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PARK COLLEGE

ARSON PREVENTION;
WHERE DO WE GO FROM HERE?

A RESEARCH PROPOSAL SUBMITTED TO
THE FACULTY OF THE DIVISION OF SOCIAL SCIENCES
IN CANDIDACY FOR THE DEGREE OF
BACHELOR OF ARTS IN CRIMINAL JUSTICE ADMINISTRATION

BY

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MAY 1979

ABSTRACT

This research proposal addresses the crime of arson and arson prevention. The research effort will attempt to answer the question: Are there sufficient data from which a model arson prevention program can be developed?

Arson has been on the increase for the last ten years. The National Fire Protection Association (NFPA) estimates an increase of 237 per cent during the past ten years and that arson will continue to climb to higher proportions. The NFPA also found that out of every 100 fires classified as incendiary, only 9 persons are arrested, 2 convicted, and 0.7 incarcerated; this data infers a weakness in arson prevention and control procedures.

The majority of information on arson and arson prevention used in this study has been extracted from relevant published material on the topic. The researcher conducted a survey of various state and federal agencies to determine if there are any arson prevention programs that have achieved a 15 per cent reduction in arson rates. In addition, interviews of key personnel were conducted to determine if any present prevention programs function adequately enough to be combined and achieve this 15 per

cent reduction.

It is expected, upon completion of this research and subsequent analysis, that this data will indicate that a number of smaller arson prevention programs can be combined to make a model arson prevention program. This program should be able to decrease arson by 15 per cent annually while being both feasible and cost effective for the local community.

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PART I

PROBLEM STATEMENT

Arson, as a crime, began many centuries ago. Exactly when, no one seems able to determine. Was it the Great Fire of Rome or before that the crime of arson was conceived? In any event the crime of arson, the country's fastest growing crime, is rapidly reaching uncontrollable proportions.

Arson, a crime which was originally confined to dwellings and adjacent buildings has now extended to all structures and grown to a magnitude that far outreaches all other crimes. Called America's malignant crime, or the fastest growing crime, it still lacks the proper response by agencies responsible for its control.

We have seen arson grow from an acre (as in rural or forested areas) or several square blocks seven or eight years ago, to that of overlapping miles. Arson is a killer. It causes widespread misery, death, and destruction. Yet it goes virtually unchecked and unnoticed.

Statistics show, for example, that in 1975 the average cost of arson per incident greatly exceeded most index crimes listed by the FBI's Uniform Crime Report. The exact cost of arson seems extremely difficult to

determine. Numerous agencies estimate that from 350 million dollars to over 12 billion dollars are expended annually on arson. This variance is due to the fact that essential arson statistics either are unavailable or are based as much on uninformed guesses as on provable facts.

Arson has been on the increase for the last ten years. According to statistics compiled by the National Fire Protection Association (NFPA), arson has increased by 237 per cent in the last ten years and will continue to increase at great proportions. The NFPA has also found that out of every 100 fires classified as incendiary, only 9 persons are arrested, 2 convicted, and 0.7 incarcerated. These data infer that the present prevention and control efforts are ineffective.

In my search to solve this problem, an attempt will be made to answer the question: Are there sufficient data from which a model arson prevention program can be developed?

With this question in mind, this study will analyze various aspects of arson and how they effect arson prevention efforts. In addition, the types of arson prevention programs in existence today will be analyzed to show their statistical relevance to the problem and their feasibility of inclusion to a model prevention program.

PART II

RELATED RESEARCH

Throughout the research and subsequent writing of this thesis several books and articles will provide data and information related to the impact of arson upon the United States and its local communities. However, the following sources will be used relatively extensively due to the inclusion of statistical data and other significant content bearing on the problem.

Battelle Columbus Laboratories. Arson: America's Malignant Crime. Columbus, Ohio: 1976.

A report prepared by the Battelle Laboratories for the U.S. Commerce Department. This report lists nine problem areas which need immediate action and some recommendations to assist state and local governments. Some of the various subjects deal with better reporting procedures, laws, funding, and data collection, all of which would greatly assist arson prevention programs.

