ECONOMIC CRIME

LITERATURE ANALYSIS

Prepared
for the
National Economic Crime Project
U.S. Department of Justice

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I. INTRODUCTION

As a result of earlier recommendations concerning the establishment of a national economic crime/private security institute (by groups such as the Private Security Task Force to the National Advisory Committee on Criminal Justice Standards and Goals; the Private Security Advisory Council to LEAA; and the Crimes Against Business Council of the American Management Associations (AMA),) Attorney General Griffin Bell established the National Economic Crime Project (NECP) in May 1978. In his directive to the staff of this project, the Attorney General requested the development of plans "for the creation of a collaborative effort on the part of government, business and labor for the purpose of effectively combatting crime against business."

As one of the tasks undertaken to accomplish this objective, the NECP contracted with Information Planning Associates, Inc. (IPA) to assist this staff effort. One task included a literature search and analysis. One of the purposes of this activity was to provide a data base from which an analysis could be conducted concerning the costs of crime against business, business' response to crime, gaps in and problems with the literature.

IPA conducted the literature search and prepared approximately 100 abstracts from the sample of the literature and a bibliography of 58 additional works. Concurrently, IPA contracted with Hallcrest Systems, Inc. to perform the literature analysis. This report
presents Hallcrest's analysis and conclusions based upon the information (i.e. abstracts and bibliography) provided by IPA and other materials available to Hallcrest.

In carrying out this analysis, Hallcrest attempted to address, among others, topics such as:

- In what types of publications did the sample of the literature appear?
- Occasionaly, who were the authors, i.e., practitioners, academics, consultants?
- What types of economic crime appeared with what frequency throughout the sample literature?
- What data concerning the costs of economic crime appeared in the literature? Was it consistent?
- What is the current state-of-the-art of business crime prevention as reflected in the literature?

Findings to some of these questions are not commented upon herein when they were considered to be of little value. For example, the frequency of the crimes appearing in the sample literature reflected those crimes for which literature was searched.

With regard to the specific subject matter of this analysis, it is based on a sample of the extant literature concerning economic crime, crime against business, and white-collar crime. These terms do not refer to specific crimes but rather to general kinds of criminal activity, and the terms substantially overlap. For example, all crimes against business are by their very nature economic crimes. Any crime against a business has an economic effect on the business, whether in actual dollar loss or in resources the business allocates to defend itself against that type of
crime. White-collar crimes are generally considered to entail a violation of trust, usually in financial matters, and they can be committed against both private business and government.

Of the many types of economic crime, the following specific crimes, in addition to the generic term of white-collar crime, were chosen for the literature search:

- Embezzlement
- Pilferage
- Credit Card Fraud
- Check Fraud
- Computer-Related Crimes
- Insurance Fraud
- Bribes, Kickbacks, and Payoffs
- Receiving Stolen Property.

In general, the search covered the literature contained in the data bases of the National Criminal Justice Reference Service, National Technical Information Service, and the Smithsonian Scientific Information Exchange appearing during 1970-1978. The crimes addressed in the search of the literature were nonviolent crimes committed against business. No specific searches were conducted on violent offenses such as arson, burglary, robbery, and terrorism, although a significant amount of literature exists on these topics.

In addition to the crimes listed above, this analysis considers literature on private security. The reason is simple. Private security is the primary resource within the business community responsible for the prevention, detection, and investigation of crimes against business.
II. SOURCES AND QUALITY OF THE LITERATURE

As a prelude to the analysis of the data obtained from the literature search, Figure 1 illustrates the sources of the selected documents considered in this analysis.

<table>
<thead>
<tr>
<th>Source</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Security Publications</td>
<td>29</td>
</tr>
<tr>
<td>Government (Federal, state &amp; local) Publications</td>
<td>22</td>
</tr>
<tr>
<td>Business Publications</td>
<td>15</td>
</tr>
<tr>
<td>Criminal Justice/Social Science Publications</td>
<td>13</td>
</tr>
<tr>
<td>Law Journal Articles</td>
<td>12</td>
</tr>
<tr>
<td>Association/Corporate Publications</td>
<td>9</td>
</tr>
</tbody>
</table>

100 %

The literature on crimes against business and business crime prevention found in private security publications is significant. Indicative of the security field's long-time concern about economic crime is the fact that two of the oldest security periodicals, Security Management and
Security World, began publication in 1957 and 1963 respectively. These, and several other recent entries in the field, serve as a forum for practitioners to present personal experiences, case studies and new ideas for dealing with old and new problems. While not scholarly journals, they seem to provide valuable information for the operating security practitioner. The fact that they enjoy a wide circulation strongly suggests that they are meeting a real need. What is lacking are in-depth presentations with scientific research to support the findings.

