicate with youth from all demographic groups.[66]

Conclusion

Minority overrepresentation in the juvenile justice system remains high in most states and at the national level.[67] What makes the problem so intractable? Are its underlying causes, such as poverty or out-of-wedlock childbearing, simply beyond the reach of policymakers? Are the biases against minority youth so deep-seated that they are resistant to change? Is a juvenile justice system characterized by discretionary decision making inherently vulnerable to biased judgments? Are all policy efforts aimed at prevention and intervention or at system change doomed to failure because OJJDP is powerless to address

the root causes of differential involvement? How does this relate to the "Latino paradox," the finding that Latinos do better than whites on a range of social indicators despite their relative poverty? And what of the recent finding that first-generation immigrants are more likely to be law-abiding than third-generation Americans of similar economic status?[68] These are key questions on which researchers and policymakers do not yet have much data to rely.

Successfully tackling the issue will require improvements in three areas. First, a better theoretical and empirical description of racial similarities and differences in criminal activity will provide useful information for prevention and intervention efforts aimed at curtailing differences in offending. A better understanding of the determinants of racial disparities early in juvenile criminal justice system processing should help alleviate such disparities later in the system. Fully understanding disproportionate minority contact requires considering all the factors that affect differential offending, differential police patrolling, police arrest and referral decisions, intake, prosecution and petition, adjudication, disposition, and all the potential exits in between.

Second, both small and large reforms throughout the criminal and juvenile justice systems can lead to better structured decision making, as well as inclusion of culturally competent assessment and classification instruments and reliable information about the adequacy of service and sanction options afforded to juvenile offenders.

Third, the debate over disproportionate minority contact must be free of bias. Debate will move forward only after researchers have better documented both racial disparities in involvement in crime and the response to crime throughout the entire system. Participants in the debate must view these new research findings objectively. Debate must proceed without prejudice that the system is or is not biased or racist.[69]

In the end, data about racial disparities in the justice system cannot, alone, reveal much about the mechanisms that sustain racial inequality. Nor can data, alone, lead to change.[70] Data can, however, provide a point of departure for addressing the complex ways in which racial differences in offending initially emerge and the extent to which public practices generate or maintain racial inequality. Data can also help identify what actions can be taken to counter racial disparities. Given the large and complex structural problems that likely underlie these disparities—problems with which the justice system is ill-equipped to deal—the realistic goal would be not so much to maximize good as to minimize the harm done.

Finally, with respect to policy, two points are in order. First, one may ask whether the goal is to reduce racial disparities within the system or to reduce minority contact. Clearly, disparities can be reduced by getting tougher on white offenders or by doing things that encourage white, but not minority, juveniles to commit crimes (I pose the latter idea facetiously only to make the point clear). It is beyond the scope of this article to answer this question convincingly, but the point is that different goals would indicate different policy solutions and that citizens and policymakers need to come to some firm resolution and decision about what the ultimate policy goals should be. Second, despite the lack of agreement among researchers and the uncertainties of the research findings on disproportionate minority contact, it is still

possible to make several recommendations to policymakers and practitioners—focusing, of course, on the things that they can realistically change and leaving aside the things, such as disadvantaged neighborhoods, families, and schools, that may not be amenable to change. The first recommendation would be for policymakers to begin to talk about race and crime without fear of reprisal. The second would be for policymakers and practitioners involved in criminal justice decision making—those who make and enforce laws—to become aware that their decisions have consequences that may expand far beyond youth's immediate involvement in the criminal justice system to include their adult well-being. And, third, policymakers and practitioners need to be held accountable for their actions. One way to do this is through an audit system that would point to what local policies are doing and what effect they have in the larger, national picture. This, in turn, may help begin a broader dialogue about race and crime—one that is based on fact and evidence, one that is designed to provide solutions and not excuses, and one that ultimately will produce more good and do less harm.

Endnotes

1. Robert J. Sampson and William J. Wilson, "Toward a Theory of Race, Crime, and Urban Inequality," in *Crime and Inequality*, edited by John Hagan and Ruth Peterson (Stanford University Press, 1995).

2. Alex R. Piquero, David P. Farrington, and Alfred Blumstein, "The Criminal Career Paradigm: Background and Recent Developments," in *Crime and Justice: A Review of Research,* vol. 30, edited by Michael Tonry (University of Chicago Press, 2003), pp. 359–506.

3. Olatunde C. A. Johnson, "Disparity Rules," *Columbia Law Review* 107 (2007): 374–425.

4. Edward Mulvey's article in this volume also deals with the inherent tension between building discretion into system decision making (a tenet of the juvenile justice system) and leaving decision making open to sources of bias.

5. In their analysis of data from the Project on Human Development in Chicago Neighborhoods, Robert Sampson, Jeffrey Morenoff, and Stephen Raudenbush found that differential offending is all attributable to different neighborhoods of residence. See Robert J. Sampson, Jeffrey D. Morenoff, and Stephen Raudenbush, "Social Anatomy of Racial and Ethnic Disparities in Violence," *American Journal of Public Health* 95 (2005): 224–32.

6. Joan McCord, Cathy S. Widom, and N. A. Crowell, eds., *Juvenile Crime, Juvenile Justice* (Washington: National Academy Press, 2001).

7. Kimberly Kempf-Leonard, "Minority Youths and Juvenile Justice: Disproportionate Minority Contact after Nearly 20 Years of Reform Efforts," *Youth Violence and Juvenile Justice* 5 (2007): 71–87.

8. To be sure, disparity and overrepresentation may exist in the absence of discrimination, and thus it is a challenge for research to determine whether there is a unique effect of discrimination on justice system decision making. In part because of this, the National Council on Crime and Delinquency has attempted to provide some important definitions with respect to the terms that are used to understand, describe, and document race differences in crime and justice. First, overrepresentation refers to a situation in which a larger proportion of a particular group is present at various stages within the juvenile justice system (such as intake, detention, adjudication, and disposition) than would be expected based on its proportion in the general population. Disparity means that the probability of receiving a particular outcome (being detained versus not being detained) differs for different groups; disparity may in turn lead to overrepresentation. Discrimination occurs when juvenile justice system decision makers treat one group differently from another group based wholly, or in part, on their gender, race, or ethnicity. Further, neither overrepresentation nor disparity necessarily implies discrimination. Disparity and overrepresentation can result from behavioral and legal factors rather than discrimination. For example, if minority youth commit proportionately more (and more serious) crimes than white youth, they will be overrepresented in secure facilities, even when there is no discrimination by system decision makers. Further, disparity may exist at the state level but not the local level, depending on the type of data used. For example, if juvenile court cases in urban jurisdictions are more likely to receive severe outcomes, and minorities live more in urban areas, then an effect may show up there and drive the overall aggregate trend.

9. Carl E. Pope and William H. Feyerherm, "Minority Status and Juvenile Justice Processing: An Assessment of the Research Literature (Part I)," *Criminal Justice Abstracts* 22 (1990): 327–35; Donna M. Bishop, "The

Role of Race and Ethnicity in Juvenile Justice Processing," in *Our Children, Their Children: Confronting Racial and Ethnic Differences in American Juvenile Justice,* edited by Darnell F. Hawkins and Kimberly Kempf-Leonard (University of Chicago Press, 2006), pp. 23–82; Rodney Engen, Sara S. Steen, and George Bridges, "Racial Disparities in the Punishment of Youth: A Theoretical and Empirical Assessment of the Literature," *Social Problems* 49 (2002): 194–220; Jeffrey Fagan, E. Slaughter, and E. Hartstone, "Blind Justice? The Impact of Race on the Juvenile Justice Process," *Crime and Delinquency* 33 (1987): 224–58; H. M. Hsia, George S. Bridges, and R. McHale, *Disproportionate Minority Confinement 2002 Update Summary* (Washington: Office of Juvenile Justice and Delinquency Prevention, 2004); E. Poe-Yamagata and M. A. Jones, *And Justice for Some: Differential Treatment of Minority Youth in the Justice System* (Washington: Building Blocks for Youth, 2000).

10. See Jeffrey Fagan and Elizabeth P. Deschenes, "Determinants of Judicial Waiver Decisions for Violent Juvenile Adolescent Felony Offenders," *Journal of Criminal Law and Criminology* 81 (1990): 314–47; T. Poulos and S. Orchowsky, "Serious Juvenile Offenders: Predicting the Probability of Transfer to Criminal Court," *Crime and Delinquency* 40 (1994): 3–17; Joan Petersilia, "Racial Disparities in the Criminal Justice System: A Summary," *Crime and Delinquency* 31 (1985): 15–34.

11. Janet L. Lauritsen, "Racial and Ethnic Differences in Juvenile Offending," in *Our Children, Their Children: Confronting Racial and Ethnic Differences in American Juvenile Justice,* edited by Darnell F. Hawkins and Kimberly Kempf-Leonard (University of Chicago Press, 2005), pp. 83–104.

12. Delbert S. Elliott, "1993 Serious Violent Offenders: Onset, Developmental Course, and Termination. The American Society of Criminology 1993 Presidential Address," *Criminology* 32 (1994): 1–21.

13. National Council on Crime and Delinquency, *And Justice for Some: Differential Treatment of Youth of Color in the Justice System* (Oakland, Calif.: National Council on Crime and Delinquency, 2007).

14. Marc Mauer and Ryan S. King, *Uneven Justice: State Rates of Incarceration by Race and Ethnicity* (Washington: The Sentencing Project, 2007).

15. Alex R. Piquero and others, "Neighborhood, Race, and the Economic Consequences of Incarceration in New York City, 1985–1996," in *The Many Colors of Crime*, edited by Ruth D. Peterson, Lauren J. Krivo, and John Hagan (New York University Press, 2006).

16. William Wilbanks, *The Myth of a Racist Criminal Justice System* (Monterey, Calif.: Brooks/Cole Publishing Company, 1987).

17. David Cole, *No Equal Justice: Race and Class in the American Criminal Justice System* (New York: The New Press, 1999).

18. Samuel Walker, Cassia Spohn, and Miriam DeLone, *The Color of Justice: Race and Crime in America* (Belmont, Calif.: Wadsworth, 2003).

19. Michael H. Tonry, *Malign Neglect: Race, Crime, and Punishment in America* (Oxford University Press, 1994).

20. Michael J. Hindelang, Travis Hirschi, and Joseph G. Weis, *Measuring Delinquency* (Beverly Hills, Calif.: Sage Publications, 1981). It may be that racial discrimination is, in part, responsible for social and economic conditions that lead to higher rates of offending by blacks, but that possibility does not bear on the question of whether the criminal justice system discriminates against blacks. According to Wilbanks, *The Myth of a*

Racist Criminal Justice System (see note 16), "the question of whether the criminal justice system is racist must not be confused with that of whether blacks commit crimes at a higher rate than whites because of discrimination in employment, housing, education, and so forth."

21. Elijah Anderson, *Code of the Street: Decency, Violence, and the Moral Life of the Inner City* (New York: W.W. Norton & Company, 1999).

22. Philippe Bourgois, *In Search of Respect: Selling Crack in El Barrio,* 2nd edition (Cambridge University Press, 2003).

23. Marvin E. Wolfgang, Thorsten Sellin, and Robert M. Figlio, *Delinquency in a Birth Cohort* (University of Chicago Press, 1972).

24. Bishop, "The Role of Race and Ethnicity in Juvenile Justice Processing" (see note 9).

25. Darnell Hawkins, John H. Laub, and Janet L. Lauritsen, "Race, Ethnicity, and Serious Juvenile Offenders," in *Serious & Violent Juvenile Offenders: Risk Factors and Successful Interventions,* edited by Rolf Loeber and David P. Farrington (Newbury Park, Calif.: Sage Publications, 1998), pp. 30–46; Jeffrey D. Morenoff, "Racial and Ethnic Disparities in Crime and Delinquency in the United States," in *Ethnicity and Causal Mechanisms,* edited by Michael Rutter and Marta Tienda (Cambridge University Press, 2005); Sampson, Morenoff, and Raudenbush, "Social Anatomy of Racial and Ethnic Disparities in Violence" (see note 5).

26. Morenoff, "Racial and Ethnic Disparities in Crime and Delinquency in the United States" (see note 25).

27. Alfred Blumstein and others, eds., *Research on Sentencing: The Search for Reform* (Washington: National Academy Press, 1983).

28. Alfred Blumstein, "On the Racial Disproportionality of U.S. Prison Populations," *Journal of Criminal Law and Criminology* 73 (1982): 1259–68; Alfred Blumstein, "Racial Disproportionality of U.S. Prison Populations Revisited," *University of Colorado Law Review* 64 (1993): 743–60; Robert Crutchfield, George Bridges, and Susan Pitchford, "Analytical and Aggregation Biases in Analyses of Imprisonment: Reconciling Discrepancies in Studies of Racial Disparity," *Journal of Research in Crime and Delinquency* 31 (1994): 166–82; Jonathan Sorenson, Robert Hope, and Robert Stemen, "Racial Disproportionality in State Prison Admissions: Can Regional Variation Be Explained by Differential Arrest Rates?" *Journal of Criminal Justice* 31 (2003): 73–84.

29. Alex R. Piquero and Robert Brame, "Assessing the Race-Ethnic Crime Relationship in a Sample of Serious Adolescent Delinquents," *Crime & Delinquency* (forthcoming, 2008).

30. Of course, this brings up a very difficult methodological issue, that of finding "similarly situated" youth (one minority and one nonminority) for which to make comparisons. Although experimental studies are few and far between in this area of research and advanced statistical techniques have been applied to deal with these issues, they have yet to be applied in many instances with respect to disproportionate minority contact. As such, it would not be unreasonable to conclude that strong empirical evidence is still lacking.

31. Pope and Feyerherm, "Minority Status and Juvenile Justice Processing" (see note 9); Carl E. Pope, Rick Lovell, and Heidi M. Hsia, *Disproportionate Minority Confinement: A Review of the Research Literature from 1989 Through 2001* (Washington: Office of Juvenile Justice and Delinquency Prevention, 2002); Engen, Steen, and Bridges, "Racial Disparities in the Punishment of Youth" (see note 9).

32. Jeffrey Fagan and Garth Davies, "Street Stops and Broken Windows: Terry, Race, and Disorder in New York City," *Fordham Urban Law Review* 28 (2000): 457–504; Tonry, *Malign Neglect: Race, Crime, and Punishment in America* (see note 19). There is an accumulating literature regarding racial profiling; however, this literature is scattered, largely descriptive, and at many times conflicting, with some individuals reporting widespread evidence of profiling (either through crime statistics or perceptual data), others reporting mixed results, and still others failing to find profiling. Complicating matters are definitional and measurement issues. See Michael Petrocelli, Alex R. Piquero, and Michael R. Smith, "Conflict Theory and Racial Profiling: An Empirical Analysis of Police Traffic Stop Data," *Journal of Criminal Justice* 31 (2003): 1–11. Using Richmond, Virginia, data on stops, searches, arrests, the authors found that: (1) the total number of stops was determined solely by the crime rate of the neighborhood; (2) the percentage of stops that resulted in a search was determined by the percentage of black population; and (3) when examining the percentage of stops that ended in an arrest/summons, the analyses suggest that both the percentage of black population and the area crime rate served to decrease the percentage of police stops that ended in arrest/summons (so there was some sort of correction after the fact—maybe the police searched blacks more but then realized that they didn't have what they expected).

33. Marvin Free Jr., "Racial Bias and the American Criminal Justice System: Race and Presentencing Revisited," *Critical Criminology* 10 (2001): 195–203.

34. Ojamarh Mitchell, "A Meta-Analysis of Race and Sentencing Research: Explaining the Inconsistencies," *Journal of Quantitative Criminology* 21 (2005): 439–66.

35. Donna M. Bishop, "Juvenile Offenders in the Adult Criminal Justice System," in *Crime and Justice: A Review of Research,* vol. 27, edited by Michael Tonry (University of Chicago Press, 2000), pp. 81–167.

36. Fagan and Dechenes, "Determinates of Judicial Waiver Decisions for Violent Juvenile Offenders" (see note 10); Petersilia, "Racial Disparities in the Criminal Justice System" (see note 10); Kimberly Kempf-Leonard, Carl E. Pope, and William H. Feyerherm, editors, *Minorities in Juvenile Justice* (Thousand Oaks, Calif.: Sage Publications, 1995).

37. Paul E. Tracy, "Race, Ethnicity, and Juvenile Justice: Is There Bias in Post-Arrest Decision Making?" in *Our Children, Their Children: Confronting Racial and Ethnic Differences in American Juvenile Justice,* edited by Darnell F. Hawkins and Kimberly Kempf-Leonard (University of Chicago Press, 2005), pp. 300–49.

38. Irving Piliavin and Scott Briar, "Police Encounters with Juveniles," *American Journal of Sociology* 70 (1965): 206–14.

39. It is the case that, in this study, officers were more likely to stop black juveniles who matched the delinquent stereotype, often in the absence of a specific offense being committed, and the juveniles were usually given more severe dispositions for the same violations. Although previously held prejudices likely influenced these decisions, as well as perceptions that blacks (and the black community) were overrepresented among criminal offenders, Piliavin and Briar (see note 38) also noted that the officers perceived black juveniles as exhibitors of a recalcitrant demeanor, to be uncooperative, and to show no remorse for transgressions. According to Piliavin and Briar's observations, black juveniles were more likely to exhibit the sort of uncooperative demeanor identified by the officers. The analysis of juvenile courts in *Aaron V. Cicourel, The Social Organization of Juvenile Justice* (New York: Wiley, 1968), also suggested that minorities were more likely than whites to be seen as disrespectful of authority and disrespectful of court officials. All of this leads to the reasonable

conclusion that a cycle will emerge where officers, who are targeting certain communities, will disproportionately come into contact with black juveniles, whose recalcitrant demeanor will lead officers to impose control over them, and, in turn, black apprehension (and likely confinement) rates will be higher than their white counterparts. Officers, then, may use the resultant crime figures, which would show a disproportionate share of blacks among offenders and offenses, as evidence to selectively target such individuals.

40. George Bridges and Sara S. Steen, "Racial Disparities in Official Assessments of Juvenile Offenders: Attributional Stereotypes as Mediating Mechanisms," *American Sociological Review* 63 (1998): 554–70. See also Sara Steen and others, "Explaining Assessments of Future Risk: Race and Attributes of Juvenile Offenders in Presentencing Reports," in *Our Children, Their Children: Confronting Racial and Ethnic Differences in American Juvenile Justice,* edited by Darnell F. Hawkins and Kimberly Kempf-Leonard (University of Chicago Press, 2005), pp. 245–69.

41. Sandra Graham and Brian S. Lowery, "Priming Unconscious Racial Stereotypes about Adolescent Offenders," *Law & Human Behavior* 28 (2004): 483–504.

42. The study of race and decision making has recently become a focus in the sports research field. One study examined whether National Basketball Association refereeing crews called personal fouls more frequently against black than white players (Joseph Price and Justin Wolfers, "Racial Discrimination among NBA Referees," Working Paper [Cambridge, Mass.: National Bureau of Economic Research, 2007]). Results indicated that indeed fouls were called against players at a higher rate when games were officiated by an opposite-race crew than when officiated by an own-race crew. A second study explored Major League Baseball umpires' racial and ethnic discrimination with respect to strikes called in favor of baseball pitchers. See Christopher A. Parsons and others, "Strike Three: Umpires' Demand for Discrimination," Working Paper (University of Texas, 2007). Results from this study showed that strikes were more likely to be called if the umpire and pitcher matched race or ethnicity. Moreover, this finding exists in ballparks where the QuesTec system, a computerized camera system used by Major League Baseball to scrutinize and improve umpire performance, is not used, in poorly attended games, and when the next called pitch cannot determine the outcome of the at-bat. Finally, a shared race or ethnicity between the pitcher and the umpire also results in the pitcher giving up fewer earned runs per game and improves his team's chances of winning. To be sure, the effects observed in both studies were statistically significant, but small.

43. Bishop, "Juvenile Offenders in the Adult Criminal Justice System" (see note 35).

44. McCord, Widom, and Crowell, *Juvenile Crime, Juvenile Justice* (see note 6).

45. I would like to thank Sandra Graham for the suggestion regarding these three topics.

46. Darnell F. Hawkins, "Ethnicity, Race, and Crime: A Review of Selected Studies," in *Ethnicity, Race, and Crime: Perspectives across Time and Place*, edited by D. F. Hawkins (State University of New York Press, 1995).

47. Piquero and Brame, "Assessing the Race-Ethnic Crime Relationship" (see note 29).

48. Alex R. Piquero and others, "Developmental Trajectories of Legal Socialization among Serious Adolescent Offenders," *Journal of Criminal Law and Criminology* 96 (2005): 267–98.

49. Ross L. Matsueda, Kevin Drakulich, and Charis E. Kubrin, "Race and Neighborhood Codes of Violence," in *The Many Colors of Crime,* edited by Ruth D. Peterson, Lauren J. Krivo, and John Hagan (New York

University Press, 2006); Eric A. Stewart and Ronald L. Simons, "Structure and Culture in African-American Adolescent Violence: A Partial Test of the Code of the Street Thesis," *Justice Quarterly* 23 (2006): 1–33.

50. Bridges and Steen, "Racial Disparities in Official Assessments of Juvenile Offenders" (see note 40); Graham and Lowery, "Priming Unconscious Racial Stereotypes About Adolescent Offenders" (see note 41).

51. Piquero and others, "Neighborhood, Race, and the Economic Consequences of Incarceration in New York City, 1985–1996" (see note 15).

52. John Hagan, Carla Shedd, and Monique Payne, "Race, Ethnicity, and Perceptions of Criminal Injustice: Toward a Comparative Conflict Theory of Similarity and Difference," *American Sociological Review* 70 (2005): 381–407.

53. Piquero and Brame, "Assessing the Race-Ethnic Crime Relationship" (see note 29).

54. Elliott, "1993 Serious Violent Offenders" (see note 12).

55. Piquero and Brame, "Assessing the Race-Ethnic Crime Relationship" (see note 29).

56. Francisco A. Villarruel, *¿Dónde Está la Justicia? A Call to Action on Behalf of Latino and Latina Youth in the U.S. Justice System* (Washington: Building Blocks for Youth, 2002).

57. Kempf-Leonard, "Minority Youths and Juvenile Justice" (see note 7).

58. Howard Snyder and Melissa Sickmund, *Juvenile Offenders and Victims: 2006 National Report* (Washington: Office of Juvenile Justice and Delinquency Prevention, 2006).

59. Howard Snyder, C. Puzzanchera, and B. Adams, *National Disproportionate Minority Contact Databook* (National Center for Juvenile Justice for the Office of Juvenile Justice and Delinquency Prevention, 2007).

60. Barry Feld, "A Funny Thing Happened on the Way to the Centenary: Social Structure, Race, and the Transformation of the Juvenile Court," *Punishment & Society* 1 (1999): 187–214.

61. Kempf-Leonard, "Minority Youths and Juvenile Justice" (see note 7).

62. Ibid.

63. Judith A. Cox and James Bell, "Addressing Disproportionate Representation of Youth of Color in the Juvenile Justice System," *Journal of the Center for Families, Children, & The Courts* (2001): 31–43.

64. In a similar vein, the Philadelphia Police Department has recently altered their training curriculum such that all new law enforcement personnel will be trained in a culturally sensitive manner, about stereotyping, and so forth.

65. Johnson, "Disparity Rules," (see note 3).

66. Ibid.

67. Kempf-Leonard, "Minority Youths and Juvenile Justice" (see note 7).

68. Sampson, Morenoff, and Raudenbush, "Social Anatomy of Racial and Ethnic Disparities in Violence" (see note 5).

69. Sampson and Wilson, "Toward a Theory of Race, Crime, and Urban Inequality" (see note 1).

70. Johnson, "Disparity Rules," (see note 3).

Juvenile Crime and Criminal Justice: Resolving Border Disputes

Jeffrey Fagan

Summary

Rising juvenile crime rates during the 1970s and 1980s spurred state legislatures across the country to exclude or transfer a significant share of offenders under the age of eighteen to the jurisdiction of the criminal court, essentially redrawing the boundary between the juvenile and adult justice systems. Jeffrey Fagan examines the legal architecture of the new boundary-drawing regime and how effective it has been in reducing crime.

The juvenile court, Fagan emphasizes, has always had the power to transfer juveniles to the criminal court. Transfer decisions were made individually by judges who weighed the competing interests of public safety and the possibility of rehabilitating young offenders. This authority has now been usurped by legislators and prosecutors. The recent changes in state law have moved large numbers of juveniles into the adult system. As many as 25 percent of all juvenile offenders younger than eighteen, says Fagan, are now prosecuted in adult court. Many live in states where the age boundary between juvenile and criminal court has been lowered to sixteen or seventeen.

The key policy question is: do these new transfer laws reduce crime? In examining the research evidence, Fagan finds that rates of juvenile offending are not lower in states where it is relatively more common to try adolescents as adults. Likewise, juveniles who have been tried as adults are no less likely to re-offend than their counterparts who have been tried as juveniles. Treating juveniles as adult criminals, Fagan concludes, is not effective as a means of crime control.

Fagan argues that the proliferation of transfer regimes over the past several decades calls into question the very rationale for a juvenile court. Transferring adolescent offenders to the criminal court exposes them to harsh and sometimes toxic forms of punishment that have the perverse effect of increasing criminal activity. The accumulating evidence on transfer, the recent decrease in serious juvenile crime, and new gains in the science of adolescent development, concludes Fagan, may be persuading legislators, policymakers, and practitioners that eighteen may yet again be the appropriate age for juvenile court jurisdiction.

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At the outset of the juvenile court more than a century ago, juvenile court judges were given the option to expel cases and transfer them to criminal court. Transfer was an essential and necessary feature of the institutional architecture of the new juvenile court. Indeed, transfer helped maintain the court's legitimacy by removing hard cases that challenged the court's comparative advantage in dealing with young offenders—cases that critics could use to launch attacks on the court's efficacy and therefore its core jurisprudential and social policy rationales.

Unlike today, though, hard cases in the early years of the juvenile court did not necessarily involve children charged with murder or other violence. Rather, the youth who were expelled more often were thought to be "incorrigible"—repetitive delinquents whose failure to respond to the court's therapeutic regime signaled the intractability of their developmental and social deficits.[1] Such cases negated the theory of the court: these youth's repeated failures to respond to treatment canceled their eligibility for protection from the harmful regimes of criminal punishment. In fact, for more than five decades, juveniles charged with murder were more likely than not to be retained in the juvenile court, beneficiaries of both its diversionary and stigma avoidance rationales.[2]

During these years, decisions to transfer youth to criminal court were made routinely and almost exclusively by juvenile court judges with little attention or scrutiny from legislators, advocates, scholars, or the press. Their decisions were individualized to the unique factors for each youth. That is, judges decided which youth were immature and "amenable to treatment" on a case-by-case basis. In some instances, transfer decisions were based on the severity of the offense, where principles of proportionality—the requirement that the punishment fit the crime—trumped collateral considerations that might have otherwise mitigated the case for transfer.

These procedures lasted for decades, until 1966, when the U.S. Supreme Court in *Kent v. U.S.* identified constitutionally sanctioned standards, criteria, and procedures governing decisions by the juvenile court to waive its jurisdiction over the offending adolescent.[3] Signs of "maturity" and "sophistication" in the crime were important parts of the *Kent* calculus, signaling to the judge that the young offender posed a danger for further crimes. Adolescents who were deemed "amenable to treatment" were retained in the juvenile court. In deciding whom to waive to the criminal court and whom to retain in the juvenile court, judges relied heavily on the evaluations of social work professionals whose recommendations on waiver were usually persuasive and authoritative to the court.

Kent was decided during the mid-1960s, when both juvenile and adult crime began to spike in the United States. In reaction to the sharp rise in crime, many states began in the mid-1970s to redesign the laws and revise the philosophy that had long shaped the boundary between juvenile and criminal courts. Popular reactions to rising crime and violence shaped the social and political context of the restructuring, a process that continued through the late 1990s, when juvenile crime began a decade-long decline. As adolescents came increasingly to be feared as perpetrators of the most serious and violent crimes, the principles of rehabilitation that were essential to the juvenile court were largely abandoned.[4] Judicial discretion was weakened. In some

states, judicial authority was replaced with politically designed sentencing structures that fixed punishment to crime seriousness.[5] In other states, the decision whether to try a juvenile as an adult was either shifted to the prosecutor or was made by legislators who carved out large groups of youth who were excluded from the juvenile court.

Demands for dismantling the juvenile court's judicially centered waiver regime focused on four issues: inconsistencies and disparities from one case to the next, racial biases, insensitivity by judges to the seriousness of adolescent crimes, and rising rates of serious juvenile crime that signaled the failure of the juvenile court and corrections to control youth crime.[6] The critiques motivated state legislatures across the country to remove judicial discretion by disqualifying large sectors of the juvenile court population—children as young as ten years of age—and removing them to the jurisdiction of the criminal court.[7] The result was a recurring cycle of legislation, starting in 1978 and lasting for more than two decades, that redrew the boundaries between juvenile and adult court. State legislators passed new laws and revised old ones, steadily expanding the criteria for transfer to the criminal court and punishment as an adult.[8] In effect, the legislatures decided that adolescent offenders had become criminally culpable and more dangerous at younger ages than they were in the past.

This cycle of legislation also reassigned—from juvenile court judges to prosecutors, criminal court judges, legislators, and correctional professionals—a large share of the discretion over the types of cases to be transferred. Today, decisions about court jurisdiction sometimes are made in a retail process repeated daily in juvenile courts or prosecutors' offices; at other times, corrections officials may decide which youth can be released early and which will serve the balance of long prison sentences; and at other times, the choice is made in a wholesale legislative process by elected officials far removed from the everyday workings of the juvenile courts.

These choices involve not just two very different court systems, but deeply held assumptions about the nature of youth crime, about the blameworthiness of youth who commit crimes, and about how society should reconcile the competing concerns of public safety, victim rights, and youth development. The two courts have sharply contrasting ideas about adolescents who break the law—their immaturity and culpability, whether they can be treated or rehabilitated, the security threats they pose, and the punishment they might deserve. Whatever the motivation, sending an adolescent offender to the criminal court is a serious and consequential step. It is an irreversible decision that exposes young lawbreakers to harsh and sometimes toxic forms of punishment that, as the empirical evidence shows, have the perverse effect of increasing criminal activity.[9]

Nearly four decades after *Kent* and three decades after this restructuring began, it is now possible to look at the results of this large-scale experiment in youth and crime-control policy. In this article I examine the new boundaries of the juvenile court from three different perspectives. The first perspective is doctrinal or statutory: what is the legal architecture of the new boundary-drawing and boundary-maintenance regimes? The second perspective is conceptual and jurisprudential: what are the justifications for the adult punishment of juvenile offenders, and what do the new boundaries signal about popular views on youth crime, about the appropriate responses to such crime, and

about the theory of a juvenile court stripped of its most challenging cases? The third perspective involves policy. Looking at the new boundaries from a policy perspective requires assessing empirical evidence on the reach, consequences, and effectiveness of relocating entire groups of juvenile offenders and offenses to the criminal court. After revisiting the jurisprudential and policy issues that are the heart of this debate, I look to the future of law and policy regulating the upper boundary of the juvenile court.

Statutory Architecture of Juvenile Transfer

In the midst of the 1978 New York gubernatorial election, a fifteen-year-old named Willie Bosket shot three strangers on a New York City subway platform.[10] The horrific murder evoked a fierce legislative response. The traditionally shorter sentences in the juvenile court for dangerous young men like Willie became the focus of widespread outrage and, quickly, political action. New York legislators promptly passed the Juvenile Offender Law,[11] which lowered the age of majority for murder to thirteen and to fourteen for other major felonies. The new law signaled a broad attack on the structure and independence of the juvenile court, a major restructuring of the border between juvenile and criminal court that was repeated across the nation in recurring cycles for more than two decades.

Current Boundary-Drawing Regimes

At its birth, the Juvenile Offender Law was, and remains today, the nation's toughest law on juvenile crime. New York State was already tough on juvenile crime, one of three states in the nation where the age of majority was sixteen.[12] Two years earlier, it had passed the Predicate Felony Law, a measure that mandated minimum terms of confinement for serious juvenile offenders in juvenile corrections facilities.[13] Determinacy in sentencing—that is, introducing certainty both in sentence length and in conditions—was nothing new for adults, but this law was the first of its kind for juveniles.[14] But the JO Law, as it came to be known, trumped the Predicate Felony Law in ways that signaled the trend that was to come.

First, the legislative branch itself assumed transfer authority by excluding entire categories of juvenile offenders and offenses from the jurisdiction of the family court and removing them to the criminal court.[15] The lawmakers could simply have curtailed the discretion of family court judges, but the JO Law foreclosed any role for them. One reading of the law, then, was as an attack on the family court and its deep adherence to the principles of individualized justice and "best interests of the child." The JO Law not only stripped transfer authority from family court judges, but also devolved it to police and prosecutors, whose unreviewable decisions about charging young offenders often determined whether cases met the thresholds that would trigger a transfer.[16]

Second, the new law based the transfer decision solely on age and offense. It accorded no weight to culpability, mitigation, or any other individual factor, including either therapeutic needs or prior record. It assumed that all youth in these age-offense categories were both sufficiently culpable as to merit criminal justice sanctions and likely to continue their criminal behavior regardless of any interventions provided for them in juvenile corrections. In effect, the legislators made an actuarial group prediction of future dangerousness.

Third, the new law made sentences for Juvenile Offenders, the label applied to juveniles whose cases were removed by the law, long

Table 1. Transfer Mechanisms by State, 2003

	Judicial waiver			Direct file	Statutory exclusion	Reverse waiver	Once adult/ always adult	Juvenile blended	Criminal blended
	Discretionary	Presumptive	Mandatory						
Total states	**45**	**15**	**15**	**15**	**29**	**25**	**34**	**15**	**17**
Alabama	X				X		X		
Alaska	X	X			X			X	
Arizona	X			X	X	X	X		
Arkansas	X			X		X		X	X
California	X	X		X	X	X	X		X
Colorado	X	X		X		X		X	X
Connecticut			X			X		X	
Delaware	X		X		X	X	X		
District of Columbia	X	X		X			X		
Florida	X			X	X		X		X
Georgia	X		X	X	X	X			
Hawaii	X						X		
Idaho	X				X		X		X
Illinois	X	X	X		X	X	X	X	X
Indiana	X		X		X		X		
Iowa	X				X	X	X		X
Kansas	X	X					X	X	
Kentucky	X		X			X			X
Louisiana	X		X	X	X				
Maine	X	X					X		
Maryland	X				X	X	X		
Massachusetts					X			X	X
Michigan	X			X			X	X	X
Minnesota	X	X			X		X	X	
Mississippi	X				X	X	X		
Missouri	X						X		X
Montana				X	X	X		X	
Nebraska				X		X			X
Nevada	X	X			X	X	X		
New Hampshire	X	X					X		
New Jersey	X	X	X						
New Mexico					X			X	X
New York					X	X			
North Carolina	X		X				X		
North Dakota	X	X	X				X		
Ohio	X		X				X	X	
Oklahoma	X			X	X	X	X		X
Oregon	X				X	X	X		
Pennsylvania	X	X			X	X	X		
Rhode Island	X	X	X				X	X	
South Carolina	X		X		X				
South Dakota	X				X	X	X		
Tennessee	X					X	X		
Texas	X						X	X	
Utah	X	X			X		X		
Vermont	X			X	X	X		X	
Virginia	X		X	X		X	X		X
Washington	X				X		X		
West Virginia	X		X						X
Wisconsin	X				X	X	X		X
Wyoming	X			X		X			

Source: Patrick Griffin, *Trying and Sentencing Juveniles as Adults: An Analysis of State Transfer and Blended Sentencing Laws* (Pittsburgh: National Center for Juvenile Justice, 2003).

enough to require trans-correctional placements—placements that began in juvenile settings and continued into the adult corrections system. Thus the law not only mandated transfers but made them routine, a move that affected large numbers of younger offenders who were sentenced to lengthy prison terms despite the absence of a prior record.

In the next two decades, every state in the nation passed legislation to ease and expand the prosecution of juveniles in adult courts.[17] The watershed year was 1995, when seventeen states expanded eligibility for transfer.[18] Most states supplanted or eclipsed the traditional system of judicial transfer from the juvenile court using one or more of the mechanisms built into the design of the JO Law. Still other laws created a new statutory authority to transfer not *court* jurisdiction but *correctional* jurisdiction, and ceded that authority to a forum that is more administrative than adjudicative.[19] Some states maintained the structure and primacy of judicial waiver, but increased the number of youth being waived by mandating that waiver be considered for some offense and offender categories and shifting the burden of proof from the prosecution to the defense to show why the accused should not be transferred to the criminal court.