Kirk, Paul L. Fire Investigation. New York: John Wiley & Sons, Inc., 1969.

This book describes some of the techniques used in the investigating of fire. In its chapters on Arson and The Legal Aspect of Arson it lists some motives for

arson, what to look for while investigating arson, and background into the legal aspect of arson, to include the Model Arson Law.

National Fire Protection Association. Arson-Some Problems and Solutions. Boston, Mass.: National Fire Protection Association, 1976.

A compilation of articles designed to focus on some problems and possible solutions to the arson dilemma. This book presents some problem areas and possible corrective methods to be employed to decrease arson tolls.

Seattle Fire Department, Seattle, Washington. "Seattle Arson Task Force-Implementation Program." Seattle. (Mimeographed.) 1975.

A report beginning with the founding of the Seattle Arson Task Force through its first year of operation. This report shows what one city has done to combat the growing arson problem. It shows the prevention programs implemented and the results they have achieved.

A Texas Advisory Council on Arson. Texas Arson Notebook. Austin, Texas: A Texas Advisory Council on Arson, 1978.

A monthly newsletter distributed by the Advisory Council dealing with various arson facts in Texas. The issues go into federal and state agencies combating arson and the various arson award programs offered throughout the country.

U.S. Justice Department. National Institute of Law Enforcement and Criminal Justice. Arson and Arson Investigation, by John F. Boudreau, Quon Y. Kwán, William E. Faragher, and Genevieve C. Denault. National Institute of Law Enforcement and Criminal Justice Print. Washington, D.C.: Government Printing Office, 1977.

A report prepared for the National Institute of Law Enforcement and Criminal Justice dealing with different aspects of arson. Included in this report are statistics valid for 1974, motives of arsonists, and possible solutions to other problems dealing with arson.

PART III

OBJECTIVES

1. To complete courses 42101 and 42102 leading to a Bachelor of Arts in Criminal Justice Administration.
2. To research the topic of arson and specifically arson prevention to answer the following questions:
 - a) Are there any agencies attempting to combat the growing increase in arson?
 - b) Do the existing arson prevention programs function well enough to decrease arson by 15 per cent annually?
 - c) Is a 15 per cent annual reduction a suitable level to achieve or should we strive for a higher reduction?
 - d) Are there any programs that could be combined to form a model arson prevention program?
 - e) If so, could this model achieve a 15 per cent or better reduction?
 - f) Would a model prevention program be both feasible and cost effective?
3. To learn more about the crime of arson and arson prevention from this research.

4. Compile and complete a 30 to 50 page thesis on the important aspects of arson prevention to be presented at the end of the term.

PART IV

PROCEDURES

In this study I shall attempt to compile and analyze all the valid statistics and possible solutions to the arson problem from all relevant material published on the topic. This will be done by extensively researching books and information received from agencies dealing exclusively with arson prevention. Only significant data will be extracted showing how and if arson prevention is working to decrease arson by 15 per cent annually.

Secondly, a survey of various state and federal agencies will be conducted to determine if there are any existing arson prevention programs that have achieved this reduction. If not, what programs can be combined in an effort to reduce arson by 15 per cent and to see if a model arson prevention program is feasible.

Finally, interviews will be conducted with key personnel in state and federal agencies dealing with the arson problem. These people will be questioned extensively on existing arson prevention programs, a model arson prevention program, and the effectiveness of the present programs in the local community.

PART V

PERSONNEL

The personnel and organizations which have been and will be beneficial in the research of this topic are as follows:

Personnel

Mr. Paul Embert, Park College Instructor, who will assist with literature and guidance.

Cheryl Fontaine, my wife, who will give me the moral support needed to complete my research.

Lt.Col. Robert Lee, U.S.Air Force active duty, who has graciously offered his time and effort to edit my thesis.

Mrs. Dana Anderson, Park College Administrator, who has offered her assistance wherever possible.

SSgt. Robert Anderson, U.S.Air Force active duty, Crime Prevention Specialist, who has assisted in research of my topic.

