

Chapter Two

THINKING ABOUT CRIME PREVENTION

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How effective at preventing crime are local programs with funding from the US Department of Justice? That question can only be answered in the context of a comprehensive scientific assessment of crime prevention in America. That assessment shows that most crime prevention results from the web of institutional settings of human development and daily life. These institutions include communities, families, schools, labor markets and places, as well as the legal institutions of policing and criminal justice. The vast majority of resources for sustaining those institutions comes from private initiative and local tax dollars. The resources contributed to these efforts by the federal government are almost negligible in comparison. The potential impact on local crime prevention of federally supported research and program development, however, is enormous.

The logical starting point for assessing the current and potential impact of federal programs is the scientific evidence for the effectiveness of crime prevention practices in each institutional setting. This requires, in turn, great attention to the enormous variation in the strength of scientific evidence on each specific practice or program. In general, far too little is known about the impact of crime prevention practices, regardless of how they are funded. But thanks largely to evaluations sponsored by the National Institute of Justice (NIJ), the Office of Juvenile Justice and Delinquency Prevention (OJJDP) and other federal agencies, the body of scientific evidence has grown much stronger in the past two decades. Most important, it has shown a steadily increasing capacity to provide very strong scientific evidence, even while most program evaluations remain so weak as to be scientifically useless.

The growing scientific evidence that federal support has produced allows us to assess some programs more intensively than others. Some of the evidence is strong enough to identify some effective and ineffective practices or programs in most institutional settings. Some evidence is more limited, but clearly points to some promising initiatives that merit further research and development. Reviewing this evidence in each of the seven institutional settings provides the strongest possible scientific basis for responding to the Congressional mandate. By separating the question of effectiveness from the question of funding, we map out the entire territory of crime prevention knowledge (including the many uncharted areas). That, in turn, provides a basis for locating both current and future Justice Department programs on that map.

Chapters Three through Nine of the report each examine the evidence in one institutional setting at a time. Each chapter draws scientific conclusions about program effectiveness, then uses those findings to suggest policy recommendations for both current programs and further research. Chapter Ten then assembles the major findings into the Congressionally-mandated

assessment of the effectiveness of DOJ crime prevention programs. It concludes the report with the implications of the assessment for the federal role in generating just such evidence, and suggests a statutory plan for improving scientific knowledge about effective crime prevention methods.

This chapter provides the four cornerstones on which the report is based. One is the crucial difference between the political and scientific definitions of crime prevention. Making this distinction at the outset is essential for meeting the Congressional mandate for a scientific assessment. It also helps us clarify other key concepts in thinking about crime prevention.

A second cornerstone is the web of institutional settings in which crime prevention effects are created every day all over the nation, mostly without any taxpayer involvement at all. From childhood moral education to employee criminal history checks, there is tight social fabric holding most people back from committing crimes most of the time. Yet there are many holes and thin spots in that social fabric that crime prevention programs might, and sometimes do, address.

The third cornerstone is the logical basis for separating scientific wheat from chaff, or strong scientific evidence from weak or useless data. Not all crime prevention evaluations are created equal, but we must be clear about the rules of evidence.

The fourth and final cornerstone is the history and current status of the federal role in guiding and funding local crime prevention. The distinction between those functions should be kept in mind in any discussion of the implications of crime prevention research for federal policy.

KEY CONCEPTS IN CRIME PREVENTION

Crime prevention is widely misunderstood. The national debate over crime often treats "prevention" and "punishment" as mutually exclusive concepts, polar opposites on a continuum of "soft" versus "tough" responses to crime: midnight basketball versus chain gangs, for example. The science of criminology, however, contains no such dichotomy. It is as if a public debate over physics had drawn a dichotomy between flame and matches. Flame is a result. Matches are only one tool for achieving that result. Other tools besides matches are well known to cause fuel to ignite into flame, from magnifying glasses to tinder boxes.

Similarly, crime prevention is a result, while punishment is only one possible tool for achieving that result. Both midnight basketball and chain gangs may logically succeed or fail in achieving the scientific definition of crime prevention: any policy which causes a lower number of crimes to occur in the future than would have occurred without that policy.¹ Some kinds of punishment for some kinds of offenders may be preventive, while others may be "criminogenic" or crime-causing, and still others may have no effect at all. Exactly the same may also be true of other programs that do not consist of legally imposed punishment, but which are justified by a goal of preventing crime.

Crime prevention is therefore defined not by its intentions, but by its consequences. These

consequences can be defined in at least two ways. One is by the number of **criminal events**; the other is by the number of **criminal offenders** (Hirschi, 1987). Some would also define it by the amount of **harm** prevented (Reiss and Roth, 1993: 59-61) or by the number of **victims** harmed or harmed repeatedly (Farrell, 1995). In asking the Attorney General to report on the effectiveness of crime prevention efforts supported by the Justice Department's Office of Justice Programs, the U.S. Congress has embraced an even broader definition of crime prevention: reduction of **risk factors** for crime (such as gang membership) and increases in **protective factors** (such as completing high school)--concepts that a National Academy of Sciences report has labeled as "primary" prevention (Reiss and Roth, 1993: 150). What all these definitions have in common is their focus on observed effects, and not the "hard" or "soft" content, of a program.

Which definition of crime prevention ultimately dominates public discourse is a critically important factor in Congressional and public understanding of the issues. If the crime prevention debate is framed solely in terms of the **symbolic** labels of punishment versus prevention, policy choices may be made more on the basis of emotional appeal than on solid evidence of effectiveness. By employing the scientific definition of crime prevention as a consequence, this report responds to the Congressional mandate to "employ rigorous and scientifically recognized standards and methodologies."² This report also attempts to broaden the debate to encompass the entire range of policies we can pursue to build a safer society. A rigorously empirical perspective on what works best is defined by the data from research findings, not from ideologically driven assumptions about human nature.

Bringing more data into the debate has already altered public understanding of several other complex issues. The prevention of disease, for example, has gained widespread public understanding of the implications of new research findings, especially those about lifestyle choices (like smoking, diet and exercise) that people can control themselves. The prevention of injury through regulation of automobile manufacturers has increasingly been debated in terms of empirically observed consequences, rather than logically derived theories; the safety of passenger-side airbags, for example, has been debated not just in terms of how they are supposed to work, but also in terms of data on how actual driver practices make airbags increasingly cause the deaths of young children.³ Emotional and ideological overtones of personal freedom and the role of government clearly affect debates about disease and injury prevention, but scientific evidence appears to have gained the upper hand in those debates.

Similarly, the symbolic politics of crime prevention could eventually give way to empirical data in policy debates (Blumstein and Petersilia, 1995). While the emotional and symbolic significance of punishment can never be denied, it can be embedded in a broader framework of crime prevention institutions and programs that allows us to compare value returned for money invested (Greenwood, et al, 1996). Even raising the question of cost-effectiveness could help focus policy-making on empirical consequences, and their implications for making choices among the extensive list of crime prevention efforts.