Given its scope and reach, the expansion of transfer for juvenile offenders was a massive social and legal experiment that fundamentally transformed the borders and boundaries of the juvenile justice system. The experiment evolved and strengthened over time: once passed, laws often were re-crafted in recurring legislative sessions to further expand the scope of laws to transfer or remove youth to criminal court at lower ages and for more offenses. As I show below, the experiment took on several unique forms.

Mechanisms for Juvenile Transfer

Table 1 arrays the states on each of the mechanisms of juvenile transfer in effect as of 2004. Judicial waiver, statutory exclusion, direct file, and blended sentencing are the mechanisms used to transfer juvenile offenders to adult court.

Judicial waiver. Judicial waiver to criminal court is the most common transfer mechanism: forty-seven states and the District of Columbia provide judicial discretion to waive certain juveniles to criminal court. Table 2 shows the age and offense thresholds of waiver eligibility for each state. Historically, judicial waiver decisions were made following a motion by prosecutors. Evidence was presented and argued, and a decision was made. In 1966, in *Kent v. U.S.*,[20] the Supreme Court articulated both procedural and substantive standards to regulate judicial waiver decisions. Though only advisory in the original *Kent* case, the *Kent* guidelines quickly were adopted into law in most states.

Since 1978, judicial waiver criteria and procedures have been redesigned in many states to increase the likelihood of waiver. Some states created a presumption of waiver for specific offenses or offenders, based on age, offense, or prior record. Presumptive waiver shifts the burden of proof from the state to the juvenile to show that he or she should not be transferred. Other states mandate waiver for specific categories of offenses and offenders, often to ensure sentencing terms that can take place only in the criminal court.

Statutory exclusion. Statutory exclusions, like New York's JO Law, relocate entire categories of youth defined by age or offense criteria, or both, to the criminal court. More than half of the states have statutes that exclude some adolescent offenders from the juvenile court.

Table 2. Eligibility for Judicial Waiver by State, Age, and Offense Type, 2003

State	Any offense	Certain felonies	Capital crime	Murder	Person offense	Property offense	Drug offense	Weapons offense
Alabama	14							
Alaska	NS							
Arizona		NS						
Arkansas		14	14	14	14			14
California	16							
Colorado		12		12	12			
Delaware	NS							
District of Columbia	16	15						NS
Florida	14							
Georgia	15		13		13			
Hawaii		14		NS				
Idaho	14	NS		NS	NS	NS	NS	
Illinois	13							
Indiana	14	16		10			16	
Iowa	14							
Kansas	10							
Kentucky		14	14					
Louisiana				14	14			
Maine		NS						
Maryland	15		NS					
Michigan		14						
Minnesota		14						
Mississippi	13							
Missouri		12						
Nevada		14						
New Hampshire		15		13	13			
New Jersey	14			14	14	14	14	14
North Carolina		13						
North Dakota	16				14			
Ohio		14						
Oklahoma		NS						
Oregon		15		NS	NS	15		
Pennsylvania		14						
Rhode Island		16	NS					
South Carolina	16	14		NS	NS		14	14
South Dakota		NS						
Tennessee	16			NS	NS			
Texas		14	14				14	
Utah		14						
Vermont				10	10	10		
Virginia		14						
Washington	NS							
West Virginia		NS		NS	NS	NS	NS	
Wisconsin	15	14		14	14	14	14	
Wyoming	13							

Note: An entry in the column below an offense category means that there is some offense or offenses in that category for which a juvenile may be waived for criminal prosecution. The number indicates the youngest possible age at which a juvenile accused of an offense in that category may be waived. "NS" means no age restriction is specified for an offense in that category.

Example: In Tennessee, a juvenile may be waived for criminal prosecution of any offense committed after reaching the age of sixteen (Any offense—16). In addition, a juvenile of any age may be waived for prosecution of first- or second-degree murder or attempted first- or second-degree murder (Murder—NS). Finally, a juvenile of any age may be waived for prosecution of rape, aggravated rape, aggravated or especially aggravated robbery, kidnapping, aggravated or especially aggravated kidnapping, or the attempt to commit any of these offenses (Person offense—NS).

Source: Patrick Griffin, *Trying and Sentencing Juveniles as Adults: An Analysis of State Transfer and Blended Sentencing Laws* (Pittsburgh: National Center for Juvenile Justice, 2003).

Table 3. State Array of Statutory Exclusions of Minors from Juvenile Court by Age and Offense Type, 2003

State	Any offense	Certain felonies	Capital crimes	Murder	Person offense	Property offense	Drug offense	Weapons offense
Alabama		16	16				16	
Alaska					15	16		
Arizona		15		15	15			
California				14	14			
Delaware		15						
Florida				16	NS	16	16	
Georgia				13	13			
Idaho				14	14	14	14	
Illinois		15		13	15		15	15
Indiana		16		16	16		16	16
Iowa		16					16	16
Louisiana				15	15			
Maryland			14	16	16			16
Massachusetts				14				
Minnesota				16				
Mississippi		13	13					
Montana				17	17	17	17	17
Nevada	16*	NS		NS	16			
New Mexico				15				
New York				13	14	14		14
Oklahoma				13				
Oregon				15	15			
Pennsylvania				NS	15			
South Carolina		16						
South Dakota		16						
Utah		16		16				
Vermont				14	14	14		
Washington				16	16	16		
Wisconsin				10	NS			

Note: An entry in the column below an offense category means that there is some offense or offenses in that category that are excluded from juvenile court jurisdiction. The number indicates the youngest possible age at which a juvenile accused of an offense in that category is subject to the exclusion. "NS" means no age restriction is specified for an offense in that category.

Source: Patrick Griffin, *Trying and Sentencing Juveniles as Adults: An Analysis of State Transfer and Blended Sentencing Laws* (Pittsburgh: National Center for Juvenile Justice, 2003).

*In Nevada, the exclusion applies to any juvenile with a previous felony adjudication, regardless of the current offense charged, if the current offense involves the use or threatened use of a firearm.

Table 3 shows the age and offense threshold for statutory exclusion in each of those states. In addition to devolving transfer authority to prosecutors and police, these statutes also moot *Kent* by rendering a legislative judgment about the future behavior and malleability of excluded youth. Exclusions vary from specific offenses, as in New York, to any felony offense at the age of seventeen, as in Mississippi.

Concurrent jurisdiction and direct file. Concurrent jurisdiction gives prosecutors the option and discretion to file cases directly in adult court. Fifteen states have created concurrent juvenile and criminal court jurisdiction for specific categories of offenses and offenders, permitting prosecutors to elect the judicial forum for the adjudication and sentencing of the young offender. Table 4 shows the combinations of offense and age criteria that trigger eligibility for concurrent jurisdiction in each state. A quick glance shows that these statutes are targeted primarily at violent crimes. Most states with

Table 4. State Array of Concurrent Jurisdiction Statutes Permitting Direct File by Prosecutor by Age and Offense, 2003

State	Any offense	Certain felonies	Capital crime	Murder	Person offense	Property offense	Drug offense	Weapons offense
Arizona		14						
Arkansas		16	14	14	14			
California		14	14	14	14	14	14	
Colorado		14		14	14	14		14
District of Columbia				16	16	16		
Florida	16	16	NS	14	14	14		14
Georgia			NS					
Louisiana				15	15	15	15	
Michigan		14		14	14	14	14	
Montana				12	12	16	16	16
Nebraska	16	NS						
Oklahoma		16		15	15	15	16	15
Vermont	16	1						
Virginia				14	14			
Wyoming		14		14	14	14		

Note: An entry in the column below an offense category means that there is some offense or offenses in that category that may be handled in juvenile or criminal court at the prosecutor's option. The number indicates the youngest possible age at which a juvenile accused of an offense in that category is subject to criminal prosecution at the prosecutor's option. "NS" means no age restriction is specified for an offense in that category.

Example: Wyoming provides for concurrent jurisdiction of the following offenses committed by fourteen-year-olds: any felony committed by a juvenile with at least two previous felony adjudications (Certain felonies—14); murder or manslaughter (Murder—14); kidnapping, first- or second-degree sexual assault, robbery, aggravated assault, or aircraft high-jacking (Person offense—14); first- or second-degree arson and aggravated burglary (Property offense—14).

Source: Patrick Griffin, *Trying and Sentencing Juveniles as Adults: An Analysis of State Transfer and Blended Sentencing Laws* (Pittsburgh: National Center for Juvenile Justice, 2003).

concurrent jurisdiction make youth eligible at age fourteen, though others have either lower or higher age thresholds for specific crimes.

Blended sentencing. Seventeen states give the criminal court the power to impose contingent criminal sanctions for juveniles convicted of certain serious crimes; fifteen states permit juvenile courts to do the same; many give the power to either court. These statutes, known as blended sentencing statutes or extended jurisdiction statutes, identify a specific group of juveniles—based on age, offense, and prior record—whose sentences have separate juvenile and adult components that are linked through a contingent process to determine whether the extended (criminal) punishment will be carried out.[21] Typically, the adult component is imposed only if the youth violates the provisions of the juvenile portion or commits a new offense. The conditions in the juvenile phase may be narrowly tailored (for example, avoiding subsequent crime) or vague and subjective (for example, making satisfactory "progress" in treatment). Table 5 shows the offense and age criteria for blended sentencing in the states with such provisions. Two states, Vermont and Kansas, permit blended sentences for any offense for youth beginning at age ten. Many other states have no minimum age for one or more of the eligible offense categories.

Although intended to ameliorate the consequences of transfer and waiver, blended sentencing in practice has raised several issues. First is net widening. In Minnesota, for example, blended sentences did not

Table 5. State Array of Blended Sentencing Statutes by Age and Offense Type, 2003

State	Statute type*	Any offense	Certain felonies	Capital crime	Murder	Person offense	Property offense	Drug offense	Weapons offense
Alaska	I					16			
Arkansas	I		14		NS	14			14
Colorado	C		NS			NS			
Connecticut	I		14			NS			
Illinois	I		13						
Kansas	I	10							
Massachusetts	I		14			14			14
Michigan	I	NS	NS		NS	NS	NS	NS	
Minnesota	I		14						
Montana	I		12		NS	NS	NS	NS	NS
New Mexico	E		14		14	14	14		
Ohio	I		10		10				
Rhode Island	C		NS						
Texas	C		NS		NS	NS		NS	
Vermont	I†								

Note: An entry in the column below an offense category means that there is some offense or offenses in that category for which a juvenile may receive a blended sentence in juvenile court. The number indicates the youngest possible age at which a juvenile committing an offense in that category is subject to blended sentencing. "NS" means no age restriction is specified for an offense in that category.

*Statute types are coded "I" for inclusive, "E" for exclusive, and "C" for contiguous.

†Vermont has an anomalous juvenile blended sentencing provision, which permits a juvenile entering a plea of guilty or nolo contendere in a criminal proceeding to petition for transfer to family court for disposition. Following the transfer, the family court must impose both a juvenile disposition and a suspended criminal sentence. However, there is no minimum age/offense threshold for juvenile blended sentencing in such a case—the provision applies to all juveniles transferred from criminal court for Youthful Offender Disposition.

Source: Patrick Griffin, *Trying and Sentencing Juveniles as Adults: An Analysis of State Transfer and Blended Sentencing Laws* (Pittsburgh: National Center for Juvenile Justice, 2003).

reduce the number of waivers; instead, they were given to youth who in the past were sentenced within the juvenile system.[22] Second, the decision to activate the adult portion of the transitional sentence often lacks procedural safeguards and at times lacks accountability. States vary on whether the decision is judicial or administrative, as well as on the evidence necessary to trigger the adult portion of the sentence, on the standard of proof, on whether youth can contest or rebut the evidence against them, on whether they are entitled to representation, and on whether the decision is reviewable. Given the length and conditions of the adult portion of the sentence, a more formal, standardized, and constitutionally sound procedure would be appropriate and consistent with the principles of *Gault* and *McKiever*.

Competing Instincts and Second Thoughts

The complexity of state laws, the piecemeal character of the statutory landscape, and the fact that most states have overlapping transfer mechanisms suggests some ambivalence about the instincts to get tough by imposing criminal sanctions on adolescents. Certainly, a state that really wanted to crack down on juveniles could simply lower its age of majority. Yet throughout this thirty-year interval of increasingly tougher sanctions for adolescent offenders, only two states—Wisconsin and New Hampshire—have done so, lowering the age of majority from seventeen to sixteen.[23] Between 1989 and 1995, five states abolished the juvenile death penalty, far more than the number of states that lowered the age of majority in the same period.[24] And one

state—Connecticut—recently raised its age of majority from sixteen to eighteen.

Instead, the states have criminalized delinquency incrementally and in pieces, stopping short of the more obvious and expedient step of lowering the age of majority. The current statutory landscape is full of trapdoors and loopholes that allow some youth—no one knows exactly how many—to escape the reach of the criminal law and its harsher punishments. Legislators appear ambivalent, refusing to completely abandon the principles of juvenile justice, yet seeking to divide delinquents into two categories: those worthy of the remedial and therapeutic interventions of the juvenile court and those who can be abandoned to the punitive regime of criminal justice in the name of retribution and public safety.

Two collateral provisions of the new transfer mechanisms illustrate these competing instincts about adolescence, youth crime, and juvenile justice. Viewed together, they suggest an ambivalent political and social culture on how tough to get with adolescent criminals. The first provision is reverse waiver, the return of transferred cases back to the juvenile court. Reverse waiver is a retail corrective mechanism, designed to detect errors in attributing full culpability or overlooking evidence of amenability to treatment. Twenty-four states permit reverse waiver once cases have been initiated in the criminal courts, including twenty-one of the states with direct file (or prosecutorial waiver) statutes.[25] In some states with statutory exclusion, such as Pennsylvania, these decertification hearings are routine.[26] In New York City, nearly one-third of youth excluded by statute from family court are returned there by the adult court.[27] Cases can be returned to the juvenile court either for adjudication and sentencing or only for sentencing within its statutory authority.

The opposite instinct is evident in the thirty-one states that have enacted "once waived, always waived" legislation. In these states, juveniles who have been waived to adult court and convicted subsequently *must* be charged in criminal court regardless of the offense. For example, in Virginia, any juvenile previously convicted as an adult is forever excluded from juvenile court jurisdiction. In California, any youth whose case is waived to criminal court qualifies for permanent waiver, regardless of whether he or she is convicted in the first waived case. Permanent waiver *can* be invoked in ten states, and *must* be invoked in twelve others, if the offender previously has been adjudicated delinquent.

Thus, the punitive and child-saver instincts for youth crime co-exist uneasily in the current statutory environment, forcing a binary choice between criminal and juvenile court jurisdiction, a choice that is not well suited to reconcile these tensions.

The Enduring Importance of Maturity and Development in Juvenile Justice

What, then, do twenty-five years of transfer activism signal about legal and popular notions of the culpability and maturity of adolescents and about the place of developmental considerations in juvenile justice? The political discourse and legal mobilization that animated the criminalization push beginning in the 1970s was ambiguous about maturity. From the outside, legal academics read the movement as a sign that legislators assumed that young offenders have reached a developmental threshold of criminal responsibility that makes them fully culpable for their crimes.[28] Indeed, even the *Kent* regulations confused "sophistication of the crime" with

"maturity" and culpability. Critics of the juvenile court argued that proportionality and the concerns of victims should trump the "best interests of the child." Some argued that proportionality was necessary to maintain the legitimacy of the juvenile court.[29] Others recommended a proportionality regime in the interests of fairness and consistency, deemphasizing but not discarding the notions of immaturity and diminished culpability of adolescents.[30] Public safety concerns also loomed large, with proponents wishing to draw hard lines to determine when longer, incapacitating punishments were needed to protect citizens. Still other critics of the juvenile court preferred the deterrent effects of criminal court punishment over a regime of individualized justice. The notion of immaturity as a culpability discount was set aside or standardized in a complex heuristic of when and for whom transfer is necessary.

Accordingly, the transfer activism of the past two decades did not affirmatively or uniformly reject the notion of developmental immaturity and diminished culpability of youth. In many instances, it merely reserved it for less serious or visible offenders. Functionally, though not explicitly, transfer activism assumes that adolescents are no different from adults in the capacities that comprise maturity and hence culpability. It also assumes that adolescents have the same competencies as adults to understand and meaningfully participate in criminal proceedings. In the absence of good social and behavioral science, legislators were free to make those assumptions.

But as Elizabeth Scott and Laurence Steinberg show in their article in this volume, there are good reasons now to doubt these claims.[31] For example, in *Roper v. Simmons*,[32] the 2005 U.S. Supreme Court decision banning execution of adolescents younger than eighteen who commit capital murder, the Court took notice that juveniles are less culpable because they are "more vulnerable and susceptible to negative peer influences and outside pressures, including peer pressure,"[33] and are "comparatively immature, reckless and irresponsible."[34] The sum of these developmental gaps between adolescents and adults, according to the *Roper* majority, ". . . means it is less supportable to conclude that even a heinous crime committed by a juvenile is evidence of irretrievably depraved character."[35]

While the law moves toward waiving increasingly younger teens into criminal court, social and biological evidence suggests moving in the other direction.

The *Roper* court drew both from social science research and from "anatomically-based" evidence of "concrete differences" between juveniles and adults showing that "critical developmental changes in key brain regions occur only after late adolescence."[36] So behavioral science and natural science are nearly perfectly aligned to show that "the average adolescent cannot be expected to act with the same control or foresight as a mature adult."[37]

The new science of juvenile culpability runs counter to the patterns in transfer law. In transfer law, the downward ratcheting of the age at which youth are exposed to adult punishment is sharply at odds with evidence

that full maturity in culpability and blameworthiness comes later than eighteen, not earlier. The recent push to lower the age threshold for treating juvenile offenders as adults assumes that they are sufficiently mature to be held culpable for their crimes, that any deficits in their maturity are minor compared with the harm they have done, and that unless punished harshly, they are likely to offend again. The new scientific evidence on developmentally constrained choices suggests that the law has been moving in the wrong direction.[38]

The new developmental and neuropsychological research has strong implications for laws that funnel adolescents wholesale into the adult courts. The new evidence casts reasonable doubt on statutes that sweep all fourteen-, fifteen-, or sixteen-year-old offenders into the criminal justice system. Some adolescent offenders may have reached a threshold of maturity by age sixteen consistent with the legal conceptions of maturity-culpability, but many others have not. In legal regimes that assume maturity where it simply does not exist, the new evidence on immaturity, both in the capacities that comprise culpability and the brain functions that launch them, argues persuasively against transfer to the criminal court.

The alternative to wholesale transfer is to rely on case-by-case assessments, much as the early juvenile courts did in deciding which youth were so incorrigible as to warrant expulsion from the juvenile court. Yet given the limitations of prediction, one might worry about the accuracy of such assessments.[39] Developmental variability means that the younger the line for eligibility for criminal punishment is drawn, the greater the risk of error.[40] So, for example, the new science should raise strong cautions about laws that draw the line at age twelve or younger. One can hardly expect legislators, prosecutors, and judges to systematically and accurately make these complex judgments for young adolescents.[41] Getting it wrong has serious costs. Waiver to adult court is not exactly a death sentence, but it often is irreversible and has serious consequences, as I show next, both for adolescents and for public safety. While the law moves toward waiving increasingly younger teens into criminal court, social and biological evidence suggests moving in the other direction.

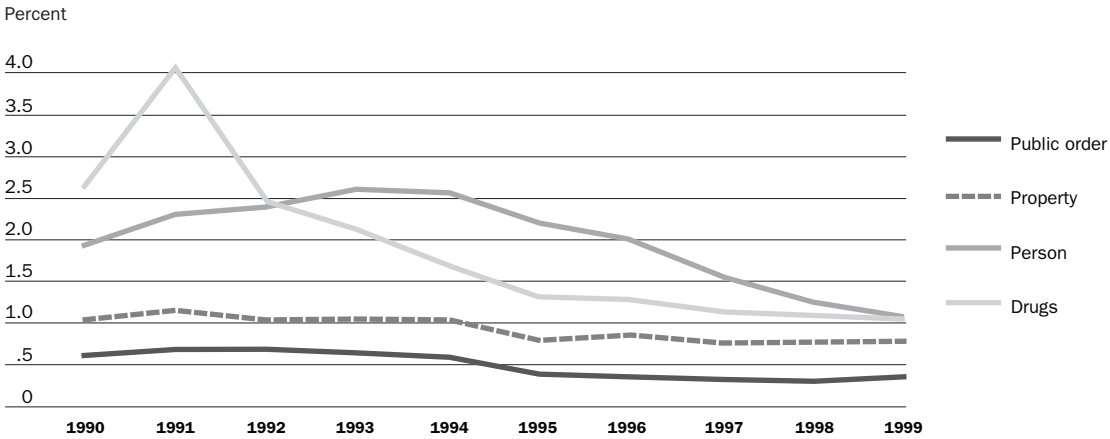
The Reach of Transfer Law

The complexity of the statutory landscape challenges efforts to compile accurate and comprehensive estimates of the reach of transfer laws.[42] Accurate tallies of the number of adolescents transferred to criminal court would require counts in state court administrative databases of the number of cases filed in the criminal court by age, race, and offense, plus data on their dispositions to determine how many transferred cases remain in criminal court after reverse waiver or judicial review. These data may exist, but they are highly disaggregated by state and, in some instances, exist only in local court records.

How Many Are Transferred?

Estimates of the number of youth tried and sentenced in the criminal courts are highly sensitive to data sources and methods of counting. Donna Bishop estimates that between 210,000 and 260,000 minors were prosecuted in criminal courts in 1996.[43] Most of those (80 percent) were excluded from juvenile courts either by the statutory age boundary for juvenile court or by statutes that exclude specific categories of offenses and offenders. The Campaign for Youth Justice makes a similar estimate: 7,500 cases are

Figure 1. Percent of Cases Judicially Waived to Adult Court, 1990–99



Source: National Center for Juvenile Justice, *Delinquency Cases Waived to Adult Court, 1990–99.*

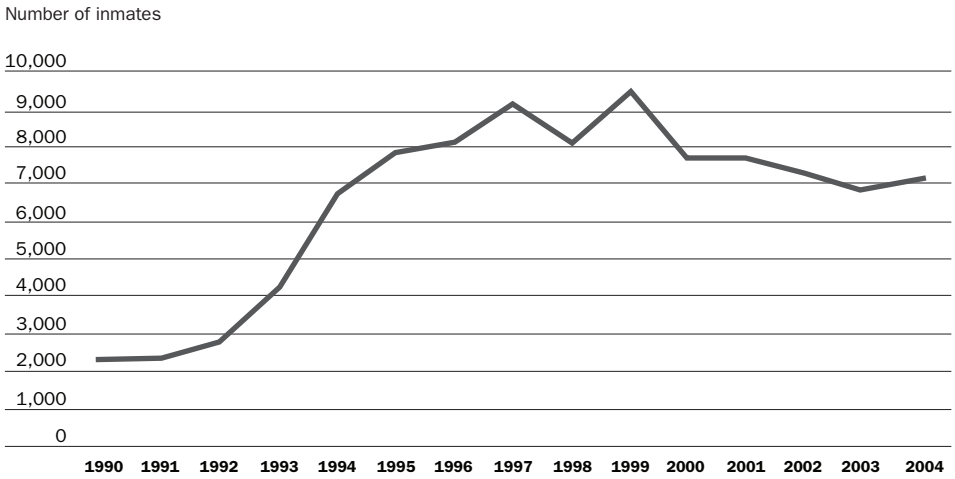
judicially waived to criminal court each year, 27,000 are sent by direct file by a prosecutor, and 218,000 completely bypass the juvenile system and are sent by legislation that sets a lower age of adulthood than eighteen.[44] Comparing this figure with the estimated 973,000 youth who received dispositions in the juvenile court in the same year, Bishop concludes that between 20 and 25 percent of all juvenile offenders younger than eighteen were processed in the criminal courts.

These figures are difficult to verify, however. For example, there are no comprehensive records of direct file activity by prosecutors. And records of minors prosecuted in criminal court are available only for samples from the nation's largest counties and only for some years,[45] or from surveys of prosecutors who report secondary data of uncertain reliability. These data sources are useful as lead indicators of trends over time, but are not helpful in generating estimates of the number and rate of juvenile offenders in the criminal courts.

Although precise estimates may be elusive, it is possible to verify current estimates by aggregating other evidence. "Front-end statistics" on the number of youth judicially transferred suggest that traffic from juvenile to criminal court is heavy. For example, the National Center for Juvenile Justice examined judicial waiver between 1988 and 1999 in more than 2,000 juvenile courts representing 70 percent of the U.S. population. Figure 1 shows that the rate of waiver is low and, with two exceptions, stable over time. Approximately eight cases were waived for every 1,000 formally processed over the decade, fewer than 1 percent of all cases. Waiver rates peaked in 1992 at 1.6 percent of all cases and declined through the rest of the decade consistent with an overall decline in juvenile arrests. Person offenses were waived most often during the decade (1.1 percent of all formal cases), and property cases least often.[46] Judicial waivers for drug offenses declined from a peak of 4 percent in 1991 to slightly more than 1 percent in 1999. Given the low frequency of judicial waivers, the attack on the autonomy of juvenile court judges to make waiver decisions is puzzling.

These front-end statistics on waiver do not include juvenile transfers to criminal court via direct file or statutory exclusions, nor those

Figure 2. Number of State Jail Inmates under Age Eighteen, 1990–2004



Source: H. Snyder and M. Sickmund, National Center for Juvenile Justice, *Juvenile Offenders and Victims: 1999 National Report* (www.ncjrs.gov/html/ojjdp/nationalreport99/toc.html [September, 1999]).

minors (as in New York or other states with age limits below eighteen) who are automatically considered adults by virtue of the state age of majority. Yet it is difficult to count these groups. Records often are not kept, and arrest data rarely differentiate the subchapters in penal codes that trigger statutory exclusion.

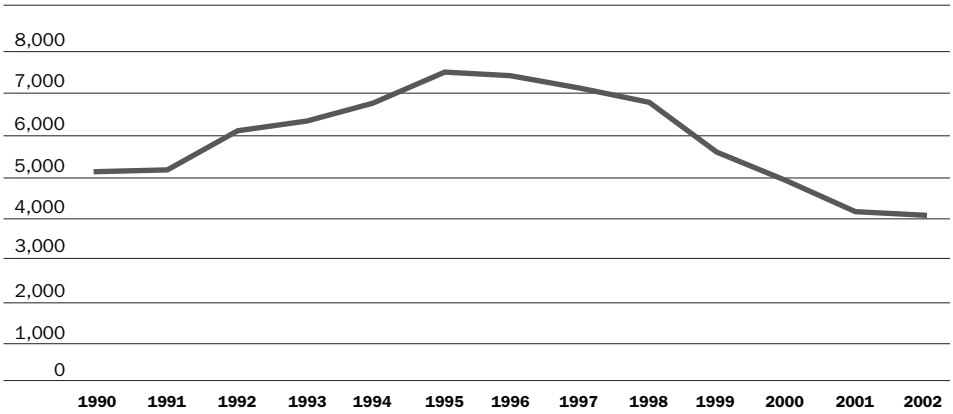
"Back-end statistics" on youth serving sentences in adult jails and prison illustrate the consequences of all transfer mechanisms. These data provide a different picture. The number of youth under age eighteen in adult jails rose sharply through the 1990s to a high of almost 9,500 in 1999 and then leveled off to an average of just over 7,200 since 2000. Figure 2 shows that between 1990 and 2004 there was a 208 percent increase in the number of juveniles younger than eighteen serving time in adult jails on any given day. The share of youth under age eighteen among total jail populations, however, is dropping: these youth accounted for 1.4 percent of the total population of state jails in 1994, 1.2 percent in 2000, and 1 percent in 2004.[47]

Figure 3 shows that the number of juveniles younger than eighteen admitted to state prisons nationally peaked in 1995 at approximately 7,500 and declined over the next seven years. The share of these youth among prison populations is also dropping. Youth under age eighteen accounted for 2.3 percent of the total population of state prisons in 1996, more than double the share (1.1 percent) in 2002. Since 1995, the total prison population has risen 16 percent, while the number of youth under age eighteen in prison has dropped 45 percent.[48]

Finally, in California, 6,629 youth were sentenced to the California Department of Corrections between 1989 and 2003 to serve sentences as adults.[49] The average incarceration rate was 475 a year, but varied from a low of 172 in 1989 to a peak of 794 in 1997. In 2003, 504 minors were sentenced to adult prison in California.

Together, these front- and back-end estimates suggest that the commonly cited estimate that 210,000 youth a year are transferred to

Figure 3. New Admissions of Youth under Age 18 to Adult Prisons, 1990–2002



Source: H. Snyder and M. Sickmund, National Center for Juvenile Justice, *Juvenile Offenders and Victims: 1999 National Report* (www.ncjrs.gov/html/ojjdp/nationalreport99/toc.html [September, 1999]).

criminal court[50] may be an upper bound. How much lower the estimate should be is difficult to determine, and any estimate is prone to error. What can be said is that there is substantial traffic between the juvenile and criminal courts, and most of it is one-way. And the consequences of transfer are severe. Each year tens of thousands of youth below age eighteen are newly incarcerated in prisons and jails, often together with adults, launching an experience whose irrevocable stigma clouds their future economic and social lives. By any measure, this is a large-scale social "experiment" in youth policy whose effects, as I show later, are anything but positive.

Race and Transfer

The overrepresentation of minority youth among those transferred is not surprising, given their overrepresentation at *every* stage of juvenile and criminal justice processing.[51] Whether minority youth are overrepresented relative to their crime rates, and especially relative to the types of crimes that are enumerated in many state transfer and exclusion laws, is a more complex question, but the balance of evidence suggests that they are. [52]

Again, the picture of disparity varies at different stages in the juvenile and criminal justice systems. A back-end view, for example, suggests strong disparities among youth serving in prisons. In 1997, Bureau of Justice Statistics data showed that between 1985 and 1997, 58 percent of the youth admitted to state prisons under eighteen years of age were black and 15 percent were Hispanic.[53] The Campaign for Youth Justice[54] cites data from the California Department of Corrections that in 2003, black youth were 4.7 times more likely to be transferred than white youth, and Hispanic youth 3.4 times more likely. These populations would include youth transferred judicially to criminal court, as well as those excluded by statute under Proposition 21. The same report cites Virginia Department of Corrections data from 2005 showing that black youth comprise less than 50 percent of youth arrested but more than 73 percent of youth entering adult prisons.

A front-end view suggests fewer disparities in waiver. For example, Charles Puzzanchera[55] reports that 46 percent of the judicially waived population during 1990–99 was non-white. Yet most analysts duck the question

Table 6. Index of Racial Disparity in the Juvenile Justice System, 2002

Decision points	White	Black	Relative rate index
Juvenile arrests	1,576,400	625,000	
Cases referred to juvenile court	1,086,700	473,100	
Cases detained	199,700	118,600	
Cases petitioned	596,800	306,000	
Cases judicially waived to criminal court	4,400	2,500	
Cases adjudicated delinquent	421,400	179,000	
Adjudicated cases resulting in placement	90,400	47,500	
Rates (per 100)			
Juvenile arrests to population*	6.1	11.5	1.9
Cases referred to juvenile arrests	68.9	75.6	1.1
Cases detained to cases referred	18.4	25.1	1.4
Cases petitioned to cases referred	54.9	64.7	1.2
Cases waived to cases petitioned	0.7	0.8	1.1
Cases adjudicated to cases petitioned	70.6	58.5	0.8
Placements to cases adjudicated	21.5	26.5	1.2

• For every 100 white youth ages ten to seventeen in the U.S. population, there were 6.1 arrests of white youth under age eighteen. The rate for black youth was 11.5, yielding an RRI for the arrest decision of 1.9. The black rate was almost double the white rate.

• Except for the adjudication decision point, the RRI shows a degree of racial disparity for black youth. This disparity accumulates throughout the process, so that in the end, while black youth were 16 percent of the youth population and were involved in 28 percent of the arrests of youth in 2002, they accounted for 33 percent of the juvenile court cases that resulted in an out-of-home placement.

* Population ages ten to seventeen = 25,994,400 (white) and 5,431,300 (black).

Source: H. Snyder and M. Sickmund, National Center for Juvenile Justice, *Juvenile Offenders and Victims: 1999 National Report* (www.ncjrs.gov/html/ojjdp/nationalreport99/toc.html [September, 1999]).

of whether waiver is racially disproportionate to race-specific crime or arrest rates. Instead, they more often compute race differences based on earlier stages of case processing, mooting the cumulative effects of how youth of different races enter the system. As part of the federal Disproportionate Minority Confinement program, Howard Snyder and Melissa Sickmund computed a Relative Rate Index to estimate disparities at each stage of juvenile justice processing. Table 6 reproduces the chart for 2002 from their most recent report. Large disparities between black and white youth are evident at arrest and at detention. Judicially waived cases show fewer disparities. But these data are misleading in two ways. First, they filter out cumulative disadvantages by race from the outset of a case in the juvenile court—decisions in charging, detention, charge reduction, and the decision to seek waiver itself—and look only at the decision to waive. This selective filtering, or "selection bias," seriously limits understanding of race and waiver. Second, the judicial waiver data are likely underestimates that do not take into account youth excluded by statute from juvenile court jurisdiction.[56] A more comprehensive data set used by Bishop, including data on all three routes of transfer,[57] reports that 69 percent of the tens of thousands of youth excluded each year by statute are non-white. No estimate of racial differences in youth crime, apart from homicide, suggests that minority youth account for such a large share of crime.

The Snyder and Sickmund report on judicial waiver also claims that race disparities are narrowing. The share of white defendant cases in juvenile court that were waived increased from 1990 to 1999 by 9 percent, while the share for black youth declined by 24 percent. This decline, however, may be an artifact of the expansion of other pathways for transfer during this period, an expansion that may have disproportionately affected minority youth who were more often arrested for laws that were the targets of legislative activism.[58]

The real issue, though, is not whether disparities in waiver exist because minority youth are more often involved in crime or because they are arrested at disproportionately higher rates per crime than are white youth relative to their involvement in crime.[59] Rather, the essential question about race and transfer is whether there is disparate treatment given the fact of contact with the juvenile or criminal court. We might expect more black youth to be judicially waived or in adult prison relative to white youth if their offending rates are higher. But *disparity* might better be viewed in terms of the balance across racial and ethnic groups in the rate of transfer relative to each group's *arrest* rate, rather than their offending rate. This measure is akin to the ways that epidemiologists compute relative risk ratios given exposure to an agent.

There are reasons to think that these ratios are not balanced and that racial disparities in the incarceration of youth under age eighteen in state prisons cannot be explained simply by differences in offending. The racial disparities in incarceration are produced by the cumulative effects of an entanglement of discretionary processes at each stage of the juvenile and criminal justice process. Analysts consistently find evidence of selective enforcement that targets minorities well beyond what any difference in their crime rates might predict.[60] A long line of studies shows how race influences police officers' decision making and judgment about suspicion and dangerousness.[61] Social science evidence also suggests the banal, commonplace, and normalized influence of racial biases in everyday case processing in the juvenile and criminal courts, much of it influenced by implicit biases.[62] Either directly or through surrogates and substitutes such as clothing, demeanor, neighborhood, or other racialized cues, unconscious and conscious biases influence decisions about whom to arrest and how to charge and sentence them.

Either directly or through surrogates and substitutes such as clothing, demeanor, neighborhood, or other racialized cues, unconscious and conscious biases influence decisions about whom to arrest and how to charge and sentence them.

Evidence from other corners of criminal justice also shows the cumulative effects of racial bias, from which youth are not exempt.[63] Both discretionary and statutory routes for youth to the criminal court pass through these gates. Accordingly, disparities in transfer are the product of a cumulative process that involves the systematic and cascading application of discretion across the juvenile and criminal justice systems, as well as in structural components created both by policy and law.

The Punitive Reach of Transfer

Transfer statutes and policy typically are designed to increase the certainty, length, and severity of punishment. Leniency, or limits on penal proportionality, was one of the lightning rods for those hostile to the juvenile court who advocated for tougher measures for juvenile crime. The evidence, however, suggests that these advocates only partially achieved their goals and that they put in place a far more complex and contingent pattern of sentencing and punishment than they might have anticipated.