The predominant themes found in recent business and legal publications are computer-related crimes, bribery and management fraud. For example, the security of electronic funds transfer and the effects of white-collar crime on business activities are current topics being written about frequently. As one might expect, a significant portion of this literature originates from the academic community. Here, too, case studies are commonly used as the focal point around which preventive strategies are offered. Illustrative of the legal and business publications reviewed are: Harvard Business Review, Journal of Accountancy, Supermarketing, Economist, Journal of Contemporary Law, Criminal Law Quarterly, Banking Law Journal, and American Criminal Law Review.

The criminal justice and government publications examined represented periodicals such as Police Chief and the International Journal of Criminology and Penology, crime prevention manuals prepared by state and local criminal justice agencies, and reports by the U.S. Department of Commerce, Small Business Administration and LEAA. Many of the articles and books in these categories contained cost estimates for specific business crimes, but the authors usually relied upon the previously
mentioned sources for this data. Virtually, all offer preventive advice—some quite abstract, others quite specific. In criminal justice and government publications, very little evidence exists of business crime prevention strategies that have been empirically assessed with regard to the attainment of specific loss prevention objectives. The same is true for the literature as a whole.

In terms of association and corporate publications, works by such groups as the Chamber of Commerce of the United States, National District Attorneys' Association, American Bar Association, Honeywell, Inc., and Peat, Marwick, Mitchell and Co., were reviewed in the sample of the literature. These publications report on findings of special economic crime projects undertaken by their organization.

Nearly absent from the literature analyzed were samples of news media coverage of economic and business crime. Suffice it to say, considerable and increasing coverage is being given this topic by the major daily press such as The Washington Post, The Wall Street Journal, New York Times; news periodicals such as U.S. News and World Report, Time, and Newsweek; and the television networks.

Conclusion

Whatever the value of the trade, professional, academic and other literature to practitioners, there are substantial barriers, as described below, to comprehensive research on economic crime and the development of tested preventive strategies.

During the search for relevant literature, it became apparent that no single source exists to which an individual can turn, confident of
obtaining the resources essential to a thorough analysis. Literature concerning crime against business and economic crime is found in a multitude of fields, e.g., private security, criminal justice, law, sociology, economics, business, accounting, and computer science. The diversity and dispersion of the literature make it difficult for both the researcher and practitioner to take full advantage of what does exist. Even a well-funded research effort would have to expend a significant amount of time to find and properly digest the available literature. For a single business corporation such research is impractical.

Even when they can be found, some materials are not readily usable by the general business community. For example, Sandia Laboratories recently prepared a series of handbooks for the Department of Energy on physical security. In their present state, these manuals are overly technical for use by most business and security practitioners. However, they do contain substantial information of value to the non-government security community, and could be of use if properly edited.

Another problem is lack of a mechanism for disseminating available documents to the organizations or persons who can best use them. For example, the MITRE Corporation recently prepared, under a grant from LEAA, a manual on Security and the Small Business Retailer. This document has consolidated some of the available literature into a format for ready use by the small business community. However, the question that arises is how to disseminate this document to those who need it. The business community is not part of the clientele of the National Criminal Justice Reference Service, the mechanism through which LEAA ordinarily disseminates its publications.
III. COSTS OF CRIME AGAINST BUSINESS

Throughout the literature, numerous references are made to the estimated $40 billion direct cost of crime against business. Specifically, of the 100-plus abstracts examined, approximately half mentioned a cost of specific crimes against business. However, many of the statistics quoted were without sources or references and were often at variance with one another. The following discussion will attempt to illustrate that, while we know the problem is significant, we have no accurate measure of its true cost. With regard to the statistics quoted in the literature, it appeared that they were usually taken from one of five national efforts previously undertaken to estimate the costs of crime against business.