The value of a broad framework for analyzing crime prevention policies is its focus on the

whole forest rather than on each tree. Most debates over crime prevention address one policy at a time. Few debates, either in politics or in criminology, consider the relative value of all prevention programs competing for funding. While scientific evidence may show that two different programs both "work" to prevent crime, one of the programs may be far more cost-effective than another. One may have a stronger **effect**, cutting criminal events by 50% while the other cuts crimes by only 20%. Or one may have a longer **duration**, reducing crimes among younger people whose average remaining lifetime is 50 years, compared to a program treating older people with an average remaining life of twenty years. A fully informed debate about crime prevention policy choices requires performance measures combining duration and strength of program effect. While such accurate measures of "profitability" and "payback" periods are a standard tool in business investment decisions, they have been entirely lacking in crime prevention policy debates.

Yet comparative measurement is not enough. Simply comparing the return on investment of each crime prevention policy to its alternatives can mask another key issue: the possible **interdependency** between policies, or the economic and social conditions required for a specific policy to be effective. Crime prevention policies are not delivered in a vacuum. A Head Start program may fail to prevent crime in a community where children grow up with daily gunfire. A chain gang may have little deterrent effect in a community with 75% unemployment. Marciniak (1994) has already shown that arrest for domestic violence prevents crime in neighborhoods with low unemployment and high marriage rates--but arrest **increases** crime in census tracts with high unemployment and low marriage rates. It may be necessary to mount programs in several institutional settings simultaneously--such as labor markets, families and police--in order to find programs in any one institution to be effective.

One theory is that **the effectiveness of crime prevention in each of the seven institutional settings depends heavily on local conditions in the other institutions**. Put another way, the necessary condition for successful crime prevention practices in one setting is adequate support for the practice in related settings. Schools cannot succeed without supportive families, families cannot succeed without supportive labor markets, labor markets cannot succeed without well-policed safe streets, and police cannot succeed without community participation in the labor market. These and other examples are an extension of the "conditional deterrence" theory in criminology (Tittle and Logan, 1973; Williams and Hawkins, 1986), which claims that legal punishment and its threat can only be effective at preventing crime if reinforced by the informal social controls of other institutions. The conditional nature of legal deterrence may apply to other crime prevention strategies as well. Just as exercise can only work properly on a well-fed body, crime prevention of all kinds may only be effective when the institutional context is strong enough to support it.

Over a century ago, sociologist Emile Durkheim suggested that "it is shame which doubles most punishments, and which increases with them" (Lukes and Scull, 1983, p. 62). More recently, John Braithwaite (1989) has hypothesized the institutional conditions needed to create a capacity for shame in both communities and individuals. He concludes that shame and

punishment have been de-coupled in modern society, and suggests various approaches to restoring their historic link. His conclusions can apply to non-criminal sanctions as well, such as school discipline, labor force opportunities, expulsion from social groups and ostracism by neighbors and family. Conversely, it applies to rewards for compliance with the criminal law, such as respectability, trust, and responsibility. The emotional content of winning or losing these social assets is quite strong in settings where crime prevention works, but weak or counterproductive in what social scientists call "oppositional subcultures." Any neighborhood in which going to prison is a mark of prestige (Terry, 1993) is clearly a difficult challenge for any crime prevention practice.

The community context of crime prevention may need a critical mass of institutional support for informally deterring criminal behavior. Without that critical mass, neither families nor schools, labor markets nor places, police nor prisons may succeed in preventing crime. Each of these institutions may be able to achieve marginal success on their own. While most American communities seem to offer sufficient levels of institutional support for crime prevention, serious violence is geographically concentrated in a small number of communities that do not. Lowering national rates of violent crime might require programs that address several institutional settings simultaneously, with a meaningful chance of rising to the threshold of "social capital" (Coleman, 1992) needed to make crime prevention work.

To the extent that this theory focuses resources on the relative handful of areas falling below that threshold, that focus can be justified by its benefits for the wider society. Over half of all homicides in the US occur in just 66 cities, with one-quarter of homicides in only eight cities (FBI, 1994). These murders are concentrated in a small number of neighborhoods within those cities. The public health costs of inner-city violence, by themselves, could provide sufficient justification for suburban investment in inner-city crime prevention. If crime can be substantially prevented or reduced in our most desperate neighborhoods, it can probably be prevented anywhere.

By suggesting that the effectiveness of some crime prevention efforts may depend upon their institutional contexts, we do not present a pessimistic vision of the future. While some might say that no program can work until the "root causes" of crime can be cured, we find no scientific basis for that conclusion--and substantial evidence against it. What this report documents is the potential for something much more precise and useful, based on a more open view of the role of scientific evaluation in crime prevention: a future in which program evaluations carefully measure, and systematically vary, the institutional context of each program. That strategy is essential for a body of scientific knowledge to be developed about the exact connections between institutional context and program effectiveness.

We expect that greater attention to the interdependency of institutions may help us discover how to shape many institutional factors simultaneously to prevent crime--more successfully than we have been able to do so far. The apparent failure of a few efforts to do just does not mean that we should give up our work in that direction. Such failures marked the early stages of almost all major advances in science, from the invention of the light bulb to the

development of the polio vaccine. The fact that our review finds crime prevention successes in all of seven of the institutional settings suggests that even more trial and error could pay off handsomely. Our national investment in research and development for crime prevention to date has been trivial (Reiss and Roth, 1993), especially in relation to the level of public concern about the problem. Attacking the crime problem on many institutional fronts at once should offer more, not fewer, opportunities for success.

Defining crime prevention by results, rather than program intent or content, focuses scientific analysis on three crucial questions:

1. What is the independent effect of each program or practice on a specific measure of crime?
2. What is the comparative return on investment for each program or practice, using a common metric of cost and crimes prevented?
3. What conditions in other institutional settings are required for a crime prevention program or practice to be effective, or which increase or reduce that effectiveness?

The current state of science barely allows us to address the first question; it tells us almost nothing about the second or third. Just framing the questions, however, reveals the potential contribution that federal support for crime prevention evaluations could offer. That potential may depend, in turn, on a clear understanding of the location of every crime prevention practice or program in a broad network of social institutions.

THE INSTITUTIONAL SETTINGS OF CRIME PREVENTION

Crime prevention is a consequence of many institutional forces. Most of them occur naturally, without government funding or intervention. While scholars and policymakers may disagree over the exact causes of crime, there is widespread agreement about a basic conclusion: strong parental attachments to consistently disciplined children (Hirschi, 1995) in watchful and supportive communities (Braithwaite, 1989) are the best vaccine against street crime and violence. Schools, labor markets and marriage may prevent crime, even among those who have committed crime in the past (Sampson and Laub, 1993), when they attract commitment to a conventional life pattern that would be endangered by criminality. Each person's bonds to family, community, school and work create what criminologists call "informal social control," the pressures to conform to the law that have little to do with the threat of punishment. Informal controls threaten something that may be far more fearsome than simply life in prison: shame and disgrace in the eyes of other people you depend upon (Tittle and Logan, 1973).