Several studies illustrate the variability and contingencies in sentencing of transferred cases in the criminal courts. For example, Martin Roysher and Peter Edelman[64] showed in the 1970s that sanctions were no more severe in criminal court than in juvenile court in the years immediately following passage of the JO Law in New York; in many cases, and in some upstate counties, sentences were less harsh. Over time, research in different locales by Kay Gillespie and Michael Norman, by Dean Champion, and by Barry Feld, all showed similar patterns.[65] Contrary to the retributive intent of waiver, Marilyn Houghtalin and Larry Mays showed that juveniles are sanctioned less severely in criminal court than are their counterparts in juvenile court, through relatively lenient sanctions and higher case attrition.[66] In 1984 Peter Greenwood and several colleagues offered several explanations why adolescents might face more lenient sanctions in criminal court,[67] and, based on recent studies in Florida, Minnesota, and New York, these explanations seem accurate today. Young offenders in criminal court may appear less threatening—physically smaller and younger, shorter criminal records—than their older counterparts with longer records. Moreover, even though juvenile records are unshielded legally in many jurisdictions, Barry Feld showed that the juvenile's criminal history often may be unavailable to the criminal court because of the functional and physical separation of juvenile and criminal court staffs who must compile and combine these records and, sometimes, because of sheer bureaucratic ineptitude.[68] As a result, the same juvenile recidivist who appears incorrigible to the juvenile court may appear to the criminal court to be a less chronic and less serious offender. However, many states have removed these shields, and juvenile records are now routinely considered in criminal court.

But more recent studies show that the leniency gap has been reversed. In the Florida studies, Donna Bishop and her colleagues reported that youth charged with violent crimes were more likely to be incarcerated if sentenced in the adult court.[69] Aaron Kupchik and several colleagues showed a similar pattern comparing structured sentencing of transferred youth in New York with discretionary sentencing of youth in the juvenile court in New Jersey.[70] In many jurisdictions, structured sentencing determines the disposition in criminal court: the seriousness of a young adult's present offense and adult criminal history are the calculus of sentencing. This is one reason why nearly one-third of youth aged sixteen and seventeen in New York with no previous record were sentenced to adult prison under the New York JO Law.[71] This figure reflects the emphasis on *violent* crimes in expanded transfer laws and procedures across the states. National trends on judicial waivers show that adolescents charged with and waived for violent crimes receive substantial sentences as adults.[72] Local studies show the same. For example, Cary Rudman and several colleagues, looking only at adolescents charged with violent crimes in four jurisdictions, found that the criminal court was more punitive.[73] The likelihood of

incarceration was the same in juvenile and criminal court, but juveniles waived to criminal court received longer sentences—almost always in adult prisons—because there was no upper age boundary for incarceration. Barry Feld and Marcy Podkopacz found that waived youth in Minneapolis received longer sentences for violent crimes, but shorter sentences for property crime, than retained youth.[74] Fagan, comparing sentences in New York and New Jersey for offenders aged fifteen and sixteen in 1981–82, found that youth adjudicated on robbery or assault in adult rather than juvenile court were more likely to be incarcerated and received longer sentences.[75] But in a second study of juveniles sentenced five years later in the same two courts, the gap between juvenile and criminal court sanctions had narrowed significantly.

Thus, the age-offense relationship apparently produces a peculiar disjunction in the sentences of juveniles as adults. When sentenced as adults, young property offenders may receive shorter sentences than do their juvenile counterparts, though young violent offenders may receive dramatically longer sentences and under more punitive conditions than do their juvenile counterparts.

Comparative Correctional Experiences

What little research there is on the correctional experiences of transferred youth has focused on transferred youth who are locked up in state prisons. Little is known about the short stays of such youth in county jails. Nothing is known about how they experience probation supervision, including whether they are linked to services that can help them avoid a return to crime. Nor is anything known about how youth receiving blended sentences, or contingent punishment, experience their two-stage correctional stays. Likewise, for youth released from prison, little research charts their re-entry experiences and outcomes. More research is needed about all these areas of transfer policy to fully understand why transfer itself, not just the experiences of the group that goes to adult prison, seems to produce worse outcomes.

Few modern criminologists or correctional administrators maintain the illusion that incarceration has either broad therapeutic benefits or a strong deterrent effect.

As I show later, incarceration does explain the higher recidivism rates of transferred youth. Why should their correctional experiences matter? There are two reasons. The first is that the primary thrust of transfer laws was to increase the length and severity of punishment. A serious assessment of transfer as a policy must engage its retributive component. One impulse behind transfer activism, fed by the popular perception that the juvenile court's punishment tools were mismatched to the increasing severity of youth crime, was to challenge the juvenile court to attain proportionality in the length and severity of its punishments. A careful analysis of transfer, then, should consider the quality of retribution and the possibility that, for adolescents, lengthy stays in harsh conditions of confinement can be disfiguring, with unknown developmental costs.

Comparisons of juvenile and adult correctional settings suggest that youth in prisons face higher risks of violence. Martin Forst and several colleagues showed how the sharp policy and atmospheric differences between

the security orientation in adult prisons and the therapeutic and educational orientations of juvenile facilities translate into serious consequences for safety and mental health.[76] They compared the experiences of 140 youth in adult and juvenile facilities over four locales. Youth in adult prisons reported higher rates of physical and sexual assault than did matched samples of youth in juvenile corrections. Using standardized scales, youth in juvenile settings reported that staff was more involved and helpful in social and behavioral services. They reported stronger educational programs and employment training and rated therapeutic case management services higher. They also noted that staff in the juvenile facilities were far more attentive to building and strengthening ties to family and other social networks that would be influential on release.[77] Bishop and Frazier reported nearly identical responses in their Florida sample.

In a replication a decade later, Fagan and Kupchik found fewer differences in victimization than did Forst and his colleagues.[78] In fact, juvenile facilities appeared to be more chaotic, with higher levels of drug use and self-reported offending and victimization. But youth in adult prisons nevertheless felt less safe and reported significantly more symptoms of mental illness and post-traumatic stress disorder. Even in the more outwardly stable contexts of adult prisons, where the social organization is maintained by rigid inmate networks, the perceptions and consequences of being surrounded by cohorts of older, often violent, inmates produced stronger feelings of insecurity and collateral mental health consequences.

A second reason why correctional experience should matter is one of principle. The corrective component of punishment often is invoked to justify its effects, yet incarceration seems to have little correctional effect. Few modern criminologists or correctional administrators maintain the illusion that incarceration has either broad therapeutic benefits or a strong deterrent effect.[79] Recidivism rates in adult prisons are simply too high—more than two prisoners in three released in 1994 returned to prison within three years[80]—to sustain beliefs in either the rehabilitative or deterrent component of adult corrections. What is the principle, and corresponding youth policy, that mandates exposure to conditions that are likely to produce failure, a failure with perhaps lasting impacts on an adolescent's social development and well-being far into the life course? We already know that incarceration experiences in adolescence radically curtail social, economic, and psychological development over the life course.[81] Do incapacitation or retribution concerns justify such costs? These policy goals tell us what to punish and perhaps whom, but they do not inform a policy of how to punish.

The Public Safety Effects of Transfer Laws

Research on the deterrent effects of transfer on public safety focuses on both general and specific deterrence. Most of the evidence on general deterrence suggests that laws that increase the threat of sentencing and incarceration as an adult have no effect on youth crime rates. Research on specific deterrence consistently finds that adolescent offenders transferred to criminal court have higher rates of re-offending than do those retained in juvenile court. Rarely do social scientists or policy analysts report such consistency and agreement under such widely varying sampling, measurement, and analytic conditions.

General Deterrence

Researchers investigating general deterrence

typically estimate differences in rates of offending by adolescents under varying sanctioning and punishment regimes. Study designs to test general deterrent effects sort into two approaches. Most studies use time series methods, comparing crime rates before and after the passage of laws lowering the age of majority for specific categories of offenses and offenders. Others compare youth crime rates in states with different statutory boundaries for the age of majority. Both types of studies often use econometric models to compare age-specific crime rates for states with different age thresholds for criminal court eligibility, statistically controlling also for punishment contingencies and other covariates of crime and justice system performance. The evidence tips against the claim that youthful offenders are sensitive to the age boundaries that make them eligible for punishment in the criminal courts. The consensus cuts across studies that vary in study designs, time periods, locales, and methods of analysis.

Most general deterrence studies find that offending rates among adolescents either remain unchanged or increase once they reach age-defined eligibility for the criminal court. Simon Singer and David McDowall reported no general deterrent effects when New York State passed the JO Law in 1978, despite widespread publicity and enforcement of the law statewide.[82] That finding is surprising, because young people in New York evidently were well aware of the law, a fundamental prerequisite for deterrence.[83] Nevertheless, the findings were mixed, especially among older cohorts of youth who were closer to the age of majority. The results were uneven across the state, as well, with little effect on youth crime rates in the higher-crime areas, including New York City.

Two other single-state studies—one in Idaho and one in Washington—reported similar findings. Eric Jensen and Linda Metsger used time series analysis to estimate differences in juvenile crime rates three years before and five years after Idaho passed a law that mandated transfer for youth aged fourteen to seventeen charged with any of five violent crimes. Juvenile crime rates in Idaho actually rose after the law was passed, while crime rates in neighboring states were declining.[84] Robert Barnowski used time series models to estimate changes in juvenile crime rates before and after passage of Washington's 1994 Violence Reduction Act and a 1997 amendment expanding the law. He analyzed juvenile arrest rates for youth aged ten to seventeen from 1989 to 2000 and compared state trends with national trends. He found no differences in the two trends; juvenile arrest rates for the target crimes peaked in 1994 for each.[85]

Only one study, by Steven Levitt, reported that adolescent offenders are sensitive to the age boundary for adult punishment. Levitt estimated significantly lower age-specific crime rates for adolescents between 1978 and 1993 in states where the age of majority was seventeen than in states where offenders were eligible for criminal court at age eighteen.[86] But the finding was not true across the board: the effects of jurisdictional age were conditioned on the comparative likelihood of incarceration in the respective courts. Juvenile crime rates were lower in states with higher juvenile incarceration rates, and marginal increases in the juvenile incarceration rate had greater leverage on juvenile crime rates than did the age of jurisdiction. Levitt's analysis suggests that strengthening the correctional response in the juvenile system can improve public safety without exacting the social and crime costs of transfer.

Across all these studies, the great majority of the evidence agrees that young offenders seem unresponsive to sharp changes in the risk of harsher penalties and that the age at which they are exposed to these penalties seems to matter little if at all. The appetites of adolescents for crime and its rewards seem invariant to punishment threats. David Lee and Justin McCrary characterize young offenders as myopic, unfazed by the threat of short prison sentences and discounting the consequences and likelihood of longer ones.[87] It is hardly unreasonable to assume that knowledge of changes in the law diffuses efficiently through adolescent peer networks that are, in effect, information markets to manage a variety of adolescent risk behaviors.[88] Yet in these highly localized and efficient networks, teens seem to discount changes in the law's consequences in a manner that typifies adolescent reasoning and planning. A generalized change in the risk environment seems unable to leverage changes in behavior.

Specific Deterrence

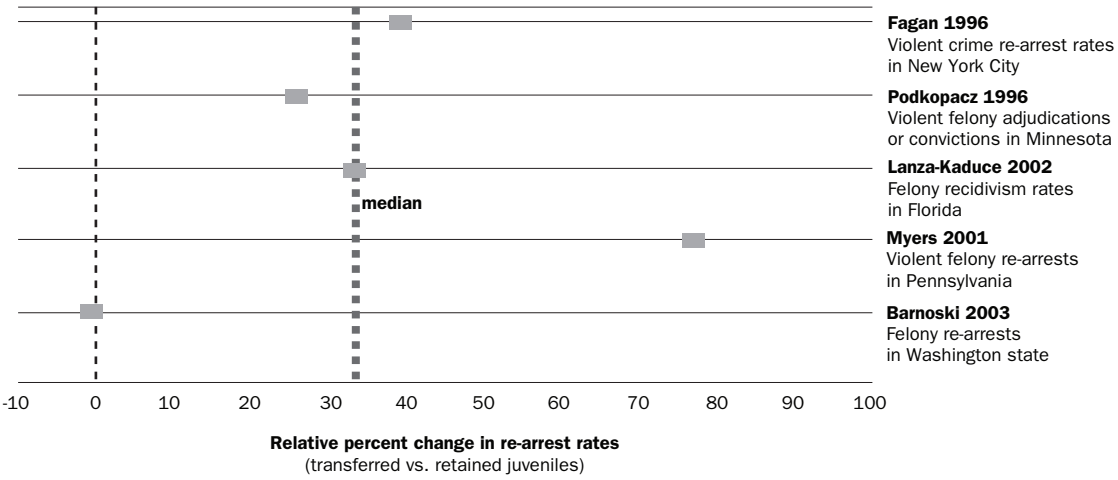
As a policy matter, the critical test for transfer is whether it enhances public safety. Recent research on transfer suggests that, for youth with comparable individual characteristics and correctional experiences, recidivism rates are either the same or significantly higher for transferred youth than for youth retained in the juvenile court. Accordingly, studies on the specific deterrent effects of criminal court sanctions show no evidence of public safety benefits from transfer.

Another single-state study, in Florida, combined age of majority and changes in sanctioning probabilities to estimate the effects of reaching the age of majority on age-specific crime rates. Lee and McCrary used panel methods to estimate the probabilities of rearrest for a sample of youth arrested before age seventeen between 1989 and 2002 in Florida.[89] The authors constructed complete criminal histories going back to the date of first arrest and tracked them over time, controlling for punishment experiences. Again, they found little change in offending rates once youth turned age eighteen and faced more severe and longer terms of punishment as adults. They also found no effects of transfer to criminal court. They concluded that none of the mechanisms to toughen punishment for adolescents—whether transfer to criminal court, or longer sentences or even aging out of the juvenile jurisdiction—show marginal deterrent effects.

The Task Force on Community Preventive Services, a standing committee including policy experts from government, academia, and private research, reviewed seven studies and concluded that youth transferred to adult court subsequently commit violent crime at higher rates than do those retained in juvenile court.[90] Figure 4, which is taken from the Task Force report, illustrates graphically the range of the effects of transfer on recidivism in several of the studies. Some studies suggest that transfer to the criminal court worsens criminal behavior and increases public safety risks. Again, the consistency of the findings, across a variety of sampling, measurement, and analytic conditions, is rare in policy science.

The studies typically compared court outcomes and recidivism rates for matched groups of transferred and retained youth. Some studies compared the criminal records of similar groups of youth either from the same time period or from different time periods before and after law changes.[91] Some studies used designs that are similar to experiments to compare waived and retained youth. These designs are approximations of true experiments, where the youth in juvenile

Figure 4. Comparison of Effects of Transfer on Recidivism Rates in Five Studies of Specific Deterrence



Note: Effects of transfer on re-arrests of transferred juveniles. (Results of one other study were not presented here because of complex effect modification by initial offense and other status characteristics.)

Source: For detailed citations to these studies, see Andrea McGowan and others, "Effects on Violence of Laws and Policies Facilitating the Transfer of Juveniles from the Juvenile Justice System to the Adult Justice System: A Report on Recommendations of the Task Force on Community Preventive Services," *Morbidity and Mortality Weekly Report* 56, no. RR-9 (November 30, 2007).

and criminal court are matched on several factors, such as the number and severity of prior offenses, and then compared on their criminal records after they are sentenced and punished. Other studies compared youth from adjoining jurisdictions with different statutes.[92] The studies also vary in how they test the effects of the different court jurisdictions. Most limit their tests to a simple test of what happens in one court compared with the other, while some others control for what court the case is heard in and what correctional sentence the youth receives. The outcome measures sometimes are specific crimes, such as violence or drug offenses, and sometimes all types of crimes. The studies vary in the lengths of the follow-up periods, with some reporting short-term differences that disappear after several years.[93]

How confident can we be in these studies and the conclusions of the Task Force? Some critics of these studies think that there are weaknesses in the designs that may undermine the conclusions. For example, most of the studies introduce selection biases that prevent a true comparison of the two types of proceedings and sanctions. That is, the process of selection for transfer—whether judicial, prosecutorial, or legislative—may be based on pre-existing indices for criminal propensity that may then affect the outcomes. Accordingly, differences in the samples may reflect more about that pre-existing propensity than about the differential effects of court jurisdiction. Also, comparisons from one court jurisdiction to the next may introduce important contextual influences that may interact with the deterrent effects of punishment.[94]

Only a portion of the studies cited by the Task Force addressed these selection issues. Two studies of youth in Florida used different

procedures to control for selection. Lawrence Winner and several colleagues matched cases in the juvenile and adult courts on seven criteria.[95] The use of matching routines adds confidence to these studies and reflects well on the consistency of their findings with those of other studies lacking rigorous controls.[96] Matches were successful for the first six variables, but transfers including matches by race were less successful. Only two-thirds of the white transfers could be matched to white non-transfers, and only about half of the non-white transfers could be matched to non-white non-transfers. When the race criterion was relaxed, successful matches were obtained in 92 percent of the cases. There were no controls for court or community context. Lonn Lanza-Kaduce and several colleagues[97] computed a risk index based on twelve items and used propensity score matching to adjust for selection effects in the transfer process. He was able to match 475 pairs overall and 315 "best matched pairs" that excluded transferred youth whose criminal history was longer or more severe than a matched contemporary in the retained sample. The differences in recidivism rates using these two design strategies produced similar results that both show substantially higher recidivism rates for transferred youth, particularly in the initial three to five years following sentencing.

A study by Fagan and another by Fagan and two colleagues compared recidivism rates among samples of youth recruited from New York City whose cases originated in the criminal court with samples from bordering areas in northeastern New Jersey whose cases were processed in the juvenile court.[98] In each study, the researchers estimated a selection parameter, or a "propensity score," to control for differences in the samples.[99] The propensity score was included as a predictor in the analyses of recidivism rates.

Even among the few studies that address selection issues, findings are consistent and strong. When joined with other studies showing similar findings, they offer robust evidence of the perverse effects of both wholesale and retail transfer to the criminal court. Moreover, these studies reject the notion that these effects are limited to the subset of transferred youth who are incarcerated in adult prisons. Fagan and Fagan and colleagues as well as Lee and McCrary, specifically test for incarceration effects and find no evidence that either the fact of incarceration or its length significantly predicts recidivism. Several other studies made similar findings. Increasing the risk or length of confinement offers no return to crime control for transferred youth.

Summary

In her review of two decades of research on transfer, Donna Bishop condemns the "recent and substantial expansion of transfer" as harmful and ineffective.[100] Richard Redding says that "[t]he short-term benefits gained from transfer and imprisonment may be outweighed by the longer-term costs of (increased) criminal justice system processing" from higher recidivism rates.[101] Without exception the research evidence shows that policies promoting transfer of adolescents from juvenile to criminal court fail to deter crime among sanctioned juveniles and may even worsen public safety risks. The weight of empirical evidence strongly suggests that increasing the scope of transfer has no general deterrent effects on the incidence of serious juvenile crime or specific deterrent effects on the re-offending rates of transferred youth. In fact, compared with youth retained in juvenile court, youth prosecuted as adults had higher rates of rearrest for serious felony crimes such as robbery and assault. They were also rearrested more quickly and were more often returned to incarceration.

Worse, the broad reach of new transfer laws and policies captures not only those youth whose crimes and reoffending risks may merit harsher punishment, but also many more who are neither chronic nor serious offenders, who pose little risk of future offending, and who seem to be damaged by their exposure to the adult court. Whatever the gains of short-term incapacitation, they are more than offset by the toxic effects of adult punishment for the larger group of adolescent offenders.

Principles for Transfer Policy

The proliferation of promiscuous transfer regimes over the past three decades calls into question the very rationale for a juvenile court. The new legislative activism has rolled back the age at which maturity is assumed to a threshold that strains the credibility of the new laws themselves. But there is almost no evidence that justifies this decades-long experiment.

Three Strikes against the New Transfer

All scientific evidence suggests that transferring early adolescent youth to adult courts inverts assumptions about their cognitive and behavioral capacities before the law and in nearly every other age-graded social task. Wholesale transfer laws such as New York's JO Law or California's Proposition 21 assume a level of maturity and responsibility among young adolescents that is sharply at odds with new social and scientific facts. To be sure, retributive interests benefit from wholesale transfer regimes, but at the cost of vastly multiplying the number of individual injustices from proportionality miscalculations.[102]

The new transfer measures fail to enhance public safety, despite repeated assertions to the contrary by prosecutors and legislators. Instead, prosecuting adolescents as adults, no matter what the pathway to adult court, leads to more, not less, crime, inviting avoidable public safety risks. More youth, it is true, are incapacitated for longer periods once in the criminal court—in many instances, for the rest of their lives. Yet there is no evidence that incarcerating minors for any length of time deters crime either by those locked up or by others.

Without exception the research evidence shows that policies promoting transfer of adolescents from juvenile to criminal court fail to deter crime among sanctioned juveniles and may even worsen public safety risks.

Had the large-scale legal mobilization to increase transfer been subject to federal (and university) standards for the ethical treatment of human subjects, it would have been shut down long ago. One might argue that the benefits of penal proportionality and incapacitation justify the overreach in moving youth to adult court, but even here, the calculus fails. Transfer, whether retail or wholesale, runs a high risk of exposing to harm not just its subjects, but also the public that hosts these measures. These harms are multiplied by the corrosive effects of a criminal record on the possibility of reformation or prosocial development. A transfer regime calibrated at age seventeen may overreach or underreach at the margins, but transfer policies that move youth into criminal court at age sixteen will categorically be overreaching and

weighted toward over-punishment. These policies endure in the face of good evidence of the possibility of such harms, perhaps animated by deep biases about youth among legislators if not the public.[103] The racial skew in transfer and its effects, a result in part of the conflation of youth crime and race in the popular and political imagination,[104] multiplies the ethical tensions in transfer policy.

The Politics of Transfer and the Politics of Crime

Policymakers have taken notice of the robust evidence on the negative effects of transfer, creating a political space for reform as advocates and reformers have pushed back against expanded transfer. Connecticut passed legislation in July 2007 to raise the age of majority incrementally from age sixteen to age eighteen by 2010. In the past two years, legislators in Missouri, Illinois, and New Hampshire have had extensive debates over whether to raise the age to eighteen. Legislators in North Carolina have convened hearings and formed a study commission to address this issue.[105] The debates focus less on whether to raise the age than on the strategies and details of how to do so effectively. The research evidence on transfer and the decrease in serious juvenile crime have convinced most legislators, policymakers, practitioners, and other stakeholders that eighteen may yet again be the appropriate age for juvenile court jurisdiction.

Reformers face a difficult task. Transfer and youth policy raise complex questions that are not just about youth crime. Transfer is one front in a longstanding tension between the judiciary and other branches of government during successive legislative efforts to control crime. It is also an important symbolic front in showing toughness on crime. The general hostility toward judges that was evident in the overall narrowing of judicial discretion—such as the adoption of sentencing guidelines for adults that set minimum or fixed sentences—also extended to the juvenile court, where measures to expand transfer curtailed judicial discretion. The sharp restriction of judicial authority in favor of enhanced prosecutorial power (as in Proposition 21) or legislative authority (as in the New York JO Law) resulted in the expansion of prosecutorial power at the expense of judicial authority. The accretion of authority to prosecutors in this regime is clear: the prosecutor has the unreviewable discretion to select charges and, in turn, to select jurisdiction. Although direct file provisions offer some degree of transparency, exclusion statutes (which account for a large number of transfers) offer none.

Restoring Principle to the Transfer Debate

The debate about transfer to date has been based neither on principle nor on policy, but on the need for "toughness."[106] It is about the substitution of toughness for principle. No scholar or practitioner or advocate denies that it is sometimes necessary to transfer some adolescents to criminal court. The public must be protected from dangerous youth who are not likely to be helped by treatment-oriented or supervisory sanctions. An unrebuttable assumption of immaturity for all robbery suspects younger than age eighteen would be as silly as an unrebuttable assumption of their maturity at fourteen. But delinquent youth also must be protected from the overreach of wholesale waiver. And the reduced decision-making capacity of juveniles provides a principled justification for fine-tuning the borders of the juvenile justice system to avoid unnecessary risk.

Setting these boundaries poses a dilemma for lawmakers that they simply ignore when

they retreat to the simplistic overreach of legislative exclusion or cede discretion to (elected) prosecutors. Developing transfer policy, both calibrating the threshold itself and devising the mechanism for crossing it, involves weighing competing risks. Two types of error lie in wait. One is overpredicting the likelihood of juveniles' offending. The other is underpredicting recidivism risks. The two types of predictions are linked, and evaluating waiver or transfer as public policy requires considering both types of risk. Such is the ethical responsibility of the regulator.[107]

Principles for transfer can produce hard choices and conflicting results. A legislative waiver regime may produce fewer racial disparities for youth under the criminal law than does individual waiver by judges. But legislative waiver raises substantial risks and social costs.[108] Are longer sentences in the juvenile court preferable to shorter sentences in the criminal courts? When we pile on redundant reforms—blended sentences, presumptive transfer, longer juvenile court sentences—do the cumulative and cascading effects produce the intended consequences, or does some less desirable outcome develop?

The future of reform depends on the prospects for restoring principle and discipline to the legislative debate. The weight of evidence points toward returning to juvenile court judges the discretion to select juveniles for transfer. The evidence also points toward basing that selection on more criteria than age and offense. Using *Kent*-like criteria and new scientific knowledge of adolescent development in an open and transparent forum, judges, who are less influenced than legislators by the politics of crime and by electoral pressures, should be able to decide which adolescents should be transferred.[109] A jurisprudence of discretionary decision making on transfer would also promote two ancillary goals. It would restore the accountability that is diffused when legislators surgically remove entire classes of offenders from the juvenile court. And it would take seriously the responsibility for mistakes on both sides of the decision threshold.

Returning to discretionary transfer rather than "wholesale waiver" also would minimize harm by limiting the number of youth subjected to criminal court prosecution while identifying those whose plasticity warrants juvenile court intervention. Yet it would also maintain proportional punishment for adolescents whose crimes are too serious to be adjudicated in the juvenile court.

A now extensive portfolio of empirical research suggests that past attempts to select youth individually for transfer have often failed to identify the most serious offenders and have also reinforced racial discrimination.[110] More careful screening is crucial. New evidence on the dangers of wholesale transfer suggests that the ethical regulator must balance the risk of two types of error, not just the risks of leniency that motivate contemporary statutes and practices. Strong commitments to transparency and ongoing analysis of the patterns and rationales for such decisions can enable judges and other juvenile justice stakeholders to calibrate where the borders should be set and to track and measure the performance of those making transfer decisions.

Declining crime rates, the intellectual and political exhaustion of the "toughness" paradigm in juvenile justice, and new gains in the science of adolescent development have converged to create an opportunity for reform. Opening the transfer process to regulation and deliberation can lay the foundation for

more effective and principled policies. While the law has moved toward waiving increasingly younger teens to adult criminal court, social and biological evidence suggests moving in the other direction. Perhaps it's time for the law to change course and follow the science.

Endnotes

1. David Tanenhaus, *Juvenile Justice in the Making* (Oxford University Press, 2004); see Judith Sealander, *The Failed Century of the Child: Governing America's Young in the Twentieth Century* (Cambridge University Press, 2003); Anthony Platt, *Child Savers: The Invention of Delinquency* (University of Chicago Press, 1967).

2. Tanenhaus, *Juvenile Justice in the Making* (see note 1).

3. *Kent v. U.S.,* 383 U.S. 541 (1966). The Kent guidelines were an amalgam of administrative rules and norms of everyday practice. States quickly adopted the Kent guidelines into law.

4. *Time*, "The Youth Crime Plague," July 11, 1977; *Newsweek*, "The Drug Gangs," March 28, 1988; William J. Bennett, John DiIulio Jr., and John P. Walters, *Body Count: Moral Poverty and How to Win America's War against Crime and Drugs* (New York: Simon and Schuster, 1996).

5. David Garland, *Punishment and Welfare* (University of Chicago Press, 1990); Jonathan Simon, *Governing through Crime* (Oxford University Press, 2007); Michael Tonry, *Malign Neglect: Race, Crime, and Punishment in America* (University of Chicago Press, 1996); Michael Tonry, *Thinking about Crime: Sense and Sensibility in American Penal Culture* (Oxford University Press, 2004).

6. Barry C. Feld, *Bad Kids: Race and the Transformation of the Juvenile Court* (Oxford University Press, 1999); Simon Singer, *Recriminalizing Delinquency: Violent Juvenile Crime and Juvenile Justice Reform* (Cambridge University Press, 1996).

7. Singer, *Recriminalizing Delinquency* (see note 6); Jeffrey Fagan and Franklin E. Zimring, eds., *Changing Borders of Juvenile Justice: Transfer of Adolescents to the Criminal Court* (University of Chicago Press, 2000).

8. Feld, *Bad Kids* (see note 6).

9. Andrea McGowan and others, "Effects on Violence of Laws and Policies Facilitating the Transfer of Juveniles from the Juvenile Justice System to the Adult Justice System: A Report on Recommendations of the Task Force on Community Preventive Services," *Morbidity and Mortality Weekly Report* 56, no. RR-9 (November 30, 2007): 1–11; Donna Bishop, "Juvenile Offenders in the Adult Criminal System," *Crime and Justice: A Review of Research* 27 (2000): 81–167.

10. See Fox Butterfield, *All God's Children: The Bosket Family and the American Tradition of Violence* (New York: Harper Perennial, 1995), for a detailed account of the shooting, its political context, and the legislative reaction. See, also, Merrill Sobie, "The Juvenile Offender Act: Effectiveness and Impact on the New York Juvenile Justice System," *New York Law School Law Review* 27 (1981): 677–91.

11. Martin Roysher and Peter Edelman, "Treating Juveniles as Adults in New York: What Does It Mean and How Is It Working?" in *Major Issues in Juvenile Justice Information and Training*, ed. J. C. Hall and others (Columbus, Ohio: Academy for Contemporary Problems, 1981).

12. *New York Penal Law* § 30.00. Connecticut and North Carolina, at that time, were the others. Connecticut has since raised the age of majority for nearly all juvenile offenders to eighteen. *Connecticut General Statutes* §1-1d; *North Carolina General Statutes* § 7B-1501(7).

13. Roysher and Edelman. "Treating Juveniles as Adults" (see note 11); Sobie, "The Juvenile Offender Act" (see note 10).

14. Barry Feld, "The Juvenile Court Meets the Principle of the Offense: Punishment, Treatment, and the Difference That It Makes," *Boston University Law Review* 69 (1988): 821–952.

15. The family court has jurisdiction over delinquency cases in New York State.

16. A fourteen-year-old offender in New York who snatches a chain from another person could be charged with robbery in the third degree and remain in the family court; if there was any use of force or threat, the offender could be charged with robbery in the second degree and fall subject to the Juvenile Offender Law, regardless of prior record or impact on the victim. The discretion lies solely with the prosecutor, whose decision is not reviewable. Similar differences exist under the JO Law for assault in the second degree.

17. See Office of Juvenile Justice and Delinquency Prevention, "Program Report," *Juvenile Justice Reform Initiatives in the States 1994–1996,* p. 41 (www.ncjrs.gov/pdffiles/reform.pdf [October, 1997]). Office of Juvenile Justice and Delinquency Prevention, "Juvenile Justice Bulletin," *State Legislative Responses to Violent Juvenile Crime: 1996–1997 Update,* p. 2 (www.ncjrs.gov/pdffiles/172835.pdf [November, 1998]). In 1998, Indiana lowered the age from sixteen to ten. During this time, twenty-two states and the District of Columbia set no minimum age at which a judge may transfer a juvenile to criminal court. Office of Juvenile Justice and Delinquency Prevention, "Report," *Trying Juveniles as Adults in Criminal Court: An Analysis of State Transfer Provisions*, pp. 15–16 (www.ncjrs.gov/pdffiles/172836.pdf [December, 1998]).

18. See Donna Lyons, National Conference of State Legislatures, "State Legislature Report," *1995 Juvenile Crime and Justice State Enactments* 20, no.17 (November 1995). In 1995, Alaska, Arkansas, Delaware, Indiana, Louisiana, Minnesota, North Dakota, Oregon, Tennessee, Utah, and West Virginia added offenses for discretionary or mandatory juvenile prosecution in adult criminal court. Arkansas, Idaho, Iowa, Nevada, and Ohio enacted laws that made transfer permanent—so called "once waived, always waived" legislation—regardless of the outcome of the case in criminal court. Other states lowered the age at which juveniles may be prosecuted in criminal court. For instance, Idaho passed legislation providing for waiver of juveniles under age fourteen who commit certain felonies. Nevada lowered from sixteen to fourteen the age at which juveniles are subject to discretionary judicial waiver. West Virginia also lowered from sixteen to fourteen the age of discretionary transfer for certain juveniles charged with serious crimes. However, only two states took the simpler step of lowering the age of majority for all adolescent offenders. New Hampshire and Wisconsin lowered the maximum age of original juvenile court jurisdiction from seventeen to sixteen.

19. Richard E. Redding and James C. Howell, "Blended Sentencing in American Juvenile Courts," in *Changing Borders of Juvenile Justice,* eds. Fagan and Zimring (see note 7). See also Barry C. Feld and Marcy Rasmussen Podkopacz, "The Back-Door to Prison: Waiver Reform, 'Blended Sentencing,' and the Law of Unintended Consequences," *Journal of Criminal Law and Criminology* 91, no. 4 (2001): 997–1072.

20. 383 U.S. 541 (1966).

21. See, for example, Barry C. Feld and Marcy Rasmussen Podkopacz, "The End of the Line: An Empirical Study of Judicial Waiver," *Journal of Criminal Law and Criminology* 86, no. 2 (1996): 449–92. For a review, see Redding and Howell, "Blended Sentencing" (see note 19).

22. Feld and Podkopacz, "The End of the Line" (see note 21).

23. Patricia Torbet and others, Office of Juvenile Justice and Delinquency Prevention, *State Responses to Serious and Violent Juvenile Crime,* p. 3 (www.ncjrs.gov/pdffiles/statresp.pdf [July, 1996])).

24. Jeffrey Fagan and Valerie West, "The Decline of the Juvenile Death Penalty: Scientific Evidence of Evolving Norms," *Journal of Criminal Law and Criminology* 95 (2005): 427.

25. Bishop, "Juvenile Offenders in the Adult Criminal System" (see note 9).

26. David Rosen, Philadelphia Defender Association, personal communication. Representation for these youth is provided by each county. Not every jurisdiction has the resources to provide defense representation that can motion for reverse waiver, and disparities arise when access to services is limited by economic resources. See Laval S. Miller-Wilson and Patricia Puritz, *Pennsylvania: An Assessment of Access to Counsel and Quality of Representation in Delinquency Proceedings* (www.jlc.org/File/publications/paassessment.pdf [October 2003]).

27. Jeffrey Fagan, "Separating the Men from the Boys: The Comparative Impacts of Juvenile and Criminal Court Sanctions on Recidivism of Adolescent Felony Offenders," in *Sourcebook: Serious, Violent, and Chronic Juvenile Offenders*, eds. James C. Howell and others (Thousand Oaks, Calif.: Sage, 1995).

28. Stephen J. Morse, "Immaturity and Responsibility," *Journal of Criminal Law and Criminology* 88 (1998): 15.

29. Franklin Zimring, "Penal Proportionality for the Young Offender: Notes on Immaturity, Capacity, and Diminished Responsibility," in *Youth on Trial: A Developmental Perspective on Juvenile Justice*, edited by Robert Schwartz and Thomas Grisso (University of Chicago Press, 2000).

30. Barry C. Feld, "Abolish the Juvenile Court: Youthfulness, Criminal Responsibility, and Sentencing Policy," *Journal of Criminal Law and Criminology* 88 (1997): 68. Feld advanced the concept of a "youth discount" on adult sentences, standardizing immaturity strictly by age.

31. N. Dickon Reppucci, "Adolescent Development and Juvenile Justice," *American Journal of Community Psychology* 27, no. 3 (1999): 307–26; Laurence Steinberg and Elizabeth Scott, "Less Guilt by Reason of Adolescence," *American Psychologist* 58, no. 12 (2003): 1009–18.

32. 543 U.S. 551 (2005).

33. Ibid.

34. Ibid. The Court's majority also said these same qualities are the reasons why juveniles are not permitted to vote, serve on juries, or marry without parental consent. It effectively contradicted Justice Scalia's majority opinion in *Stanford* and recent empirical work emphasizing variability in developmental trajectories for different decisional competencies. See Steinberg and Scott, "Less Guilt by Reason of Adolescence" (see note 31).

35. Ibid.

36. Brief of American Psychiatric Association as Curiae at 2-3, in *Roper v. Simmons* 543 U.S. 551 (No. 06-633).

37. Ibid.

38. See the article by Laurence Steinberg and Elizabeth Scott in this volume for a review of the scientific evidence on child and adolescent development and culpability.

39. See the article by Edward Mulvey and Anne-Marie Leistico in this volume.

40. Elizabeth Cauffman and Laurence Steinberg, "(Im)Maturity of Judgment in Adolescence: Why Adolescents May Be Less Culpable than Adults," *Behavioral Sciences and the Law* 18 (2001): 741–60.