Since 1969, the following efforts have been undertaken to estimate the costs of crime against business:

- Crimes Against Small Business, A Report of the Small Business Administration, 1969
- Handbook on White Collar Crime, Chamber of Commerce of the United States, 1974
- Costs of Crime, A Release of the Joint Economic Committee, Congress of the United States, 1976
- Background, Findings, and Recommendations, Crimes Against Business Project, American Management Associations, 1977.

The findings of these studies are exhibited in Figure 2, "Estimated Costs of Crime Against Business by Crime" and Figure 3, "Estimated Costs of Crime Against Business by Business Sector."
<table>
<thead>
<tr>
<th>Type of Crime</th>
<th>Sources ($Billions*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arson</td>
<td></td>
</tr>
<tr>
<td>Bankruptcy Fraud</td>
<td>0.08</td>
</tr>
<tr>
<td>Bribery, Kickbacks, Payoffs</td>
<td>3.00</td>
</tr>
<tr>
<td>Burglary</td>
<td>.958</td>
</tr>
<tr>
<td>Check Fraud</td>
<td>.316</td>
</tr>
<tr>
<td>Computer-related</td>
<td>0.10</td>
</tr>
<tr>
<td>Consumer Fraud</td>
<td>21.00</td>
</tr>
<tr>
<td>Credit Card Fraud</td>
<td>0.1</td>
</tr>
<tr>
<td>Embezzlement</td>
<td>3.0</td>
</tr>
<tr>
<td>Insurance Fraud</td>
<td>2.00</td>
</tr>
<tr>
<td>Pilferage/Employee Theft</td>
<td>.381</td>
</tr>
<tr>
<td>Robbery</td>
<td>.077</td>
</tr>
<tr>
<td>Securities Theft/Fraud</td>
<td>4.00</td>
</tr>
<tr>
<td>Shoplifting</td>
<td>.504</td>
</tr>
<tr>
<td>Vandalism</td>
<td>.813</td>
</tr>
<tr>
<td>Receiving Stolen Property</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 3.05</strong></td>
</tr>
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**Estimated Costs of Crime Against Business by Crime**

**Figure 2**

*(Total cost estimates may not be exact due to rounding.)*
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Retailing</td>
<td>$ 4.8</td>
<td>$ 5.2</td>
<td>$ 5.8</td>
<td>$ 6.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1.8</td>
<td>2.6</td>
<td>2.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Wholesaling</td>
<td>1.4</td>
<td>1.8</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Services</td>
<td>2.7</td>
<td>3.2</td>
<td>3.5</td>
<td>4.3</td>
</tr>
<tr>
<td>Transportation</td>
<td>1.5</td>
<td>1.7</td>
<td>1.9</td>
<td>2.3</td>
</tr>
<tr>
<td>TOTAL*</td>
<td>$12.2</td>
<td>$14.5</td>
<td>$16.1</td>
<td>$18.7</td>
</tr>
</tbody>
</table>

($ Billions)

U.S. DEPARTMENT OF COMMERCE

ESTIMATED COSTS OF CRIME AGAINST BUSINESS BY BUSINESS SECTOR

* The Commerce Department also estimated the cost of arson and the costs of business crime prevention. When including these costs, the total crime losses to business were, in billions, for 1971 - $15.7; 1973 - $18.3; 1974 - $20.3; and 1975 - $23.6.

FIGURE 3
As Figure 2 illustrates, comparing the several estimates is difficult. As appropriately stated in the U.S. Department of Commerce Report, *The Cost of Crimes Against Business*,

> The most serious difficulty associated with analyzing the impact of crimes against business continues to be the sparseness and sporadic nature of the data available. Figures are seldom based on comparable definitions or time periods, and many data gaps exist.

Also, the American Bar Association's committees on economic crimes found, "The data which have been gathered are of 'questionable validity' because there are no uniform standards for collecting economic crime data among the relevant agencies." And, the Congressional Research Service concluded,

> There is no single, centralized compilation of white-collar crime statistics similar to the statistics on street crime compiled by the FBI in its annual Uniform Crime Reports. Such statistics as are available are generally located in relatively inaccessible reports.