The best evidence for the preventive power of informal social control may be the millions of unguarded opportunities to prevent crime which are passed up each day (Cohen and Felson, 1979). Given the fact that most crimes never result in arrest (FBI, 1996), the purely statistical odds are in favor of a rational choice to commit any given crime. The question of why even more people do not commit crime is therefore central to criminology, and has driven many theories (Hirschi, 1969; Cohen and Felson, 1979; Gottfredson and Hirschi, 1990). The extent

to which law enforcement can affect the perception of those odds is a matter of great debate (Blumstein, Cohen and Nagin, 1978), as is the question of whether even a low risk of punishment is too high for most people. Yet there is widespread agreement that the institutions of family and community are critically important to crime prevention.

That agreement breaks down when the institutions of family and community themselves appear to break down, creating a vacuum of informal social control that government is then invited to fill up (Black, 1976). Whether police, courts and prisons can fill the gap left by weak families and socially marginal communities is a question subject to debate in both politics and social science. But it may be the wrong question to ask, at least initially. The premise of the question is that the breakdown of the basic institutions of crime prevention is inevitable. Yet for over a century, a wide range of programs has attempted to challenge that premise. Entirely new institutions, from public schools to social work to the police themselves (Lane, 1992), have been invented to provide structural support to families and communities. In recent years, the federal government has attempted a wide range of programs to assist those efforts. Rather than simply assuming their failure, it seems wiser to start by taking stock of their efforts.

Settings, Practices and Programs

Crime prevention is a result of everyday practices concentrated in seven institutional settings. A "setting" is a social stage for playing out various roles, such as parent, child, neighbor, employer, teacher, and church leader. There are many ways to define these settings, and their boundaries are necessarily somewhat arbitrary. Yet much of the crime prevention literature fits quite neatly into seven major institutional settings: 1) communities, 2) families, 3) schools, 4) labor markets, 5) places, 6) police agencies and 7) the other agencies of criminal justice. The definitions of these settings for crime prevention are quite broad, and sometimes they overlap. But as a framework for organizing research findings on crime prevention effectiveness, we find them quite workable.

Crime prevention research examines two basic types of efforts in these seven settings. One type is a "**practice**," defined as an ongoing routine activity that is well established in that setting, even if it is far from universal. Most parents make children come home at night, most schools have established starting times, most stores try to catch shoplifters, most police departments answer 911 emergency calls. Some of these practices have been tested for their effects on crime prevention. Most have not. Some of them (such as police patrols and school teacher salaries) are funded in part by federal programs. Most are not. Regardless of the source of funding, we define a practice as something that may change naturally over time, but which would continue in the absence of specific new government policies to change or restrict them.

A "**program**," in contrast, is a focused effort to change, restrict or create a routine practice in a crime prevention setting. Many, but far from all, programs are federally funded. Churches may adopt programs to discourage parents from spanking children, or letting children watch

violent television shows and movies. Universities may adopt programs to escort students from the library to their cars in the hours after midnight. Shopping malls may ban juveniles unescorted by their parents on weekend evenings, and police may initiate programs to enforce long-ignored curfew or truancy laws. In time, some programs may turn into practices, with few people remembering the time before the program was introduced.

Perhaps the clearest distinction between programs and practices is found among those programs requiring additional resources. The disciplinary practices of parents, for example, and the hiring practices of employers are largely independent of tax dollars. But calling battered women to notify them of their assailant's imminent release from prison may be a practice that only a federally funded program can both start and keep going. Even police enforcement of laws against drunk driving, in recent years, seems to depend almost entirely on federally funded overtime money to sustain (Ross, 1994). Whether these federal resources are "required" is of course a matter of local funding decisions. But in many jurisdictions, many practices begun under federal programs might die out in the absence of continued funding.

These distinctions are important to crime prevention for reasons of evidence: newly-funded programs are more likely to be subjected to scientific evaluations than longstanding practices. The modern trend towards demanding accountability for public expenditures has made program evaluations increasingly common, especially for federal programs. Paradoxically, we could know more about potentially marginal new ideas than we do about the mainstream practices of the major crime prevention institutions. Police DARE programs (Drug Abuse Resistance Education), for example, have been subjected to more numerous evaluations (Lindstrom, 1996) than the far more widespread practice of police patrol (Sherman and Weisburd, 1995). Similarly, neighborhood watch programs (Hope, 1995) have been subjected to far more extensive evaluation than the pervasive role of zoning practices in physically separating commercial and residential life in communities, reducing face-to-face contact among the kind of neighbors who used to see each other at the corner grocery store.

The availability of evidence on crime prevention is itself a major issue for the national policy debate. Where expenditures are high but evidence is weak or non-existent, the need for evaluation research is great. Even where expenditures are low, practices or programs that show good reason to conclude that they are causing or preventing crime should merit a high priority for research. In order to identify the key gaps in our knowledge, however, we must start not with the available evidence, but with an inventory of crime prevention practices and programs in each institutional setting. Throughout the report, this inventory guides our review of what works, what doesn't, what's promising, and what we need to know a lot more about.

Chapter 3: Communities

We begin our review with the most broadly defined institutional setting. From small villages to large urban neighborhoods, from suburban developments to urban high rise public housing, both the physical and social structure of communities varies widely. So, too, does their effectiveness in preventing crime through informal social controls. Some communities average

more than two jobs per family; others average none. Some communities have more churches than taverns; others have more crack houses than grocery stores. Some have more people on welfare than working; others have more retirees than schoolchildren. Some have more renters than homeowners; others have more adult men who are technically homeless than those who are named on a lease or a deed. In some communities most residents recognize most other residents by name and face; in most of the modern United States, perhaps, even face recognition of most neighbors is extremely rare.

Communities also vary on several stark dimensions. Most of the serious violent juvenile crime in the US is concentrated in a relative handful of communities (OJJDP, 1996). Some communities have homicide rates 20 times higher than the national average (Sherman, Shaw and Rogan, 1995). In some communities two-thirds of all adults are chronically unemployed (Wilson, 1996: 19). In some communities 90% or more of the population is African-American for miles around, a condition of "hypersegregation" unprecedented in American history (Massey and Denton, 1993). In some communities child abuse is reported among 19% of at-risk children of white parents (Olds, et al, 1986). To a large extent, the entire rationale for the federal politics of crime prevention is driven by the extreme criminogenic conditions of these relatively few communities in the US, areas of concentrated poverty where millions of whites and an estimated 1/3 of all African-Americans reside.

Where a community winds up on these and other dimensions may not only affect its crime prevention practices. There is also substantial evidence that these factors condition the effectiveness of community-based crime prevention programs (Hope, 1995), another excellent (but rare) example of interdependency. In study after study, evidence emerges that crime prevention programs are more likely to take root, and more likely to work, in communities that need them the least. Conversely, the evidence shows that communities with the greatest crime problems are also the hardest to reach through innovative program efforts.

Chapter Three reviews this evidence as pointing to the general conclusion that such programs are too weak to make a difference in the underlying structural conditions causing both crime prevention and innovative programs to fail. More heavily concentrated federal efforts to address many community factors simultaneously have, fortunately, suggested somewhat better results against local crime risk factors. And even in the midst of great adversity, there is some evidence that "big brother" and "sister" mentoring programs can help reduce drug abuse and other risk factors for crime--perhaps showing how much a community benefits by having strong families that provide their own mentoring, also known as parenting.