41. But see *Schall v. Martin*, 467 U.S. 253 (1984), in which Justice Powell, writing for the majority, set aside controversial social science evidence on predictions of dangerousness and said that judges were best suited to make these determinations.

42. For example, New York and North Carolina set the age of majority at sixteen; youth in criminal court in those states should not be part of an estimate of the transferred population. But youth excluded by statute at age sixteen in other states should be measured as part of the transferred population.

43. Bishop, "Juvenile Offenders in the Adult Criminal System" (see note 9).

44. Campaign for Youth Justice, *The Consequences Aren't Minor: The Impact of Trying Youth as Adults and Strategies for Reform* (Washington: Campaign for Youth Justice, 2007). The authors cited two sources: Charles Puzzanchera and others, Office of Juvenile Justice and Delinquency Prevention, *Juvenile Court Statistics 1999* (www.ncjrs.gov/pdffiles1/ojjdp/201241.pdf [July, 2003]), and Howard Snyder and Melissa Sickmund, National Center for Juvenile Justice, *Juvenile Offenders and Victims: 1999 National Report* (www.ncjrs.gov/html/ojjdp/nationalreport99/toc.html [September, 1999]).

45. See, for example, Kevin Strom and others, U.S. Department of Justice, Bureau of Justice Statistics, "Special Report," *State Court Processing Statutes 1990–94, Juvenile Felony Defendants in Criminal Courts* (www.ojp.gov/bjs/pub/pdf/jfdcc.pdf [September, 1998]).

46. But as juvenile drug arrests rose during the early part of the decade, the number of waived drug cases rose. Judicial waivers for drug offenses declined in number beginning in 1992, though the rate remained stable.

47. Snyder and Sickmund, *Juvenile Offenders and Victims* (see note 44), p. 236.

48. Ibid., p. 237.

49. Data were unavailable to determine whether those sentenced to prison were incarcerated in adult or juvenile facilities. See Campaign for Youth Justice, *The Consequences Aren't Minor* (see note 44), citing statistics from the California Board of Corrections and the California Department of Corrections.

50. This figure is cited, for example, in Campaign for Youth Justice, *The Consequences Aren't Minor* (see note 44), p. 21, note 4, quoting a 2005 report by the Coalition for Juvenile Justice, *Childhood on Trial: The Failure of Trying and Sentencing Youth in Adult Criminal Court* (www.appa-net.org/resources/pubs/docs/CJJ-Report.pdf [2005]).

51. Donna M. Bishop, "The Role of Race and Ethnicity in Juvenile Justice Processing," in *Our Children, Their Children: Confronting Racial and Ethnic Differences in American Juvenile Justice*, edited by Darnell Hawkins and Kimberly Kempf-Leonard (University of Chicago Press, 2005).

52. See the article by Alex Piquero in this volume.

53. Kevin Strom, U.S. Department of Justice, Bureau of Justice Statistics, "Special Report," *Profile of State Prisoners under Age 18, 1985–97* (http://ojp.usdoj.gov/bjs/pub/pdf/pspa1897.pdf [February, 2000]).

54. Campaign for Youth Justice, *The Consequences Aren't Minor* (see note 44).

55. Puzzanchera and others, *Juvenile Court Statistics 1999* (see note 44), p. 44.

56. Feld, *Bad Kids* (see note 6).

57. Bishop relied on the State Courts Processing System (SCPS), which includes all cases processed in the criminal courts and disaggregates by age.

58. Feld, *Bad Kids* (see note 6).

59. Janet Lauritsen's careful review of the evidence using multiple data sources to confirm patterns observed in arrest records suggests that offending rates for non-white youth may in fact be higher for violence and weapons charges, but not for drug crimes. See Janet Lauritsen, "Racial and Ethnic Differences in Juvenile Offending," in *Our Children, Their Children,* edited by Darnell Hawkins and Kimberly Kempf-Leonard (see note 51). This is important in the discussion of racial disparity, since drug crimes are one of the most commonly waived offenses for black youth, according to Snyder and Sickmund, *Juvenile Offenders and Victims* (see note 44), pp. 176, 187. Instead, Bishop, "The Role of Race and Ethnicity" (see note 51), suggests that racial disparities in police contacts and arrests *per crime* may be the case, based on strategic decisions about where and how to deploy police, and observed biases in police decision making. See also Bishop, "Juvenile Offenders in the Adult Criminal System" (see note 9). See, for example, Geoffrey Alpert, John MacDonald, and Roger Dunham, "Police Suspicion and Discretionary Decision Making during Citizen Stops," *Criminology* 43 (2005): 407–34. See also Jeffrey Fagan and Garth Davies, "Street Stops and Broken Windows: Race, *Terry* and Disorder in New York City," *Fordham Urban Law Journal* 28 (2000): 457.

60. Andrew Gelman, Jeffrey Fagan, and Alex Kiss, "An Analysis of the New York City Police Department's 'Stop-and-Frisk' Policy in the Context of Claims of Racial Bias," *Journal of the American Statistical Association* 102 (2007): 813–23.

61. Joshua Correll and others, "The Police Officer's Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals," *Journal of Personality & Social Psychology* 83 (2002): 1314–29; Anthony G. Greenwald and others, "Targets of Discrimination: Effects of Race on Responses to Weapons Holders," *Journal of Experimental Social Psychology* 39 (2003): 399–405; E. Ashby Plant and B. Michelle Peruche, "The Consequences of Race for Police Officers' Responses to Criminal Suspects," *Psychological Science* 16 (2005):180–83; E. Ashby Plant and others, "Eliminating Automatic Racial Bias: Making Race Non-Diagnostic For Responses to Criminal Suspects," *Journal of Experimental Social Psychology* 41 (2005): 141–56.

62. For a thorough review of studies on racial profiling, sentencing, and police shootings, see R. Richard Banks, Jennifer L. Eberhardt, and Lee Ross, "Discrimination and Implicit Bias in a Racially Unequal Society," *California Law Review* 94 (2006): 1169–90. See also Sandra Graham and Brian S. Lowery, "Priming Unconscious Racial Stereotypes about Adolescent Offenders," *Law & Human Behavior* 28 (2004): 483–504; George Bridges and Sara Steen, "Racial Disparities in Official Assessments of Juvenile Offenders: Attributional Stereotypes as Mediating Mechanisms," *American Sociological Review* 63 (1998): 554–70.

63. Jennifer Eberhardt and others, "Looking Deathworthy: Perceived Stereotypicality of Black Defendants Predicts Capital-Sentencing Outcomes," *Psychological Science* 17 (2006): 383–87; William Pizzi, Irene V. Blair, and Charles M. Judd, "Discrimination in Sentencing on the Basis of Afrocentric Features," *Michigan Journal of Race and Law* 10 (20075): 327–55.

64. Roysher and Edelman, "Treating Juveniles as Adults in New York" (see note 11).

65. Feld, "The Juvenile Court Meets the Principle of the Offense" (see note 14); L. K. Gillespie and M. D. Norman, "Does Certification Mean Prison? Some Preliminary Findings from Utah," *Juvenile and Family Court Journal* 35 (1984): 23–34; and Dean J. Champion, "Teenage Felons and Waiver Hearings: Some Recent Trends, 1980–1988," *Crime and Delinquency* 35 (1989): 577–85.

66. See, for example, M. Houghtalin and G. L. Mays, "Criminal Dispositions of New Mexico Juveniles Transferred to Adult Court," *Crime and Delinquency* 37 (1991): 393–407; see also Charles W. Thomas and Shay Bilchik, "Prosecuting Juveniles in Criminal Courts: A Legal and Empirical Analysis," *Journal of Criminal Law and Criminology* 76 (1985): 439–79.

67. Peter W. Greenwood, Allan Abrahamse, and Franklin Zimring, *Factors Affecting Sentencing Severity for Young Adult Offenders* (Santa Monica, Calif.: Rand Corporation, 1984).

68. Barry C. Feld, "Violent Youth and Public Policy: A Case Study of Juvenile Justice Law Reform," *Minnesota Law Review* 79 (1995): 965–1128; Feld, *Bad Kids* (see note 6).

69. See Donna M. Bishop and others, "The Transfer of Juveniles to Criminal Court: Does It Make a Difference?" *Crime and Delinquency* 42 (1996): 171–91.

70. Aaron Kupchik, Jeffrey Fagan, and Akiva Liberman, "Punishment, Proportionality, and Jurisdictional Transfer of Adolescent Offenders: A Test of the Leniency Gap Hypotheses," *Stanford Law and Policy Review* 14 (2003): 57–83. See also Simon Singer, Jeffrey Fagan, and Akiva Liberman, "The Reproduction of Juvenile Justice in Criminal Court: A Case Study of New York's Juvenile Offender Law," in *Changing Borders of Juvenile Justice,* eds. Fagan and Zimring (see note 7).

71. Kupchik, Fagan, and Liberman, "Punishment, Proportionality, and Jurisdictional Transfer" (see note 70).

72. See Patricia Torbet and others, *State Responses to Serious and Violent Juvenile Crime* (see note 23); Melissa Sickmund, Office of Juvenile Justice and Delinquency Prevention, "OJJDP Update on Statistics," *How Juveniles Get to Criminal Court* (www.ncjrs.gov/pdffiles/juvcr.pdf [October, 1994]); Feld, *Bad Kids* (see note 6).

73. Cary S. Rudman, Jeffrey Fagan, and Eliot C. Hartstone, "Violent Youth in Adult Court: Process and Punishment," *Crime and Delinquency* 32 (1986): 75–96.

74. Feld and Podkopacz, "The End of the Line" (see note 21), studying 1986–1992 waiver in Hennepin County, Minnesota.

75. Fagan, "Separating the Men from the Boys" (see note 27).

76. Martin A. Forst, Jeffrey Fagan, and T. Scott Vivona, "Some Paradoxical Effects of the Treatment-Custody Dichotomy for Adolescents in Adult Prisons," *Juvenile and Family Court Journal* 40 (1989): 1–15.

77. Evidently, the success of waiver reform, which would return children to the juvenile court, depends on confidence in the programs of the juvenile court. Peter W. Greenwood, *Changing Lives: Delinquency Prevention as Crime-Control Policy* (Chicago University Press, 2006).

78. Data on file with author.

79. However, some criminologists, such as William Spelman, believe that there may be incapacitation effects from imprisonment, where active offenders are locked up and unable to commit new crimes on the

streets, but that few would-be offenders are deterred from crime by the threat of incarceration. See, for example, William Spelman, "The Limited Importance of Prison Expansion," in *The Crime Drop in America*, edited by Alfred Blumstein and Joel Wallman (Cambridge University Press, 2000).

80. Among inmates released between age eighteen and twenty-four, 75.4 percent were rearrested within three years, 52.0 percent were re-convicted, and 52.0 percent were returned to prison. Among inmates aged fourteen to seventeen at release, the rates were higher: 82.1 percent rearrested, 55.7 percent re-convicted, and 56.6 percent returned to prison. Patrick Langan and David Levin, U.S. Department of Justice, Bureau of Justice Statistics, "Special Report," *Recidivism of Prisoners Released in 1994* (www.ojp.usdoj.gov/bjs/pub/pdf/rpr94.pdf [June, 2002]).

81. Robert J. Sampson and John H. Laub, *Crime in the Making: Pathways and Turning Points through Life* (Harvard University Press, 1993); Richard Freeman, "Why Do So Many Young American Men Commit Crimes and What Might We Do about It?" *Journal of Economic Perspectives* 10, no. 1 (1996): 25–42.

82. Simon I. Singer and David McDowall, "Criminalizing Delinquency: The Deterrent Effects of the New York Juvenile Offender Law," *Law and Society Review* 22, no. 3 (1988): 521–36.

83. Barry Glassner and others, "A Note on the Deterrent Effect of Juvenile vs. Adult Jurisdiction," *Social Problems* 31, no. 2 (1983): 219–21. According to Singer, *Recriminalizing Delinquency* (see note 6), brochures were sent to public schools announcing the new law and its harsh consequences, and juvenile court judges routinely issued warnings about the serious punishment that awaited anyone who violated the new law. Paul H. Robinson and John M. Darley, "Does Criminal Law Deter? A Behavioural Science Investigation," *Oxford Journal of Criminal Law* 24 (2004): 173–205.

84. E. L. Jensen and L. K. Metsger, "A Test of the Deterrent Effect of Legislative Waiver on Violent Juvenile Crime," *Crime & Delinquency* 40, no. 1 (January 1994): 96.

85. Robert Barnowski, "Changes in Washington State's Jurisdiction of Juvenile Offenders: Examining the Impact," available at www.wsipp.wa.gov/rptfiles/JuvJurisChange.pdf (2003).

86. Steven D. Levitt, "Juvenile Crime and Punishment," *Journal of Political Economy* 106 (1998): 1156–85.

87. David Lee and Justin McCrary, "Crime, Punishment, and Myopia," Working Paper W11491 (Cambridge, Mass.: National Bureau of Economic Research, 2005), available at http://ssrn.com/abstract=762770.

88. Ibid. See also Jonathan Gruber, *Risky Behavior among Youth: An Economic Analysis* (University of Chicago Press, 2001).

89. Lee and McCrary, "Crime, Punishment, and Myopia" (see note 87).

90. McGowan and others, "Effects on Violence" (see note 9). The committee standardized published results of transfer studies by computing point estimates for the relative change in the violent crime rates attributable to the interventions. The reviewers calculated baselines and percent changes using the following formulas for relative change. For studies with before-and-after measurements and concurrent comparison groups, the effect size was computed as:

$$(Ipost/Ipre)/(Cpost/Cpre) - 1$$

where:

Ipost = the last reported outcome rate in the intervention group after the intervention;
Ipre = the reported outcome rate in the intervention group before the intervention;
Cpost = the last reported outcome rate in the comparison group after the intervention;

Cpre = the reported outcome rate in the comparison group before the intervention.

If modeled results were reported from logistic regressions, odds ratios were adjusted for comparability to relative rate changes estimated from other studies:

$$RR = OR / ([1 - P_0] + [P_0 \text{ x } OR])$$

where:

RR = relative risk;

OR = odds ratio to be converted;

P0 = incidence of the outcome of interest in the unexposed population (that is, juveniles retained in the juvenile justice system).

91. See McGowan and others, "Effects on Violence" (see note 9), for specific citations of studies included in their analysis.

92. In a subsequent study, Fagan, Kupchik, and Liberman used a similar design with more counties and an expanded list of sampled offenses. Jeffrey Fagan, Aaron Kupchik, and Akiva Liberman, "Be Careful What You Wish for: Legal Sanctions and Public Safety among Adolescent Offenders in Juvenile and Criminal Court," Columbia Law School, Public Law Research Paper no. 03-61 (available at SSRN: http://ssrn.com/abstract=491202 [July, 2007]). Their results were similar to the Fagan study, "Separating the Men from the Boys" (see note 27). The more recent study was not included in the Task Force analysis, which included only published studies.

93. See Fagan, "Separating the Men from the Boys" (see note 27); Fagan, Kupchik, and Liberman, "Be Careful What You Wish for" (see note 91); Bishop and others, "The Transfer of Juveniles to Criminal Court" (see note 69).

94. John C. Hagan and Kristin Bumiller, *Making Sense of Sentencing: A Review and Critique of Sentencing Research*, vol. 2 in *Research on Sentencing: The Search for Reform*, edited by Alfred Blumstein and others (Washington: National Academy Press, 1983), pp. 1–54; see also Charles R. Tittle, *Sanctions and Social Deviance: The Question of Deterrence* (New York: Praeger, 1980); Charles R. Tittle, "Evaluating the Deterrent Effects of Criminal Sanctions," in *Handbook of Criminal Justice Evaluation*, edited by Malcolm Klein and Kathie Teilmann (Beverly Hills, Calif.: Sage Publications, 1980).

95. Lawrence Winner and others, "The Transfer of Juveniles to Criminal Court: Reexamining Recidivism Over the Long Term," *Crime and Delinquency* 43 (1997): 548–63. The criteria were: (1) most serious offense for which the transfer was made, (2) the number of counts included in the bill of information for the committing offense, (3) the number of prior referrals to the juvenile court, (4) the most serious prior offense, (5) age at the time of committing the offense, (6) gender, and (7) race (coded dichotomously as white or non-white).

96. Paul R. Rosenbaum and Donald B. Rubin, "Reducing Bias in Observational Studies Using Subclassification on the Propensity Score," *Journal of the American Statistical Association* 79 (1984): 516–24.

97. Lonn Lanza-Kaduce and others, Florida Department of Juvenile Justice, *Juvenile Transfer to Criminal Court Study: Final Report* (www.prisonpolicy.org/scans/juveniletransfers.pdf [January, 2002]).

98. Fagan, "Separating the Men from the Boys" (see note 27); Fagan, Kupchik, and Liberman, "Be Careful What You Wish for" (see note 91).

99. The identification task to estimate propensity scores requires the selection of variables that approximate the matrix of information available to judges or prosecutors and the logic they use in deciding whether

to transfer. The selection or propensity models estimated when researchers lack full information that is available to judges or prosecutors may be artifactual at best and, under extreme conditions, inaccurate. See, for example, Randall Salekin and others, "Juvenile Transfer to Adult Courts: A Look at Prototypes for Dangerousness, Sophistication-Maturity, and Amenability to Treatment through a Legal Lens," *Psychology, Public Policy, and Law* 8, no. 4 (2002): 373–410; D. N. Brannen and others, "Transfer to Adult Court: A National Study of How Juvenile Court Judges Weigh Pertinent Kent Criteria," *Psychology, Public Policy, and Law* (forthcoming).

100. Bishop and Frazier, "Consequences of Transfer," in *The Changing Borders of Juvenile Justice,* edited by Fagan and Zimring (see note 7); Bishop, "Juvenile Offenders in the Adult Criminal System" (see note 9).

101. Richard E. Redding, "The Effects of Adjudicating and Sentencing Juveniles as Adults," *Youth Violence and Juvenile Justice* 1, no. 2 (2003): 128–55.

102. David O. Brink, "Immaturity, Normative Competence, and Juvenile Transfer: How (Not) to Punish Minors for Major Crimes," *Texas Law Review* 82 (2004): 1555–85.

103. Elizabeth F. Emens, "Aggravating Youth: *Roper v. Simmons* and Age Discrimination," *Supreme Court Review* 2005: 51–102.

104. Lawrence Bobo and Devon Johnson, "A Taste for Punishment: Black and White Americans' Views on the Death Penalty and the War on Drugs," *Du Bois Review* 1 (2004): 151–80.

105. North Carolina is one of the nation's two remaining states that set the age of majority for criminal responsibility at sixteen. Connecticut legislators used the study commission model to create political space for reform and to build consensus among stakeholders during the three-year planning process.

106. Even as juvenile crime rates had begun their decade-long decline, inaccurate facts were cited to militate for yet tougher measures. For example, Representative Bill McCollum, chair of the House Subcommittee on Crime in the 106th Congress, argued for tougher transfer laws by stating that "in America, no population poses a greater threat to public safety than juvenile offenders." House Committee on the Judiciary, *Putting Consequences Back into Juvenile Justice at the Federal, State, and Local Levels: Hearings before the Subcommittee on Crime*, 106th Congress, 1999, p. 5.

107. Carl F. Cranor, *Regulating Toxic Substances: A Philosophy of Science and the Law* (Oxford University Press, 1993).

108. See Zimring and Fagan, "Transfer Policy and Law Reform," in *The Changing Borders of Juvenile Justice,* edited by Fagan and Zimring (see note 7). See also "Fagan, "Separating the Men from the Boys" (see note 27); Fagan, Kupchik, and Liberman, "Be Careful What You Wish for" (see note 91)"; Feld and Podkopacz, "The Back-Door to Prison" (see note 19).

109. Katherine Beckett, *Making Crime Pay: Law and Order in Contemporary American Politics* (Oxford University Press, 1997).

110. See Bishop, "Juvenile Offenders in the Adult Criminal System" (see note 9).

Understanding the Female Offender

Elizabeth Cauffman

Summary

Although boys engage in more delinquent and criminal acts than do girls, female delinquency is on the rise. In 1980, boys were four times as likely as girls to be arrested; today they are only twice as likely to be arrested. In this article, Elizabeth Cauffman explores how the juvenile justice system is and should be responding to the adolescent female offender.

Cauffman begins by reviewing historical trends in arrest rates, processing, and juvenile justice system experiences of female offenders. She also describes the adult outcomes commonly observed for female offenders and points out that the long-term consequences of offending for females are often more pronounced than those for males, with effects that extend to the next generation. She also considers common patterns of offending in girls, as well as factors that may increase or decrease the likelihood of offending. She then reviews what is known about effective treatment strategies for female offenders.

Female delinquents have a high frequency of mental health problems, suggesting that effective prevention efforts should target the mental health needs of at-risk females before they lead to chronic behavior problems. Once girls with mental health problems come into the juvenile justice system, says Cauffman, diverting them to community-based treatment programs would not only improve their individual outcomes, but allow the juvenile justice system to focus on cases that present the greatest risk to public safety.

Evidence is emerging that gender-specific treatment methods can be effective for female offenders, especially when treatment targets multiple aspects of offenders' lives, including family and peer environments. But it is also becoming clear that female offenders are not a homogeneous group and that treatment ultimately should be tailored to suit individual needs defined more specifically than by gender alone.

Despite myriad differences between male and female offending, many of the primary causes of offending, says Cauffman, are nevertheless similar. The most effective policies for reducing juvenile crime, she argues, will be those that foster development in a safe and nurturing environment throughout childhood. Cauffman concludes that female offenders are likely to require continued support long after their direct involvement with the juvenile justice system.

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Since the inception of the juvenile justice system, policies and practices regarding juvenile offending have focused on the behavior, treatment, and outcomes of a population heavily dominated by males. The lion's share of research on offending has focused on males as well. Such an emphasis makes good sense, given that males have historically accounted for a far greater share of offenses than females and for an even greater share of violent offenses in particular. In such a world, a relative lack of knowledge about female offending behavior is not surprising.

Recent changes in the prevalence of female offending and the proportion of females in the care of the juvenile justice system have led many to wonder whether historically based assumptions and approaches to juvenile crime need to be reconsidered. In a culture in which men are from Mars and women are from Venus, it is tempting to leap straight to the conclusion that if the juvenile justice system is now dealing with a sizable proportion of female offenders, then something must be done to make the system more responsive to their presumably gender-specific needs. But is such a conclusion really so obvious? Medical research is rife with examples of diseases that infect men and women at different rates and through different mechanisms, but for which the prescribed treatment is the same, regardless of gender. For such diseases, one might employ gender-specific prevention or detection protocols, despite gender-neutral treatment methods. Other diseases may manifest themselves differently in males and females and thus require gender-specific treatment as well.

Analogously, answers to the question of whether policy and practice should change in response to the growing share of females in the population of juvenile offenders may vary, depending on whether the focus is on diagnosis, prognosis, prevention, or treatment. In this article, my goal is to summarize what research has to say about these interrelated areas, what policy implications can be inferred when sufficient evidence exists, and what additional research is required when sufficient evidence is lacking.

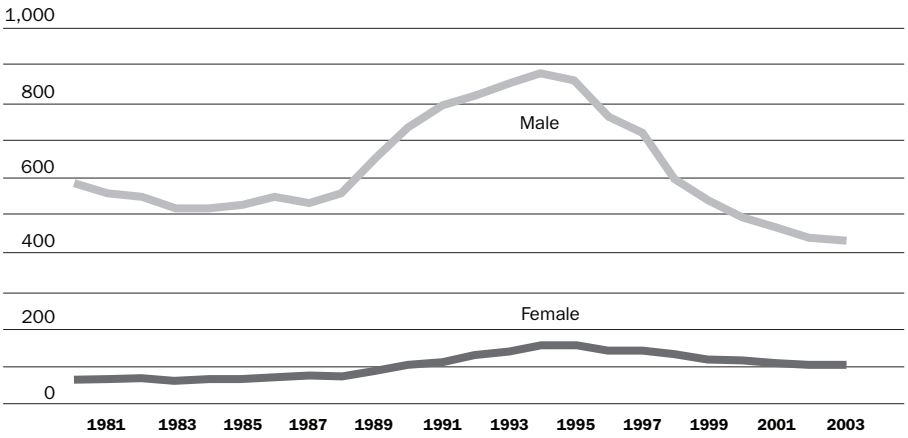
I begin with a review of historical trends in arrest rates, processing, and juvenile justice system experiences of female offenders. I also describe the adult outcomes commonly observed for female offenders, which underscore the motivation for pursuing improved policy approaches to female offending. I next consider common trajectories of offending in girls, as well as factors that may increase or decrease the likelihood of offending. I then review what is known about effective treatment strategies for female offenders and what can be reasonably inferred. Finally, I summarize the ways in which current research findings about female offenders can improve policy and practice, as well as the areas in which further research is needed before definitive conclusions can be drawn.

Trends in Juvenile Arrest Rates

Both official records and self-reports confirm that males engage in more delinquent and criminal acts than do females.[1] This gender difference in offending patterns is observed both nationally and internationally.[2] Although official records tend to underreport crime, they nevertheless provide a baseline indication of juvenile justice system involvement. According to the Federal Bureau of Investigation's Uniform Crime Reporting (UCR), females accounted for 29 percent of all juvenile arrests in 2003. Proportionally more girls were arrested for certain offenses, such

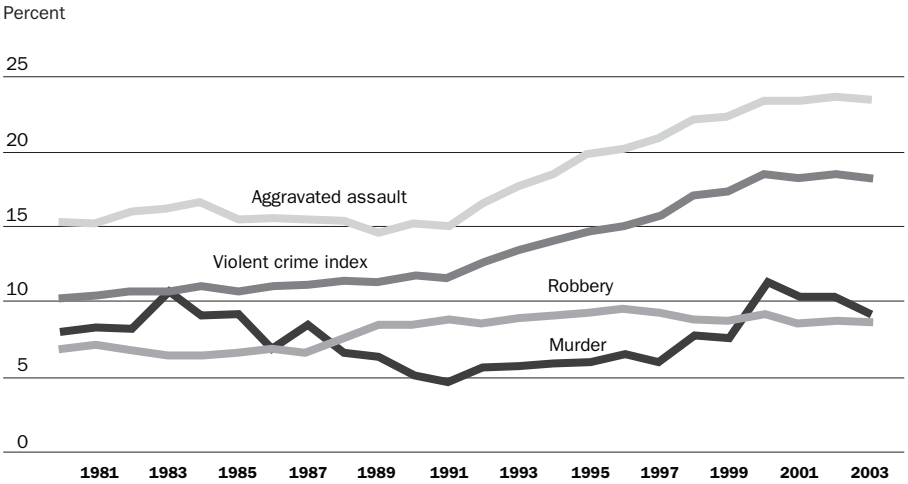
as running away from home (59 percent) and prostitution and commercialized vice (69 percent), but most other types of arrests are more common for boys.[3] As shown in figure 1, between the mid-1980s and the mid-1990s, juvenile arrests for violent crime increased significantly, with male arrest rates rising 75 percent and female rates rising almost 150 percent. Since the mid-1990s, arrest rates for violent crimes among juveniles have fallen, with male arrest rates falling below their 1980s levels and female rates declining about half as much. Overall, because female arrest rates increased more sharply and then fell more gradually, the share of female juvenile arrests grew from 20 percent to 29 percent between

Figure 1. Male and Female Juvenile Arrests per 100,000 Individuals, Ages 10–17, 1980–2003



Source: Howard N. Snyder and Melissa Sickmund, *Juvenile Offenders and Victims: 2006 National Report* (Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, 2006).

Figure 2. Breakdown of Female Contribution to Juvenile Violent Arrest Rates, 1980–2003



Source: Howard N. Snyder and Melissa Sickmund, *Juvenile Offenders and Victims: 2006 National Report* (Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, 2006).

1980 and 2003.[4] Consequently, boys are now about twice as likely as girls to be arrested, down from four times as likely in 1980.

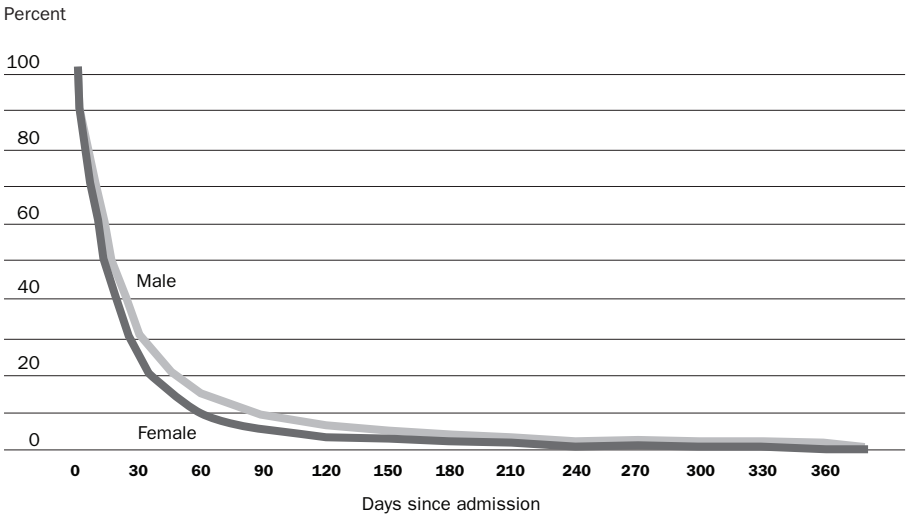
Changes in self-reported offending and in female juvenile arrest rates suggest that girls are becoming more violent, although interpretation of arrest data is complicated by variations in policy. Some have argued that the changes in gender-role expectations accompanying the progress of the women's liberation movement have "masculinized" female behavior and thus produced a greater proclivity for physical aggression.[5] The female share of juvenile arrests for some types of violent crimes, such as robbery and murder, remained relatively stable between 1980 and 2003, but the share of female arrests for aggravated assault increased substantially, from 15 percent to 24 percent, and appears to be a primary factor in the overall increase of females' contribution to the violent crime index, as shown in figure 2.

Because property offending (for example, burglary, motor vehicle theft, and arson) for males and females changed in similarly distinct patterns during this time, it seems safe to conclude that there is some variation in the structural forces shaping the violent offending rates of females and males. But analysts cannot agree on how to interpret these arrest statistics. For example, a study by Darrell Steffensmeier and several colleagues argues that the statistical shift in aggressive offending among females may be nothing more than an artifact of changes in criminal justice policy and practice.[6] The study compared the 1980–2003 trends in homicide, sexual assault, aggravated assault, and simple assault using both the UCR arrest statistics and the National Crime Victimization Survey (NCVS) to determine whether the changes were attributable to behavior or to policy. (UCR data come from law enforcement agency records, whereas NCVS data come directly from crime victims and thus provide an indication of criminal trends independent of changes in agency policy.) Although both sources indicate general stability in the gender gap for homicide and sexual assault, the NCVS data did not show the rise in female-to-male arrests for criminal assaults indicated by the UCR data. Increases in female arrest rates for violent offenses may therefore be due, at least in part, to net-widening policies, such as more aggressive policing of low-level crimes, and the increasingly common reclassification of simple assaults as aggravated assaults. Regardless of whether increased arrest rates represent a true increase in violent behavior among female adolescents compared with males or a policy shift toward arrest rather than alternative treatment of violent females, it is indisputable that the juvenile justice system is handling a rapidly growing share of girls.

Trends in Processing of Juvenile Offenders

Male juvenile offenders are not only more likely than females to be arrested but, once arrested, they are more likely to be petitioned (the juvenile court equivalent of being charged)—63 percent compared with 54 percent. If petitioned, boys are more likely to be adjudicated (the equivalent of being found guilty)—63 percent compared with 60 percent—and eventually to receive residential placement as a sanction—27 percent compared with 19 percent.[7] Although the share of youth waived to criminal court is extremely small (less than 1 percent), the share of female juvenile offenders tried as an adult is even smaller. Of the 1 percent of youth transferred to adult court, only 7 percent of those are female.[8] However, although boys still dominate the delinquency caseloads, the

Figure 3. Percent of Residents Remaining in Placement after Detention, 2003



Source: Howard N. Snyder and Melissa Sickmund, *Juvenile Offenders and Victims: 2006 National Report* (Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, 2006).

prevalence of cases involving girls increased 92 percent between 1985 and 2002, while the caseload for boys increased only 29 percent.[9]

The sentencing applied to females varies greatly, with some studies suggesting that girls receive lighter sentences, other studies, harsher ones, than boys. These conflicting findings have led to debate about whether the system is generally more lenient (more "chivalrous") with girls or more punitive with them because they are deemed either too "masculine" or in need of protection. Cecilia Saulters-Tubbs found that district attorneys were less likely to file charges against female drug offenders than against male offenders, while Donna Bishop and Charles Frazier found, similarly, that boys were treated more punitively than girls for delinquency offenses and that girls were less likely than boys to receive a sentence involving incarceration.[10] Such studies suggest that the system treats girls as less criminally dangerous than boys.[11] Other research, however, notes that once legal variables are controlled, girls are treated similarly to boys in the early stages of court processing but more harshly in the later stages.[12] Earlier studies pointing toward more "chivalrous" treatment of girls may thus have failed to consider differences in the underlying seriousness of the offenses involved.

Analysts have also begun to examine the influence of race and ethnicity on juvenile case processing and the ways in which racial and ethnic differences vary with gender. Taken as a whole, racial differences seem to matter less for female defendants. For example, young black male defendants receive significantly harsher sentences than young white males, whereas the sentencing of female offenders does not vary meaningfully with race.[13]

Trends in Experiences in the Juvenile Justice System

Boys and girls also tend to have different experiences in the juvenile justice system after adjudication. As with gender differences in processing, however, the direction

of some experiential differences is unclear, with different studies coming to different conclusions. For example, Joanne Belknap found that although boys are more likely to be sentenced to detention, girls who are detained spend more time in detention than do boys.[14] More recent data, however, suggests the opposite, with males staying longer than females (see figure 3).[15]

In addition, detained female offenders may be more aggressive than their male counterparts within the system. For example, one study found that institutionalized girls are more violent than boys toward staff.[16] In fact, Candice Odgers, Marlene Moretti, and Debra Pepler found that the underlying structure of aggression (as measured by the Child Behavior Checklist–Youth Self Report) among high-risk girls differs from both that for girls in normative settings and that for boys in both normative and high-risk settings.[17] Girls who enter the juvenile justice system may differ fundamentally from both male offenders and female non-offenders.

Youth who enter the juvenile justice system have high rates of mental health problems. Among non-delinquent populations, girls generally exhibit more internalizing disorders than boys, while boys generally exhibit more externalizing disorders than girls.[18] These findings, however, do not extend to juvenile justice populations. A substantial body of research indicates that regardless of race and age, female offenders have higher rates of mental health problems, both internalizing and externalizing, than male offenders.[19] In a study of serious "deep-end" offenders, females exhibited both more externalizing problems and more internalizing problems than males.[20] Moreover, a recent study using common measures and a demographically matched sample of community and detained youth found that gender differences were greater among detained youth than among community youth, with detained girls having more symptoms of mental illness than would be predicted on the basis of gender or setting alone.[21]

The observed gender differences in aggression and mental health symptoms among incarcerated youth have several possible explanations. It may be, for example, that law enforcers and judges are less likely to send girls to detention and that those sent to detention therefore have the most serious behavioral problems.[22] It may also be that female delinquency itself is a symptom of significant mental health problems. Accordingly, more mentally disturbed girls than boys may engage in delinquent behavior. Additional filtering out of all but the most visibly troubled girls by police and judges could understandably result in a population of detained females with significantly higher levels of disturbance than their male counterparts (who need not be as "troubled" to engage in illegal behavior and who need not appear as "troublesome" to be detained). Because female offenders make up a rapidly growing share of the population of incarcerated youth, they pose significant challenges to correctional systems.

Consequences of Female Offending

The negative impact of female offending extends well beyond the immediate consequences of the behavior itself and the cost of juvenile justice system intervention. A review of twenty studies on the adult lives of antisocial adolescent girls found higher mortality rates, a variety of psychiatric problems, dysfunctional and violent relationships, poor educational achievement, and less stable work histories than among non-delinquent

girls.[23] Chronic problem behavior during childhood has been linked with alcohol and drug abuse in adulthood, as well as with other mental health problems and disorders, such as emotional disturbance and depression.[24] David Hawkins, Richard Catalano, and Janet Miller have shown a similar link between conduct disorder among girls and adult substance abuse.[25] Terrie Moffitt and several colleagues found that girls diagnosed with conduct disorder were more likely as adults to suffer from a wide variety of problems than girls without such a diagnosis.[26] Among the problems were poorer physical health and more symptoms of mental illness, reliance on social assistance, and victimization by, as well as violence toward, partners.