Chief Clarence Kyle, Blytheville Air Force Base Fire Chief, who has assisted with his expertise and knowledge on the topic.

Senator John Glenn and staff, U.S.Senator (Ohio), who has given much information on the topic of arson to include his own research.

Ms. Dixie Evatt, Texas Advisory Council on Arson, who has given much information, references, and time to my research.

Mr. Anderson, U.S.Fire Administration Arson Specialist, who has supplied information and documents.

Captain Rich Hargett, Seattle Fire Department, who has supplied an enormous amount of information and to whom I am deeply indebted.

Organizations

The organizations that sent information by way of books, articles, or pamphlets are^e as follows:

International Society of Fire Service Instructors

Alliance of American Insurers

American Insurance Association

National Criminal Justice Reference Service

State Farm Mutual Automobile Insurance Company

National League of Cities

National School Public Relations Association

Insurance Information Institute

The Travelers Insurance Company

National Fire Protection Association

Industrial Risk Insurers

National Association of Insurance Commissioners

The Mill Mutuals

Firehouse Magazine

PART VI

FACILITIES

The following facilities will be utilized for further research (other than those organizations listed previously).

Blytheville Air Force Base Library, Blytheville
Air Force Base, Arkansas

Blytheville Public Library, Blytheville, Arkansas

Memphis Public Library, Memphis, Tennessee

Memphis State University Library, Memphis,
Tennessee

Arkansas State University Library, Jonesboro,
Arkansas

Jonesboro Public Library, Jonesboro, Arkansas

Mississippi County Circuit Court Library,
Blytheville, Arkansas

Osceola Public Library, Osceola, Arkansas

Kennett Public Library, Kennett, Missouri

PART VII

BUDGET

The following is the budget used for the research and completion of a senior thesis on arson prevention.

Tuition	*270.00
Transportation	30.00
Postage	6.60
Telephone	10.00
Supplies	13.50
Typing	5.00
Editor	0.00
Books	30.85
Reproduction Costs (5 copies)	<u>125.00</u>
	Sub-Total 490.95
	Reimbursed <u>270.00</u>
	Total 220.95

* Reimbursed by the VA under the GI Bill
at \$135.00 per class.

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ABSTRACT

This study addresses the crime of arson and the problem of arson prevention. This research effort has provided the answer to the question: Are there sufficient data from which a model arson prevention program can be developed?

The majority of information on arson and arson prevention was extracted from relevant published material on the topic. A survey was conducted by the researcher of various state and federal agencies to determine if there were any arson prevention programs that could be combined to form a model program and to see if any of these agencies were employing these programs against arson. In addition, key personnel in state and federal positions were interviewed to ascertain their impressions of the present prevention programs and if a model could feasibly achieve a 15 per cent reduction.

Arson, a serious threat to our society, reaps huge monetary gains at the citizens expense. Current estimates reach from 10 to 15 billion dollars for the actual annual cost of arson. While the cost of arson is in the billion dollar bracket leading all FBI Part 1 Index crimes against property, the conviction rate falls far behind compared to these Index crimes.

With arson spiraling upward, a few agencies have taken it upon themselves to initiate programs to combat it. There are many programs utilized by small cities and rural areas, however, only six of them have been included in this study due to their effectiveness. After analysis, the majority of these programs were combined to form a model arson prevention program. This model is no magical formula to completely halt and eliminate arson, however, it is a starting point. It has been shown in this study that this program will reduce arson by 15 per cent per year. This program has a relatively low cost and is effective enough to be initiated on a community basis.

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CHAPTER I

INTRODUCTION

The crime of arson began many centuries ago, but no one seems able to determine exactly when or where. Was it the Great Fire of Rome or even earlier that the crime of arson was conceived? In any case, from its early beginnings the country's fastest growing crime is rapidly reaching uncontrollable proportions.

At first glance, this crime of willfully setting fire (to defraud or for other purposes) seems to lack the urgency or personal threat of such problems as sickness, murder, robbery, or the struggle to earn a living. Consequently, in terms of priorities, arson has not rated much concern with those not directly involved in fire prevention or control.