Another group commenting on the available data, the AMA, found that, "There is little or no hard data on losses to business due to nonviolent crime, either at the macro or micro levels." For example, according to the AMA Crimes Against Business Project:

> Even the relevant importance of employee theft versus shoplifting as contributors to retail shrinkage is not known by the most sophisticated stores.

A review of Figure 2 shows that only two of the listed crimes were considered by each of the four groups and that the number of crimes considered ranged from six to eleven. One of the reasons for this is that the goals or objectives of each study were different, thereby
resulting in the estimation of different specific crimes. Therefore an analysis of the total estimates would be inappropriate. One can only review the trend for each individual crime.

Further, a review of the AMA estimates in Figure 2 clearly shows the nature of the existing cost estimates. For example, the range equals or exceeds 100% in three of their estimates. That alone illustrates the uncertainty and vagueness of the cost estimates of business crime. A comparison between the SBA estimate for all business losses in 1967-68 of $3 billion with the U.S. Commerce Department's estimate for all crime losses to retailing alone in 1971 of $4.8 billion is another illustration of the lack of a consistency in calculating the costs of crimes against business.

Figure 3 presents the Department of Commerce's estimates of crime against business by business sector. Included in these estimates are losses due to burglary, robbery, vandalism, shoplifting, employee theft, bad checks and credit card fraud. However, this report does not provide a breakdown by crime nor does it describe a methodology for its estimates. The differences between the Department of Commerce estimates and those of the Chamber of Commerce and the AMA can be primarily attributed to the inclusion of different crimes in the data collection effort.

The following quotation, taken from the U.S. Chamber of Commerce's Handbook on White Collar Crime, is illustrative of the techniques used in developing such estimates:

The 'not less than $40-billion' estimate does not pretend to be the result of a rigorous, statistically valid survey and should not be regarded as "the cost of white-collar crime." No one has ever really
computed even a reasonably accurate figure. The estimate cited here is based on (1) previous estimates by responsible authorities (even their figures for a given kind of crime may differ by many billions), (2) inferences drawn from reasonably accurate loss ratios, and (3) the evaluation and adjustment of (1) and (2) in light of research for this Handbook.

The costs of white collar crime projected by the Joint Economic Committee are, with two exceptions, "based on data presented in White Collar Crime, Chamber of Commerce of the United States, 1974, multiplied by the rate of inflation 1974-1976 inclusive." The American Management Associations' (AMA) 'best judgment estimates' were drawn from:

- the Chamber of Commerce of the United States,
- the U.S. Department of Commerce,
- The American Mutual Insurance Alliance,
- the National Retail Merchants Association,
- and various private communications.

Figures are for 1975 and in some cases were arrived at by extrapolation of trends and allowances for inflation. They are extremely tentative figures but do bring home the gravity of the problem. [Emphasis added]

In addition to the estimates of actual dollar losses resulting from crime, there are other costs. For example, in terms of insurance fraud, James F. Ahern, Director of the Insurance Crime Prevention Institute, recently stated:

It is difficult to estimate the annual cost of insurance fraud in 1977 at anywhere below the $3 billion mark, and this is simply the direct cost. The increased personnel to handle false claims and the costs of security combine with those fraudulent claim dollars to increase the average premium an estimated 15 to 20 percent.

Other potentially measurable costs of crime against business, for which no good estimates were found, include the cost of crime insurance, business crime prevention, internal audit activities and public criminal justice expenditures related to economic crime.
Other selected examples, taken from the literature, illustrate costs for which good estimates are not readily available and these include:

- Increased costs for consumer goods to offset crime losses
- Loss of jobs due to businesses closing
- Reduced return to investors and loss of equity.

The point to be made is that crime affects business in many ways beyond the sole loss of an asset. When these secondary costs are added to the already significant estimated direct losses, the scope of the problem is increased significantly.

Conclusion

After reviewing the available crime cost data, we find that we really do not know the costs of crime against business. What is available in the literature are estimates, which to a significant degree are based upon earlier estimates, and then adjusted for inflation. What we do know is that the cumulative cost is significant, and that valid estimates are needed if public and private organizations are to allocate their resources cost-effectively. But gross estimates of overall costs are useful only for gross policy decisions. Truly effective programs for specific crimes or specific industries must rest on data pertaining to those crimes or industries.