Data collected over a period of years show that antisocial behavior among young people predicts school dropout, and there is ample evidence of high dropout rates among aggressive girls.[27] Data from the Ohio Serious Offender Study indicates that only 16.8 percent of incarcerated females graduate from high school.[28] Consequently, antisocial women tend, later in life, to have lower occupational status, more frequent job changes, and greater reliance on welfare than non-offender females.[29]

Females who exhibit early-onset (by age seven) persistent offending are more likely than other girls to engage in antisocial behavior at age thirty-two.[30] For example, 75 percent of these early-onset persistent female offenders had, by age thirty-two, engaged in one or more violent acts, including violence toward partners (44.8 percent) and children (41.7 percent). Adolescent-onset women were less likely than early-onset women to experience problems with violence at age thirty-two.

Regardless of gender, adolescents with a history of antisocial behavior are more likely to marry people who are involved in crime or who exert an antisocial influence.[31] For males, there is a link between assuming adult responsibilities, such as marriage and child-rearing, and desisting from crime, but this pattern is less common among females.[32] In fact, for females, the inverse is often the case: marriage to an antisocial mate reinforces antisocial behaviors throughout adulthood. For some female offenders, marriage is linked to increased drug use and crime.[33] The marital relationships of female offenders may be typified by conflict and instability.[34] Antisocial girls facing the transition to young adulthood have more general relationship problems than their male counterparts.[35] In such relationships, women are often victims of abusive partners, but also often perpetrate abuse. According to measures of self- and partner-reported violence, female offenders matched or *exceeded* male offenders' rates of partner abuse.[36] Several different studies come to similar conclusions: antisocial women inflict abuse that is serious enough to lead to medical treatment, that elicits fear, and that cannot always be explained as self-defense.[37] According to observational data from the Oregon Youth and Couples studies, females were consistently more likely to have *initiated* physical aggression than males.[38] Such findings for females are notable because among males, adolescent antisocial behavior typically wanes during adulthood. It appears that, at least for female offenders, adolescent antisocial behavior is supplanted in adulthood by violent behavior within the home and against family members.[39]

Antisocial women tend to reproduce at a younger age and most often with an antisocial mate.[40] Such mating and reproductive tendencies interact to leave young antisocial mothers

and their children with inadequate social, emotional, and financial support. While early parenthood can pose many challenges for anyone, it is particularly problematic for early and chronic female offenders, who face increased risks of pregnancy complications, socioeconomic disadvantage, relationship violence, and compromised parenting skills.[41] Several studies have linked a history of maternal conduct disorder with unresponsive parenting.[42] Particularly troubling are data suggesting that mothers with a history of aggression or conduct disorder, or both, pass on at least three risk factors to their offspring: antisocial biological fathers (because of assortative mating), prenatal exposure to nicotine, and coercive (hostile) parenting style.[43] The most common trajectories followed by female offenders tend to increase the odds that their children will follow in their footsteps.

Taken as a whole, these research findings indicate that for female offenders, the long-term prognosis is even poorer than it is for male offenders. Moreover, the observed impact on the subsequent generation underscores the importance of attempting to mitigate the effects of female offending.

Trajectories of Offending Behavior

Having reviewed trends in female offending patterns, subsequent interactions with the justice system, and the ultimate outcomes of such offending, I now turn my attention to what is known about how girls get into trouble in the first place, including typical trajectories of offending (in this section) as well as risk and protective factors (in the section that follows).

Age of Onset

Some studies indicate that both boys and girls tend to begin their antisocial careers around the age of fifteen, with the average age of onset differing by no more than six months across genders.[44] Other research, however, finds that females begin offending when they are younger than males are.[45] Notably, gender differences in the age of onset tend to be most pronounced for serious or aggressive types of delinquency, while less serious problem behaviors, such as drug and alcohol-related offenses, have less gender-differentiated progressions.[46]

Duration

On average, males tend to have longer criminal careers than females. Because it is difficult to assess when a criminal career is "finished," convincing evidence about the duration of criminal careers is sparse. A long-term study by Roger Tarling followed a sample of male and female offenders who were born in 1958 through age thirty-one, finding that the average duration of offending was 4.9 years for females, and 7.4 years for males.[47] A follow-up of the same subjects nine years later found that although the average length of criminal careers had increased (to 5.6 years for females and 9.7 years for males), careers remained significantly shorter for females than for males.[48] A study that examined the criminal careers of the sisters and wives of life-course-persistent male offenders found that the women's careers averaged eight years, compared with ten years for the males. (Applicability of this result to broader populations of male and female offenders is unclear, because the males were chosen on the basis of their long-term criminality, whereas the females were chosen on the basis of their relationships with the males.)

Developmental Pathways

Important gender differences exist not only in the typical progressions of offending behavior, as just noted, but also in the developmental

course of aggression. Such differences emerge very early. For example, although the typical disruptive behaviors of preschool boys and girls differ little, these behaviors evolve over time in strongly gender-dependent ways, with girls outgrowing such behavior more quickly than boys.[49] Starting in middle childhood, further differences emerge. Girls are less likely than boys to be physically aggressive in general, but by adolescence, they become more likely than boys to direct aggression at family members and romantic partners, as well as at familiar females.[50]

In a detailed investigation using data from six sites and three countries, Lisa Broidy and several colleagues examined the evolution of physical aggression and other problem behaviors during childhood to predict violent and nonviolent offending outcomes in adolescence. Boys were more physically aggressive than girls during childhood, but their trajectories of aggression otherwise looked similar. As boys and girls entered adolescence, the trajectories of aggression began to diverge. For boys, problem behavior tended to continue from childhood into adolescence, especially in cases of early physical aggression. Girls, however, generally showed fewer clear links between childhood aggression and offending during adolescence.[51] This difference may be attributable to low base rates of offending outcomes among females, or it may indicate gender differences in trajectories of offending. Notably, other studies have also found that female adolescent offending was much more difficult to predict than male adolescent offending.[52] Early aggression is a robust correlate of adolescent aggression among males but a much less effective predictor of adolescent female aggression.[53] Such findings suggest that although ongoing aggression and offending are the hallmarks of persistent male offending, female persistence may be a consequence of different and less overtly criminal behavioral precursors.[54]

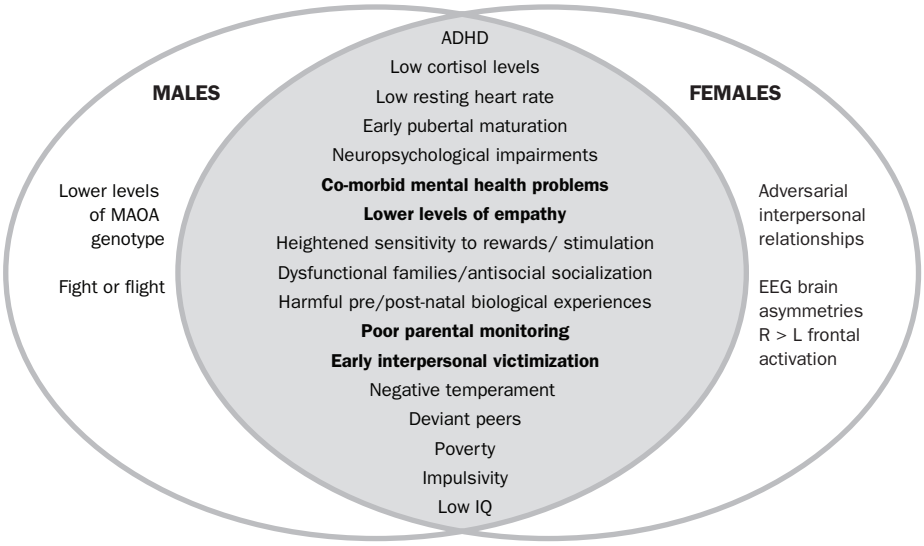
A complicating factor in the study of antisocial characteristics over long periods (for example, from childhood through adulthood) is that the measures used do not always appear to be assessing the same underlying construct throughout the entire period. For example, in a recent study by Candice Odgers and several colleagues, the measure of conduct disorder symptoms remained stable for males from age seven through twenty-six but remained stable for females only from age seven to fifteen, suggesting that the latent trait being assessed changed, for girls, during mid-adolescence.[55]

Another explanation for the lack of clear links between childhood aggression and subsequent offending among females has emerged from comparisons of female offending patterns with those of both adolescent-limited and life-course-persistent male offenders. Studies find that aggressive behavior in the latter typically begins early. Some observers have argued that female offenders can, in theory, be either adolescent-limited or life-course-persistent and that the relative scarcity of early-onset aggression in females indicates that they are generally less likely to follow the latter pathway.[56] Others, however, have argued that the relative prevalence of adolescent-onset aggression in girls (compared with childhood-onset) indicates that persistent delinquency simply manifests at a later age in girls than it does in boys.[57] In Persephanie Silverthorn and Paul Frick's model, girls and boys are influenced by similar risk factors during childhood, but the onset of delinquent behavior in girls is delayed by the more stringent social controls imposed on them before adolescence. Silverthorn, Frick,

and Richard Reynolds report evidence from a sample of seventy-two incarcerated youth that supports the contention that adolescent-onset females more closely resemble early-onset than adolescent-onset males in their early risk exposure.[58] Norman White and Alex Piquero similarly conclude that late-onset females exhibit constellations of risk similar to those of early-onset males. However, they also report evidence that some girls did, in fact, begin to act antisocially in childhood.[59] Other recent studies have identified groups of early-onset females as well. Two studies have identified groups of girls exhibiting chronically high levels of antisocial behavior across childhood and early adolescence and having an increased risk for continued antisocial behavior.[60] In addition, Odgers and several colleagues found that 7.5 percent of all girls between the ages of seven and fifteen displayed an early-onset of offending that persisted into adolescence and that this pattern was similar to boys of the same age.[61] Other studies suggest that although strongly aggressive behavior in girls before the age of seven is rare, continuity of offending for such girls may be stronger than that among comparable boys and that such early problem behavior in girls should be considered a significant warning sign of potential future problems.[62]

Taken as a whole, these findings suggest that persistent offending among females may be more common than was first believed, but that it is harder to distinguish from adolescent-limited offending in girls, because unlike in boys (for whom persistent offending commonly shows outward signs during childhood), persistent offending in girls surfaces across a wider range of ages, sometimes not until adolescence. It is thus more difficult to differentiate between the two pathways solely

Figure 4. Gender-Specific and Gender-Invariant Risk Factors for Offending



Note: Although the items in bold in the center of the diagram are relevant risk factors for both males and females, they are particularly salient for females.

Source: Asha Goldweber, Lisa Broidy, and Elizabeth Cauffman, "Interdisciplinary Perspectives on Persistent Female Offending: A Review of Theory and Research," in *The Development of Persistent Criminality,* edited by J. Savage (Cambridge University Press, forthcoming).

on the basis of behavioral problems during childhood.[63] Several studies, however, have observed a small group of very young girls with severe problem behavior who persist in such behavior into adolescence. Because these girls impose significant costs on society, on themselves, and on their children, efforts to identify and assist them at a young age could yield considerable benefits.

In sum, although evidence is mixed about the relative ages at which boys and girls are most likely to begin offending, female offending careers tend to be shorter than those of males. Ironically, however, these shorter careers do considerable damage in the offender's adulthood, including persistent behavioral and emotional problems that are often more detrimental than those encountered by persistent male offenders.

Risk and Protective Factors

Males and females tend to share many of the same risk factors for offending (see figure 4).[64] Moreover, these risk factors tend to occur in highly correlated clusters. Though there are numerous putative risk factors, many of which overlap, certain of them are particularly salient or even unique to females.[65] In addition, some analysts have noted an apparent "gender paradox": despite the lower prevalence of exposure to risk factors among females in general, those girls who are clinically referred show *more severe* behavior problems than boys.[66]

Biological

Biological risk factors have often been cited to explain gender differences in aggressive behavior. Exposure to high levels of testosterone before birth is more common among males, for example, but has been linked with aggressive behavior in both males and females.[67] Likewise, lower resting heart rates have been associated with delinquent behavior in both males and females.[68]

Evidence of gender-specific risk factors also exists at the level of basic brain biology. For example, certain biological events during early development, such as excessive androgen production, exposure to synthetic androgens, thyroid dysfunction, Cushing's disease, and congenital adrenal hyperplasia, can combine with environmental influences to predispose women to antisocial behavior.[69] Additionally, EEG research has uncovered asymmetries in the frontal activation of antisocial females' brains.[70] Normative males and females tend to exhibit asymmetric frontal brain activation, with boys having greater right frontal activation and girls having greater left frontal activation. In contrast, antisocial females tend to exhibit a pattern of greater right frontal activation (more like that of normative males), while antisocial males exhibit no asymmetry at all. These findings underscore the gender-specificity of this particular marker and suggest that antisocial girls may not exhibit the enhanced verbal abilities or emotion regulation associated with dominance of the left hemisphere, as is more commonly observed in normative girls.

Another gender difference in biological risk factors involves biological responses to stressful situations. Males and females both exhibit "fight or flight" neuroendocrine responses to stress, but males appear to be more likely to engage in fight or flight behaviors. Females, in contrast, tend to react with behaviors more accurately described as "tend and befriend," using social interactions to protect against threats.[71]

Victimization

Victimization during childhood or adolescence is a risk factor for both male and female

offending but is a stronger predictor among females. Research within clinical populations consistently finds that girls are more often abused than boys, although research focused on the broader population of community youth has not shown such gender differences in rates of physical maltreatment.[72] Female offenders typically are abused before their first offense.[73] Among girls in the California juvenile justice system, 92 percent report some form of emotional, physical, or sexual abuse.[74] Self-reported victimization rates among boys in the juvenile justice system are considerably lower, though boys may be more likely than girls to underreport certain forms of abuse.[75] Some studies report abuse rates for males between 25 percent and 31 percent, while others report rates of 10 percent for sexual abuse and 47 percent for physical abuse.[76] Closer comparison reveals that delinquent males and females tend to report different types of traumas as well. One study that I conducted with several colleagues found that males were more likely than females to report having witnessed a violent event, such as seeing a friend or family member killed, while females were more likely to mention being the victim of violence, such as sexual or physical abuse.[77]

Some observers have suggested that abuse is directly linked with subsequent violent behaviors, with one in four violent girls having been sexually abused compared with one in ten nonviolent girls.[78] Abuse and exposure to uncontrollable stressors are undeniably common precursors to conduct problems in female offenders.[79] And dysfunction in girls' stress-coping mechanisms may further exacerbate the negative effects of childhood trauma and victimization.[80] In other words, female offenders have not only experienced higher rates of victimization, but they also tend to have more limited abilities to cope with such stressors, thereby magnifying their effect.[81]

Interpersonal

Researchers have long known that family dynamics are a key contributor to delinquency.[82] In general, aspects of the family environment influence both male and female antisocial behavior.[83] But the specific mechanisms affecting behavior are sometimes gender-specific. For example, among children of substance-abusing parents, parenting disruptions are linked more strongly with delinquency and drug abuse among girls than among boys.[84] Similarly, although a lack of parental supervision is associated with delinquency in boys and girls, conflict over supervision appears to influence offending more strongly in girls than in boys.[85] Poor emotional ties to family are more strongly associated with violence in girls than in boys.[86] Not surprisingly, incarcerated females view their parents more negatively than do nonincarcerated females.[87]

Interpersonal relationships with romantic partners also can affect delinquent behavior, in some cases even more than relationships with parents. Wim Meeus and several colleagues report that parental influence on adolescent offending is strongest when an adolescent has no intimate partners; parental support did not influence delinquency for youth who consistently had a romantic partner over the course of the six-year study.[88] In another recent study of serious adolescent offenders, girls who self-reported delinquent behavior were more likely to be strongly encouraged in that behavior by their current romantic partner.[89] Interestingly, the association between partner encouragement and self-reported offending was strongest among youth reporting warm relationships with their opposite-sex parent.

Interpersonal factors beyond family and romantic relationships also affect male and

female offending in different ways. For females more than for males, adversarial interpersonal relationships are a notable risk factor.[90] Indeed, girls tend to be more sensitive to perceived threats to their social relationships.[91] Some observers posit that girls' perceptions of others' expectations of them have a profound impact on emotional well-being, attachment, and delinquency.[92] This view has been bolstered by studies demonstrating that self-representation and self-interpretation are key determinants of aggression among girls.[93] Some evidence suggests that female offenders use aggression as a way to sustain relationships through coercion, but further evidence shows that this strategy is generally not successful. Girls who bully are more likely than boys to be rejected by peers, putting them at even greater risk for chronic offending.[94]

Victimization during childhood or adolescence is a risk factor for both male and female offending but is a stronger predictor among females.

More disruptive girls tend to show less empathy than girls without behavior problems, and this deficit is greater among females than among males.[95] It may be that lower levels of empathy pose a greater risk for girls than for boys because empathy strengthens the ability to foster the strong attachments and relationships that girls value more highly than boys do.[96]

Interestingly, risk factors involving socioeconomic status and child-rearing were more strongly related to the prevalence (rather than the frequency) of offending for females compared with males.[97] Some observers have thus concluded that the risk factors for engaging in delinquent behaviors may not be the same as those for frequency of offending and that both may be different between the genders. For example, self-reinforcements, the internal rewards associated with illegal behavior, were found to be more strongly related to frequency of offending than to engaging or not engaging in violent behaviors.[98]

Notwithstanding these gender-specific risk and protective factors, in most cases, the same factors—ADHD, negative temperament, impulsivity, compromised intelligence—predict antisocial behavior in both males and females, as suggested by the substantial overlap shown in figure 4.[99] Although some analysts have argued the need to concentrate on the commonalities in predictors of male and female offending, it is also important to note the areas in which risk factors differ by gender.[100] Even if the differences between male and female offenders are confined to only a few key areas, the differences in these areas—for example, sensitivity to victimization, timing of onset of persistent offending, prevalence of mental health problems—can be substantial and can profoundly influence the effectiveness of risk assessments and treatment programs.

Risk Assessment, Intervention, and Treatment

Although most research on antisocial behavior has focused on males, male and female offending differs in many ways, including in the risk factors that influence offending, the trajectories of criminal careers, the mental health needs of incarcerated offenders, the handling of offenders by the juvenile justice

system, and the ultimate adult outcomes of offenders. It thus seems unlikely that risk assessment methodologies developed for male offenders would apply equally well to females.[101] For example, in a study of adult psychiatric patients, clinicians were able to predict future violence among males moderately accurately but performed no better than chance at predicting future violence among females.[102]

Few, if any, risk assessment instruments have been designed specifically for females within forensic settings.[103] Those that do exist assume that the questions employed apply equally well to males and females. There is a similar paucity of effective treatment programs for adolescent female offenders.[104] When the Office of Juvenile Justice and Delinquency Prevention (OJJDP) identified a list of promising programs, it cited twenty-four programs for boys, but only two for girls.[105] New Web-based resources developed to help identify programs for females also locate alarmingly few programs. A 2007 search using OJJDP's Model Programs Guide (www.dsgonline.com/mpg2.5/mpg_index.htm) identified only eleven prevention programs, one immediate sanctions program, and no intermediate sanctions, residential, or reentry programs. Antisocial behaviors of boys and girls look relatively similar during childhood, so gender-specific programming may not be warranted until the adolescent years.[106] But there appears to be a critical need for gender-specific programming to address the unique needs of adolescent female offenders.

There is some evidence that gender-specific programs can be effective. One study found that girls placed in gender-specific Multidimensional Treatment Foster Care (MTFC) have lower levels of delinquent behavior than girls who receive group care when evaluated two years later.[107] Although these findings are similar to those for males who receive MTFC, the study could not determine whether the gender-specific modifications made to the MTFC influenced the intervention effectiveness. Another promising intervention is the Earlscourt Girls Connection intervention, which targets multiple systems—for example, family and peers—and focuses on young girls with aggressive and antisocial problems.[108] Although this intervention made positive changes in defiant attitudes and behavior over a one-year period, the changes were based on reports by the participants' mothers, who were also involved in and affected by the intervention. It is thus difficult to know the extent to which the positive changes took place in the girls themselves and the extent to which they resulted from the mothers' altered parenting styles and attitudes toward their daughters. Nevertheless, even the apparent improvement reported by mothers (whose involvement in their children's lives has presumably increased due to program participation) is highly encouraging.

The default approach to treating young women who engage in serious forms of aggression and antisocial behavior has been either to treat them the same as male offenders or to treat them differently, but as an otherwise homogeneous group. This approach presupposes that one theory, model, or program can be used to understand and respond to the needs of all young women in the juvenile justice system.[109] The prevalence of such one-size-fits-all approaches to female offenders may, in fact, explain why little progress has been made on understanding the etiology of female offending. Odgers and her colleagues identified three subgroups of female juvenile offenders based on self-reported offending profiles.[110] Within a sample

of incarcerated female offenders, the study found a low-offending group, a delinquent group, and a highly violent and delinquent group. Female offenders are thus highly heterogeneous, and future studies, as well as future treatment programs, need to account for such diversity.

Implications for Practice and Policy

As data on female offenders accumulate, what conclusions can practitioners and policymakers draw from the emerging picture? First, a growing body of evidence makes clear why policies and practices for female offending must be improved: not only are females accounting for a growing share of the total population of offenders (because of a combination of increases in female violence, changes in enforcement policy, and reductions in male arrest rates), but the long-term consequences of offending for females are often more pronounced than those for males, with effects that extend to the next generation.

Second, studies of the experiences of female offenders in the juvenile justice system point to a number of conclusions regarding treatment of female offenders at the "front-end" of the system. Different studies have reached different conclusions about whether the juvenile justice system is more or less lenient toward female offenders at various stages of processing. In part, the studies are inconclusive because it is difficult to account properly for the accumulated selection effects at each stage of processing. For example, females are less likely to be arrested for most offenses, and once arrested, are less likely to be formally charged. Once charged, however, they appear more likely to receive secure confinement—whether because of a fundamental bias or because previous processing steps have filtered out the less serious offenders remains unclear. The large number of female offenders with mental health problems (see the article in this volume by Thomas Grisso), however, combined with the relative scarcity of community-based treatment options (see the article in this volume by Peter Greenwood), suggests that the juvenile justice system is functioning as a source (however ineffective) of otherwise unavailable mental health treatment, especially for girls. Diverting female offenders with mental health problems to community-based treatment programs would not only improve individual outcomes, but allow the juvenile justice system to focus on cases that present the greatest risk to public safety.

Third, reliable risk assessment tools for female offending are in dramatically short supply (see the article in this volume by Edward Mulvey and Anne-Marie Iselin). Although boys and girls share many of the same risk factors for offending, tools developed for use with boys often measure different underlying characteristics in girls and boys. Moreover, the characteristics measured can change with age in ways that vary by gender. Assessing risk using inaccurate tools will lead to inaccurate predictions. Practitioners are thus cautioned to avoid relying on such tools until their validity is demonstrated or until tools designed specifically for females are developed and tested.

Although proven risk assessment tools for girls are notably lacking, some research on risk factors for persistent offending suggests that early childhood aggression in girls may prove to be an important precursor (even more so than for boys) and that prevention efforts responding to such early warning signs could pay large dividends. In general, however, most female offending behavior does not arise until

adolescence, which makes it more difficult to distinguish between persistent and adolescent-limited offending in girls. The high frequency of mental health problems among offending girls suggests that effective prevention efforts should target these mental health needs before they lead to chronic behavior problems.

The need for more effective treatment of female offenders is underscored by studies suggesting that females are poorly served by the present system. Despite a high prevalence of mental health problems, conduct-disordered girls use mental health and social services less frequently than conduct-disordered boys.[111] Similarly, conduct-disordered girls receive fewer special services, are less likely to complete treatment, and are more likely to abandon in-patient treatment programs.[112] Community-based services for girls are less prevalent than those for boys. As such, girls are less likely to receive help from service agencies, and are more likely to be detained because of a lack of community-based treatment options.[113]

Not only are the excessive mental health problems observed in female offenders a likely contributor to offending behavior, but they also interfere with rehabilitation efforts. As with prevention, effective treatment policies must grapple with these mental health problems before antisocial or aggressive behavior can be effectively treated. Evidence is emerging that gender-specific treatment methods can be effective, especially when they target multiple aspects of offenders' lives, including family and peer environments. It is also becoming clear that female offenders are not a homogeneous group and that treatment approaches ultimately should be tailored to suit individual needs defined more specifically than by gender alone.

In conclusion, it should be noted that, despite myriad differences between male and female offending, many of the primary causes are nevertheless similar, and many, such as victimization and trauma, have roots that extend into childhood.[114] The most effective policies for reducing juvenile crime will be those that foster development in a safe and nurturing environment throughout childhood. Effective prevention and treatment programs for female offenders must address their unique mental health needs. Finally, it should be recognized that female offenders are likely to require continued support long after their direct involvement with the juvenile justice system. Without such support, these offenders may be unable to avoid passing on their legacy to future generations.

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Adolescent Offenders with Mental Disorders

Thomas Grisso

Summary

Thomas Grisso points out that youth with mental disorders make up a significant subgroup of youth who appear in U.S. juvenile courts. And he notes that juvenile justice systems today are struggling to determine how best to respond to those youths' needs, both to safeguard their own welfare and to reduce re-offending and its consequences for the community. In this article, Grisso examines research and clinical evidence that may help in shaping a public policy that addresses that question.

Clinical science, says Grisso, offers a perspective that explains why the symptoms of mental disorders in adolescence can increase the risk of impulsive and aggressive behaviors. Research on delinquent populations suggests that youth with mental disorders are, indeed, at increased risk for engaging in behaviors that bring them to the attention of the juvenile justice system. Nevertheless, evidence indicates that most youth arrested for delinquencies do not have serious mental disorders.

Grisso explains that a number of social phenomena of the past decade, such as changes in juvenile law and deficiencies in the child mental health system, appear to have been responsible for bringing far more youth with mental disorders into the juvenile justice system. Research shows that almost two-thirds of youth in juvenile justice detention centers and correctional facilities today meet criteria for one or more mental disorders.

Calls for a greater emphasis on mental health treatment services in juvenile justice, however, may not be the best answer. Increasing such services in juvenile justice could simply mean that youth would need to be arrested in order to get mental health services. Moreover, many of the most effective treatment methods work best when applied in the community, while youth are with their families rather than removed from them.

A more promising approach, argues Grisso, could be to develop community systems of care that create a network of services cutting across public child welfare agency boundaries. This would allow the juvenile justice system to play a more focused and limited treatment role. This role would include emergency mental health services for youth in its custody and more substantial mental health care only for the smaller share of youth who cannot be treated safely in the community.

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When adolescents face problems affecting their welfare, most communities in the United States have available at least four public systems with which to respond in the interests of society, families, and youth. These four systems specialize in education, child protection, juvenile justice, and mental health. Like a mall's storefronts, each offers a somewhat different type of product. Each of the four storefronts has its own door through which community members can pass when they have determined that an adolescent's needs fit the professions, skills, and objectives of the personnel and products within.

In recent years, however, communities have begun to recognize that this model of service delivery for adolescents—so logical in its organization around specific types of problems and services—is not consistent with the nature of adolescents' needs. The problems in which the separate systems specialize—learning problems, parental neglect, delinquent behavior, and mental disorders—are not like medical problems of teeth, eyes, bones, and skin, each of which arises independent of the other. Hundreds of thousands of youth need the services of all four of these public systems at once, often because their problems have interrelated causes. Communities whose policies organize behavioral and social services for youth according to a specialty-store logic often have difficulty addressing this reality. The storefronts themselves do not face each other and often do not even recognize that they are serving the same customers.

Nowhere has this difficulty been more evident in recent years than in society's responses to delinquent youth with mental disorders. The purposes of the juvenile justice system are to protect youth in its custody, to protect the community, and to engage in interventions that reduce crime. The purpose of the mental health system is to treat mental disorders. What, then, is the appropriate public service response for youth with serious mental disorders who engage in troubling offenses that threaten the community?

In this article, I examine research and clinical evidence that may help in shaping a public policy that addresses that question. The first step in crafting such a policy is to determine how and to what extent delinquency and mental disorders co-occur. In the first two sections of the following review I address this question from two perspectives. From a clinical perspective, I first examine how symptoms of adolescent mental disorders are related to aggression. And then from an epidemiological perspective, I consider the proportion of youth with mental disorders who offend, the proportion of young offenders who have mental disorders, and the prevalence of mental disorders among youth in juvenile justice facilities.

The heavy presence of youth with mental disorders in the juvenile justice system might suggest that the solution is simply to improve the way the system provides mental health services to those in its custody. But entertaining this notion requires carefully considering the advantages and disadvantages of assigning the task of treatment to the system's juvenile pretrial detention centers and correctional facilities. What is known about the value of clinical treatment for reducing future delinquency? What is known about its value when delivered to youth in juvenile justice custody? What legal and practical consequences need to be considered regarding delivery of treatment in juvenile justice settings?

Based on existing knowledge, what recommendations can be offered for developing a community response to youthful offenders with mental disorders? What could be the meaningful roles for various child welfare agencies, and what role could the juvenile justice system best play within that context?

The Clinical Relation between Mental Disorders and Aggression

A number of comprehensive studies, reviewed later, indicate that certain types of mental disorders are common among youth who are arrested for delinquencies.[1] Indeed, many of the symptoms of these disorders themselves increase the risk of aggression and, therefore, the risk of behavior for which youth are arrested and receive delinquency charges.[2] But the picture that emerges from this research is complex, with some disorders decreasing the risk and others increasing it only in combination with other disorders. The following review captures the broader picture of what is known. Recent comprehensive reviews of the relation of mental disorder and aggression are available to provide greater detail.[3]

Risk of Aggression and Specific Disorders

Research has thoroughly documented an increased tendency toward anger, irritability, and hostility among youth with affective (mood) disorders.[4] Such disorders, mostly various forms of clinical depression, are found in about 10 to 25 percent of youth in juvenile justice settings.[5] Someone not familiar with childhood depression may consider this association odd, since depressed adults frequently appear sad and withdrawn, not angry. But so common is irritability and hostility among youth with depressive disorders that the formal psychiatric definition of childhood depression allows "irritable mood" to be substituted for "depressed mood" as one of the criteria for diagnosing depression in youth.[6] That depressed youth are often sullen and belligerent, rather than simply sad, has a number of implications for aggression in social situations. The irritable mood of such youth increases the likelihood that they will provoke angry responses from other youth (and adults), thus augmenting the risk of events that escalate to physical aggression and result in arrests. When these youth are in custody in juvenile justice facilities, their mood disorder may increase the risk of altercations with other youth. In addition, the connection between anger and depression can be directed toward themselves, so that they present an increased risk of engaging in self-injurious behaviors, including suicide.

A number of comprehensive studies, reviewed later, indicate that certain types of mental disorders are common among youth who are arrested for delinquencies.

Anxiety disorders in children and adolescents usually involve fearfulness and a tendency to be withdrawn and to avoid confrontation. Many studies show that youth with anxiety disorders are *less* aggressive than the average for their peers.[7] The exception is youth with posttraumatic stress disorder (PTSD), who are susceptible to responding to threats aggressively and unexpectedly.[8] Youth with PTSD and conduct disorder (a disorder characterized by antisocial tendencies) have been found to be more impulsive and aggressive than youth with conduct disorder alone.[9]

Psychotic disorders such as schizophrenia are fairly rare before early adulthood and are not often seen in juvenile justice settings. Nevertheless, some youth have psychotic-like symptoms, possibly as early forms of the disorder, that include thought disturbances —that is, unusual and sometimes bizarre interpretations of events. The evidence that youth with "evolving" psychotic disorders present a greater threat of aggression than other youth is quite weak.[10] But when youth with psychotic features engage in serious delinquencies, one frequently finds that their disturbed thought has played a role in their aggression.

In contrast, the evidence is quite clear that youth with disruptive behavior disorders, such as conduct disorder (CD) and attention-deficit hyperactivity disorder (ADHD), manifest substantially increased rates of physically aggressive behavior.[11] This finding is not surprising, given the features of these disorders. Aggressive and delinquent behaviors are part of the criteria for obtaining a CD diagnosis, and ADHD is diagnosed in part by impulsiveness, which can often lead a youth to respond to emotional situations without pausing to consider the consequences. We cannot simply dismiss conduct disorder as "not really a mental disorder, but merely bad character," because there is considerable evidence that the great majority of youth in the juvenile justice system diagnosed with CD also meet diagnostic criteria for other clinical disorders.[12] Conduct disorder and ADHD also are important to consider because of their longer-range implications for criminal behavior. While only about one-third of adolescents with CD eventually develop antisocial personality disorder in adulthood, about two-thirds have nonviolent or violent offense records as adults.[13]

Finally, there is substantial evidence for a relation between substance use disorders and delinquent behavior, as well as continued aggression among substance-abusing youth with conduct disorder as they transition to adulthood.[14] For example, in one study, substance use disorders were found in 40 to 50 percent of delinquent youth but only 15 percent of nondelinquent youth.[15] Substance use disorder also has implications for the protection of youth in juvenile justice custody, because youth entering juvenile detention facilities straight off the street may engage in aggressive and self-injurious behaviors arising in the context of withdrawal symptoms.

Many specific mental disorders and their comorbidity increase the risk of aggression because their emotional symptoms (such as anger) and self-regulatory symptoms (such as impulsiveness) themselves increase the risk of aggression.

Complex Clinical Factors and Aggression

In considering the relation of aggression to symptoms in each of these disorders, it is important to recognize that not all youth with a given diagnosis are identical. Among those who meet criteria for a disorder, some may experience their symptoms more severely than others. Youth may also vary in their capacities to cope with their symptoms. Some have the disorder persistently across a significant period of time, while others meet

criteria for the disorder for only a short time. Among the latter, some will have recurring episodes of the disorder, while others will experience only one episode. Because of these complex individual differences, merely knowing a youth's diagnosis does not tell us everything we need to know about the risk of aggression in individual cases.

Two other complexities of child disorders have significant implications for policy and practice. The first is co-morbidity, or the presence of more than one mental disorder, which is very common among adolescents with mental disorders.[16] Among youth in juvenile justice facilities who meet criteria for having any mental disorder, about two-thirds meet criteria for two or more disorders.[17]

Research has underscored the importance of co-morbidity for understanding the relation between adolescents' mental disorders and their aggressive behaviors. For example, many disorders that offer only a modestly increased risk of aggression appear to augment the risk when they are found in combination with other disorders. Co-morbidity of CD and ADHD has been identified as increasing the likelihood of chronic and repeated offending during adolescence.[18] Co-morbidity recently was examined in a study addressing how mental disorders in adolescence relate to later offending in young adulthood.[19] Depression or anxiety (and even the two together) during adolescence only slightly increased the odds of adult offending, and adolescent substance use disorder had a modestly greater relation to adult offending. But either depression or anxiety in combination with substance use disorder during adolescence greatly increased the odds of serious and violent adult offending and was far more predictive than substance use alone.

The second type of clinical complexity with implications for policy and practice involves a class of youth often called "seriously emotionally disturbed." Such youth have multiple mental disorders, manifested from before adolescence, that persist throughout their adolescence and into adulthood. They account for a relatively small proportion of youth in the community with mental disorders (estimated at 10 percent). But the extent of their disabilities is such that they consume nearly half of the community's mental health resources.[20] Almost all of them have juvenile justice contact during their adolescence, and a majority continues to have criminal justice contact—for both minor and serious offenses—as they transition into adulthood.[21] They have been estimated to account for about 15 to 20 percent of youth in juvenile justice facilities.[22] Seriously emotionally disturbed youth typically have acquired a significant number of diagnoses consecutively or together in adolescence.

In summary, research confirms that many specific mental disorders and their co-morbidity increase the risk of aggression because their emotional symptoms (such as anger) and self-regulatory symptoms (such as impulsiveness) themselves increase the risk of aggression. The increased risk of aggression, in turn, increases the risk that youth with these symptoms will be arrested, charged, and convicted of delinquencies and may have continued criminal justice contact as they move into adulthood.

What is not clear from the clinical research itself is how much the mental disorders of adolescents contribute to a community's delinquency or to the burden on its juvenile justice system and other child welfare agencies. Answering this question requires examining a different type of research, focused on

the prevalence of mental disorders among delinquent youth.

The Prevalence of Mental Disorders among Adolescent Offenders

Two kinds of studies address questions about the social consequences of the links between mental disorders and delinquency. One type examines the degree of "overlap" between a community's population of youth with mental disorders and its population of youthful offenders. Knowing this overlap gives some notion of the risk of official delinquency for youth with mental disorders and the degree to which mental disorders of youth contribute to a community's overall delinquency. The second type of study examines the proportion of youth with mental disorders within juvenile justice facilities or programs. These studies provide information with which to formulate policy about treating and managing youth with mental disorders in juvenile justice custody.

