POLICY BACKGROUND

Under the American federal system most law is cast as state statutes and local ordinances; accordingly, most law enforcement is the responsibility of state and local agencies. Federal law and federal law enforcement come into play only where there is rationale for it, consistent with the Constitution. Within this framework, a clear role has been identified for federal support of state and local agencies. A major area of such support is technology-related with activities taking the following forms:

• Sponsoring research and development (R&D),
• Testing and evaluating technology and developing performance standards for technology and its use,
• Funding and otherwise assisting with acquisition of or access to technology,
• Providing training in the use of technology and developing technology used in training,
• Providing technology assistance by applying federal technology and expertise to specific problems, and
• Providing information on technology and its use in law enforcement.
Early Federal Initiatives

Over the last few years the federal government has demonstrated that it has a clear interest in supporting the development and deployment of new technologies for law enforcement. This is not the first time that the federal government has shown such an interest. The issue of law enforcement technology played a prominent role in the 1967 report of the President's Commission on Law Enforcement and Administration of Justice. At that time the Commission's report stated:

...the scientific and technological revolution that has so radically changed most of American society during the post few decades has had surprisingly little impact upon the criminal justice system. In an age when many executives in government and industry, faced with decisionmaking problems, ask the scientific and technical community for independent suggestions on possible alternatives and for objective analyses of possible consequences of their actions, the public officials responsible for establishing and administering the criminal law—the legislators, police, prosecutors, lawyers, judges and corrections officials—have almost no communication with the scientific and technical community. ...The police with crime laboratories and radio networks made early use of technology, but most police departments could have been equipped 30 or 40 years ago as well as they are today.

In response to the Commission's overall findings Congress passed the Omnibus Crime Control and Safe Streets Act of 1968, which created the Law Enforcement Assistance Administration (LEAA) and the National Institute of Law Enforcement and Criminal Justice (NILECJ). While LEAA provided law enforcement grants for, among other things, procuring new equipment, the NILECJ was to serve as a law enforcement R&D agency.

Despite the intent of these congressional actions and the expenditure of more than $31 million by 1977, little progress was made in bringing science and technology to bear for law enforcement. In fact, Congress was so disappointed in performance of LEAA that it dismantled the organization in 1979 and reorganized NILECJ to estab-
lish the National Institute of Justice (NIJ).\textsuperscript{1} Despite previous interest in helping provide new technologies to law enforcement, there was little focus on technology within the new institute. With the exception of a few small, but significant developments such as the development of the national 911 system and bullet-resistant armor, little had changed in the tools being used by the law enforcement community.

A major reason for the persistence of this problem lay in the fact that the overwhelming majority of the more than 18,000 law enforcement agencies in this country are small in size. Approximately 90 percent of those agencies have 25 or fewer officers, with about 50 percent of them having 12 or fewer officers. As a result, the law enforcement community faced three problems in obtaining new technologies:

1. Law enforcement agencies had little if any in-house capabilities to find or assess commercial technologies that meet their needs.

2. Law enforcement agencies had virtually no in-house capability to conduct research and development or to test and evaluate new technologies that they might be interested in.

3. Most law enforcement agencies lacked resources to procure new technologies.

More Recent Initiatives

It is these areas that the federal government began to address more seriously. While funding has not yet reached the levels required to truly modernize our nation’s law enforcement, the actions taken by the federal government have demonstrated clear interest in this area.

\textsuperscript{1}The National Institute of Justice, a component of the Office of Justice Programs, is the research agency of the U.S. Department of Justice. NIJ is authorized to support research, evaluation, and demonstration programs, development of technology, and both national and international information dissemination. NIJ’s Office of Science and Technology provides federal, state, and local law enforcement and corrections agencies access to the best technologies available and helps them develop capabilities essential to improving efficiency and effectiveness. One of the primary mechanisms through which the Office accomplishes this mission is its network of regional science and engineering support centers—the National Law Enforcement and Corrections Technology Centers. The Office also supports the development of new technologies to serve the needs of law enforcement and corrections agencies.
The first more recent recognition by Congress of the need for new law enforcement technology came in 1989 with the establishment of the CounterDrug Technology Assessment Center (CTAC) as an arm of the Office of National Drug Control Policy (ONDCP). CTAC was created to research and develop new technologies that can be used by federal, state, and local law enforcement in the war against drugs. Although limited in its scope and funding, the establishment of CTAC was the first concrete step toward providing law enforcement with technology support since the dismantling of LEAA.