Arson, a crime which was originally confined to dwellings and adjacent buildings, has now expanded to include all structures and grown to a magnitude that far outreaches all other crimes. Called America's Malignant Crime by the U.S. Commerce Department (or the fastest growing crime), it has and will continue to escalate until proper preventive methods are employed.

We have seen arson grow from an acre (as in rural

or forested areas) or several square blocks seven or eight years ago, to that of overlapping miles. Arson is a killer. It causes widespread misery, death, and destruction, not to mention the lost income to local communities and its residents (due to loss of jobs, the erosion of the tax base, increases in insurance premiums, and the increased expenses paid out for public services). Yet it goes virtually unchecked and unnoticed.

Statistics show, for example, that in 1975 the average cost of arson per incident was \$4,399 which greatly exceeded the per incident cost of most index crimes listed in the FBI's Uniform Crime Report¹. The exact cost of arson seems extremely difficult to determine. Numerous agencies estimate that from \$350 million to over \$12 billion are expended annually. This variance is, due to the fact that essential arson statistics either are unavailable or are based as much on uninformed guesses as on provable facts.

Arson has been on the increase for the last ten years. According to statistics compiled by the National Fire Protection Association (NFPA), arson has increased by 237 per cent in the last ten years and will continue to grow at its present rate unless it can be controlled

¹Seattle Fire Department, Seattle, Washington, "Seattle Arson Task Force-Implementation Program," Seattle, 1975. (Mimeographed.)

quickly². However, a study conducted for the National Institute of Law Enforcement and Criminal Justice estimates a 325 per cent increase in arson. The NFPA has also found that out of every 100 fires classified as incendiary, only 9 persons are arrested, 2 convicted, and 0.7 incarcerated. This compares with 21 arrests, 6 convictions, and 3 incarcerations per 100 Index crimes. These data infer that the present prevention and control efforts are ineffective³.

The motives for arson are quite well known. Briefly, they include profit, revenge, spite, jealousy, crime concealment, and pyromania. Unfortunately, we know very little about the frequencies of these motives as a very small number of actual arsonists are ever uncovered. A new aspect of the profit motive has recently been brought to light, the arson racketeer or mobster. All of these motives will be well defined in further chapters; however,

²National Fire Protection Association, Arson-Some Problems and Solutions (Boston, Mass.: National Fire Protection Association, 1976), p. 1.

³These data infer the ineffectiveness of the present prevention system and were compiled from the following sources: U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, by John F. Boudreau, Quon Y. Kwan, William E. Faragher, and Genevieve C. Denault, National Institute of Law Enforcement and Criminal Justice Print (Washington, D.C.: Government Printing Office, 1977), p. xiv.; National Fire Protection Association, Arson-Some Problems and Solutions, p. 8. and U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, p. xv.

it is of interest to know that approximately five per cent of those arsonists uncovered have been grouped under the profit motive⁴.

The deaths and injuries caused by arson are estimated at 1,000 and 10,000 respectively. These are significant when compared with the 19,600 deaths caused by murder in the United States during the entire year of 1974⁵.

In a search to solve the problem of arson prevention, an attempt will be made to answer the question: Are there sufficient data from which a model arson prevention program can be developed?

To accomplish this task, the following sub-questions will be used to assist the research: (a) Are there any agencies attempting to combat the growing increase in arson?; (b) Do the existing arson prevention programs function well enough to decrease arson by 15 per cent annually?; (c) Is a 15 per cent reduction a suitable level to achieve or should we strive for a higher level?; (d) Are there any programs that could be combined to form a model arson prevention program?; (e) If so, could this model achieve a 15 per cent or better reduction?; and (f) Would a model prevention program be both feasible

⁴U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, p. xiv.

⁵Ibid., p. 17.

and cost effective?