Also, in order to measure the true costs and impacts of nonviolent crimes against business, the AMA Crimes Against Business Council recommended that an econometric study be undertaken. According to the AMA:

The costs to society of economic crimes against business are totally unknown. Even if the costs to business can only be crudely estimated there is no necessary equivalence between the costs to business and the eventual costs to society.
If, for example, a refrigerator is stolen from a manufacturer, it is clearly a loss to that firm, unless it is covered by insurance, in which case it is, in part, a loss to the insurance company, not to the business. To the thief, assuming it is stolen to be fenced, it is a source of tax-free income. (But can this really be regarded as a "loss" by the government?) To the pseudo-legitimate business that purchases and then sells the stolen refrigerator, it is also a source of net income. To the person who buys the refrigerator at somewhat less than "fair market price" -- less, in fact, than other local retailers can afford to sell it -- it is a bargain. To competing retailers it represents a lost opportunity to sell either the same refrigerator at a higher price (possible but not certain) or another refrigerator at a lower price (again, possible but not certain). Add to this equation the costs of private security and the criminal justice system trying to prevent/punish such activities (but this is income to these employees) and the (possible) forcing out of business of marginal retailers because of the commercial fencing operation -- with some (possible) loss of amenities for the shopping public -- and the net social cost is obscure in the extreme.

From the literature reviewed, it seems that such an econometric study has never been undertaken nor even formally proposed in the past.
IV. COSTS OF BUSINESS CRIME PREVENTION

It is difficult to measure the total costs of business's crime prevention efforts. According to the U.S. Department of Commerce Report, 
Crimes Against Business: The Cost of Security, the available official data is both diverse and limited.

The primary business crime prevention resource is generally considered to be private security and, for the most part, the costs of private security are paid by the business sector. The Department of Commerce Report estimates that "The total cost of private security services and equipment in 1976 is estimated at $5.9 billion. This cost is a drain on productivity and profits which is ultimately paid in large part by consumers in the form of higher prices." The Report continues by saying: "Employment of full-time security personnel exceeded 1 million in 1976*, as compared to about 800,000 in 1969. The total number employed, including part-time and administrative/clerical personnel, cannot be determined due to gaps in official data."

In addition to this recent Department of Commerce Report (May, 1978), several market research firms periodically release market research studies for security equipment and services industries. While none of these studies was specifically reviewed for this analysis, they were considered in the Report of the Private Security Task Force to the National

*It is interesting to note that according to the U.S. Department of Commerce private security with employment estimated at 1,000,000 exceeds by 330,000 the total employment of law enforcement officers at the federal, state, and local levels of government, which was 670,000 in 1975.
Advisory Committee on Criminal Justice Standards and Goals. According to the Task Force Report:

Quantifiable data concerning the size of the private security industry in terms of number of firms, personnel, and revenues vary within the research reports available. This is understandable because very little baseline data are available.

Overall, the Task Force concluded that, "there are at least a million persons presently employed in private security," "that the delivery systems for providing private security services and products are a large growth industry," and that "Americans are spending increasing amounts of money, over and above public law enforcement expenditures, to protect themselves and their property."

The services being purchased by the business consumers of security services include uniformed guards; armored car and armed courier services; private investigative services; burglar and fire alarm systems; and a wide array of security and crime prevention equipment.

Other costs to business for preventing crime, beyond those generally considered as private security, include such things as

- business crime insurance;
- costs of internal auditors and, to a limited degree, independent auditors;
- legal costs for defense against civil actions resulting from security actions such as arrest;
- physical plant expenditures for materials not necessarily appearing in security budgets, such as lighting, locking hardware, glazing and grill work.

The work of internal and independent auditors is, to a degree, concerned with detecting internally committed crimes ranging from blue-
collar inventory thefts to major white-collar defalcations. Concurrently, many architects and designers include protective lighting for buildings and parking lots, fences for perimeter protection and decorative grill work over first floor windows.