Chapter 4: Families

Perhaps the most basic structural feature of any community is the condition of its families. Basic family practices in child-rearing, marriage, and parental employment appear to matter enormously in the criminality of both children and fathers (Hirschi, 1995; Sampson, 1986). The failure of many parents to marry has been the target of many programs for preventing extramarital pregnancy, especially among teenagers. The failure of many parents to provide

consistent affection and discipline to children has been the target of other programs, from parent training to home visitation and consultation by nurses and other helpers. As Chapter Four shows, some of these programs are quite promising, with very encouraging evaluation results. Whether these programs, by themselves, can overcome the effects of surrounding a family with a high-crime community is unclear.

It is also unclear whether we have found the right programs for combatting domestic violence, arguably a major risk factor for crime found in the family setting. Most of these programs are delivered to families by the criminal justice system. These programs unfortunately fail to reach the many families whose violence goes unreported to police. For the families the programs do reach, the scientific evidence is either discouraging or inadequate. Here again, the crime prevention programs seem to work best for the families in the strongest communities. Criminal justice programs may be least effective in the communities where family violence is most prevalent.

The major exception to this pattern is the use of battered women's shelters, an important emergency service at high-risk times for family violence. While shelters also lack clear evaluations showing crime prevention benefits, police data show the highest risk of such violence to lie in the immediate aftermath of the last domestic assault. Protecting women, and often their children, in that short time frame may well reduce total injuries from domestic violence, even if shelters cannot solve the underlying family violence. Yet even shelters are relatively less available in the poorest communities, compared to communities of greater social and financial resources.

Chapter 5: Schools

The most direct link between families and communities is presently found in schools. Measured purely by the amount of available time to reduce risk factors for crime, schools have more opportunity to accomplish that objective than any other agency of government. Succeeding at their basic job of teaching children to read, write and compute may be the most important crime prevention practice schools can offer. But too many schools are overwhelmed by a *criminogenic community context*, crippled by the lack of parental support for learning and the breakdown of order in the classrooms (Toby, 1982). While some schools succeed at teaching basic skills despite these challenges, the odds appear to be against it.

The most intensively studied crime prevention programs in schools, however, are unrelated to academic learning. More common are the efforts to use schools to reduce non-academic crime risk factors, including drug abuse and aggression. As Chapter Five demonstrates, the extensive record of scientifically evaluated prevention programs provides some guidance about which programs are most effective or promising. The evidence shows that school-based programs aimed at increasing resilience, for example, by teaching students "thinking skills" necessary for social adaptation, work to reduce substance use and are promising for reducing delinquency. Programs that focus not on individual students, but instead on school organizations, also work. Programs that simply clarify norms about expected behavior work.

As in other settings, the success of school programs and practices is largely dependent on the school's capacity to initiate and sustain innovative programs. Schools situated in crime-ridden, disorganized communities are less likely to have the infrastructure necessary to support prevention programs, and are more likely to fail. That failure is usually more pronounced in communities with the weakest labor market demand for adult workers.

Chapter 6: Labor Markets

There is a long history of attempting to prevent the onset or persistence of criminality by pulling young people into the labor market for legitimate work (Cloward and Ohlin, 1960). Theoretical and empirical support for the crime preventive value of employment is generally quite strong in the longitudinal analysis of individual criminal careers (Sampson and Laub, 1993; but see Shannon, 1982, and Gottfredson, 1985). It is also found in experimental studies of the effects of criminal sanctions, which can deter offenders who are employed but backfire on offenders who are unemployed (Sherman, 1992). Macro-level data on the short-term effects of changes in the unemployment rate on crime are more mixed (Freeman, 1983, 1995), but the staggeringly high unemployment rates in our highest-crime communities are beyond dispute (Wilson, 1996).

Programs aimed at linking labor markets more closely to high crime risk neighborhoods and individuals could have substantial crime prevention benefits. As Chapter Six shows, however, only Job Corps programs have demonstrated success at enhancing the employment experience of severely unemployable persons, and even that evidence is scientifically weak. No program has yet shown success in tackling the unemployment rates of high crime neighborhoods. Yet of all the dimensions of neighborhood life, this one may have the most pervasive influence on crime. Neighborhoods where work is the exception rather than the rule may lack the discipline necessary for conventional life styles (Wilson, 1996). Marriage and two-parent family life deeply declines with the loss of labor markets for adult males, making men unnecessary as economic partners and husbands. If inner city communities of concentrated poverty are to be reclaimed as crime prevention institutions, reviving their local labor markets may be the most logical place to start. As jobs increasingly migrate to far suburbs beyond the reach of public transit, inner city workers with no cars may depend even more on recent innovative programs to link them to suburban labor markets.

Inner city employment may face an even tougher problem than geography, however. As employers become increasingly sensitive to concerns about potential theft and violence by their employees, they have won increasing access to measures of the criminality of prospective and current workers. One measure is official records of criminal convictions, which are more readily available now than at any previous time in US history (SEARCH Group, 1996). Another measure is drug testing in the workplace, which many employers require as a condition of employment. Both measures could either bar a worker from being hired or lead to their being fired. Extensive police crackdowns of recent years have given millions of young men criminal records for minor offenses (Blumstein, 1993; Tonry, 1995), limiting their employment prospects and perhaps increasing their likelihood of further and more serious

criminality.

Yet labor markets may be most powerful in preventing crime precisely because they respond negatively to criminal histories. While employment may give would-be offenders a stake in society, its crime preventive value may hinge on the threat of losing that stake. Maintaining that threat without creating a large group of unemployable outcasts is a major crime prevention challenge for the future of our labor market practices.

Chapter 7: Places

One of the most recently discovered "institutions" in American life is the "place" (Anderson, 1978; Oldenburg, 1990). From donut shops to taverns to street corners and hotels, there is a pattern of social organization uniquely constructed around very small locations that are usually visible to the unaided human eye. These places vary enormously in their populations, core functions and activities, crime rates and criminogenic risk factors like drugs and guns. Some places are so crime prone that they are labeled "hot spots" of crime (Sherman, Gartin and Buerger, 1989), among the 3% of addresses which produce 50% of reported crimes.

Regardless of whether these places cause crimes or merely act as "receptors" for them, the prevention of crime in places may have substantial effects at reducing total crime in the community. Even in high crime neighborhoods, most places are crime-free for years at a time (Pierce, Spaar and Briggs, 1988). The frequent recurrence of crimes in just a handful of locations makes the prevention of crime in such "hot spots" all the more important.

Security guards, cameras, alarm systems, safes and fences have all proliferated in the latter twentieth century, making private expenditures on crime prevention rival public spending. Whether these practices succeed in preventing crime is generally impossible to determine from the available research, given its limitations. Even where they do succeed at preventing crime in target places, it is unclear whether the total number of criminal events in society is reduced or merely displaced to other locations (Barr and Pease, 1990). But as the evidence reviewed in Chapter Seven shows, the control of criminogenic commodities like alcohol, cash and firearms (Cook and Moore, 1995) can make a great deal of difference in the rate of crime in limited access locations like airports and transit systems. Such strategies may even overcome the influence of surrounding high crime communities.