It is important to recognize that these two types of research begin with very different populations, even though they both address the relation between mental disorder and delinquency. The first typically focuses on all delinquent youth in the community, while the second examines only delinquent youth placed in juvenile pretrial detention centers when they are arrested or in juvenile correctional facilities when they are adjudicated. This distinction is further complicated, as discussed later, by the fact that not all youth in juvenile justice facilities are necessarily delinquent.

Epidemiologic Studies of Mental Disorder and Delinquency

Some studies have identified a significant overlap between the populations of youth served by community mental health agencies and youth in contact with the community's juvenile court.[23] These studies are few in number, but they have found that the risk of juvenile court involvement among a community's young mental health clients is substantial. For example, a study in one city found that adolescents in contact with the community's mental health system during a nine-month period were two to three times more likely to have a referral to the juvenile justice system during that period than were youth in the city's general population.[24] Youth in contact with a mental health system's services, however, are not the sum of a community's youth with mental health needs because many receive no services. The results of the study above probably represent the proportion of more seriously disturbed youth who have juvenile justice contact. Even so, merely knowing that youth "have contact" with the juvenile justice system tells us little about their offenses or even whether they offended at all.

Very few studies have used samples that make it possible to identify both the proportion of delinquent youth in a community who have mental disorders and the proportion of youth with mental disorders who have been delinquent. The few that have, however, are large studies with careful designs.

One examined a community population (drawn from several cities) that identified youth with persistent serious delinquency (repeat offending) and youth with persistent mental health problems (manifested multiple times).[25] About 30 percent of youth with persistent mental health problems were persistently delinquent. But among all persistently delinquent youth, only about 15 percent had persistent mental health problems.

Another recent study examined the relation between mental disorders during adolescence

and criminal behavior when those youth became adults.[26] Delinquencies and adult criminal arrests were recorded for a sample of youth in a large geographic region aged nine through twenty-one. The youth were also assessed for mental disorders three times between the ages of nine and sixteen. A diagnosis at any one of these three points identified the youth as having a mental disorder "sometime during childhood or adolescence."

In this study, youth who were arrested between the ages of sixteen and twenty-one included a considerably greater share of youth who had had mental disorders in adolescence than those who were not arrested—for males, 51 percent as against 33 percent. This finding does not mean that 51 percent of the arrested group had mental disorders at the time of their arrest, but that they had had a mental disorder sometime in adolescence. It also does not mean that the majority of youth who had mental disorders in adolescence were arrested in adulthood. A different statistical procedure in this study, called "population attributable risk," addressed that question. It showed that the risk of adult arrest among individuals who had mental disorders at some time during adolescence was about 21 percent for women and 15 percent for men.

These few studies suggest the following conclusions, all of which need further confirmation. First, consistent with the clinical research reviewed earlier, youth who have mental disorders are at greater risk of engaging in offenses than youth without mental disorders. It is possible that treating their disorders would reduce that risk. But most youth with mental disorders do not engage in offenses that involve them in juvenile or criminal justice systems. Second, youth with mental disorders represent only a minority of all youth who engage in delinquent behavior, although the share is somewhat disproportionately greater than their prevalence in the general community. If those youth received treatment that reduced their delinquency, it is possible that overall rates of delinquency in the community would fall somewhat, but the majority of delinquencies are not related to mental disorders.

Third, rates of delinquency are higher among youth with certain types of emotional disorders—for example, depression or anxiety co-morbid with substance use disorders—and among youth with chronic and multiple disorders (seriously emotionally disturbed youth). Finally, a few studies have suggested that youth with mental disorders make up a somewhat greater proportion (although still a minority) of youth who were arrested for more serious and violent delinquencies or crimes.[27]

Mental Disorder in Juvenile Justice Settings

Research on the subset of delinquent youth who enter juvenile pretrial detention centers and correctional programs cannot tell us the relation between mental disorder and delinquency, because most youth who engage in delinquencies are not placed in secure juvenile justice programs. Such studies, however, are extremely important for public policy, because they identify the scope and nature of mental disorder among youth for whom the juvenile justice system has custodial responsibility.

Until recently the precise prevalence of mental disorders among youth in juvenile justice custody was unknown. Estimates varied widely from study to study, largely because of inadequate research methods or differences from one study site to another.[28] In the past decade, however, well-designed studies executed in a variety of sites have

provided a reliable and consistent picture. Those studies have found that among youth in various types of juvenile justice settings—for example, pretrial detention centers where youth are taken soon after arrest—about one-half to two-thirds meet criteria for one or more mental disorders.[29] The prevalence of mental disorders is much higher in juvenile justice settings than it is among youth in the U.S. general population, which is about 15 to 25 percent.[30]

During the 1990s, most states saw a reduction in the availability of public mental health services for children. Many communities began using the juvenile justice system to try to fill the gap caused by decreased availability of mental health services.

Across these studies, the rate is higher for girls than for boys.[31] The overall prevalence rate does not vary greatly between younger and older adolescents or for youth with various ethnic and racial characteristics, although age and race differences are sometimes found for specific types of disorders and symptoms.[32] As described in the earlier clinical review, about two-thirds of youth in juvenile justice custody who meet criteria for a mental disorder (that is, about one-third to one-half of youth in custody) meet criteria for more than one disorder.[33]

I will focus later on the implications of these statistics for the juvenile justice system's best response to mental disorders among youth in its custody. The high prevalence of mental disorder in juvenile justice facilities does not necessarily define the need for treatment. Some youth who meet criteria for mental disorders are experiencing their disorders temporarily and need only emergency services, while a smaller share—about one in ten—represents a core group of youth with chronic mental illness who can be expected to continue to need clinical services into adulthood.[34] Some are functioning fairly well despite their symptoms, while others are barely able to function at all. And some have mental health needs, such as learning disabilities, that were not even included in the recent studies of prevalence among youth in juvenile justice settings.

Reasons for the High Prevalence of Mental Disorders in Juvenile Justice Programs

Why are mental disorders so prevalent among adolescent offenders in juvenile justice settings? Three perspectives—clinical, socio-legal, and inter-systemic—help to explain. They are not competing explanations. All probably play a role, and no evidence suggests that one is more important than the others.

From a clinical perspective, it is likely that the same symptoms of mental disorder that increase the risk of aggression also increase the likelihood that youth will be placed in secure juvenile justice facilities for any significant period of time. When police officers arrest youth, usually those youth are not placed in pretrial detention. Nor is detention reserved for the most serious offenders—in fact, youth arrested for very violent offenses typically do not make up the majority of youth in detention. Those youth who are detained more than a few hours are

those who have been more unruly or unmanageable at the time of their arrest, which satisfies detention criteria regarding a risk that they will be endangered, or might endanger others, if not detained.

Youth with mental disorders frequently have symptoms involving impulsiveness, anger, and cognitive confusion that can make them less manageable and a greater risk to themselves or others, especially under the stress associated with their offense and arrest. Thus, among youth who are detained, a significant share is likely to have mental disorders that create unmanageable behavior—more so than for youth without mental disorders and more so than their peers with less severe mental disorders. This likelihood makes it no surprise that youth with mental disorders contribute disproportionately to detention populations.

From a socio-legal perspective, recent changes in laws applied to youths' delinquencies may have increased the likelihood that youth with mental disorders will enter the juvenile justice system. Before the 1990s, law enforcement officers, juvenile probation departments, prosecutors, and judges typically had some discretion regarding whether they would arrest or prosecute youth with mental disorders when they engaged in illegal behaviors, especially if those behaviors involved minor offenses committed by younger adolescents without offense histories. But a wave of serious juvenile violence during the late 1980s caused virtually all states to revise their juvenile justice statutes during the 1990s to rein in this discretion.[35] Under the new laws, certain charges or offenses required legal responses based on the nature of the offense alone, not the characteristics or needs of the individual youth. Penalties more often involved custody in secure juvenile facilities, thus reducing the likelihood that youth could receive mental health services in the community after their adjudication. An unintended consequence of these changes in law, therefore, was an increase in the share of youth with mental disorders coming into the system rather than being diverted on the basis of the juvenile court's discretion.

A final, inter-systemic, explanation involves the dynamic relation between systems that serve youth. During the 1990s, most states saw a reduction in the availability of public mental health services for children, especially inpatient services.[36] It is possible that less adequate treatment contributed to increased delinquencies among youth with mental disorders. But it is certain that many communities began using the juvenile justice system to try to fill the gap caused by decreased availability of mental health services.

This phenomenon was documented in media articles, the observations of juvenile justice personnel, and government reports beginning in the mid-1990s and continuing into the early 2000s.[37] Some parents of children with serious mental disorders began urging police to arrest their children, knowing that courts could "order" mental health services that were becoming nearly impossible for parents to get on their own. Soon the local juvenile pretrial detention center was becoming the community's *de facto* mental health center that provided emergency mental health services or simply acted as a holding place for seriously disturbed youth who had nowhere to go.

In summary, these three factors—clinical, socio-legal, and inter-systemic—may together produce a prevalence of mental disorder in juvenile justice settings that does not

represent the actual relation between adolescent mental disorder and delinquency. That high prevalence does, however, represent a demand on the juvenile justice system to respond to youth in custody who have mental disorders, and the demand is almost overwhelming. Some of those youth are in secure custody because they have committed serious crimes, others because the legal system has widened the door to juvenile justice processing, and many because their symptoms make them difficult to handle and they have no place else to go.

The problem requires a solution, and the multiple causes of the problem as well as the various types of youth involved suggest that the solution will be complex. What have clinicians and researchers learned that can help us determine the appropriate response?[38]

A Community Response

Typically, the call for a response to the needs of youth in juvenile justice with mental disorders focuses on "more treatment." Yet treatment often is left undefined. Moreover, the need for "more treatment" often has been presumed to refer to the need for more services within the juvenile justice system. Research evidence, however, suggests the need both to define carefully what is meant by treatment and to avoid depending on the juvenile justice system to respond to the broader question of adolescent mental disorders and crime. Certainly the juvenile justice system has a treatment responsibility for youth in its care. But research and current logic suggest that this role should be focused, limited, and based on collaboration with the broader community in meeting that responsibility.

Before explaining those conclusions, I first examine evidence regarding whether treatment for mental disorders will reduce delinquency. Then I consider how well juvenile justice can manage that treatment. Finally I look at the evidence for broader community-based alternative treatment strategies.

This discussion presumes two things about the purposes of public child welfare agencies. First, all such agencies, including the juvenile justice system, are responsible for dealing with mental health crises of youth who are in their custody. Mental health agencies are responsible specifically for meeting the mental health needs of youth, but all agencies must respond to acute needs that threaten youths' safety. Second, all public child welfare agencies are responsible for reducing delinquency, but that is the primary mandate for the juvenile justice system, consistent with its responsibilities for community safety. This mandate will come to bear especially when community safety would be increased by treatment of mental disorders among youth who have been identified as delinquent.

The Values and Limits of Clinical Treatment

Ample research evidence attests to the benefits of treatment for youth in acute distress because of mental disorders. Among the most common and effective treatments are professional clinical care, psychopharmacological intervention when necessary, and structuring the environment to protect the youth and to reduce stress during a crisis.

The literature on the effectiveness of psychopharmacological options for treating mental disorders in adolescents is remarkably mixed, depending on the specific disorder.[39] There is no doubt that youth with some types of mental disorders can benefit from certain medications. But studies that test the effects

of a medication under highly controlled research conditions (called studies of "efficacy") often have not been followed by tests of the effects of the medication when used by clinicians in everyday practice (called studies of "effectiveness"). The benefits of a medication "in the lab" cannot automatically be presumed to be the same "in the field," given the possibility that doctors might not follow prescription guidelines or may err in diagnoses when prescribing.

Research shows that certain treatments can reduce symptoms and that certain interventions can reduce delinquency in youth with mental disorders.

Among the many types of psychotherapy and other psychosocial interventions available for youth with mental disorders, several have focused on youth with both mental disorders and delinquent behaviors. Evidence for both the efficacy and effectiveness of some of these approaches is substantial. Cognitive-behavioral therapy (CBT) teaches youth better awareness of social cues and promotes strategies for delay, problem solving and non-aggressive responding. Several studies have demonstrated CBT's effectiveness for reducing future delinquency with a broad range of youth, including youth with depression and anxiety disorders.[40] Functional Family Therapy, Treatment Foster Care, and Multisystemic Therapy have also demonstrated delinquency-reducing benefits for youth with a wide range of mental disorders.[41] These therapies involve families and youth, within their communities, dealing with problem behaviors and stresses as a systemic family unit. Although there are hundreds of existing interventions for delinquent youth, the successful ones described here are among the fairly small number that have demonstrably reduced the recidivism of delinquent youth with mental disorders.

A few studies have examined the effects of community mental health services in general on later arrests for delinquencies. In one study, youth in foster care who received such services in the community had lower subsequent rates of admission to pretrial detention centers.[42] In another, adjudicated youth with mental disorders who were diverted from institutional placement and received services in the community had significantly fewer subsequent arrests than similar youth who had not received treatment.[43]

In summary, research shows that certain treatments can reduce symptoms and that certain interventions can reduce delinquency in youth with mental disorders. Interestingly, most of this research has focused on whether or not youth received treatment, not on the degree to which their decreased delinquency was accompanied by reduced symptoms of mental disorders. Moreover, the research suggests that the most effective methods for reducing delinquency among youth with mental disorders do not involve traditional individual psychotherapy or psychiatric inpatient care. Those interventions are certainly appropriate for a minority of delinquent youth who need them. But for most delinquent youth with mental disorders, the most successful methods involve community-based interventions that assist them in the context of their everyday social interactions while they live in the community.

Should Juvenile Justice Be Responsible for Treatment?

Because effective treatments exist to reduce delinquency in youth with mental disorders, and because the primary mandate for juvenile justice is to reduce delinquency, it seems logical that the juvenile justice system should be the focus of society's efforts to treat delinquent youth with mental disorders. Yet there are several arguments against relying primarily on the juvenile justice system and far fewer arguments to the contrary. The issue is not informed by much research, but what evidence there is suggests the value of a limited rather than broad role for juvenile justice in treating delinquent youth with mental disorders.

First, committing the community's scarce mental health resources to juvenile justice programs invites criminalizing youth with mental disorders. Public funds for mental health services for children are limited, and allocating them to juvenile justice is likely to reduce the community's ability to develop community-based services. As experience has shown, reducing community-based services means that more youth are referred to juvenile justice, often by parents in search of services they cannot find in the community.[44] Such youth must carry the burden of a delinquency record to get basic mental health services, and that burden increases the likelihood of their future delinquency, criminal behavior, and arrest as adults.[45]

Second, legal considerations restrict treatment options when youth are arrested and detained. Pretrial detention centers must respond to emergency mental health needs of youth. But until a youth is adjudicated and comes under its full custody, the juvenile justice system has no legal authority to impose rehabilitative or longer-range mental health interventions on youth.

Finally, clinical considerations suggest that the juvenile justice system will not be the most effective place to treat delinquent youth with mental disorders. The role of the state in relation to youth in its custody is basically adversarial, even when its interests are benevolent. Youth are not in custody voluntarily. It is certainly possible that some delinquent youth with mental disorders might be rehabilitated within the structure and guidance of properly operated, secure juvenile justice programs. But trust and caring are basic components of almost every effective therapy for youth with mental disorders. These conditions between youth and therapist often are difficult to maintain in secure juvenile facilities when the therapist is part of the system that restricts the youth's liberty.

Some treatments performed in secure juvenile justice settings can even be antitherapeutic. For example, group therapies involving antisocial youth sometimes have a negative effect on less-antisocial peers.[46] Considerable evidence indicates that rehabilitation methods in secure settings, such as behavior modification, effectively change behavior within the setting but do not retain their effect when youth return to the community.[47]

Evidence for the Value of Shared Community Responsibility

In recent years, thinking about how best to respond to delinquent youth with mental disorders has begun to focus on a community system of care that integrates services across child mental health, child protection, education, and juvenile justice agencies. Many youth have multiple needs that do not fit the boundaries of individual agencies. They may receive services from various agencies, but lack of coordination between agencies creates conflict, inefficiency, frustration for the family,

and sometimes harm when agencies work at cross purposes. A community system of care seeks to improve cross-agency referrals and collaboration, sometimes even to the extent of cost-sharing in developing unique services.

Methods for designing and implementing a community system of care have been developed and used in many communities nationwide.[48] In these systems, treatment of delinquent youth with mental disorders becomes the collective responsibility of all agencies, not the juvenile justice system alone. Collaboration between juvenile justice and community mental health services often allows juvenile justice to divert many youth from entering detention centers by referring them to community programs and to develop more effective aftercare plans for youth returning to the community from correctional placements. Thus treatment dollars can be allocated to community services with which juvenile justice programs can collaborate, rather than investing heavily in mental health services within its own system. Research has documented the benefits of a community system of care with regard to both economic and child welfare outcomes, including reductions in recidivism of delinquent youth.[49]

Developing a community system of care, however, poses major challenges. Several studies have suggested that tradition and bureaucracy are the main barriers to change.[50] Juvenile justice systems are sometimes reluctant to run the risk of community-based treatment of youth in light of their public safety mandate, and mental health systems sometimes refuse to accept juvenile justice referrals on the grounds that "those youth" will disrupt their services.

The solution is not as simple as improving referral networks or establishing agreements between two agencies. As described by experts who implement community systems of care, their development requires a comprehensive and often complex process involving community planning boards, buy-in by all child welfare agencies and services, the development of networking protocols and interagency councils, and creative blending of financial resources.[51]

The Role of Juvenile Justice

Given the involvement of a community's juvenile justice system in a community system of care, what would be its responsibility for responding to delinquent youth with mental disorders? Logic and research suggest that its role would still be considerable, but much more focused and limited than if it were the sole provider of mental health services for youth in its custody.[52] Moreover, its primary roles would be somewhat different at various stages in juvenile justice processing.

Identification and Diversion to Community Mental Health Services

The first stage in juvenile justice processing is the youth's arrest and referral to the juvenile court. Once arrested, some youth are immediately placed in a secure pretrial detention facility. Others remain at home but are ordered to appear for intake interviewing. In either case, intake probation officers must decide whether a youth should proceed to trial or whether the case should be handled more informally. In addition, some youth will await trial in pretrial detention, while others will not.

A primary role of the juvenile justice system at this stage should be to identify youth with mental disorders who can be diverted from juvenile justice processing, so that they can continue to be in the community where treatment services are based rather than remaining in pretrial detention or

proceeding to full juvenile justice processing. Often this diversion is feasible because some youth are initially referred to juvenile detention centers for minor offenses or present no danger to others that requires secure containment. If their mental health problems were identified at this early stage, and if policies and system-of-care options (including foster and shelter care services if they cannot return home) were in place, then many youth with mental disorders could be diverted from formal juvenile justice processing. Substantial evidence suggests that systematic, well-functioning diversion programs have reduced the census of juvenile pretrial detention centers in many communities, often by half.[53]

Diversion first requires identifying youth with mental health problems. That, in turn, requires a procedure called screening soon after youth are apprehended by police or are otherwise referred to juvenile court. Screening has two purposes. One is to determine the imminent risk of harm to self or others. Some youth truly need the structure of pretrial detention to provide temporary protection for themselves and the community, and diverting youth at high risk may jeopardize them, the community, and the effectiveness of the system-of-care collaborative model. The other purpose of screening is to identify youth who have current mental health needs—such as serious depression or anxiety, suicidal thoughts, or risk of substance use withdrawal —that might require immediate attention.

Youth may be screened at a special "juvenile assessment center" where all youth are taken when they are apprehended by law enforcement, immediately upon entry to a pretrial detention center (where appropriate diversion can occur within a few hours), or by intake probation officers at first contact with youth. Research suggests that until recent years mental health screening was conducted in about two-thirds of detention centers but typically involved a few informal questions, rather than standardized tools.[54] In recent years, however, policymakers have urged juvenile justice intake programs to employ "evidence-based" screening tools—standardized methods for which research has demonstrated their validity.

Research has documented the benefits of a community system of care with regard to both economic and child welfare outcomes, including reductions in recidivism of delinquent youth.

In the past few years, procedures and technology for mental health and aggression risk screening in juvenile justice intake have been highly refined, and several well-validated screening tools (requiring no clinical expertise) designed specifically for use in juvenile justice settings have been made available.[55] Typically this type of screening is brief—usually requiring ten to fifteen minutes—and can be performed by specialized detention staff rather than mental health professionals. The purpose is neither to diagnose nor to develop treatment plans, but rather to classify youth simply as high or low risk (to assess whether they should remain in the community) and as highly likely or not likely to have mental health needs that require clinical attention as soon as possible.

Although the validity of screening methods has been well researched, less is known about whether screening helps improve outcomes for youth with mental disorders. For example, little is known about whether mental health screening disproportionately diverts youth of various races or ethnicities to mental health services instead of juvenile justice processing. Screening might reduce such disparities if it decreases errors related to discretionary decisions of juvenile justice personnel, or it might increase such disparities if the prevalence of mental disorders differs for various racial and ethnic groups of youth referred to the juvenile justice system.[56]

Nor has research shown that mental health screening reduces mental health problems for youth diverted from the juvenile justice system. In fact, mental health screening by itself will not lead to better outcomes unless there are effective community mental health services to which screened youth can be diverted. Again, the emphasis must be on "evidence-based" services. It does no good to divert youth to community programs that can show no evidence of their value. Fortunately, evidence-based treatment programs do exist, as does some evidence that the best community-based programs for preventing delinquency recidivism also work well for youth with mental disorders.[57]

Emergency Mental Health Services in Pretrial Detention

During the pretrial stage of juvenile justice processing, juvenile detention centers have special obligations regarding youth in their custody awaiting trial. Their treatment obligations, however, should be limited. They cannot provide long-term treatment for youth (for example, treatments designed to reduce delinquency), because the juvenile justice system is limited in its authority to exercise such interventions until it has established its jurisdiction over the youth—that is, has found the youth delinquent after a hearing on the evidence. Detention centers are obligated to meet the immediate needs of youth in temporary custody, including their mental health needs that present as conditions that would pose harm to the youth if they were not addressed immediately.

Thus all detention centers should have the capacity to respond to mental health emergencies, such as suicide risks and escalation of symptoms to an extent that creates a threat to youth or others. Having that capacity does not mean that mental health professionals would always need to be on staff (although in large detention centers they often are). But facilities would need clear staff procedures for responding to youths' emergency mental health needs, as well as access to outside clinical consultants and arrangements for rapid transfer to psychiatric facilities when necessary.

Some research suggests that despite the high prevalence of mental disorders among youth in pretrial detention centers, only about 15 to 30 percent of detention youth who meet criteria for a mental disorder receive treatment while in detention.[58] It is difficult to apply these findings to policy or planning, however. The shortfall is great if one presumes that every youth with a diagnosed mental disorder needs immediate treatment. But that presumption may be faulty, given that many youth with mental disorders might not need immediate treatment or might need effective treatment that could only be provided outside of detention, such as family-based treatments. Much more research is required to determine the level of need in detention centers based on symptom levels of youths' mental conditions rather than on a diagnosis alone.

Assessment for Dispositional Treatment Planning

When youth are adjudicated delinquent, courts then determine the placement most appropriate for managing their rehabilitation. As it does in detention settings, screening at this point requires identifying mental health needs, but at this stage the purpose is not to identify youth who need emergency intervention but rather those whose rehabilitation plans should include specific types of longer-term mental health treatment. Such screening requires comprehensive and individualized assessment methods.

The information produced by that screening is typically provided to judges by specially trained probation officers, who should be using standardized tools that have recently been made available to assist them in collecting data on youths' needs, including mental health problems.[59] Some youth, however, need assessments by clinical professionals as a follow-up to probation assessments. Models for clinical evaluation services in juvenile courts are available, but little research has examined their efficiency and effectiveness in providing relevant information for the courts.[60] Assessments at this stage should help the juvenile court identify youth with mental disorders who, although adjudicated, might best be rehabilitated in non-secure community placements where they can benefit from a range of mental health services that typically are not available in secure correctional facilities.

Secure Care Mental Health Services and Aftercare

Different mental health service issues arise when certain youth, after having been adjudicated delinquent, must be sent to secure correctional facilities outside the community for reasons of public safety. In these cases, mental health services should be made available within the secure facility itself. For some youth, the system can meet this need by buying psychiatric consultation services from outside the facility and by hiring mental health professionals to provide psychosocial interventions, such as individual psychotherapy. But a small percentage of delinquent youth—those with serious, chronic, and persistent mental disorders—will be too disturbed to be able to function within the routine programming of most correctional programs for youth.

There is as yet little research to guide the development of appropriate services for these youth. Some juvenile justice systems have identified certain secure facilities as "clinical units" where youth with serious, disruptive mental disorders are separated from the general youth correctional population and where they receive specialized clinical services from full-time mental health professionals on staff. A model that blends the resources of the juvenile justice system and the child mental health system to operate and staff such facilities would seem to offer various advantages. Such facilities exist in some states, but they have not been "modeled" or studied in a way that would allow for their systematic development nationwide.

Finally, new issues may arise when youth are released from secure residential programs back into the community. Typical "aftercare" programs involve close monitoring by probation officers when youth re-enter the community and often include educational and social plans for their re-integration. For youth with serious mental disorders, the most effective way to deliver those services is likely to involve the juvenile justice system's continuing jurisdiction over youth during aftercare, but with primary interventions based in a community system of care.[61]

The Recommendations for Policy

Youth with mental disorders commit only a minority of a community's delinquencies, but they are at far greater risk of offending and re-offending than youth, on average, in their communities. A good deal more research is needed to make it possible to speak confidently about the best policies for responding to these circumstances, but certain directions for appropriate policies seem evident.

Perhaps most important, all stages in the processing of youth in juvenile justice must adopt practices that will improve the identification of youth with mental health needs—at court intake, detention admission, court decisions about disposition, and entry into secure juvenile justice programs. This broad policy should drive three specific ones. First, evidence-based screening and assessment tools should be used universally at these decision points to identify youth who might have emergency or long-term mental health needs. Second, every juvenile justice intake and detention program should document and archive screening and assessment results to provide data needed for system planning and resource development. And, third, all juvenile justice programs should make it a priority to educate personnel about the mental health problems of youth, thus improving the system's ability to identify and respond appropriately to such youth.

In addition, a community's child welfare agencies and juvenile justice agency should develop collaborations that will use mental health services in the community whenever possible to meet the mental health needs of youth in contact with, or in the custody of, the juvenile justice system. Two specific policy recommendations are related to this general one. First, whenever possible, when youth are identified at intake as having long-term needs for mental health services, diverting such youth from processing should become a priority. Second, when youth with serious mental disorders are adjudicated delinquent, dispositions as well as aftercare should be coordinated with the community's mental health and juvenile justice services.

Finally, when safety considerations require that youth be confined in secure juvenile justice facilities removed from the community, the juvenile justice system should provide special mental health services for youth who have serious and chronic mental disorders. Providing such services may require developing small psychiatric inpatient programs, ideally blending the resources and objectives of the juvenile justice system and the mental health system.

All these policies are united by an overarching approach that reduces the political distance and boundaries among existing child welfare systems. Taking this approach might involve blending these agencies' resources and services or restructuring child welfare systems altogether so that separate agencies no longer exist. It is not two populations of youth—one delinquent, the other with mental disorders—that require attention. More often than not they are the same youth, and a child welfare system to meet their needs should be structured accordingly.

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Juvenile Justice and Substance Use

Laurie Chassin

Summary

Laurie Chassin focuses on the elevated prevalence of substance use disorders among young offenders in the juvenile justice system and on efforts by the justice system to provide treatment for these disorders. She emphasizes the importance of diagnosing and treating these disorders, which are linked both with continued offending and with a broad range of negative effects, such as smoking, risky sexual behavior, violence, and poor educational, occupational, and psychological outcomes.

The high rates of substance use problems among young offenders, says Chassin, suggest a large need for treatment. Although young offenders are usually screened for substance use disorders, Chassin notes the need to improve screening methods and to ensure that screening takes place early enough to allow youths to be diverted out of the justice system into community-based programs when appropriate.

Cautioning that no single treatment approach has been proven most effective, Chassin describes current standards of "best practices" in treating substance use disorders, examines the extent to which they are implemented in the juvenile justice system, and describes some promising models of care. She highlights several treatment challenges, including the need for better methods of engaging adolescents and their families in treatment and the need to better address environmental risk factors, such as family substance use and deviant peer networks, and co-occurring conditions, such as learning disabilities and other mental health disorders.

Chassin advocates policies that encourage wider use of empirically validated therapies and of documented best practices for treating substance use disorders. High relapse rates among youths successfully treated for substance use disorders also point to a greater need for aftercare services and for managing these disorders as chronic illnesses characterized by relapse and remission.

A shortage of aftercare services and a lack of service coordination in the juvenile justice system, says Chassin, suggest the need to develop treatment models that integrate and coordinate multiple services for adolescent offenders, particularly community-based approaches, both during and after their justice system involvement.

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The link between juvenile criminal offending and adolescent substance use and substance use disorders is strong and well established. Among adolescents detained for criminal offending in 2000, 56 percent of boys and 40 percent of girls tested positive for drug use.[1] In 2002, the substance use disorder rate among adolescents aged twelve through seventeen who had ever been in jail or detention was 23.8 percent—almost triple the 8 percent rate among youth in that age range who had never been jailed or detained.[2] National data for primarily publicly funded substance abuse treatment programs show that the criminal justice system accounted for 55 percent of male admissions and 39 percent of female admissions to these programs. The criminal justice system is thus the nation's major referral source for adolescent substance users, causing some observers to conclude that it has become the de facto drug treatment system in the United States.[3]

Research has also linked substance use with continued contact with the justice system and less desistance from criminal offending. In other words, juvenile offenders who continue to use drugs are also more likely to continue their offending careers.[4] This "drug-crime" cycle likely reflects both the mutual causal influences between drug use and crime and the fact that substance use and offending share common risk factors.[5] Drug treatment thus may be one way to reduce recidivism.[6]

Drug treatment offers other obvious benefits. Besides being illegal, substance use has negative consequences for adolescents' physical health and development. Both alcohol and illegal drug use are correlated with cigarette smoking, the negative health consequences of which are well known. But juvenile correctional facilities often fail to enforce nonsmoking policies consistently and completely.[7] And substance use treatment programs often overlook tobacco use because of the (mistaken) fear that tobacco cessation attempts will undermine sobriety.[8] In fact, youths who decrease their smoking after substance use treatment have been reported to decrease their use of other substances.[9]

Among adolescents detained for criminal offending in 2000, 56 percent of boys and 40 percent of girls tested positive for drug use.

Substance use among juvenile offenders is linked with other health risk behaviors. In one sample of detained youth with substance use disorders, 63 percent engaged in five or more sexual risk behaviors, producing heightened vulnerability to HIV and other sexually transmitted diseases.[10] Substance use is also associated with violence and accidents and, among pregnant women, with harm to fetal development.[11] Among adolescents in the general population, substance users, particularly heavy substance users, tend to have less positive educational, occupational, and psychological outcomes.[12]

Given the important consequences of substance use and substance use disorders for juvenile offenders, I focus in this article on how well the juvenile justice system addresses substance use disorders. I survey the prevalence of substance use problems and treatment need among offenders as well as the extent to which treatment needs are unmet. Then I consider the effects of substance use treatment for juvenile offenders.

Although no single treatment approach has been proven most effective, I describe current standards of "best practices" and the extent to which they are implemented in the juvenile justice system and conclude with some promising models of care.

The Prevalence of Substance Use Disorders among Juvenile Offenders

It is important to distinguish between substance use and clinical substance use disorders (SUDs), which reflect a more problematic pattern of use and are associated with impaired functioning. Rates of substance use disorders among juvenile offenders vary substantially depending both on the criteria used to define the disorder and on the settings—such as juvenile detention, secure confinement, and entry into the system—that are sampled. Detained adolescents show high rates of substance use disorders. According to one study, half of males, and almost half of females, in juvenile detention had an SUD, the most common being marijuana use disorder.[13] Another study estimated that two-thirds of adolescents entering the Illinois juvenile corrections system met clinical diagnostic criteria for substance use disorder.[14] Rates as low as 25 percent, however, have been reported at juvenile intake.[15] Thus, although juvenile offenders have higher rates of substance use disorders than the general adolescent population, in most samples, the majority of offenders do not have a clinical diagnosis. Nevertheless, with rates varying from 25 percent to 67 percent, the prevalence of substance abuse disorder is substantial, suggesting significant treatment need.

One study found that substance use disorder rates among incarcerated, detained, or secured youth vary by race and ethnicity, with non-Hispanic Caucasians showing the highest rates and African Americans the lowest.[16] The same study found no gender differences in the prevalence of alcohol or marijuana disorders but did find that females were more likely to have other forms of substance use disorders and to have a co-occurring (comorbid) mental health disorder as well. Other studies have also found that females with substance use disorder are more likely than males to have co-occurring mental health disorders.[17]

Treating substance use disorders among juvenile offenders is complicated because youths in the juvenile justice system also face a range of other serious problems, including mental health disorders such as anxiety and depression (especially in girls), academic failure, learning disabilities, and parental substance use disorders.[18] To be successful, treatment must thus address these co-occurring problems. Youths with co-occurring mental health disorders tend to have more severe substance use disorders, greater family dysfunction, and poorer treatment outcomes.[19]

Screening and Diagnostic Assessment for SUDs among Juvenile Offenders

Although the negative consequences of substance use (including an elevated risk for continued offending) suggest the utility of substance abuse treatment, not every adolescent who uses alcohol or drugs needs treatment. Attempting to treat all substance-using juvenile offenders would be both impractical and a waste of costly and much-needed resources.[20] Rather, treatment is more appropriate for adolescents with clinical substance use disorders.[21] Identifying juvenile offenders with such disorders requires screening and, then, for those who screen positive, more thorough diagnostic evaluations. These evaluations help determine how intensive treatment should be (for example,

whether detoxification is necessary) and whether treatment should take place in the community or in a residential or secure setting. Current "best practices" for treating adolescent SUDs also require a diagnostic assessment to learn whether the juvenile suffers from common co-occurring disorders (see the article in this volume by Thomas Grisso for further discussion).[22]

Adolescents held in juvenile justice system facilities are commonly screened for substance use problems. Among facilities reporting data on screening in the Office of Juvenile Justice and Delinquency Prevention's (OJJDP) 2002 Juvenile Residential Facility Census, 61 percent (holding 67 percent of juvenile offenders) screened all of the youth, with the highest screening rates reported by reception and diagnostic centers and by long-term secure facilities.[23] Between 6 and 22 percent of facilities reported no screening at all. But although the facilities commonly did some screening, they less commonly used standardized screening instruments; 55 percent of programs in the OJJDP Census data and 48 percent in another national sample used such instruments.[24] Thus, it is unclear whether programs are screening effectively enough and early enough to be maximally useful. Sixty percent of facilities (holding 64 percent of offenders) that reported on screening in the 2002 OJJDP Census did their screening within the first week.[25] But if youths can be screened even before they are admitted to the facilities, they may be able to enter diversion programs instead, which may allow them the opportunity for community treatment. One review has suggested that a lack of case management and initial intake evaluation has led diversion programs to be under-used.[26]

Even if standardized screening and diagnostic evaluation services can be promptly delivered, assessing adolescent substance use and substance use disorders poses multiple challenges. Most standardized measures and structured interviews rely on self-report data, which require youths not only to comprehend complex questions, but also to provide accurate and honest reports. Because substance use is illegal, adolescents may be unwilling to disclose their use. Indeed, one study of juvenile detainees found that at least half of adolescent cocaine users (as detected by bioassay) denied recently using cocaine; self-reports may thus be more accurate for past use than for current use.[27] Several guidelines on drug abuse treatment recommend monitoring drug use through urinalysis or other objective methods.[28] In the 2002 OJJDP data, 73 percent of facilities (holding 77 percent of adolescent offenders) reported conducting urinalysis and 37 percent reported random drug testing. But even biological analysis has its limits, and different analyses (for example, of urine, saliva, and hair) vary in terms of their expense, the time it takes to receive results, and the time window of use that is detectable. Thus, a combination of self-reports and biological measures is probably necessary to evaluate thoroughly the substance use disorders of young offenders.