Conclusion

American business is devoting an estimated minimum of $6 billion to its self-protection and crime prevention. However, to more cost-effectively allocate its protection dollar, a business needs to know its actual loss experience so that it can properly allocate its resources in those areas of greatest need.

Also, answers to many of the crime issues facing the business community require further research. Too little work has been done to evaluate the costs and effectiveness of specific types of private or public crime prevention efforts for specific types of crime and specific types of businesses.
V. COSTS OF CRIMINAL JUSTICE SERVICES RELATED TO CRIMES AGAINST BUSINESS

Statistics and data to substantiate the $19.7 billion public expenditure in 1976 for criminal justice activities are available. They were not, however, considered in this analysis because they deal with expenditures for various criminal justice components, but not by type of crime or victim. For example, the total expenditure for law enforcement, adjudication, or correctional services is available at various governmental levels. What we are not able to determine is the time or costs allocated to preventing, detecting, or adjudicating crimes against business.

We do know that some law enforcement and prosecutorial agencies are targeting white-collar and economic crime as priority areas. The FBI, according to the November, 1978 issue of Nation's Business, has listed white-collar crime as one of three priority areas and has assigned 15% of its investigative force to this area. In 1979, the FBI budgeted $65 million to combat white-collar crime, a 2% increase over last year.

The National District Attorneys Association has, for several years, been aiding some local prosecutors in developing an ability to more effectively prosecute economic crime cases. And, LEAA has recently approved a second year of funding to enable the Battelle White Collar Crime Center to continue training law enforcement and prosecutorial personnel in white-collar crime investigative methods.

Conclusion

We do not know the extent to which criminal justice agencies allocate their resources to economic crime.
As reported by the ABA's Economic Crime Committee, "the Federal Government lacks both the necessary mechanisms to measure accurately its own efforts against white-collar crime and to assess the impact of such offenses on the country as a whole." LEAA has recently funded one effort which will begin to look at this problem. The Bureau of Social Science Research is conducting a study of white-collar crime statistics developed by various federal agencies.
VI. PREVENTION OF CRIMES AGAINST BUSINESS

In dealing with criminal threats, whether internal or external, the relevant question for businesses is how to prevent or deter individuals from criminal conduct. Is the answer more locks, alarms, guards, and other target-hardening tools?

Of the abstracts reviewed, approximately sixty percent discussed preventive strategies or offered recommendations to improve business' defense against crime. The security literature emphasizes target-hardening in the prevention of certain crimes, particularly burglary, robbery, shoplifting, and larceny. A different set of preventive strategies is presented for white-collar crimes in general, i.e., embezzlement, kickbacks, fraud, and commercial bribery. Many of these involve improved accounting controls, personnel selection and training, and management input into and support of security programs.

In the area of street crimes, i.e., burglary, robbery, and vandalism, many law enforcement crime prevention units are increasingly working with the business community in the prevention of these crimes. Numerous articles and books have been written which detail crime prevention techniques and strategies, such as the use of lighting, alarm systems, vandal resistant glazing, cash handling procedures and electronic article surveillance. Also, the SBA conducts crime prevention clinics and courses for small business firms as do some universities and community colleges.
In terms of white-collar crime, preventive strategies are quite different. Rather than relying on target-hardening, the prevention of these types of offenses require more sophisticated techniques such as financial and accounting internal controls, internal audits and a commitment from senior management that this type of crime will not be tolerated.

Currently, the prevention and detection of economic crime appear to be left largely to business rather than to public law enforcement. The reason for this situation is suggested in William C. Cunningham's chapter, "Private Security," The Future of Policing, 1978:

To control crime in the "suites," businesses will likely continue to depend upon their internal audit and security staffs rather than on public law enforcement. This reliance upon internal personnel will be brought about by three major factors.