Our capacity to make a limited number of places into safe havens from crime may also form a paradox: the safer we make places for more advantaged people, the less public investment there may be in making less advantaged communities safe (Reiss, 1989). The use of metal detectors to create of gun-free zones has become a prized luxury, reserved for presidents and judges, airplane passengers and (more democratically) some school children. But it may also have reduced policymakers' concern about gun crime in the streets, especially the streets of poverty areas. People spending more money on private security may wish to spend less for public safety. While communities may be better off without their worst hot spots of crime, they cannot be made safe by place-based strategies alone. To the extent that crime prevention

in places depletes efforts in other institutional settings, safe places in a dangerous community may be ultimately self-defeating. It is hard to imagine a democracy as a fortress society.

Chapter 8: Policing

The crime prevention effects of policing may pose the widest gap between academic and political opinion. While public opinion polls show consensus that police prevent crime, criminologists widely challenge that view. Citing a single, scientifically weak evaluation of police patrol presence (Kelling, et al, 1974), many criminologists generalize that variations in police practice or numbers can make little difference in crime (Gottfredson and Hirschi, 1990; Felson, 1994). This conclusion ignores a vast array of contrary evidence.

As Chapter Eight shows, there are many police practices that reduce crime, and some that even increase crime. The strength of police effects on crime is generally moderate rather than substantial, unless police presence drops to zero when patrols go on strike--at which point all hell breaks loose. The converse of that observation could be that massive increases of police presence focused in a small number of high crime communities have a major effect at preventing crime. While such concentrations have never been attempted for sustained periods of time, it is possible that a focused crime prevention strategy could rely heavily on police presence to regain a threshold level of public order and safety. Once beyond this threshold, the effectiveness of family, community, schools and the labor force could be substantially increased.

Community policing programs offer one opportunity to increase police presence in the highest crime communities. Like police resources generally, the 1994 Crime Act puts a large portion of its 100,000 police where the people are, but not where the crime is. The scientific evidence increasingly suggests the effectiveness of much greater concentration of federal funding in the neighborhoods which need police the most. While such policies would fly in the face of distributional politics (Biden, 1994), they are strongly implied (although not proven) by studies of police effects on crime in low and high crime areas. The Federal funding of police overtime could also be more effective if available funds were channeled to the small number of neighborhoods generating most of the handgun homicide in the nation.

Yet research also shows that police presence can backfire if it is provided in a disrespectful manner. Rude or hostile treatment of citizens, especially juveniles, can provoke angry reactions that increase the risk of future offending (Tyler, 1991). Flooding high crime communities with aggressive police could backfire terribly, causing more crime than it prevents, as it has in repeated race riots over the past quarter century. The challenge is to develop programs that make policing simultaneously more focused in **what** they do to prevent crime and more polite in **how** they do it.

Chapter 9: Criminal Justice

The full list of crime prevention practices and programs in criminal justice is very long indeed. We relegate them to a single chapter in an attempt to focus more attention on how such

punishment programs compare to non-punitive prevention practices. Recent reviews conclude there is very little evidence that increased incarceration has reduced crime (Reiss and Roth, 1993). Yet variations in how the criminal justice system treats admitted offenders can make a great deal of difference. The evidence reviewed in Chapter Nine finds encouraging support for more correctional use of drug treatment programs, rehabilitation programs in prison, and institutionalization of some juvenile offenders rather than community-based supervision.

The effectiveness of any correctional treatment, however, may depend upon the community, family, and labor market context into which the offender returns home. In a very important sense, correctional programs compete with the same home conditions that led the offender into correctional hands in the first place. Making corrections work, at least with the offenders it treats, may require the same changes of institutional context needed to make programs and practices in other settings more effective.

Chapter 10: Justice Department Funding for Local Crime Prevention Programs

It is important for the U.S. Congress to assess its own funding of local crime prevention programs in the context of these seven institutional settings for attempting--and sometimes achieving--crime prevention results. It may be even more important to understand the relationship among the seven settings, and the extent to which conditions in one affect conditions or results in another. Chapter Ten synthesizes the major findings from each institutional setting to draw broad conclusions about the effectiveness of DOJ local assistance programs. But many of the local programs and practices these funds support have never been evaluated with enough scientific rigor to draw conclusions based on direct evidence about their effects on crime. Chapter Ten therefore concludes with analysis and recommendations concerning the structure of program evaluation for local assistance funding, suggesting how to better achieve the longstanding Congressional mandate to evaluate.

Evaluating crime prevention is at best a delicate enterprise. Policymakers often think, incorrectly, that an evaluation is like an "audit" or trial in which the results are usually clear cut and definitive. Either the funds were spent or they weren't; either the program served its intended beneficiaries at a reasonable cost per client or it didn't. Such "audit" questions are much easier to answer than the "evaluation" questions of cause and effect, often stretching out over a lifetime of the targets of crime prevention efforts. The next section introduces some of the complications in drawing such conclusions scientifically. Chapter ten returns to those issues in terms of their implications for future evaluation policies for OJP funding. Rather than spending a little evaluation money on most programs in an "audit" model, the Congress would receive more return on investment by concentrating evaluation dollars on a few major examples of key programs in a field testing model.

MEASURING CRIME PREVENTION EFFECTIVENESS

A recent review of the crime prevention evaluation literature by two prominent English criminologists concluded the field was "dominated by....self-serving unpublished and

semi-published work that does not meet even the most elementary criteria of evaluative probity (Ekblom and Pease, 1995:585-6). What they meant by "evaluative probity" was fairly basic to any inference of cause and effect. Measures of crime, for example, are very often missing from publicly funded crime prevention "evaluations," which simply describe how the program worked and whether it achieved its administrative objectives: services provided, activities completed. Despite the recent emphasis at reinventing government to focus on **results**, most crime prevention evaluations still appear to focus on **efforts**.

Crime Prevention and Other Worthy Goals

Many if not most government programs, of course, have multiple objectives. Even those which evaluations show ineffective at preventing crime may accomplish other worthy goals, such as justice and equality under the law. That is a very important consideration for policy analysis, one that deserves careful treatment. This report does not explicitly examine program effects in accomplishing other goals beyond those specified in the legislation: crime, especially youth violence, risk factors and (their converse) protective factors. That does not mean other goals are unimportant. Consideration of those other goals can be entirely appropriate in other contexts, and can be examined by scientific program evaluations. This report omits them necessarily in order to conserve resources for answering the specific question the Congress asked.

Whether the focus of an evaluation is on crime prevention or other goals, the distinction between descriptive and impact evaluations remains crucial. Training police on domestic violence issues, for example, may not directly reduce domestic violence. But descriptive evaluations reporting how many police were trained for how many hours are also unable to show whether other goals were accomplished. Causing police to treat domestic violence victims more politely, to provide more victim assistance, or to gather better evidence at the scene could all be important objectives of police training. Controlled experiments could show whether training accomplishes those important goals. Absent a strong scientific approach to program evaluation, however, descriptive evaluations of efforts say little about results for other goals besides crime prevention.