With these questions in mind, this study analyzed various aspects of arson and how they affect arson prevention. In addition to this, the effort analyzed types of arson prevention programs that are in existence today. It may do well to remember that arson is a victim-less crime, therefore a prevention program must achieve a sociably acceptable level of reduction to be effective. A 15 per cent annual reduction from the current level was arbitrarily established by the researcher as a feasible objective and basis of comparison with the results of current efforts.

CHAPTER II

REVIEW OF THE LITERATURE

The crime of arson (willfully setting fire to defraud or for other purposes) usually has often diverse motives and other implications that make it the country's number one crime. Arson is difficult to prevent for many reasons, one of which is the profit motive. Today, it seems, the most information we have is about the least successful arsonists, those who have been apprehended.

Motives

What type of person deliberately sets a destructive fire? The type of person most people associate with the act of arson is the sexual deviant, the firesetter who derives sexual gratification from setting a fire. In some cases this is the motive for arson but there are other types of people who are behind the more typical act of arson.

While any system of classifying behavior of this type is often inconsistent, it will be useful to classify arsonists into three major groups: arson-for-profit; those who set fires in secret; and the group firesetters. Appendix A provides a more detailed breakdown of the various motives and situations known about the arsonist.

Here only a brief overview of each group is provided.

Arson-for-profit. This is probably the most rapidly increasing form of firesetting today. People who set this type of fire can be grouped into one of the following areas: the businessman who sets fire to his own business to collect the insurance money; the businessman who hires a paid arsonist to set fire to his business; the paid arsonist who sets fire for a fee; the housewife who sets a smokey fire to collect the redecoration money; the welfare recipient who sets a fire to his own apartment to collect relocation expenses; or the criminal who sets a fire to cover up a crime already committed.

In a typical insurance fraud case, a businessman, finding himself in financial difficulty, will decide that the easiest way out is to sell his business to the insurance company. His financial problems may have stemmed from a large inventory of unsalable goods at the end of a season, an outdated plant that requires expensive remodeling, adverse market conditions, or a stock of obsolete merchandise. All of these will cause an honest businessman to turn to arson as a last resort.

In the inner-city, the landlord, worried that his rental income no longer is sufficient to cover his expenses, may burn his apartment building to collect the insurance money which in most cases is much more than the market sale value.

In some of the larger cities, professional arson rings have operated to defraud the insurance companies. One such ring was uncovered in Detroit in 1974. In this case 57 persons were charged with committing 186 counts of arson. In a typical operation of an arson ring, an employee of a mortgage company alerted a crooked repair contractor, who is a member of the ring, of an impending foreclosure. The contractor then persuades the homeowner to contract with him for fire damage repairs. The contractor then hires a professional arsonist to set fire to the home while the insured is absent. After the fire, the contractor repairs the building with substandard materials, thereby making a substantial profit while the homeowner nets a smaller amount, especially after paying the arsonist, who averages \$1500 a fire⁶.

The elimination of the profit motive will not significantly decrease the overall rate of arson. It will eliminate some of the expense that we, the United States' taxpayers, are incurring due to the financial difficulties faced by a few. In addition, the profit motive is the easiest area to begin a prevention program.

Secret firesetters. The next group of firesetters are those who set fires in secret. Most malicious fires are set by people in secret. Many fires are set for

⁶Ibid., p. 19.

revenge or spite. In many of these fires the damage is out of proportion to the offending action, but the fire-setter either does not care or does not realize the destructive power he has control over.

This category of firesetters can be generally grouped into one of the following classes: jilted lovers, feuding neighbors, persons getting cheated or abused, the watchman who wants to be a hero, or the housewife who wants to keep her husband home nights. In addition to these, there are two classes which are considered to make up most of this group. The first is the vandal. This person seems to enjoy setting fires either out of boredom or as a general protest against authority. Many school fires as well as fires in automobiles, vacant buildings, and in trash receptacles can be attributed to this type of person. Second is the pyromaniac whose only motive is simply to see fire. A false stereotype has been associated with the pyromaniac in the past. It has been stated that this person is a disturbed sexual deviate. Some pyromaniacs do set fires as a sexual stimulant or for sexual release. These cases are often extremely dramatic and will tend to support this stereotype. However, most pyromaniacs report that they were not conscious of sexual feelings during the initial firesetting act or any of the fires they have since set⁷.