First, until a potential crime has been detected through internal control procedures, public law enforcement will not become involved since, according to former LEAA Administrator Richard W. Velde, "the vast majority of these officers are in a response posture most of the time. They don't have the time to concentrate on crime prevention." Second, until law enforcement begins to train its personnel in such areas as accounting and electronic data processing, law enforcement personnel will not be capable of investigating these types of specialized white-collar acts. However, it should be noted that the F.B.I. has begun the training of selected agents in these areas. Third, many businesses find it more cost effective to dismiss dishonest employees or require restitution from an individual rather than to invest the time and resources needed for a successful prosecution. For those cases being prosecuted, prosecutors are just now beginning to understand this area of criminal action and to develop the expertise necessary for a successful prosecution. In
addition, judges and jurors must reach the level of understanding necessary to hear these cases in order for prosecution to serve as a deterrent. Further, some changes must be made to reflect penalties which, when assessed, will make it clear that this type of crime does not pay.

The range of techniques and procedures for preventing and detecting business crime is extensive and varies for each crime. The following are illustrative of the preventive strategies found in recent literature:

- use of mirrors, closed-circuit television and electronic article surveillance in retail establishments

- requiring positive identification for all checks and photographing or thumb printing of customers

- computerized access control systems which monitor and restrict access to facilities to authorized personnel

- systems of key control and key audits

- time locks which restrict the times when a lock may be opened and which keep a recording of times opened and closed.

- separation of responsibilities in accounting and related activities to provide a system of checks and balances

- separation, physically and functionally, of computer programming and computer operational responsibilities

- honesty testing or use of detection of deception tests, where legal

- control of shipping and receiving reports to prevent duplicate or fraudulent payment of invoices and the padding or destruction of shipping orders

- supervision of trash pick-ups to prevent merchandise from being removed via trash containers
inspection of all parcels entering or exiting a facility.

Conclusion

With regard to the public's role in business crime prevention, the 1972 Commerce Department Report, *The Economic Impacts of Crimes Against Business*, appropriately stated, "Business and government need to make a substantial effort to increase the public's awareness of the problem and its burden on the public, and to assist in positive deterrent and protective actions." If the public and, in fact, many business leaders were more aware of the economic impact of business crime and the options and strategies to reduce it, the crime prevention efforts of business might achieve greater success.

For the most part, the preventive strategies recommended have been the same for decades, with the principal exceptions being those dealing with newer crimes, such as computer-related crimes. The fact is that criminal threats to business have been the same for years, but now their impact is being given more recognition and some new technological resources, such as the use of computer technology for alarm monitoring, access control and electronic data processing auditing, are available for prevention and detection.
VII. TYPES OF CRIMINALS

From the perspective of business, there are really only two general categories of potential criminal, the employee and the nonemployee. There appears to be a consensus throughout the literature analyzed that employee-committed crimes are more costly and frequent. For example, according to the U.S. Department of Commerce report, *The Cost of Crimes Against Business*, "In a survey of convenience stores by *Convenience Store Merchandiser*, employee theft was held responsible for 75 to 85 percent of all inventory shrinkage. Reports on losses in other businesses attribute at least a 50 percent portion to employee theft." In an interview with *U.S. News & World Report* (5/3/71), Norman Jaspan, the head of a firm specializing in detection of white-collar crime, confirmed these estimates. According to Jaspan, "One of our recent studies shows that 70 percent of all inventory losses are due to employee stealing at all levels. Shoplifting accounts for 15 percent and bookkeeping errors and manipulation make up the rest."

In response to the question, who is doing the stealing, Mr. Jaspan said:

People at all levels of business. Our statistics show, however, that the greatest amount of dishonesty, dollarwise, occurs among supervisory employees and executives. It is easier to sit behind a desk and manipulate, take kickbacks, and pass out confidential information than to back a truck up to a plant once a week and steal merchandise.

Our firm uncovered more than 100 million dollars worth of business dishonesty last year. Supervisors and executives were responsible for 60 percent of it. The trusted supervisor doesn't have to jimmy his way into the office or blow the safe—he already has the key and the combination.
The literature does provide a number of rationales for employee theft. The following, taken from *Office and Office Building Security* by Ed San Luis, are illustrative of the motives or rationalizations given:

- "They'll never miss it."
- "They owe it to me."
- "Everybody else does."
- "They have it coming to them."
- "I need it more than they do."

As summarized by Saul D. Astor, in his book *Loss Prevention: Controls and Concepts*, the causes of employee dishonesty tend to fall into two groups: (1) the causes which basically comprise the psychological environment conducive to employee defalcation, and (2) the causes which, by providing the opportunities for theft, therefore invite theft.