At the end of 1992 NIJ created the Office of Science and Technology (OST), with a mission of assisting state and local law enforcement identify and access new technologies and a total budget of $2.3 million. The Office of Science and Technology is the only existing capability to support law enforcement’s research and development interests in technologies such as the development of concealed weapons detection; creation of a successful smart gun; improvements in police body armor; better communications systems for law enforcement agencies, capable of operating across jurisdictional boundaries; and development of guides for the handling and protection of evidence in arson or bombing cases, homicides, or electronic crimes. It does this by funding research directly and by partnering with Defense and Energy Department projects, thus leveraging taxpayer investments.

By 1994, as Congress was considering the Crime Act, there was still little in the way of new technologies being adopted by the broader law enforcement community, particularly at the state and local level. The reason for this was simple—there were still not sufficient resources to help law enforcement address the three impediments identified above.

This began to change in 1994 in several ways. As Congress was considering the Crime Act, NIJ signed a Memorandum of Understanding with the Department of Defense to establish the Joint Program Steering Group, a joint program office to adapt technologies for the dual use of law enforcement and military peacekeeping forces.

During this same period Congress began to increase NIJ’s budget to $13 million. This enabled NIJ to begin establishing the National Law Enforcement and Corrections Technology Center system (NLECTC)
and the Justice Information Technology Network (JUSTNET). Both of these programs were established to begin addressing two of the impediments.

The NLECTC system would provide technical assistance concerning new technologies to law enforcement agencies. Until the creation of the NLECTCs, the only real technology assistance available to state and local organizations came either from within or from federal agencies that were themselves so strapped for resources that local agencies often waited for months or years for help, or were rejected altogether because the needed capability simply didn’t exist. Further, federal agencies often have different needs, equipment, and capabilities than local agencies and so cannot offer some of the basic technology assistance needed, such as how to take advantage of surplus federal property; how to assemble a computer graphic presentation of a prosecutor’s case; where to locate a metallurgist to help in a homicide investigation; or where to find test or certification results for body armor, police cars, or other equipment.

JUSTNET would provide them with information on new technologies and point them to test and evaluation information. While the resources provided were not sufficient to provide the levels of support needed by state and local law enforcement, the budget increase indicated that Congress was beginning to understand the need for this kind of support.

Despite the modesty of their budgets, these initiatives have successfully leveraged major technology investments already made by the American taxpayer. They have helped move millions in federal surplus property directly, by alerting agencies to the existence of useful equipment, and by teaching them how to access the system. They have provided thousands of technical publications and have even helped agencies design effective communications systems or develop electronic crime squads.

Also during the mid-1990s, at the instigation of numerous state and local law enforcement representatives, Congress amended the Community Oriented Policing Services (COPS) program plan to add funding for the COPS Making Officers Redeployment Effective (COPS MORE) program, to provide grants to law enforcement agencies to buy equipment and technologies. Congress directed that up to 20
percent of the total monies provided to COPS be made available for that purpose. Because it addressed a serious need, COPS MORE was very well received by the law enforcement community.

The federal government’s interest in providing support for law enforcement technology continued following the passage of the Crime Act. In FY 1996 Congress appropriated more than $500 million for the Local Law Enforcement Block Grant (LLEBG) program, which, among other uses, permitted agencies to obtain funding for new equipment.\(^2\) The LLEBG augmented already existing grant programs—most notably the Byrne Grant programs—administered by the Bureau of Justice Assistance (BJA) part of the Office of Justice Programs (OJP).

To make certain that new technologies were being developed and tested for law enforcement agencies, Congress set aside 1 percent of that funding, approximately $20 million, for NIJ’s research and development program. Congress also increased the funding for the NLECTC system by more than $2 million. The result of these actions was to begin to institutionalize the NIJ technology program.