Classifying the Strength of Scientific Evidence

Even where evaluations attempt to measure crime prevention, they often lack the basic scientific elements needed for inferring cause and effect. While they may report lower crime rates among people who were served by a program than those who were not, the evaluations often fail to say which came first, the program or the crime rates. If crime prevention programs simply attract lower crime rate people, they cannot be said to cause those lower crime rates. Other evaluations include a temporal sequence, reporting that crime dropped after a program was introduced, for example. But there may be many other reasons why crime went down besides the program. While comparison or "control" groups can be used to help eliminate those other possibilities, many evaluations fail to use them. Even when they are used, the comparison groups chosen are often too unlike the target groups given the program,

so that the comparison does not plausibly show what would have happened without the program. Only a random selection of equally eligible program targets can conclusively eliminate alternative theories about the effects of a crime prevention program.

Thus we must confront a body of research in which the strength of the **evidence** varies as much as the strength of the crime prevention program **effects** reported in the research. Making sense of this evidence requires some scale for rating the strength of each study. While our analysis employs more complicated classifications (see Appendix 1), there are three basic elements we consider:

- 1) reliable and statistically powerful measures and correlations (including adequate sample sizes and response rates),
- 2) temporal ordering of the hypothesized cause and effect--so that the program "cause" comes before the crime prevention "effect," and
- 3) valid comparison groups or other methods to eliminate other explanations, such as "the crime rate would have dropped anyway."

The first element without the others arguably constitutes "weak" evidence, the first and second without the third comprise "moderate" evidence, and all three together define "strong" evidence. This standard sets aside the question of replication of results in repeated studies, since it is generally so rare in federal program evaluations. Such replicated results are "very strong" evidence compared to most program evaluations.

A SCALE OF EVIDENTIARY STRENGTH FOR CAUSE AND EFFECT

	Weak	Moderate	Strong
1. Reliable, powerful correlation test	x		
2. Temporal ordering of cause and effect		x	
3. Elimination of Major Rival Hypotheses			x

Our analysis employs a "methodological rigor" rating based on a scale adapted from one used in a recent national study of the effectiveness of substance abuse prevention efforts (Center for Substance Abuse Prevention, 1995). Using this **scientific methods scale**, we rate seven different dimensions of the methods used in each study. The overall rating is based primarily on these three factors:

o **the study's ability to control extraneous variables** (i.e., to eliminate major rival hypotheses, accomplished through random assignment to conditions, matching treatment and comparison groups carefully, or statistically controlling for extraneous variables **the minimization of measurement error**

o **the statistical power** to detect meaningful differences (e.g., the power of a test to detect a true difference. The smaller the anticipated effects of prevention, the larger the sample size must be in order to detect a true difference.)

Other considerations contributing to the overall rating of methodological rigor are the **response rate**, **attrition** of cases from the study, and the use of appropriate **statistical tests**. An appendix to this report describes the methodology rating in more detail and shows the coding sheet used to rate studies.

Using this scale, each eligible study examined for this report was given a "scientific methods score" of 1 to 5, with 5 being the strongest scientific evidence.⁴ While there are some minor variations in how the authors of Chapters Three through Nine apply the basic scientific methods criteria in making coding decisions, the criteria are standardized within each chapter and highly similar across chapters. In order to reach level 3, a study had to employ some kind of control or comparison group to test and refute the rival theory that crime would have had the same trend without the crime prevention program;⁵ it also had to attempt to control for obvious differences between the groups, and attend to quality of measurement and to attrition issues. If that comparison was to a more than a small number of matched or almost randomized cases, the study was given a score of "4".⁶ If the comparison was to a large number of comparable units selected at random to receive the program or not, the study was scored as a "5", the highest possible level; random assignment offers the most effective means available of eliminating competing explanations for whatever outcome is observed. Most of the tables summarizing evaluation research in the next seven chapters display these scientific methods scores right next to the reference to the study.

The scientific issues for inferring cause and effect vary somewhat by institutional setting, and the specific criteria for applying the scientific methods scale vary accordingly. Issues such as sample "attrition," or subjects dropping out of treatment or measurement, for example, do not apply to most evaluations of commercial security practices. But across all settings, our scientific methods scale does include these core criteria:

1. Correlation between a crime prevention program and a measure of crime or crime risk factors
2. Temporal sequence between the program and the crime or risk outcome clearly observed, or a comparison group present without demonstrated comparability to the treatment group
3. A comparison between two or more units of analysis, one with and one without the program ⁷
4. Comparison between multiple units with and without the program, controlling for other factors, or a nonequivalent comparison group has only minor differences evident
5. Random assignment and analysis of comparable units to program and comparison groups

In addition, the use of statistical significance tests is employed as a key criterion in reaching program effectiveness conclusions based on the application of the scores.

The report does not code scientific methods scores on evaluations of every program or

practice considered. On many questions, recent literature reviews and meta-analyses by qualified scholars were readily available. The Office of Juvenile Justice and Delinquency Prevention, in particular, was very helpful in providing the draft report of its own group of independent scholars examining the problems of serious, chronic and violent juvenile offenders (Loeber and Farrington, forthcoming). The report uses two alternate procedures in relying on extant secondary reviews and meta-analyses. One is to use data presented in the reviews to score the key original research. The other is not to use any scoring, but merely to summarize the conclusions of the secondary review.

Risk and Protective Factors. The Congressional mandate for this report included risk and protective factors for crime and delinquency as outcome measures to be considered. Different approaches to the interpretation of these terms are offered in the literature. This report defines them as inversely related: the lower the level of a risk factor, the higher the level of a protective factor. For example, community labor force participation is a risk factor where it is low and a protective factor where it is high. To the extent that factors such as a secure personality or strong bonding to adults may be considered protective against independent risk factors (such as neighborhood unemployment), those protective factors can also be treated as risk factors when they are absent.

Deciding What Works

Clear conclusions about what works and what doesn't requires a high level of confidence in the research results. Such claims are always suspect in science, which is an eternally provisional enterprise. New research results continue to fill in the gaps of our knowledge, and reanalysis of old results in light of the new findings often produces different conclusions. The best one can ever claim to "know" is what to conclude on the available evidence, pending the results of further research. Given the consequences of claim about "what works" can have major effects on crime prevention practice, it is important to use a high threshold for the strength of scientific evidence at any point in time.

The current state of the evidence, however, creates a dilemma in responding to the Congressional mandate. Using level 5 studies as the "gold standard" of evaluation design, the scientific methods scores for most of the available evaluations are low. The recommendations in Chapter 10 are designed to raise the methods scores of future evaluations of DOJ programs. The dilemma the current evidence poses is the question of how high to set the threshold for answering the Congressional question about program effectiveness: deciding what works. A very conservative approach might require at least two level 5 studies showing that a program is effective (or ineffective), with the preponderance of the evidence in favor of the same conclusion. Employing a threshold that high, however, would leave very little to be based upon from the existing science. There is a clear tradeoff between the level of **certainty** in the answers we can give to the Congress and the level of useful **information** that can be gleaned from the available science. On balance, excluding what can be said from moderately rigorous studies would waste a great deal of information that could be useful for policymaking. The report takes the middle road between reaching very few conclusions with

great certainty and reaching very many conclusions with very little certainty.