Another assumption expressed by Mr. San Luis and others is that workers divide into three groups insofar as theft is concerned. Approximately one-fourth of all employees will steal and the same proportion will remain honest. It is the remaining one-half of the work force that can be affected by concerted efforts by management to control employee theft.

The only current research mentioned in the literature concerning why employees steal is being conducted by the University of Minnesota under a grant from the Law Enforcement Assistance Administration (LEAA). This project, being undertaken by the Department of Sociology at the University, is to determine the scope and nature of theft by employees in work organizations and to develop cost-effective countermeasures against such theft.
To illustrate the complexity of controlling employee theft, the following are examples of how employees steal, according to Dwight Merriam's article, "Employee Theft," Criminal Justice Abstracts, September, 1977:

Among the ways to steal are invoicing goods below established prices and getting cash "kickbacks" from customers; charging customers more than is shown on the duplicate sales slips and pocketing the difference; padding payrolls; increasing creditors' invoices and pocketing the excess; pilfering merchandise covered by doctored inventory lists; shipping merchandise to an employee's or relative's home for disposal; secreting products on one's person; substituting valuable materials for scrap being loaded on a truck; throwing pilfered items into a trash container for retrieval later; placing orders for side business; using company time and facilities for personal projects; using the company's photocopy machine for personal use; stealing merchandise and returning it for cash.

Conclusion

To counter these types of business losses requires an effective system of internal accounting controls, security procedures and the support of labor and management. Business needs to be provided with tested and proven methods for crime prevention and loss reduction.
VIII. PREVIOUS RECOMMENDATIONS CONCERNING
THE LITERATURE AND A NATIONAL CENTER

Prior to this current literature search and analysis effort, three previous groups have commented on the quality or availability of the literature. From the perspective of private security, the Private Security Task Force to the National Advisory Committee on Criminal Justice Standards and Goals, recommended in 1976 that:

- A national resource and research institute would serve as a catalyst for the distribution of private security information, as well as a repository for available literature. If the private security industry and its services are to be more effectively used in crime prevention, reliable information about and research for the industry needs to be available. The institute can be the catalyst for literature collection and dissemination.

In 1977, the American Management Associations' report on Crime Against Business, in discussing the need for communication in this area, recommended that one function of a national institute be to "conduct literature searches to create a 'state of the art' awareness of other research and practices relating to economic crime." The AMA project clearly found a need for greater and more coordinated information dissemination.

Lastly, in the Final Report on a National Economic Crime/Private Security Center, by PRC Public Management Services, Inc. and Hallcrest Systems, Incorporated, submitted to LEAA in 1978, it was stated that, "No central information clearinghouse exists that could serve the information dissemination or technology transfer function between publicly and privately funded research efforts." According to this report,
"the National Criminal Justice Reference Service provides 'literature searches' services but does not perform analyses nor does it reach a cross section of business and industry." The need for a central information source or clearinghouse "is the one function most often suggested by people with whom this project has been discussed."

Conclusion

Comparing the comments of these efforts with the general literature is difficult. The above-referenced efforts refer to the need for better collection and dissemination of the literature. In general, they do not provide specific information concerning the prevention of crimes against business, as this was not their purpose. They all do, however, state the need for improved and centralized information collection, analysis and dissemination.
IX. GENERAL CONCLUSIONS

This literature analysis points to three kinds of questions that should be explored further. The first was discussed in a preceding section; that is, the whole body of available literature, whatever its quality, is difficult to identify and obtain. When professional researchers have difficulty acquiring relevant documents, there is little prospect that business practitioners will have ready access to the materials that may be of great assistance to them. There is no central source for this information.

Second, there are significant gaps in the materials available. For example, an earlier part of this analysis identified several types of costs of economic crime about which little substantive can be said. Without substantial data, little more than assumptions can be offered as preventive strategies.

Third, the existing body of literature is not influencing some of the most important decisions that must be made on economic crime. It either does not reach policy-makers in business or government, or it does not persuade them to take necessary action with the resources available to them.

These problems all point first to a need for better organization and dissemination of what is known, and second to a need for improvement of the state of knowledge.
END