Over the next several years the upward trend increased as Congress and the Administration moved to increase their support for law enforcement technology. For example, in 1997 Congress passed the Counterterrorism and Effective Death Penalty Act, which appropriated an additional $10 million a year for two years to NIJ for the de-

\(^2\)The Local Law Enforcement Block Grants (LLEBG) Program provides units of local government with funds to underwrite projects designed to reduce crime and improve public safety. Under the statutory provisions of the LLEBG Program, BJA sets aside funds to be awarded directly to units of local government within a state. BJA directly awards LLEBG funds to larger communities. The remaining funds in each state are distributed to individual programs and agencies by the chief executive officer.

The amounts awarded are proportionate to the state’s average annual number of Part 1 violent crimes reported to the Federal Bureau of Investigation compared to the average for all other states for the three most recent calendar years. However, each state receives a minimum award of 0.25 percent of the total amount available for formula distribution.

By law, projects under this program must be funded in accordance with the following purpose areas: supporting law enforcement, enhancing security measures in and around schools, establishing or supporting drug courts, enhancing the adjudication of violent offenders, establishing multijurisdictional law enforcement task forces, enhancing crime prevention programs, and defraying the costs of indemnification insurance (http://www.ojp.usdoj.gov/BJA/html/llebg1.htm).
development of technologies to assist local agencies in combating terrorism. In 1998 Congress began to address new technology issues with new funding. At that time they provided $18 million to the Department of Justice for the training and equipping of public safety “first responders.” This was increased to $75.5 million for FY 1999. Also in 1998, Congress adopted a $25 million Bulletproof Vest Partnership program to provide law enforcement officers with soft body armor. In addition, $10 million was earmarked from existing funds for the development of technologies to increase safety and security in schools.

Starting about 1998, the White House Office of Science and Technology Policy (OSTP), working with other federal agencies, began a serious examination of technology initiatives to fight crime. OSTP is currently encouraging a dialogue on how science and technology can support society’s needs, with particular emphasis on the criminal justice system (Moore, 2000). This report both draws on insights emerging from that dialogue and seeks to make a contribution to it.

By FY 2000 the money devoted to law enforcement technology of one kind of another reached significant, although not necessarily sufficient, proportions. In FY 2000 the funding for NIJ’s technology program increased to $129 million. The dollars available for first responder equipment purchases in FY 2000 increased to $85 million. Congress also appropriated $130 million for the Crime Identification Technology Act, which was designed to assist law enforcement in improving its information systems and forensic science capabilities. Congress also added a COPS Technology program to the COPS portfolio, funding it at approximately $100 million since FY 1999.

While the trend in increased federal support for law enforcement technology is significant, there is an important caveat to keep in mind as one looks at these numbers. A significant percentage of the funds appropriated for law enforcement technology has been earmarked for a specific programmatic use or for specific projects. For example, of the funds appropriated to NIJ’s Office of Science and Technology for FY 2000, approximately 70 percent has been earmarked for specific purposes. About 80 percent of the approximately $100 million provided for the COPS Technology program was also earmarked in FY 2000. While one can debate the value of earmarks,
they do, by definition, mean that fewer resources are available for competitive grant programs or discretionary use by the funding agency.

The issue of earmarking not withstanding, Congress has continued to express an interest in providing funding for technology for law enforcement uses. For example, in FY 2000 several members of Congress introduced legislation to increase the amount of funding for law enforcement technology.3 Congress also acted to provide more support to the forensic science community.4

At the same time, during the Clinton administration, the Executive branch demonstrated a serious interest in increasing support for law enforcement technology. The White House Office of Science and Technology is helping to develop a “Crime Technology Initiative” designed to provide a programmatic framework for increased support.

In light of the now established federal role and involvement in law enforcement science and technology, discussion will now turn to examining responses to technology adoption barriers divided into the three classes introduced above—sources of technology-related information; research, development, and deployment; and technology application.

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3Representatives Sherwood Boehlert (R-NY) and Bart Stupak (D-MI) introduced the Law Enforcement Science and Technology Act of 2000 to expand the NIJ Office of Science and Technology program by establishing a separate law enforcement technology program office in the Office of Justice Programs and providing $200 million a year in funding for that office.

4For example, the National Forensics Science Improvement Act (renamed the Paul Coverdall Memorial Forensics Science Improvement Act) was introduced by Senators Coverdall (R-GA) and Jeff Sessions (R-AL) to provide more than $500 million for the improvement of state and local crime laboratories.