Based on the scientific strength and substantive findings of the available evaluations, the report classifies all local programs into one of four categories: what works, what doesn't, what's promising, and what's unknown. The criteria for classification applied across all seven institutional settings are as follows:

What Works. These are programs that we are reasonably certain of preventing crime or reducing risk factors for crime in the kinds of social contexts in which they have been evaluated, and for which the findings should be **generalizable** to similar settings in other places and times. Programs coded as "working" by this definition must have at least two level 3 evaluations with statistical significance tests showing effectiveness **and** the preponderance of all available evidence supporting the same conclusion. Where the strength of the effect on crime is available in terms of standard deviations from the mean level of crime or risk, the effect size (Cohen, 1977) in both level 3 studies must exceed .1.

What Doesn't Work. These are programs that we are reasonably certain **fail** to prevent crime or reduce risk factors for crime in the kinds of social contexts in which they have been evaluated, and for which the findings should be **generalizable** to similar settings in other places and times. Programs coded as "not working" by this definition must have at least two level 3 evaluations with statistical significance tests showing ineffectiveness **and** the preponderance of all available evidence supporting the same conclusion. The effect size standard for coding what works is also applied where available, which in the current report is limited to the school-based prevention programs.

What's Promising. These are programs for which the level of certainty from available evidence is too low to support **generalizable** conclusions, but for which there is some empirical basis for predicting that further research could support such conclusions. Programs are coded as "promising" if they have at least one level 3 evaluation with significance tests showing their effectiveness at preventing crime or reducing crime risk factors, **and** the preponderance of all available evidence supports the same conclusion.

What's Unknown. Any program not coded in one of the three other categories is defined as having unknown effects. The report lists some but not all such programs. This category includes major variations on program content, social setting, and other conditions which limit the generalizability even of programs coded as working or not. For example, it is unknown whether family training interventions repeatedly found effective in Oregon can work on the south side of Chicago.

The weakest aspect of this classification system is that there is no standard means for determining exactly what variations on program content and setting might affect generalizability. In the current state of science, that can only be accomplished by the accumulation of many tests in many settings with all major variations on the program theme. None of the programs reviewed for this report have accumulated such a body of knowledge

so far. The conclusions about what works and what doesn't should therefore be read as more certain to the extent that the conditions of the field tests can be replicated in other settings. The greater the differences between evaluated programs and other programs using the same name, the less certain or generalizable the conclusions of this report must be.

What Works and Policy Conclusions

The uses of this report for policy conclusions require two additional cautions. One is that program evaluations alone are clearly insufficient as a basis for making policy. Other goals programs may achieve besides crime prevention need also to be examined. So must issues of relative cost-effectiveness that this report is unable to address. The current state of science cannot support detailed analyses of where crime prevention dollars can achieve the largest return on investment.

A second caution is that programs with unknown effects should not be judged deficient. A basic tenet of science is that the absence of evidence is not evidence of absence--of a cause and effect relationship. Merely because a program has not been evaluated properly does not mean that it is failing to achieve its goals. Previous reviews of crime prevention programs, especially in prison rehabilitation, have made that error, with devastating consequences for further funding of those efforts. In addressing the unevaluated programs, we must blame the lack of documented effectiveness squarely on the evaluation process, and not on the programs themselves. Our analysis must also address programs for which there is little or weak evidence.

Given the risk of unevaluated programs being labeled ineffective, we attempt where possible to use indirect empirical evidence or theoretical analysis to provide some scientifically based assessment. For example, battered women's shelters have not been evaluated, but substantial epidemiological evidence shows that they protect women at a very high risk time for domestic violence. Thus indirect evidence suggests they should be effective at reducing domestic violence, even though the specific hypothesis remains untested. Such commentary beyond the scope of program evaluations seems, on balance, to be a reasonable attempt to fulfill the Congressional mandate for this report.

FEDERAL GUIDANCE VERSUS FEDERAL FUNDING

A recent analysis of police organizations concluded that "research and development is the core technology of policing" (Reiss, 1992). For police officers accustomed to thinking of guns, cars or even computers as their core technology, this statement may be quite surprising. Just as R & D is the core technology of both medicine and computer software manufacturing, however, so it is for crime prevention. This is no more true in policing than in the six other institutions. And for the federal government to leverage its scarce dollars in crime prevention, Professor Reiss's dictum may be truest of all.

The claim that R & D is a core technology for crime prevention provides a useful framework for considering the history of the federal government's role in state and local crime. That

history can be seen as a struggle between **guiding** and **funding** local crime prevention, between an emphasis on R & D and an emphasis on program funding. The two are not necessarily exclusive, and can even be complementary to the extent that R & D becomes the basis for more effective use of program funding. That appears to be the premise of the Congressional mandate for this report. But any consideration of federal programs for local crime prevention must begin by noting the two separate, and clearly unequal, responsibilities Congress has assigned to the U.S. Department of Justice.

Historically, crime prevention R & D preceded local funding, and persisted during the decade in which funding was largely abolished. The following time line summarizes the two functions:

Program Funding					
Research & Development	-----	-----	-----	-----	-----
Years	1950s	1960	1965	1969	1980

Prior to World War Two, the federal role in local crime prevention was limited to investigation and prosecution of federal crimes, such as bank robbery. During the Eisenhower Administration, growing concern over juvenile delinquency led to research within the Department of Health, Education and Welfare (HEW) Office of Children and Youth. These programs were expanded in the early Kennedy-Johnson administration, especially within the National Institute for Mental Health, which joined the Ford Foundation as a major source of funding for research on youth crime. (Ford and other foundations largely withdrew from the crime problem after the massive increases in federal funding in the 1970s). Many of the ideas emerging from that research, especially about community development, were to become key elements in the Johnson administration's War on Poverty.

In 1965, the federal role in local crime prevention moved beyond research into program development, and from HEW into the Department of Justice (DOJ). In the process, the federal role evolved into a practical emphasis on providing **guidance** to local authorities about preventing crime. The creation of the Office of Law Enforcement Assistance within DOJ led to grants supporting new ideas, such as the Family Crisis Intervention Unit. Developed as a partnership between the City University of New York and the New York City Police Department under an OLEA grant (Bard, 1970), this project became the first clear example of federal guidance, with these elements:

- o a locally-initiated innovative idea for a crime prevention program
- o federal funds to support a demonstration of the program in one location
- o federal funds to support an evaluation of the program in one location
- o federal funds to disseminate the results of the program nationwide

The success of the approach was dramatic. Within a few years after DOJ funded the demonstration in New York, hundreds of police agencies around the country had adopted a

similar approach. The capacity of the federal government to help incubate a new idea and then distribute it to the nation was clear.