Assessing substance use disorders (using standard American Psychiatric Association criteria) requires characterizing substance use–related social consequences, dependence symptoms, and the associated impairment. Current psychiatric practice is to diagnose adolescents using the same criteria as adults, although the developmental appropriateness of this practice has been questioned.[29] Many adolescents have been labeled "diagnostic orphans" because they show symptoms of a disorder that fall just short of diagnostic thresholds, making treatment decisions difficult.[30] Moreover, the current taxonomy

distinguishes between substance abuse and substance dependence disorders. Substance dependence is presumed to be more severe than substance abuse and to require treatment. However, recent research suggests that some symptoms of dependence are less severe than those of abuse, making it difficult to base treatment decisions on the distinction between abuse and dependence diagnoses.[31]

Finally, diagnosing and assessing adolescent substance use disorders is particularly complicated for juvenile offenders. For example, being confined in a correctional facility can influence the likelihood that particular substance use–related negative consequences can occur (such as negative effects on romantic relationships). Thus, for youths in secure confinement, assessing only current symptoms (rather than past symptoms) may be misleading. Moreover, there is some evidence that juvenile offenders under-report their own substance use–related impairment and that they may not have the judgment and maturity to appraise accurately such impairment.[32]

Unmet Need for Treatment in Juvenile Justice Settings

Getting precise figures for the extent of "unmet need" for substance use disorder treatment in the juvenile justice system is difficult. One study, based on 1999 data, estimated that 30 percent of juveniles arrested, or a total of 840,000 adolescents, needed treatment. That figure is six times the number of publicly funded treatment slots.[33] Like the data presented earlier—that 25 percent to 65 percent of adolescents in various justice system settings meet diagnostic criteria for a substance use disorder—the figure suggests that many youths who need treatment go untreated. A similar unmet need has been reported among adolescents more generally.[34]

Another estimate of unmet need was based on a sample of youths entering the Juvenile Division of the Illinois Department of Corrections.[35] Of all the youths who had a substance use disorder and thus needed treatment, only 48 percent reported ever having been treated. (There were no gender, racial and ethnic, or educational differences.) The level of unmet need here too was substantial, but because these youths were just entering the justice system, their lack of treatment does not necessarily reflect their experience in the system. In fact, youths with prior arrests and with a history of childhood neglect were more likely than others to have been treated, suggesting that the juvenile justice and child welfare systems provided treatment.

One study, using the 2002 OJJDP data, estimated that 66 percent of juvenile justice system facilities provide treatment services, the most common being drug education (97 percent).[36] Approximately two-thirds of the facilities provide group counseling by a professional, and 20 percent provide all youth in the facility with onsite counseling. Because these figures exclude facilities that did not provide data on substance use treatment, however, they may over-estimate the treatment provided.

A study by Dennis Young, Richard Dembo, and Craig Henderson found that most facilities (75 percent) provided drug and alcohol education classes, which were attended (on average) by 21 percent of residents.[37] Education alone, however, is not enough for youth with substance use disorders, and only 44.6 percent of programs provided some other form of treatment. Treatment varied widely by type of setting, with low rates of treatment in jails and detention centers. Of course, assessing unmet need requires knowing not

only the rates of services provided by particular settings but also the individual treatment needs of the adolescents in these settings. All current available estimates, however, suggest substantial unmet treatment need among juvenile offenders.

The Role of Drug Courts

Juvenile drug courts first appeared during the 1990s based on the premise that more intensive assessment, monitoring, and treatment would reduce offending for adolescents with alcohol and drug problems. By 2006, 350 of these drug courts were in session, with another 160 being planned.[38] These courts monitor drug use (including drug testing) and offer a team of professionals who can refer or provide services including education, vocational training, recreation, mentoring, community service, health care, and drug and mental health treatment. Compared with typical courts, juvenile drug courts provide earlier assessments, better integration between assessments and court decisions, more emphasis on families, more continuous supervision, and more immediate use of sanctions and rewards.[39] A recent review suggests that the adolescents in these courts are demographically similar to other juvenile offenders: most typically use alcohol or marijuana, typically have past justice system involvement (but limited past treatment), and often have co-occurring mental health problems as well as family histories of substance use or criminal justice involvement, or both.[40]

Relatively few researchers have examined the effectiveness of juvenile drug courts. In one study, of only six evaluations of the courts that included both a control or comparison group and data on post-program recidivism, five found significantly lower recidivism for drug court clients.[41] A recent meta-analysis found that both adult and adolescent drug courts significantly reduced subsequent arrests, though adult courts reduced arrests by an average of 9 percent, as against only 5 percent for adolescent courts.[42] Moreover, the positive effects of drug courts decline when court supervision ends.[43]

One limitation of drug court services is that often they do not use empirically validated treatments.[44] Some researchers have tried to address this problem by introducing treatments such as multidimensional family therapy and Multisystemic Therapy (MST).[45] Both these therapies target social environmental factors that maintain adolescents' antisocial behavior. Their aim is to improve family relationships and disciplinary practices, increase youths' associations with prosocial peers, and improve school or vocational outcomes (see the article in this volume by Peter Greenwood for further discussion of these therapies).

One recent clinical trial randomly assigned juvenile offenders with substance use disorders to four groups: family court and usual community services, drug court and usual community services, drug court plus MST, or drug court plus MST plus vouchers for "clean" urine samples.[46] The trial found that juveniles in the drug court (as well as the drug court plus MST) significantly reduced substance use, as measured by urine drug screens during the first four months. However, drug courts were not found to improve rates of re-arrest or re-incarceration, probably because of the heightened surveillance in the courts.

Available evidence thus suggests that drug courts have reduced adolescents' substance use, at least while the youths are under supervision. The data base, however, is small, and more evidence is needed, particularly

about long-term outcomes and whether greater use of empirically validated treatments can improve outcomes in the drug courts. Research is also needed to determine the effect of matching the intensity of supervision and intervention to the individual needs of the adolescent offender.[47]

The Effects of Treatment on Substance Use and Criminal Offending

A small but rapidly growing empirical literature demonstrates that treatment can reduce substance use among adolescents in general and among juvenile offenders in particular. Conducting research in this area is challenging, and methodological problems include having to take into account the case-mix of adolescents who are treated, the length of the follow-up period, the time during the follow-up that adolescents spend in institutional placement or controlled environments, whether the treatment is delivered as intended, the need to verify self-reported substance use, and the ability to retain the adolescents to measure substance use during the follow-up period. Despite these formidable obstacles, however, adolescent substance use treatment appears to reduce substance use, at least to some extent and at least in the short term.

Yih-Ing Hser and colleagues analyzed the DATOS-A data collected on adolescents (58 percent of whom were involved with the criminal justice system) from residential or outpatient drug treatment programs in four U.S. cities.[48] After treatment, the youths significantly reduced frequent marijuana use, heavy drinking, other illegal drug use, criminal activities, and arrests; the longer they were in treatment, the better the outcome. Moreover, the reductions in substance use were linked with reductions in offending.[49] Cocaine use, however, significantly increased. And because the study lacked an untreated control group, its findings are not conclusive.

The Cannabis Youth Treatment Study included two randomized trials with 600 marijuana users, a majority of whom were under the supervision of the criminal justice system. The studies compared the effects of motivational enhancement therapy plus cognitive-behavioral therapy, both with and without family support and with and without either community reinforcement or multidimensional family therapy.[50] All the treatments increased significantly the days the youths abstained from using marijuana, but no single treatment proved more effective than another. One year later, the share of adolescents who were in recovery—that is, living in the community without current substance use or substance use problems—ranged from 17 percent to 34 percent, but, again, did not differ across different treatments. The subgroup of adolescents involved with the justice system also reduced substance use.[51] However, because results were the same for different types and intensities of treatment, only limited claims can be made for treatment effects.

Studies of residential programs have also shown some positive but mixed effects. In one study, adolescents on probation who received nine to twelve months of residential treatment and professional counseling showed better substance use outcomes at one-year follow-up than did those on probation who did not receive residential treatment.[52] However, the study found no effects on criminal offending. Another study examined a therapeutic community that had been developed specifically for adolescents in the justice system and that used cognitive-behavioral techniques, contingency management, and education.[53]

The study found no significant self-reported decreases in substance use, although it did find significant self-reported decreases in criminal behaviors. The lack of a comparison group, the need to rely on self-report data, and the failure of many in the group to participate in the follow-up make the findings less than conclusive.

Finally, family-based and multisystemic drug treatments have also produced positive findings. Because both these forms of therapy are also used to reduce antisocial behavior, they could reduce offending and recidivism as well as substance use (again, see the article by Peter Greenwood in this volume). A review of research showed that Multisystemic Therapy (MST, described earlier) significantly reduced substance use among juvenile offenders.[54] One study of MST also found long-term effects on criminal activity: the re-arrest rate for the MST-treated group was 50 percent, as against 81 percent for the individual therapy-treated group.[55] These adolescent offenders, however, were not referred for substance use disorders. One long-term (four-year) follow-up of Multisystemic Therapy with adolescent offenders diagnosed with substance use disorders found mixed results. Biological measures of marijuana use declined but other substance use measures did not.[56]

These findings are consistent with research on substance use treatment generally, which shows statistically significant short-term effects, but inconsistent findings across different outcomes and also substantial relapse. Thus, it is unrealistic to think that any one episode of treatment will produce a permanent "cure." This pattern of short-term moderate success but long-term relapse after treatment has led to a re-conceptualization of substance use disorders as chronic disorders, characterized by remission and relapse, rather than as acute disorders. The new view brings with it a corresponding emphasis on aftercare and long-term management.[57] Analysts now see substance use disorders as being similar to other chronic conditions such as diabetes or hypertension, for which outcomes are positive as long as patients adhere to prescribed treatment, but not when treatment stops.

These findings suggest that a substantial proportion of adolescent offenders is released into the community without appropriate aftercare to manage their substance use disorders.

Successful treatment must also meet other challenges. One is the broad array of co-occurring conditions, including poor educational and vocational achievement, mental health disorders, and physical and legal problems, among adolescents with substance use disorder. Achieving positive outcomes takes comprehensive interventions (see the article by Thomas Grisso in this volume for a fuller discussion) that require collaboration by, and financing from, multiple service delivery systems, such as juvenile justice, mental health, child welfare, and education.[58] It is also challenging to implement treatment in real-world settings, where treatment may not always be delivered as intended.

Another difficulty is that adolescents rarely perceive a need for treatment, making it hard to engage and retain them in treatment.

Drop-out and failure to take advantage of aftercare services is a problem, even for adolescents in the justice system. One possible solution to this problem is to use strategies such as motivational interviewing techniques. Another is to help families to facilitate their adolescent's entry into treatment.[59] However, although family involvement may be advantageous, families of adolescents in the juvenile justice system are themselves more likely to be involved in substance use or criminal activity. And including these families in treatment is particularly difficult if treatment takes place in geographically distant residential settings. One final challenge to treatment is that placing antisocial adolescents together in a group setting can worsen outcomes as these adolescents negatively influence each other's behavior.[60] Although no evidence of this phenomenon was found in the Cannabis Youth Study, any group-based substance use disorder interventions must be vigilant in guarding against potential iatrogenic effects.[61]

Aftercare and Substance Use in Juvenile Justice

Given the short-term effects of treatment and the concomitant importance placed on aftercare, it is striking that a recent national survey of program directors providing treatment for juvenile offenders found that only 26 percent of secure institutions and 25 percent of community-based programs included aftercare services.[62] An analysis of the same data set found that only 51 percent of substance-abusing youth in residential facilities and 31 percent in jails were referred to a community-based treatment provider when they were discharged.[63] These findings suggest that a substantial proportion of adolescent offenders is released into the community without appropriate aftercare to manage their substance use disorders.

The need to improve aftercare has led researchers to test innovative models of aftercare services. One study examined "assertive aftercare," in which a case manager linked multiple services.[64] Among a sample of adolescents in residential drug treatment, most of whom were involved with the criminal justice system, assertive aftercare increased both linkages to treatment services and adherence to continuing care. But although assertive aftercare reduced marijuana use at nine-month follow-up, it had no effects on other substance use.

Because environmental risk, including family substance use and deviant peer networks, affects aftercare outcomes, aftercare services might benefit from using family-based interventions (or multisystemic interventions) to help target these risk factors and maintain positive treatment outcomes.[65] At the time of this writing, researchers are testing a family-based intervention to help young offenders in juvenile detention rejoin the community.[66] Another approach involves training probation officers to provide adolescent probationers with cognitive interventions (that is, strategies to change reasoning processes and beliefs about substance use and offending).[67] One final promising strategy, recently implemented in general substance abuse treatment, is adaptive interventions, which adjust the type and intensity of the treatment over time to the changing needs of the individual.[68] Given the difficulty of retaining adolescents in substance abuse treatment, aftercare treatments that likewise vary in their intensity may improve long-term adherence to treatment. Two important policy questions are how to implement (and fund) continuing aftercare when an adolescent leaves justice system supervision and which, if any, formal system of care would be responsible for providing such services.

Does Treatment in Juvenile Justice Settings Use "Best Practices?"

Researchers who have examined substance use treatment have found that no single treatment produces the best outcome. Instead, several treatments, including Multisystemic Therapy, cognitive-behavioral therapy, contingency management, family therapy, motivational enhancement, and residential therapeutic communities, have shown some (although mixed) success. Because no one method of treatment is clearly superior, recommendations for "best practices" have focused on the treatment dimensions associated with more favorable outcomes. These "best practices" have been derived from a combination of empirical evidence and professional consensus.

In 2006 the National Institute on Drug Abuse (NIDA) issued thirteen principles of drug abuse treatment for criminal justice populations, including both adults and adolescents.[69] These principles begin with the premise that drug addiction is a brain disease because drug use changes neural mechanisms associated with reward and self-regulation, and these changes in turn increase the likelihood of relapse. The NIDA principles also state that recovery from addiction requires effective treatment followed by management of the problem over time (often including multiple treatments). Treatment must last long enough to produce stable behavioral changes, and individuals with severe drug problems and co-occurring disorders may require longer treatment (three months or more) as well as requiring more comprehensive services. The NIDA principles propose that assessment of the problem (including mental health evaluation) should be the first step in treatment planning and that treatment must then be tailored to the needs of the individual (including differences in age, gender, ethnicity, culture, problem severity, recovery stage, and level of supervision that is required by the justice system). Drug use during treatment should be carefully monitored. Drug treatment in the justice system should target factors that are associated with criminal behavior (including beliefs and attitudes that promote criminal offending), and criminal justice supervision should incorporate treatment planning. The NIDA principles recognize the importance of continuity of care during community re-entry and the use of a balanced mix of rewards and sanctions to encourage treatment participation and prosocial behavior. Medications are thought to be an important part of treatment for many offenders, and those with co-occurring mental health problems require an integrated treatment approach. Finally, because of the link between substance use and broader risk behaviors, treatment planning should include strategies to prevent and treat medical conditions such as HIV/AIDS, hepatitis B and C, and tuberculosis.

These NIDA principles apply to criminal justice populations, but are not specific to adolescents. For example, little is known about the use of medications to treat adolescent substance use disorders, and medications are less commonly used in adolescent than in adult treatment.

The American Academy of Child and Adolescent Psychiatry (AACAP) has also issued a set of minimum standards of care for the treatment of adolescent substance use disorders, which include: an appropriate level of confidentiality, screening older children and adolescents for substance use, formal evaluation (including biological measures) for those with positive screens, specific treatment for disorders of those who meet diagnostic criteria, treatment in the least restrictive setting that is safe and effective, family

involvement in treatment, and assessment and treatment of co-occurring disorders.[70] Although not required as minimal standards, the AACAP also suggests that treatment programs develop procedures to minimize dropout and maximize compliance, encourage and develop peer support for not using substances, use twelve-step programs as an adjunct to professional treatment, provide services in associated areas like education, vocational training, and medical and legal issues, and, finally, arrange for aftercare. These guidelines overlap substantially, but not completely, with the NIDA principles. For example, they do not mention the role of medications. The standards are meant to apply to adolescents, but are not specific to adolescents in the justice system, for whom such issues as maintaining confidentiality are more complex.

Recently a set of quality elements that constitute "best practices" in adolescent substance abuse treatment has been developed for services specifically within the juvenile justice system.[71] The recommendations, which emerged from a review of empirical research and the consensus of an expert panel, converge substantially with the NIDA and AACAP principles. These quality elements include: assessment and treatment matching; a comprehensive, integrated treatment approach; family involvement in treatment; developmentally appropriate programming; engagement and retention of adolescents in treatment; qualified staff; gender and cultural competence; continuing care; and measurement of treatment outcomes. A subset of quality elements based on empirical evidence (rather than professional consensus) has also been identified. It includes treatment orientation (for example, cognitive-behavioral or standardized evidence-based intervention, or therapeutic community), use of a standardized risk assessment tool, continuing care, engagement techniques (for example, motivational interviewing), ninety-day duration, and family involvement.[72]

Drug treatment in the justice system should target factors that are associated with criminal behavior (including beliefs and attitudes that promote criminal offending), and criminal justice supervision should incorporate treatment planning.

Do the services now delivered within the juvenile justice system incorporate these best practices? A study by Craig Henderson and several colleagues considered both secure confinement settings and community-based non-residential programs and found that, on average, the programs scored 5.5 out of a possible 10 in the use of effective practices.[73] Although the program response rates were low and were limited to self-reports of program directors, they do provide one estimate of the extent to which the juvenile correctional system is implementing effective practices. Moreover, the level of implementation found by the study is quite similar to that found in a survey of 144 "highly regarded" adolescent treatment programs, which were not specific to the juvenile justice system, and which scored an average of 23.8 out of a possible 45 in the use of these elements.[74] Thus, adolescent treatment programs, whether inside or outside the justice system, do not routinely incorporate a majority of "best practices."

Many justice system programs reported using several of the quality indicators. In the study by Henderson and colleagues cited above, more than two-thirds of programs reported having systems integration, qualified staff, standardized assessment, family involvement in treatment, treatment to address co-occurring disorders, and use of engagement techniques to motivate treatment retention. Only 10.7 percent of programs used developmentally appropriate treatment, 25.4 percent made use of continuing care, 41.8 percent used comprehensive services, and 59 percent used assessment of treatment outcomes.

Program features that have been associated with greater use of "best practices" include community programs (compared to institutions), network connectedness (having connections both with other criminal justice and with non-justice system facilities), and the level of program resources and training environment.[75]

These findings pinpoint several ways in which treatment within the juvenile justice system is failing to incorporate "best practices." Particularly striking are the low levels of continuing care services and comprehensive services. Henderson and colleagues interpret these findings to mean that agencies use effective practices that they can implement within their own setting, but that they have difficulty using best practices that require working jointly with other agencies. The finding of very low levels of developmentally appropriate services is somewhat surprising, and warrants replication. However, consistent with a relative neglect of developmental appropriateness of services, it has been reported that (as of 2002) no state in the United States had provisions for adolescent-specific provider certification, and the National Association of Alcoholism and Drug Abuse Counselors had no adolescent-specific requirements as of 2004.[76] Finally, no study to date has assessed the use of "best practices" concerning gender or cultural competence, probably because little is yet known about how to tailor treatment of adolescent substance use disorders with respect to cultural competence or gender or about the results of such tailoring.[77]

Systems of Care: Some Recent Models

As is evident from the research, effective intervention for adolescent offenders with substance use disorders requires coordinating multiple service systems. Providers who screen and assess substance use and related risk and protective factors must work with providers who plan treatment to address these factors, and both must work with those who provide aftercare and long-term management. As the data show, failure to integrate these systems results in less than ideal rates of delivering comprehensive care and aftercare services.

Although the justice system is a major source of treatment referral for adolescent offenders, the unmet need for treatment remains substantial.

Efforts are now thus being made to create systems of care that can deliver coordinated (and non-duplicative) services within the juvenile justice system. One model for an integrated system of care, the juvenile drug court model, has shown some initial promise. Curtis VanderWaal and several colleagues

have also called for an integrated system with a single point of entry for screening and comprehensive assessment (to avoid duplication of services) and a case manager to recommend services.[78] At the point of entry, an adolescent might be diverted into a service system other than the justice system or might move into judicial decision making. If the adolescent stays in the justice system, judicial decision making should include the use of graduated sanctions within the least restrictive supervision option that is consistent with protection of the community and that includes treatment programming (if appropriate) as well as provisions for aftercare. A similar emphasis on community-based intervention is seen in recent justice system reform in Missouri (known as the "Missouri model") that focuses on small residential and non-residential programs. These programs provide developmentally appropriate comprehensive services including family involvement and have shown promising results in reducing recidivism.[79]

Another integrated system of care is the Robert Wood Johnson Foundation's 2002 Reclaiming Futures Initiative. This comprehensive community intervention for juvenile offenders with substance use problems coordinates care by providers in many sectors—juvenile justice, substance abuse, mental health, physical health care, education, employment, recreation, faith communities, and youth development—during a youth's transition from an institutional placement to the community. Comprehensive case management links all these different systems, an information management system ensures that each system has the information it needs, and a quality assurance system ensures the quality of care. This model provides for quick screening of adolescents on entry into the system, a full assessment (as needed), and the development of a coordinated service plan, with one person in charge of coordinating services. Although adolescent outcome data have not been reported, there is evidence of systems improvement on measures such as access to services, data sharing, and agency collaboration as reported by key informants.[80]

Summary and Policy Recommendations

Adolescent offenders show high rates of substance use and substance use disorders, which are associated both with continued offending and with a broader range of negative outcomes. Although the justice system commonly screens juvenile offenders for substance use disorders, new policies are needed to increase the use of standardized screening methods and to ensure the screening takes place early enough in the process to allow juveniles to be diverted out of the justice system into community-based programs when appropriate. Drug courts are one promising model, but they should make greater use of empirically validated interventions and conduct follow-ups to measure longer-term outcomes.

Although the justice system is a major source of treatment referral for adolescent offenders, the unmet need for treatment remains substantial. To allocate scarce resources most effectively, new policies must increase the availability of high-quality, evidence-based treatment targeted at the subgroup of juvenile offenders with substance use disorders. The promising but mixed success of current treatment approaches highlights several challenges, including the need for better methods of engaging adolescents and their families in treatment, the need to better address environmental risk factors and comorbid conditions, and the lack of data concerning cultural and gender-tailored

interventions. More research in these areas is necessary before it is possible to advocate any one particular treatment approach. For the present, policy should encourage wider use of empirically validated therapies and of "best practices" within existing programs. Moreover, substantial relapse rates point to a greater need for aftercare services and to a need to manage substance use disorders as chronic disorders characterized by relapse and remission. The shortage of aftercare services and the lack of service coordination point to a need to develop service system models that better integrate and coordinate multiple services for adolescent offenders, particularly community-based approaches. Thus, policy should support the integration, continuity, and financing of these services for youthful offenders both during and after their justice system involvement.

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Prevention and Intervention Programs for Juvenile Offenders

Peter Greenwood

Summary

Over the past decade researchers have identified intervention strategies and program models that reduce delinquency and promote pro-social development. Preventing delinquency, says Peter Greenwood, not only saves young lives from being wasted, but also prevents the onset of adult criminal careers and thus reduces the burden of crime on its victims and on society. It costs states billions of dollars a year to arrest, prosecute, incarcerate, and treat juvenile offenders. Investing in successful delinquency-prevention programs can save taxpayers seven to ten dollars for every dollar invested, primarily in the form of reduced spending on prisons.

According to Greenwood, researchers have identified a dozen "proven" delinquency-prevention programs. Another twenty to thirty "promising" programs are still being tested. In his article, Greenwood reviews the methods used to identify the best programs, explains how program success is measured, provides an overview of programs that work, and offers guidance on how jurisdictions can shift toward more evidence-based practices

The most successful programs are those that prevent youth from engaging in delinquent behaviors in the first place. Greenwood specifically cites home-visiting programs that target pregnant teens and their at-risk infants and preschool education for at-risk children that includes home visits or work with parents. Successful school-based programs can prevent drug use, delinquency, anti-social behavior, and early school drop-out.

Greenwood also discusses community-based programs that can divert first-time offenders from further encounters with the justice system. The most successful community programs emphasize family interactions and provide skills to the adults who supervise and train the child.

Progress in implementing effective programs, says Greenwood, is slow. Although more than ten years of solid evidence is now available on evidence-based programs, only about 5 percent of youth who should be eligible participate in these programs. A few states such as Florida, Pennsylvania, and Washington have begun implementing evidence-based programs. The challenge is to push these reforms into the mainstream of juvenile justice.

www.futureofchildren.org

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There are many reasons to prevent juveniles from becoming delinquents or from continuing to engage in delinquent behavior. The most obvious reason is that delinquency puts a youth at risk for drug use and dependency, school drop-out, incarceration, injury, early pregnancy, and adult criminality. Saving youth from delinquency saves them from wasted lives.[1] But there are other reasons as well.

Most adult criminals begin their criminal careers as juveniles. Preventing delinquency prevents the onset of adult criminal careers and thus reduces the burden of crime on its victims and on society. Delinquents and adult offenders take a heavy toll, both financially and emotionally, on victims and on taxpayers, who must share the costs. And the cost of arresting, prosecuting, incarcerating, and treating offenders, the fastest growing part of most state budgets over the past decade, now runs into the billions of dollars a year. Yet recent analyses have shown that investments in appropriate delinquency-prevention programs can save taxpayers seven to ten dollars for every dollar invested, primarily in the form of reduced spending on prisons.[2]

The prospect of reaping such savings by preventing delinquency is a new one. During the early 1990s, when crime rates had soared to historic levels, it was unclear how to go about preventing or stopping delinquency. Many of the most popular delinquency-prevention programs of that time, such as DARE, Scared Straight, Boot Camps, or transferring juveniles to adult courts, were ineffective at best. Some even increased the risks of future delinquency.[3]

Only during the past fifteen years have researchers begun clearly identifying both the risk factors that produce delinquency and the interventions that consistently reduce the likelihood that it will occur. Some of the identified risk factors for delinquency are genetic or biological and cannot easily be changed. Others are dynamic, involving the quality of parenting, school involvement, peer group associations, or skill deficits, and are more readily altered. Ongoing analyses that carefully monitor the social development of cohorts of at-risk youth beginning in infancy and early childhood continue to refine how these risk factors develop and interact over time. [4]

Fairly strong evidence now demonstrates the effectiveness of a dozen or so "proven" delinquency-prevention program models and generalized strategies.[5] Somewhat weaker evidence supports the effectiveness of another twenty to thirty "promising" programs that are still being tested. Public agencies and private providers who have implemented proven programs for more than five years can now share their experiences, some of which have been closely monitored by independent evaluators.[6] For the first time, it is now possible to follow evidence-based practices to prevent and treat delinquency.

In this article, I discuss the nature of evidence-based practice, its benefits, and the challenges it may pose for those who adopt it. I begin by reviewing the methods now being used to identify the best programs and the standards they must meet. I follow with a comprehensive overview of programs that work, with some information about programs that are proven failures. I conclude by providing guidance on how jurisdictions can implement best practices and overcome potential barriers to successful implementation of evidence-based programs.

Determining What Works

Measuring the effects of delinquency-prevention programs is challenging because the behavior the programs attempt to change is often covert and the full benefits extend over long periods of time. In this section, I review the difficulties of evaluating these programs and describe the evaluation standards that are now generally accepted within this field.

Evaluation Methods and Challenges

For more than a century, efforts to prevent delinquency have been guided more by the prevailing theories about the causes of delinquent behavior than by whether the efforts achieved the desired effects. At various times over the years, the primary causes of delinquency were thought to be the juvenile's home, or neighborhood, or lack of socializing experiences, or lack of job opportunities, or the labeling effects of the juvenile justice system.[7] The preventive strategies promoted by these theories included: removal of urban children to more rural settings, residential training schools, industrial schools, summer camps, job programs, and diversion from the juvenile justice system. None turned out to be consistently helpful. In 1994 a systematic review, by a special panel of the National Research Council, of rigorous evaluations of these strategies concluded that none could be described as effective.[8]

Estimating the effects of interventions to prevent delinquency—as with any developmental problem—can be difficult because it can take years for their effects to become apparent, making it hard to observe or measure these effects. The passage of time cuts both ways. On the one hand, interventions in childhood may have effects on delinquency that are not evident until adolescence. Likewise, interventions during adolescence may reap benefits in labor force participation only in young adulthood. On the other hand, an intervention may initially lessen problem behavior in children only to have those effects diminish over time.

In addition to these complications, two other problems make it difficult to identify proven or promising delinquency-prevention programs. The first is design flaws in the strategies used by researchers to evaluate the programs. The second is inconsistency in the evaluations, which makes comparison nearly impossible.

The first problem limiting progress in identifying successful program strategies is the weak designs found in most program evaluations. Only rarely do juvenile intervention programs themselves measure their outcomes, and the few evaluations that are carried out do not usually produce reliable findings.[9]

The "gold standard" for evaluations in the social sciences—experiments that compare the effects on youths who have been assigned randomly to alternative interventions—are seldom used in criminal justice settings.[10] Although such rigorous designs, along with long-term follow-up, are required to assess accurately the lasting effect of an intervention, they are far too expensive for most local agencies or even most state governments to conduct. Such evaluations are thus fairly rare and not always applied to the most promising programs.

Instead, researchers typically evaluate delinquency-prevention programs using a quasi-experimental design that compares outcomes for the experimental treatment group with outcomes for some nonrandom comparison group, which is claimed to be similar in characteristics to the experimental group.

According to a recent analysis of many evaluations, research design itself has a systematic effect on findings in criminal justice studies. The weaker the design, the more likely the evaluation is to report that an intervention has positive effects and the less likely it is to report negative effects. This finding holds even when the comparison is limited to randomized studies and those with strong quasi-experimental designs.[11]

Cost-effectiveness and cost-benefit studies make it possible to compare the efficiency of programs that produce similar results, allowing policymakers to achieve the largest possible crime-prevention effect for a given level of funding.

The second problem in identifying successful programs is that a lack of consistency in how analysts review the research base makes it hard to compare programs. Different reviewers often come to very different conclusions about what does and does not work. They produce different lists of "proven" and "promising" programs because they focus on different outcomes or because they apply different criteria in screening programs. Some reviews simply summarize the information contained in selected studies, grouping evaluations together to arrive at conclusions about particular strategies or approaches that they have defined. Such reviews are highly subjective, with no standard rules for choosing which evaluations to include or how their results are to be interpreted. More rigorous reviews use meta-analysis, a statistical method of combining results across studies, to develop specific estimates of effects for alternative intervention strategies. Finally, some "rating or certification systems" use expert panels or some other screening process to assess the integrity of individual evaluations, as well as specific criteria to identify proven, promising, or exemplary programs. These reviews also differ from each other in the particular outcomes they emphasize (for example, delinquency, drug use, mental health, or school-related behaviors), their criteria for selection, and the rigor with which the evidence is screened and reviewed. Cost-effectiveness and cost-benefit studies make it possible to compare the efficiency of programs that produce similar results, allowing policymakers to achieve the largest possible crime-prevention effect for a given level of funding.

Evolving Standards for Measuring Effectiveness

Researchers have used a variety of methods to help resolve the issues of weak design and lack of consistency. The most promising approach to date is Blueprints for Violence Prevention, an intensive research effort developed by the Center for the Study and Prevention of Violence at the University of Colorado to identify and promote proven programs. For Blueprints to certify a program as proven, the program must demonstrate its effects on problem behaviors with a rigorous experimental design, show that its effects persist after youth leave the program, and be successfully replicated in another site.[12] The current Blueprints website (www.colorado.edu/cspv/blueprints/) lists eleven "model" programs and twenty "promising" programs. The design, research evidence, and implementation requirements for each model are available on the site.

Other professional groups and private agencies have developed similar processes for producing their own list of promising programs.[13] The programs identified on these lists vary somewhat because of differences in the outcomes on which they focus and in the criteria they use for screening, though the lists have a good deal of consistency as well. But these certified lists do not always reveal how often they are updated and do not report how a program fares in subsequent replications after it has achieved its place on the list.

Another effective way to compare programs is through a statistical meta-analysis of program evaluations. In theory, a meta-analysis should be the best way to determine what to expect in the way of effectiveness, particularly if it tests for any effect of timing, thus giving more weight to more recent evaluations. Once the developers of a program have demonstrated that they can achieve significant effects in one evaluation and a replication, the next test is whether others can achieve similar results. The best estimate of the effect size that a new adopter of the model can expect to achieve is some average of that achieved by others in recent replications. Meta-analysis is the best method for sorting this out.

The first meta-analysis that focused specifically on juvenile justice was published by Mark Lipsey in 1992.[14] Lipsey's analysis did not identify specific programs but did begin to identify specific strategies and methods that were more likely to be effective than others. Lipsey continued to expand and refine this work to include additional studies and many additional characteristics of each study.[15]

Meta-analysis is also the primary tool used by academics and researchers who participate in the Campbell Collaboration (C2), an offshoot of the Cochran Collaboration, which was established to conduct reviews of "what works" in the medical literature. The goal of C2, with its potentially large cadre of voluntary reviewers, is to become the ultimate clearinghouse of program effectiveness in all areas of social science, including juvenile justice. Progress, however, has been slow so far.

The C2 Criminal Justice Coordinating Group has concluded that it is unrealistic to restrict systematic reviews in their field to randomized experimental studies, however superior they may be, because so few exist.[16] A Research Design Policy Brief prepared for the C2 Steering Committee by William Shadish and David Myers proposes, however, that systematic reviews be undertaken only when randomized experiments are available to be included in the review and that estimates of effects for randomized and nonrandomized evaluations be presented separately in all important analyses when both types of studies are included.[17]

Cost-Benefit Analysis

Yet another way to identify promising programs is to use cost-benefit analysis to evaluate the relative efficiency of alternative approaches in addressing a particular problem. In 1996 a team at RAND published a study showing that parenting programs and the Ford Foundation-sponsored Quantum Opportunities Program reduce crime much more cost-effectively than long prison sentences do.[18] Implementing any program, of course, has some costs, which can be measured against its benefits. If a program reduces future crimes, it also reduces the cost of any investigations, arrest and court processing, and corrections associated with the crimes. Systematic cost-benefit studies of alternative delinquency-prevention and correctional intervention programs

conducted by the Washington State Institute for Public Policy (WSIPP), the legislative analysis group serving the state legislature, show that many proven programs pay for themselves many times over.[19]

Comparing the cost-effectiveness of alternative crime-prevention strategies requires decisions about which benefits or savings to consider. All programs must be compared on an equal footing. Some analyses consider only savings within the criminal justice system. Others view this issue more broadly: costs must be covered and savings are savings no matter where in government they arise.[20] This broader approach requires collecting data reflecting the effect of an intervention on all government spending. David Olds' Nurse Home Visiting Program, for example, is not cost-effective as a delinquency-prevention program alone, but when crime-reduction benefits for both the mother and child are combined with reduced welfare and schooling costs, benefits exceed costs by several orders of magnitude.[21]

A final financial issue is whether to include the benefits of reduced crime to potential victims, their families, and friends. The criminal justice system has lagged behind fields such as engineering, medicine, public health, and environmental protection in efforts to monetize benefits. Victim surveys provide fairly good estimates of direct out-of-pocket costs such as the value of lost or damaged property, medical costs, and lost wages. These direct costs, however, are only a small share of the total costs to victims imposed by crimes against persons.[22] The question is how to estimate the indirect costs of pain and suffering, security expenses, and restricted lifestyle, which can be quite large for some more serious crimes.

Table 1. Estimated Value of Victim's Pain and Suffering, by Crime Type

Crime type	Cost to victim (dollars)
Fatal assault	3,000,000
Non-fatal sexual or physical assault	87,000
Drunk driving	18,000
Robbery or attempt	8,000

Source: Ted Miller, Mark Cohen, and Brian Wiersema, *Victims, Costs, and Consequences: A New Look,* National Institute of Justice Report, NCJ–155282 (Washington: U.S. Department of Justice, 1996).

Economists argue about the proper way to place a monetary value on "quality-of-life" items like clean air or a safer environment. One way is to find markets that reflect these values, such as the wage premium demanded by workers engaged in dangerous professions. Beyond the police, however, few professions carry a substantial risk of being robbed, raped, or shot. Furthermore, the wages for those who engage in such professions (drug dealers, smugglers, prostitutes) are difficult to assess.

Economists have also used jury awards to get estimates of the total costs to victims for various crimes as shown in table 1.[23] In the WSIPP's cost-effectiveness analysis of proven and existing programs, estimates of savings to victims are based on such analysis and are several orders of magnitude larger than estimates of the savings to taxpayers alone.[24]

If the only question is how much to spend on delinquency prevention, then critics of the indirect-costs-to-victims studies are right to point out the heroic assumptions required to extrapolate their data from jury verdicts to ordinary crime victims, as well as the huge margins of error involved. But if the purpose is to decide which of several proposed

interventions is most cost-effective, then victim costs need not be considered. Instead the preferred metric becomes the number of crimes prevented for a specific amount invested in either program, assuming that both programs prevent the same relative mix of crime types. Victim costs would, however, become relevant if one approach prevented mainly property crimes while the other prevented mainly crimes against persons.

At this fledgling stage in developing appropriate victim cost data for use in cost-effectiveness studies, there are not many choices. Analysts can ignore victim costs altogether and seriously under-value interventions that prevent crimes, particularly violent crimes. They can use the victim cost data as analysts at the WSIPP have. Or they can use the even higher estimates for the social costs of crime produced by more recent contingent valuation studies.[25] Until researchers reach a consensus on this issue, the prudent approach is to use all three methods, reporting separately the results from each. In that way the readers of the study will be free to come to their own conclusions regarding the appropriate method.