⁷Bernard Levin and Robert Vreeland, "Arsonists: Who & Why," Firehouse, August 1978, p. 16.

Group firesetters. The last group of firesetters are classed into the following three major groups: vandalism fires (those set by pairs or groups), riot fires, and political fires. Political fires are usually premeditated and set to dramatize an issue, embarrass authorities or political opponents, or to intimidate or extort for political reasons. Those fires set by vandals in pairs or groups of boys, or in the presence of peers, generally fall under the same reasons as previously stated. Usually these arsonists set their fires to show off or as an initiation into a special group. Occasionally the fires set by a pair of boys will follow a relationship similar to that of a homosexual pair. Usually one of the boys will have a very dominate role while the other has the passive one⁸. Normally in this situation, it is the passive partner who will actually set the fire while the other partner gives the orders. Finally those fires set during riots are usually due to outbursts of group violence where there is tension and social unrest. This type of behavior was very evident during the riots and social unrest in the cities during the 1960's.

When an arsonist sets a fire and is apprehended, the process begins to determine the motivation used by

⁸National Fire Protection Association, Arson- Some Problems and Solutions, p. 44.

this person. In almost all cases, this motivation will fall into one of the three general groups just mentioned and possibly into a specific class of it. Unfortunately these groups are not all inclusive due to the inadequacies of our present system of investigation and prosecution.

Costs

As a quick way to realize huge monetary gains at the citizen's expense, arson has become a serious threat to our society. Arson burns hotly in each of our pocketbooks. It is not only the insurance companies who are now being victimized. Our whole social structure is feeling the burden placed upon it by the arsonist.

A November 1976 article appearing in Fire Journal reported that estimates currently reach from 10 to 15 billion dollars for the actual cost of arson⁹. These estimates are asseted in real world terms of lost jobs, with resulting loss in income; the erosion of the tax base; increases in insurance premiums paid by honest homeowners and businesses; medical costs for the injured; and increased expenses to pay fire fighters and others called to the scene of fires.

⁹U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, Hearings before the Subcommittee on Intergovernmental Relations. 95d Cong., 1st Sess., 1977, p. 106.

Estimates published by the NFPA for 1975 show that the total property loss is much smaller than the real dollar losses. Again this is due to the many variables which must be taken into account to get a true picture. In Figure 1, the total property loss for arson and four of the top index crimes against property are compared.