What was less clear was the capacity of the federal government to insure high scientific standards of program evaluation (Liebman and Schwarz, 1973). Using the scale of scientific methods employed in this report, the evaluation of the New York City project would have ranked a zero. While the program sought to reduce domestic violence, the evaluation contained no measurement of that crime problem, relying only on general crime statistics. There was no comparison of cases that were or were not assigned to the Family Crisis Intervention Unit, and no basis for determining its effectiveness. Yet when both the evaluation and the DOJ pronounced the program a success, the combined authority of science and the federal government led to widespread replication of the program using local tax dollars.

In the past three decades, the federal capacity to produce rigorous evaluation research has increased substantially. The federal role has helped the entire field of criminology to grow in both the numbers and the experience of trained evaluation scientists; the number of doctoral programs in the field has also increased ten fold. The field itself has a much stronger body of knowledge about scientific issues in program evaluation, notably statistical power. The analysis presented in Chapter Ten suggests that the major limitations on better crime prevention evaluations today are not technical, but statutory. There is a clear need for a statutory plan specifying both the resources and the structure of the federal role in crime prevention R & D. In the absence of such a plan, a great deal of federal funds will be spent without any opportunity to measure their effectiveness at preventing crime.

Most of those funds will be spent on program funding for crime prevention, which have come, gone and returned to the federal role in local crime prevention. At the peak of the violent crime epidemic of the late 1960s, the idea of federal financing of local police and corrections had enormous bipartisan appeal. The Omnibus Crime Control and Safe Streets Act of 1968 was signed by President Johnson, and then implemented by President Nixon at a cost of almost \$1 Billion per year. The 1968 law increased the federal R & D role by creating what became the present National Institute of Justice, Bureau of Justice Statistics, and the Office of Juvenile Justice and Delinquency Prevention as part of the new Law Enforcement Assistance Administration (LEAA) in DOJ. But most of the billion was transferred back to the states, through each Governor's Office, for spending on a wide range of unevaluated programs. Some of the state expenditures, like tanks for rural police agencies, became so notorious that LEAA was ultimately abolished by Congress at the end of the Carter administration.

Operational program funding slowly returned to the federal role during the Bush administration, as part of the national war on drugs prompted partly by crack cocaine epidemics in several cities. Despite the urging of almost 40 big city police chiefs that Congress set aside even 10% of the drug war funding for federal R & D, the return of program funding contained no plan for evaluating its effectiveness. Just as in the 1960s design of the LEAA, Congress provided no statutory plan for developing usable knowledge from state and local programs funded by federal dollars. Sound evaluations, and the costs associated with them,

remained the exception, not the rule. The Crime Bill of 1994 vastly increased program funding to historic highs, but provided almost no statutory language for measuring the effectiveness of the programs funded.

Discretionary reallocations of the 1994 funds by the Assistant Attorney General for Justice Programs have breathed new life into the R & D role, putting resources for measuring effectiveness to a new high level. The National Institute of Justice, for example, was only appropriated \$31 million in fiscal year (FY) 1996, but actually expended \$99 million. The additional funds came from allowable transfers of programmatic funds. In the short run, these reallocations seem likely to increase the scientific evidence available for assessing the effectiveness of crime prevention programs; even a year from now, for example, a report like this one should have many new findings from rigorous research. But in the long run, the role of R & D will remain marginal to the federal role without a statutory plan for insuring its centrality.

The key issue for such a plan is the relationship between guiding and funding crime prevention. The two can proceed on largely separate paths, much as they have in the past. The result of that approach is an enormous opportunity cost, a lost chance to learn what works, what doesn't, and what's promising. By tying R & D more closely to program funding, the Congress can leverage taxpayer dollars to guide local crime prevention as well as supplement its funding. The record suggests that, dollar for dollar, the small federal investment in R & D has had far more effect on local crime prevention than the large federal investment in program funding (Blumstein and Petersilia, 1995). Program funding provides a tiny fraction of the financial capital invested in crime prevention. Research and development, in contrast, provides a very large fraction of the intellectual capital invested in local crime prevention. Program funding can be far more productive if it serves to enhance R & D.

Using program funding to enhance R & D is unlikely to happen without a Congressional mandate. No program can be properly evaluated as an afterthought. In contrast to a financial audit, a scientific evaluation requires data collection in advance of the program startup date. It also requires an element of control by the evaluators in how the program is delivered, in order to provide a valid evidence about cause and effect. While not all locations adopting a program need to be evaluated in this way, there must be at least a few "laboratory" locations in which controlled testing of crime prevention effects becomes scientifically feasible. Under current statutory funding arrangements, however, Congress imposes little requirement on funded programs to cooperate with evaluations, and little requirement on federal agencies to set aside program funds to support scientifically adequate evaluations.

This historical context sets the stage for the Congressionally-mandated review of program effectiveness. It reveals several key points to recall in reviewing the following chapters:

- 1) The vast majority scientific knowledge on the effectiveness of federal programs is itself the product of federal investment, primarily through DOJ; such knowledge is too costly to come from state and local tax dollars

2) The short supply of available knowledge is a direct reflection of federal under- investment in crime prevention R & D.

3) Federal program funding puts the cart before the horse, then fail to even harness the horse. Crime prevention programs are funded nationwide before they are evaluated, and then are funded in ways that make sound evaluation almost impossible to achieve.

This report is thus a scientific assessment of both federal crime prevention programs and federal policy for evaluating those programs. Defining crime prevention as a result rather than an intention, the report maps out the charted and uncharted territory of crime prevention knowledge in each of its seven institutional settings. It distinguishes between strong and weak evidence for each part of that map, most of which is unfortunately far too weak. It then locates federal crime prevention programs on that map, many of which fall in uncharted territory. It concludes with an assessment of the federal role in improving that map, and a cost-effective plan for speeding up the rate of discovery.

NOTES

1 Some developmental criminologists distinguish factors and programs that help stop people from ever becoming offenders from those which help prevent further offenses after a first offense (e.g., Tremblay and Craig, 1995). Given the difficulty in detecting offenses hidden from the criminal justice system, however, this distinction is made primarily for purposes of program operation, and not for conceptual purposes.

2 104th Congress, H.R. Report 104-378, December 1, 1995, Section 116.

3 And as the policy debate relies increasingly on data, the importance of the scientific strength of the evidence becomes more visible. Asra Q. Nomani and Jeffrey Taylor, "Shaky Statistics Are Driving the Airbag Debate" WALL STREET JOURNAL January 22, 1997, p. B1.

4 The scores are based on direct examination of studies subjected to primary review (see Appendix). For studies summarized from secondary reviews, the scores are inferred from descriptions of research designs provided in the secondary reviews.

5 This criterion was employed by all chapters except for Chapter Seven, in which long time series analyses absent control groups were coded as level 3.

6 Chapter Five rates some studies as level four even without a large number of units in the comparison group.

7 Chapter Five also requires that differences between treatment and control are known and partially controlled, while Chapter Seven substitutes long time series for control groups.

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