For any outcome of interest, it is necessary to decide how to identify and describe effects, how long a follow-up period to use, and how widely to search for effects. The ideal would be to identify all effects of an intervention, no matter where or how far in the future they occur. Many evaluations, however, report outcomes only until participating youth exit from the program.

Reporting Effects of an Intervention

The simplest way to report effects of an intervention is the straightforward binary method of statistical significance. Are the effects significant as measured by standardized statistical tests, using a sufficiently rigorous research design? This outcome measure, traditionally used by academic reviewers of research,[26] was used both by David Hawkins and Richard Catalano[27] in compiling the list of promising programs for their Communities That Care program and by Lawrence Sherman and his colleagues in their evaluation of prevention programs for the U.S. Department of Justice.[28]

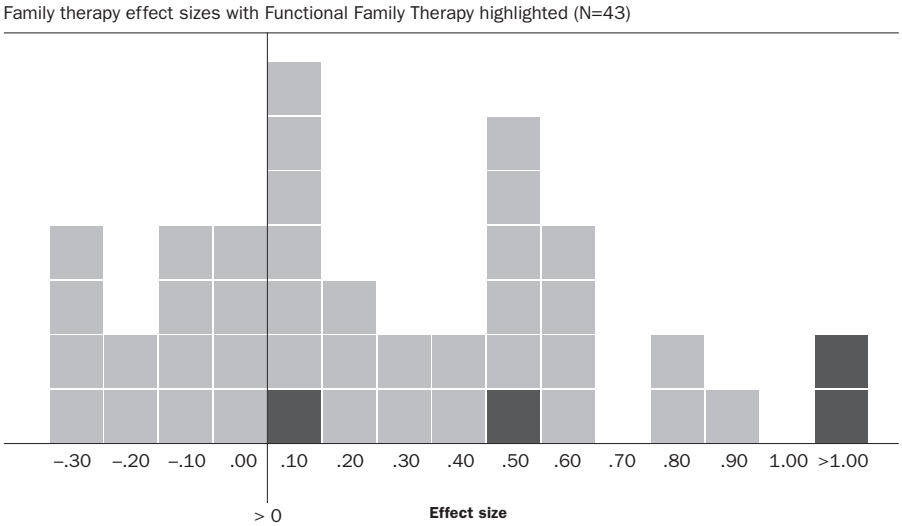
Reporting only the binary outcomes provided by significance tests, however, fails to capture large differences in the size of effects known to exist between interventions. The standard measure adopted by many reviewers is the effect size, typically defined as the difference between the treatment and control group means, on the selected recidivism measure, standardized (divided) by their pooled standard deviation. This standardized mean difference effect size is commonly used to represent the findings of experimental comparisons in meta-analyses and other quantitative studies.[29]

In the delinquency field, where the environment and situational factors appear to play a critical role in shaping behavior, some programs have been shown to produce significant effects while youth are participating in them, but no effects after they leave the program. This phenomenon of transient behavioral change has led the Blueprints Project to require evidence that effects persist after a youth leaves the program before it can appear on its list of proven models. [30]

The issue of how far into the future to measure effects depends on what the future is expected to hold. If many of the benefits of a program are not expected to be evident for many years, then observations will be required until their presence is verified. If current trends and tendencies can be

Figure 1. Family Therapy Effect Sizes

Effect sizes for model programs are embedded in the distribution



Source: Presentation by Mark Lipsey at meeting of the Association for the Advancement of Evidence-Based Practice, Cambridge, Md., November 2007.

assumed to continue uninterrupted, then shorter follow-up periods will do. The Washington State Institute for Public Policy uses ten years for the cut-off point in their estimates of program benefits.[31] But some programs, such as the Perry Preschool, are cost-effective only when benefits such as reduced crime and enhanced income are considered more than a decade after youth leave the program.[32]

In summary, defining successful programs is challenging, both because of design flaws in many research studies and because comparing inconsistent findings is difficult. But some metric must be designed to allow jurisdictions to begin to implement programs that have been proven effective. Blueprints is the most promising of these techniques, though others such as meta-analysis hold promise.

What Works and What Doesn't

For anyone in a position to decide which programs should be continued or enhanced, which should be scrapped, and which new programs should be adopted, the ultimate question is "what works" and "how well" does it work? The answers to these questions now come in two distinctive categories. One is "generic," including a number of generalized strategies and methods that have been tried by various investigators in different settings. Parent training, preschool, behavior modification, and group therapy all fall into this category. The other category includes the "brand name" programs such as Functional Family Therapy and Multisystemic Therapy. These are programs that have been developed by a single investigator or team over a number of years and proven through careful replications, supported by millions of dollars in federal grants. The generic methods are identified by meta-analysis and represent the efforts of independent investigators, each testing particular versions of the method. The brand name programs have met the criteria

Table 2. Proven and Promising Programs and Strategies

Custody status	Strategy or program name	Evidence-based status	Source of evidence	Effect on crime (percent)	Number of studies	Program cost per youth (dollars)	Criminal justice system savings (dollars)	Benefits to victims (dollars)	Total benefit to cost ratio
Institution	Aggression replacement training (ART)	Preferred	Aos and others	-7.30	4	897	6,659	8,897	17.3
Institution	Boot camps in lieu of longer custody	Preferred	Aos and others	0.0	14	0	8,077	NA	NA
Institution	Sex offender therapy	Preferred	Aos and others	-10.2	5	33,000	8,377	32,000	1.2
Institution	Cognitive- behavioral therapy	Proven	Campbell Collaboration	-25.0	58	NA	NA	NA	NA
Institution	Focus on high-risk youth and dynamic risk factors	Proven	Andrews	NA	NA	NA	NA	NA	NA
Institution	Use of proven treatment methods appropriate for individual	Proven	Andrews	NA	NA	NA	NA	NA	NA
Institution	Integrity of treatment implementation (fidelity)	Proven	Andrews, Lipsey	NA	NA	NA	NA	NA	NA
Institution	Longer duration of treatment	Proven	Lipsey	NA	NA	NA	NA	NA	NA
Institution	Well-established program	Proven	Lipsey	NA	NA	NA	NA	NA	NA
Institution	Family integrated transitions (FIT)	Provisional	Aos and others	-13.0	1	9,700	19,500	30,700	5.2
Institution	Counseling, psychotherapy	Proven	Aos and others	-18.9	6	NA	17,300	23,000	NA
Institution	Education	Proven	Aos and others	-17.5	3	NA	26,000	41,000	NA
Institution	Behavior modification programs	Proven	Aos and others	- 8.0	4	NA	12,000	19,000	NA
Institution	Life skills education	Promising	Aos and others	- 2.7	3	NA	4,100	6,400	NA
Institution	Wilderness challenge	Ineffective	Aos and others	0.0	9	3,000	0	0	0.0
Group or Foster Home	Multidimensional Treatment Foster Care (MTFC)	Preferred	Blueprints, Aos, and others	-22.0	3	6,945	33,000	52,000	12.2
Parole	Surveillance oriented	Ineffective	Aos and others	0.0	2	1,200	0	0	0.0

Table 2 (continued)

Custody status	Strategy or program name	Evidence-based status	Source of evidence	Effect on crime (percent)	Number of studies	Program cost per youth (dollars)	Criminal justice system savings (dollars)	Benefits to victims (dollars)	Total benefit to cost ratio
Parole	Intensive supervision	Ineffective	Aos and others	0.0	10	6,500	0	0	0.0
Probation	Functional Family Therapy (FFT)	Preferred	Blueprints, Aos, and others	-15.9	7	2,325	14,600	19,500	14.7
Probation	Multisystemic Therapy (MST)	Preferred	Blueprints, Aos, and others	10.5	10	4,264	9,600	12,900	5.3
Probation	Intensive supervision	Ineffective	Aos and others	0.0	3	1,600	0	0	0.0
Probation	Deterrence	Ineffective	Lipsey, Aos, and others	0.0	NA	NA	NA	NA	NA
Diversion	Teen courts	Preferred	Aos and others	-11.1	5	936	4,238	5,900	10.8
Diversion	Adolescent diversion project	Preferred	Aos and others	-20.0	6	1,913	18,000	24,000	22.0
Diversion	Restorative justice	Preferred	Aos and others	- 8.7	21	880	3,320	4,600	9.0
Diversion	Drug court	Preferred	Aos and others	- 3.5	15	2,777	3,200	4,200	2.7
Diversion	Other family-based therapy programs	Proven	Blueprints, Aos, and others	-12.2	12	NA	11,000	15,000	NA
Diversion	Brief strategic family therapy (BSFT)	Provisional	Blueprints	NA	NA	NA	NA	NA	NA
Diversion	Diversion with services vs. juvenile court	Promising	Aos and others	- 2.7	20	NA	1,030	1,440	NA
Diversion	Diversion with services vs. simple release	Ineffective	Aos and others	0.0	7	NA	0	0	NA
Prevention	Nurse family partnership – mothers	Preferred	Aos and others	-56.2	1	5,400	8,100	11,500	3.6
Prevention	Nurse family partnership – child	Preferred	Blueprints, Aos, and others	-16.4	1	733	4,022	8,632	17.3
Prevention	Pre-K education for low-income three- and four-year-olds	Proven	Aos and others	-14.2	8	593	4,644	8,145	21.6

Sources: Steve Aos, Marna Miller, and Eizabeth Drake, *Evidence-Based Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates* (Olympia, Wash.: Washington State Institute for Public Policy, 2006); www.campbellcollaboration.org; D. A. Andrews and others, "Does Correctional Treatment Work?" *Criminology* 28 (1990): 369–404; Mark W. Lipsey, "Juvenile Delinquency Treatment: A Meta-Analytic Inquiry into the Variability of Effects," in *Meta-Analysis for Explanation: A Casebook,* edited by T. D. Cook and others (New York: Russell Sage Foundation, 1992), pp. 83–127; www.colorado.edu/cspv/blueprints. Cells labeled NA mean information is not available.

established by various review groups for identifying proven programs.

These two methods overlap in an interesting way. Most of the Blueprints model programs represent an outstanding performer within a larger category. The four experimental trials of Functional Family Therapy (FFT), shown in darker gray in figure 1, represent about 10 percent of all family therapy program evaluations. Figure 1 contains a histogram, plotted by Mark Lipsey, showing the number of family therapy evaluations demonstrating various effect sizes.[33] Although a number of evaluations found negative effects, the average for all is well above zero. None of the four FFT evaluations found negative effects, and three are well toward the upper end of the distribution. Figure 1 indicates that family therapy works as a generalized approach and that FFT works even better, when done correctly. Similarly, the other Blueprints models, on average, produce larger effect sizes than the average for the generic category of which they are a part.

The most recent reviews, meta-analyses, certified lists, and cost-benefit analyses provide a variety of perspectives and wealth of information regarding what does and does not work in preventing delinquency. At the very top of the promising program pyramid is the small group of rigorously evaluated programs that have consistently demonstrated significant positive effects and developed effective strategies for helping others to replicate their model and achieve similar results. At the bottom are the vast numbers of programs that have never been evaluated. In the middle are those for which there is some evidence to support their claims of effectiveness in at least one site. Most of the interventions that have been shown to prevent the onset of or continued involvement in delinquency were first developed by researchers or academics outside of the juvenile justice field to deal with other problem behaviors such as child abuse, misbehavior in school, school failure, drug or alcohol abuse, or failure in foster-care placement. However, because all these targeted behaviors are closely related, and often antecedent to delinquency,[34] programs developed to prevent them have also turned out to prevent delinquency.

The research is strongest and most promising for school- and community-based interventions that can be used before the demands of public safety require a residential placement. In this area a number of well-specified, proven, cost-effective programs have emerged. For youth in custodial settings there is less research to draw on and what there is suffers from serious methodological problems. Still, some findings appear to hold up across various settings. In this section I review the evidence regarding "what works" in delinquency prevention and intervention.

To categorize the strength of the evidence in support of a particular program or strategy, I have created a descending seven-level scale. The various levels incorporate information about evaluation design, effect size, number of replications, and cost-effectiveness. The first level, *preferred* programs and strategies, includes models that are proven effective according to the Blueprints standards or rigorous meta-analysis and are found to return significantly more in taxpayer savings than they cost. On the second level, *proven* programs and strategies meet the three Blueprints qualifications for model programs or are found to be effective by rigorous meta-analysis. On the third level, *provisional* programs are supported by one evaluation with a strong research design showing evidence of a crime-prevention effect. On the fourth level, *promising* programs do not meet

provisional standards, but the balance of their evidence points toward positive effects. Programs on the remaining three levels are increasingly less strong. *Potentially promising* programs are those without evidence of effectiveness but whose design incorporates promising practices. *Ineffective* programs are those shown to have no effect or negative effects. And, finally, *unproven* programs include all the rest.

Table 2 classifies each listed program or strategy according to this scale in the column headed evidence-based status.

I begin this review by focusing on efforts to prevent youth from engaging in delinquent behaviors in the first place, then discuss community-based programs that can divert first-time offenders from further encounters with the justice system, as a condition of probation or parole, or facilitate reentry for youth after an institutional placement, and conclude with programs for youth in custodial settings.

All of the programs described below are listed in table 2 along with the source of their rating, their effect on crime outcomes, the number of evaluations on which their effect size is based, the cost per youth, the estimated government savings and victim benefits per youth treated, and the ratio of their estimated savings divided by their costs.

Prevention Programs

Primary prevention programs target the general population of youth and include efforts to prevent smoking, drug use, and teen pregnancy. Secondary prevention programs target youth at elevated risk for a particular outcome, such as delinquency or violence, a group that might include those in disadvantaged neighborhoods, those struggling in school, or those exposed to violence at home.

The first opportunity for prevention is with pregnant teens or at-risk children in early childhood. The preeminent program in this category is David Olds' Nurse Home Visitation Program, which trains and supervises registered nurses as the home visitors. This program is found on just about every list of promising strategies based on the strength of evidence regarding its significant long-term effects and portability. It attempts to identify young, poor, first-time mothers early in their pregnancy. The sequence of approximately twenty home visits begins during the prenatal period and continues over the first two years of the child's life, with declining frequency. In addition to providing transportation and linkage to other services, the nurse home visitors follow a detailed protocol that provides childcare training and social skills development for the mother.

A fifteen-year follow-up of the Prenatal/Early Infancy Project in Elmira, New York, showed that the nurse home visits significantly reduced child abuse and neglect in participating families, as well as arrest rates for the children and mothers.[35] The women who received the program also spent much less time on welfare; those who were poor and unmarried had significantly fewer subsequent births.

Many less costly and less structured home visiting models have been tested, using social workers or other professionals, rather than nurses, but none has achieved the same success or consistency as the Olds program with nurses.[36] The Olds model, now called the Nurse Family Partnership, has been successfully evaluated in several sites and is now replicated in more than 200 counties and many countries.

For slightly older children, preschool education for at-risk three- and four-year-olds is

an effective prevention strategy, particularly when the program includes home visits or work with parents in some other way. The Perry Preschool in Ypsilanti, Michigan, is the most well-evaluated model.

Numerous school- or classroom-based programs have proven effective in preventing drug use, delinquency, anti-social behavior, and early school drop-out, all behaviors that can lead to criminal behavior.[37] The programs vary widely in their goals, although they share some common themes: collaborative planning and problem-solving involving teachers, parents, students, community members, and administrators; grouping of students into small self-contained clusters; career education; integrated curriculum; and student involvement in rule-setting and enforcement, and various strategies to reduce drop-out.

For example, the Bullying Prevention Program was developed with elementary and junior high school students in Bergen, Norway. The program involves teachers and parents in setting and enforcing clear rules against bullying. Two years after the intervention, bullying problems had declined 50 percent in treated schools. Furthermore, other forms of delinquency declined as well, and school climate improved.[38] The Bullying Prevention Program is one of the eleven Blueprints model programs and is listed as promising by the Surgeon General.

Multiple evaluations of Life Skills Training, a classroom-based approach to substance abuse prevention, have shown it to reduce the use of alcohol, cigarettes, and marijuana among participants. The reductions in alcohol and cigarette use are sustained through the end of high school.[39] Life Skills Training is listed as a model program by both Blueprints and the Surgeon General and by most other lists of proven programs.[40] The program has been widely disseminated throughout the United States over the past decade with funding from government agencies and private foundations.

Project STATUS is another school-based program designed to improve junior and senior high school climate and reduce delinquency and drop-out. The two primary strategies used are collaborative efforts to improve school climate and a year-long English and social studies class focused on key social institutions. An evaluation of Project STATUS found less total delinquency, drug use, and negative peer pressure and greater academic success and social bonding.[41] Project STATUS is rated promising by Blueprints.

The School Transitional Environmental Program (STEP) aims to reduce the complexity of school environments, increase peer and teacher support, and decrease student vulnerability to academic and emotional difficulties by reducing school disorganization and restructuring the role of the homeroom teacher. It specifically targets students at greatest risk for behavioral problems. STEP students are grouped in homerooms where the teachers take on the additional role of guidance counselor. All project students are assigned to the same core classes. Evaluations have demonstrated decreased absenteeism and drop-out, increased academic success, and more positive feelings about school.[42] Both Blueprints and the Surgeon General consider STEP a promising program.

Community-Based Interventions

Delinquency-prevention programs in community settings can be created for various purposes such as diverting youth out of the juvenile justice system, serving youth placed on informal or formal probation, or serving youth on parole who are returning

to the community after a residential placement. Settings can range from individual homes, to schools, to teen centers, to parks, to the special facilities of private providers. They can involve anything from a one-hour monthly meeting to intensive family therapy and services.

The most successful programs are those that emphasize family interactions, probably because they focus on providing skills to the adults who are in the best position to supervise and train the child.[43] More traditional interventions that punish or attempt to frighten the youths are the least successful. For example, for youth on probation, two effective programs are family-based interventions designated as proven by Blueprints and the Surgeon General: Functional Family Therapy and Multisystemic Therapy. Functional Family Therapy (FFT) targets youth aged eleven to eighteen facing problems with delinquency, substance abuse, or violence. The program focuses on altering interactions between family members and seeks to improve the functioning of the family unit by increasing family problem-solving skills, enhancing emotional connections, and strengthening parents' ability to provide appropriate structure, guidance, and limits for their children.[44] It is a relatively short-term program that is delivered by individual therapists, usually in the home setting. Each team of four to eight therapists works under the direct supervision and monitoring of several more experienced therapist/trainers. The effectiveness of the program has been demonstrated for a wide range of problem youth in numerous trials over the past twenty-five years, using different types of therapists, ranging from paraprofessionals to trainees, in a variety of social work and counseling professions. The program is well documented and readily transportable.

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Multisystemic Therapy (MST), also a family-based program, is designed to help parents deal effectively with their youth's behavior problems, including engaging with deviant peers and poor school performance. To accomplish family empowerment, MST also addresses barriers to effective parenting and helps family members build an indigenous social support network. To increase family collaboration and generalize treatment, MST is typically provided in the home, school, and other community locations. Master-level counselors provide fifty hours of face-to-face contact and 24/7 crisis intervention over four months.

MST works with an individual family for as long a period as FFT does, but it is more intensive and more expensive. In addition to working with parents, MST will locate and attempt to involve other family members, teachers, school administrators, and other adults in supervising the youth. Unlike FFT therapists, MST therapists are also on call for emergency services. Evaluations demonstrate that MST is effective in reducing re-arrest rates and out-of-home placements for a wide variety of problem youth involved in both the juvenile justice and social service systems.[45]

The third program in this category, Intensive Protective Supervision (IPS), targets non-serious status offenders. Offenders assigned to IPS are closely monitored by counselors who carry reduced caseloads and interact more extensively with the youth and their families than traditional parole officers. The counselors make frequent home visits, provide support for parents, develop individualized service plans, and arrange for professional or therapeutic services as needed. An evaluation of the program found that youth assigned to IPS were less likely to be referred to juvenile court during supervision or during a one-year follow-up period and were more likely to have successfully completed treatment than youth assigned to regular protective supervision.[46] IPS is listed as promising by both Blueprints and the Surgeon General. Other effective strategies for youth on probation include cognitive-behavioral therapy, family counseling, mentoring, tutoring, drug and alcohol therapy, interpersonal skills training, and parent training.

Community-based programs that focus on the individual offender rather than on the family are much less successful. Intensive supervision, surveillance, extra services, and early release programs, for example, have not been found effective. Ineffective probation programs and strategies include intensive supervision, early release, vocational training, bringing younger offenders together for programming, and deterrence approaches such as Scared Straight.

Institutional Settings

Juvenile courts, like criminal courts, function as a screening agent for the purpose of sanctions and services. Juvenile offenders' needs for treatment must be balanced against the demands of accountability (punishment) and community safety. Only a fraction of the cases reaching any one stage of the system are passed on to the next stage. Out of all the juveniles arrested in 1999, only 26 percent were adjudicated delinquent and only 6.3 percent were placed out of their homes.[47] Even among those arrested for one of the more serious Crime Index offenses, only 35 percent were adjudicated delinquent and only 9.2 percent were placed out of their homes. This pattern of case dispositions reflects the juvenile court's preference for informal rather than formal dispositions and the understanding that most programs work better in community, rather than institutional, settings.

Nevertheless juvenile courts will place youth in more secure custodial placements if the home setting is inappropriate and a more suitable community placement is unavailable or if the youth poses a public safety risk. In these two instances placement in a group setting is more likely.

Youths who are placed out of their homes are referred to a wide variety of group homes, camps, and other residential or correctional institutions. Three generalized program strategies improve institutional program effectiveness. One is focusing on dynamic or changeable risk factors—low skills, substance abuse, defiant behavior, relationships with delinquent peers. The second is individually tailoring programs to clients' needs using evidence-based methods.[48] The third is focusing interventions on higher-risk youth, where the opportunity for improvement and consequences of failure are both the largest. These three characteristics provide the basis for the Correctional Program Inventory (CPI), a program assessment instrument now being used by Ed Latessa and several colleagues at the University of Cincinnati to rate the quality of programming in individual correctional facilities.[49]

Finally, certain program characteristics that are independent of the specific interventions used have been shown to improve outcomes. The integrity with which the program is implemented and maintained is one such characteristic, as is longer duration of treatment. Well-established programs are more effective than newer programs. Programs that support mental health issues are more successful than those that focus on punishment, so treatment programs administered by mental health professionals are more effective than similar programs administered by regular correctional staff.

Generally, programs that focus on specific skills issues such as behavior management, interpersonal skills training, family counseling, group counseling, or individual counseling have all demonstrated positive effects in institutional settings.

Among the specific program models that work well with institutionalized youth are cognitive-behavioral therapy, aggression replacement training, and family integrated transition. Cognitive-behavioral therapy (CBT) is a time-limited approach to psychotherapy that uses skill building—instruction and homework assignments—to achieve its goals. It is based on the premise that it is people's thoughts about what happens to them that cause particular feelings, rather than the events themselves, and its goal is to change thinking processes. It uses various techniques to learn what goals clients have for their lives and to improve skills that can help them achieve those goals.[50]

Aggression replacement training also emphasizes focusing on risk factors that can be changed. It is a cognitive-behavioral intervention with three components. The first is "anger control," which teaches participants what triggers their anger and how to control their reactions. The second is "behavioral skills," which teach a series of pro-social skills through modeling, role playing, and performance feedback. The third is "moral reasoning," in which participants work through cognitive conflict in dilemma discussion groups.[51]

Family integrated transitions (FIT) also focuses on tackling dynamic risk factors—substance abuse, mental health issues, and community reentry from residential placement. Developed for the State of Washington, the program uses dialectical behavioral therapy (another form of cognitive-behavioral therapy), MST, relapse prevention, and motivational enhancement therapy. It was designed to help youth with mental health or chemical dependency issues who are returning to the community following a residential placement. The only evaluation of the program to date showed positive results.[52]

For youth who have traditionally been placed in group homes—homes that are usually licensed to care for six or more youths who need to be removed from their home for an extended period, but do not pose a serious risk to themselves or others—the preferred alternative is Multidimensional Treatment Foster Care (MTFC). In MTFC, community families are recruited and trained to take one youth at a time into their home. MTFC parents are paid a much higher rate than regular foster parents but have additional responsibilities. One parent, for example, must be at home whenever the child is. Parent training emphasizes behavior management methods to provide youth with a structure and therapeutic living environment. After completing a pre-service training, MTFC parents attend a weekly group meeting run by a case manager for ongoing supervision.

Supervision and support are also provided to MTFC parents during daily telephone calls. Family therapy is also provided for biological families. Random assignment evaluations find that arrest rates fall more among participants in the MFTC model than among youth in traditional group homes.[53] Although it costs approximately $7,000 more per youth to support MFTC than a group home, the Washington State Institute for Public Policy estimates that MFTC produces $33,000 in criminal justice system savings and $52,000 in benefits to potential crime victims.

Implementing Best Practices

With more than ten years of solid evidence now available regarding what does and does not work in preventing juvenile delinquency and reducing recidivism, jurisdictions should be adopting an evidence-based approach to implementing new programs. Taking this approach will prevent wasted lives, save taxpayer dollars, and protect communities from unnecessary crime victimization.

Cost-benefit studies conducted by the Washington State Institute for Public Policy (WSIPP), summarized in the far right-hand column of table 2, indicate that many evidence-based programs can produce savings on the order of five to ten times their cost. In one case, the Washington State legislature, confronting a projected requirement to build two additional prisons, asked WSIPP to estimate how a substantial increase in spending on evidence-based programs would affect projected prison bed requirements. The analysis, published in 2006, showed that doubling current investments in high-quality programs could eliminate the need for additional prison capacity.[54]

Before a jurisdiction begins identifying successful programs, it must first determine whether there are any gaps in the service and quality of its existing programs. A service gap indicates a lack of suitable treatment options for a particular type of youth; a quality gap indicates a lack of sufficient evidence-based programming.

After completing the audit, a jurisdiction can follow one of two basic strategies to identify successful programs. It can follow the Blueprints recommendations and replace existing programs with the Blueprints proven models. Or it can use meta-analysis findings as a guide to improve existing programs. The steps involved and financing required for these two approaches are quite different, with the Blueprints approach being the costlier and more intense of the two.

If a jurisdiction opts to implement the Blueprints approach to fill service gaps, it should begin by selecting the program model that best fits both the clients to be served and the capabilities of the agency and staff that will provide the service. In addition to carefully reviewing the Blueprints publication describing the model, the jurisdiction may need to speak with the model developer and other agencies that have adopted it.

The second step is to arrange for training. Most developers of the Blueprints model programs have established organizations to provide training, technical assistance, oversight, and certification to sites desiring to adopt their model. Most require applicants to meet a number of qualifying conditions before being considered for implementation. Initial training fees can range from $20,000 to more than $50,000, and annual licensing fees can cost more than $100,000 a year. Some developers offer training on a regular schedule in one or two locations. Others will send their trainers to the applicant's site if a

sufficient number of staff need to be trained. The waiting period for training may be as long as six to nine months. Once training has been scheduled, the third step is to designate or hire appropriate staff. Many agencies make the mistake of selecting and training staff who are not comfortable with the requirements of the program and do not last long in the job. Some programs require only one type of staff, such as a family therapist, while others require several different types, such as case manager, skills trainer, and family therapist. The fourth step is to "sell" the program to potential customers and agency personnel. Without a strong champion within the host agency, a demanding new program has little chance of ever getting off the ground. The fifth step is to heed the recommendation of most model developers and arrange for ongoing monitoring and feedback, usually by having weekly phone conferences to discuss cases or by reviewing videotapes of project staff in action. The final step, implementing a quality assurance mechanism, usually involves questionnaires or observational rating sheets to assess the fidelity of the program to the original model.

If a jurisdiction opts for the meta-analytic (or Lipsey) approach to improve the effectiveness of its programs, the first step is to identify the programs to be assessed. The second is to identify key elements of each program and compare them with the "best practice" standards identified by meta-analysis. The third step is to determine the average effect size the combination of elements for each program has produced in previous evaluations.[55]

If the expected effects of a program are small, because it lacks evidence-based elements, an agency can consider adding elements from table 2 that would raise the anticipated effectiveness. For instance, a residential program containing no evidence-based elements can be made more effective by adding cognitive-behavioral therapy or aggression replacement training. Likewise, a community supervision program with no evidence-based elements can be made more effective by adding a family therapy or parent training component.

Despite more than ten years of research on the nature and benefits of evidence-based programs, such programming is the exception rather than the rule. Only about 5 percent of youth who should be eligible for evidence-based programs participate in one.

After selecting an evidence-based program, an agency must adopt and implement a validated risk assessment instrument that can provide a basis for assigning youth to specific programs, for comparing the effectiveness of alternative programs in treating similar youth, and for measuring the progress of individual youth. These instruments are readily available from a number of vendors, some of whom offer training in using the instrument as well as in online data entry and analysis.[56]

The next step in developing an evidence-based practice is to develop a way to assign youths to the most appropriate program, taking into account all the relative costs and differences in effectiveness of each program. Whenever uncertainty exists about which

program particular types of youth should be assigned to, an evaluation should be conducted to determine which of the competing alternatives is best.

Finally, once programs have been implemented, they must be monitored to ensure that they follow the program model as intended. Vendors of many proven programs have developed their own fidelity measurement instruments. Locally developed programs will require local development of such instruments.

The juvenile court is in an excellent position to identify quality and service gaps in the current program mix and to identify programs that are not performing up to their true potential, because it sees other agency's failures. The records of individual cases that come before the court provide informative case studies of how well the system is performing and where screening, assessment, or programming gaps exists. The court is in the best position to identify where particular types of youth are slipping through the cracks or particular parts of the system need to improve their performance.

Challenges and Obstacles to Implementing Evidence-Based Practice

Despite more than ten years of research on the nature and benefits of evidence-based programs, such programming is the exception rather than the rule. Only about 5 percent of youth who should be eligible for evidence-based programs participate in one.[57]

One reason for the slow progress is the general lack of accountability for performance within the juvenile justice system, or even any ability to measure outcomes. Only rarely does a jurisdiction take delinquency prevention and intervention seriously enough to measure the outcome of its efforts. Rather, it tends to evaluate agencies on how well they meet standards for protecting the health and safety of their charges and preventing runaways or incidents requiring restraints. Without the availability of such data as re-arrests or high school graduation rates, there is little pressure on agency officials to improve their performance.

A second challenge is a lack of funding. Implementing evidence-based programs, especially the Blueprints models, is expensive. Training a single team of therapists and their supervisor can cost more than $25,000. The agency may have to hire new staff that meet higher credentialing standards before start-up, without any revenue to cover their costs. State and local agencies have a hard time finding that kind of funding even in good economic times. Today it is difficult indeed. Even after youth begin being referred to the program, it may still take time for the flow of cases to fully occupy all the staff charged to the program.

To fund start-up activities, some states have set up grant mechanisms, for which local communities compete. Some jurisdictions seek grants from state or federal agencies. Even after an evidence-based program is implemented, it may be hard to find funds to continue its operation. Most of the savings from effective programs accrue to the state in the form of lower corrections costs. If some of these anticipated savings are not passed down to the local entities that must fund the programs, they may have trouble competing for scarce local funding against better-established programs. Some sites have solved this problem by working with state licensing officials to ensure adequate funding and reimbursement rates from Medicaid, Mental Health, or other federally subsidized funding streams.

Another problem faced by agencies that have invested in appropriate evidence-based training for their staff are competitors who claim to be offering the same programming benefits without all of the up-front costs associated with evidence-based programs. The guy who is trying to sell a program that is "a lot like MST" at half what MST Inc. charges is a lot like the guy selling fake Rolex watches on the street corner for a fraction of the usual price. Counterfeits all!

Many of the established evidence-based programs have tried to solve the problem of counterfeits by certifying those that have paid for the training and meet their performance standards. But if local funders are not aware of this legitimacy issue, the better qualified program may lose out in the bidding process to an uncertified cut-rate competitor.

Yet another difficulty for funding agencies or providers who wish to select the most effective evidence-based program is the lack of any standardized system for rating programs. Many other entities besides Blueprints claim to be reliable sources of information on program effectiveness. Some are government agencies; others are housed at universities or within professional organizations. The ratings assigned to programs by some of these organizations sometimes reflect low standards for rating the rigor of evaluation methods or can be biased in favor of programs that the rating organization helped develop or identify.

Another big problem is resistance from staff. It is one thing to sell the director of an agency on the value of evidence-based programs. It is quite another to sell the staff who must adopt the new behaviors, because they have spent their whole career developing their own intuitive approach. When they begin the training they are reluctant to admit that someone at some distant university has come up with a better approach than they have. As in all cognitive-behavioral therapy, there is a certain amount of cognitive dissonance when they start applying the new methods. It just does not feel right. Some staff never overcome this initial resistance and must be shifted to other programs.

A different question is whether an agency has the competence or capacity to take on a Blueprints program. Some of these programs are very demanding in terms of staff qualifications, supervision, information systems, and quality assurance. Often program developers find that an applicant agency needs a year or two to develop the capacity even to begin the first steps of implementing their model.

Every year of delay in implementing evidence-based reforms consigns another cohort of juvenile offenders to a 50 percent higher than necessary recidivism rate.

Conclusions

Over the past decade researchers from a variety of disciplines have identified or developed an array of intervention strategies and specific program models demonstrated to be effective in reducing delinquency and promoting more pro-social development. They have developed a variety of training methods and other technical assistance to help others replicate these successful methods. They have accumulated evidence that many of these programs are cost-effective,

returning more than five times their cost in future taxpayer savings. Evidence also confirms that the general public overwhelmingly prefers treatment and rehabilitation over confinement and punishment for juvenile offenders.

Still, only about 5 percent of the youth who could benefit from these improved programs now have the opportunity to do so. Juvenile justice options in many communities remain mired in the same old tired options of custodial care and community supervision. It is as if the major research accomplishments of the past decade had never happened.

In the long run, the authority of science may win out, and the necessary changes will occur. But the authority of science is undermined on a daily basis by those who refuse to distinguish the difference between fact and opinion. Every year of delay in implementing evidence-based reforms consigns another cohort of juvenile offenders to a 50 percent higher than necessary recidivism rate.

Enough states and local communities have begun to take action on this issue that it is now possible to see the pattern of changes and reform that must occur. The evidence-based approach has to be adopted agency-wide. It cannot take root and flourish within just one part of the organization, while other units continue on as usual. Either the reform movement will continue to gain converts and momentum, eventually spreading throughout the organization, or the rest of the organization will find a way to kill it.

The concept of evidence-based reform is easiest to sell at the CEO level, where it is just another new concept to grapple with—something that CEOs do every day. The reforms get harder to sell the further you go down in the organization chart. Down on the front lines, underpaid staff, working with difficult youth on a daily basis, develop their own personal styles and methods of dealing with these youth and their issues. Most evidence-based models require staff to make significant change in both style and methods when working with youth and provide quality assurance processes (usually involving surveys of clients) to make sure their performance is up to standards.

The political and institutional changes needed to bring about evidence-based practice require champions in every organization to make them happen. Those in positions of authority for juvenile justice policy must be informed about the evidence-based programs now available to them and about how those programs can help them reduce delinquency rates, ensure safer communities, and reduce government spending.

Policymakers will have to be assisted by experts in evidence-based practices in designing and implementing the reforms required. States will have to create financial incentives for local communities to invest in effective prevention programs, most likely by returning some share of the savings in future corrections costs to counties or local communities. Requests for proposals will have to require evidence-based programming and services, and those buying the services must be able to distinguish evidence-based proposals and programs from other proposals and programs. Providers will eventually be held accountable for the results they achieve.

Practitioners who are going to work with juvenile offenders and at-risk youth will have to be trained and monitored to ensure that they are delivering services in the most appropriate and prescribed manner.

Achieving the consistency and fidelity that effective programs appear to require will necessitate new ways of supervising and managing those who have direct contact with youth and their families. Shifting from a management focus on preventing abuse or infractions to one that empowers employees to provide effective services to their clients is going to be a major struggle.

Those who wish to develop or promote new methods of intervention will have to learn how to play by the new set of rules and protocols that have made possible the programming advances of the past decade. Programs can no longer be promoted for wide-scale dissemination until they have been proven effective by a rigorous evaluation.

None of these challenges is impossible. Efforts to expand the use of Blueprints programs in Florida, Pennsylvania, and Washington have been under way for several years now, with considerable success. Both North Carolina and Arizona have undertaken efforts in collaboration with Mark Lipsey to evaluate all their programs.[58] Hundreds of communities have adopted and implemented proven program models and are reaping the benefits of reduced delinquency and lower system costs.[59] The challenge now is to move beyond these still relatively few early adopters and push these reforms into the mainstream of juvenile justice.

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