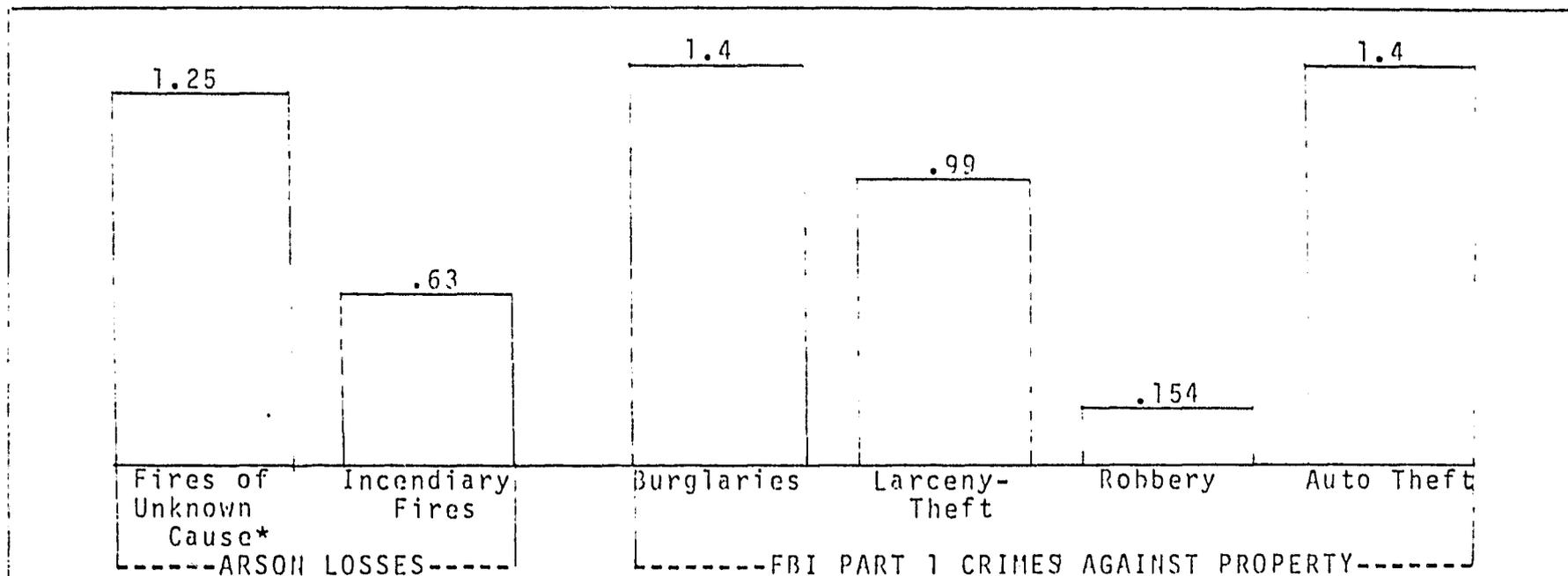
The data in Figure 1 requires a word of explanation. The property loss for arson also includes the cost of those fires termed unknown or of suspicious origin. All valid research draws the conclusion that at least 50 per cent of these fires should be classified as arson but due to the lack of proper investigation the causes cannot be found. This would account for an additional \$625 million in property loss for arson¹⁰.

Arson, until recently, had been listed as a Part II crime by the FBI. In Figure 2, the average annual value loss per incident of arson is compared to the four Part I Index crimes against property. The results show arson and fires of a suspicious nature or unknown causes to be at least three times greater.

The above figures give statistics compiled by the NFPA for 1975. The NFPA no longer compiles these statistics on a national level. The latest fire loss figures were compiled by the Claims Section of the

¹⁰Ibid.

Figure 1. Total Property Loss By Cause (in \$billions)

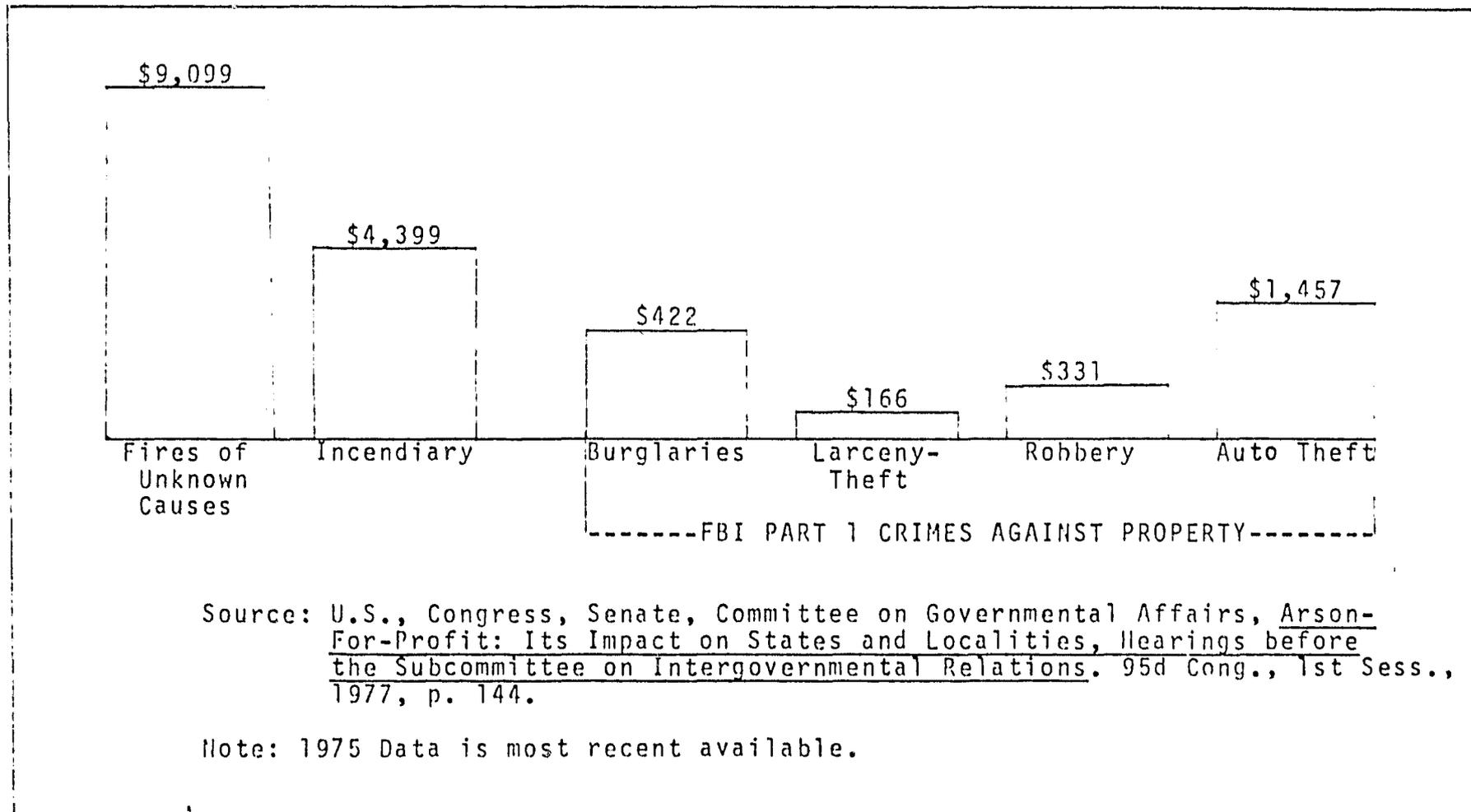


Source: U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, Hearings before the Subcommittee on Intergovernmental Relations. 95d Cong., 1st Sess., 1977, p. 145.

Note: 1975 Data is most recent available.

* Estimates are 50 per cent of fires of unknown cause are arson.

Figure 2. Average Annual Property Loss



American Insurance Association for 1977 and are listed in Table 1. This table shows a decrease in all types of structural fires by approximately 130,000 from 1976, while the number of suspected and proven arson fires rose more than 6,000¹¹.

Table 1.
A Comparison of Statistics
For 1976-77.

	1977	1976
Structural Fires	1,179,000	1,309,533
Arson	241,845	235,584
Total	1,420,845	1,545,117
Dollar loss for all fires	3,764,000,000	3,558,000,000
Dollar loss for arson	1,583,929,285	1,515,710,200
Deaths	10,084 ^{ac}	
Injuries	139,500 ^b	

Source: Insurance Crime Prevention Institute, "Arson Statistics," Insurance Crime Prevention Institute, pp. 1-3.

- a) of these, 134 were fire fighters in the line of duty.
- b) of these, 33,400 were civilians and 106,100 were fire fighters.
- c) of the 9,950 civilians who died, only 700 were in fires started by arsonists.

What the above means is that while arson fires account for only approximately one-sixth of all structural fires during 1977, dollar wise they cost nearly half as

¹¹ Insurance Crime Prevention Institute, "Arson Statistics," Insurance Crime Prevention Institute, pp. 1-3.

much as all fires.

The proportion of building fires classified as incendiary or suspicious varies greatly by the type of occupancy. In table 2, for example, an alarming 75 per cent of school fires are classified as incendiary while incendiary fires in storage areas account for the greatest monetary loss, \$153 million.

The percentages of fires which are incendiary or suspicious in Table 2 are percentages of all fires of known causes in a sample of fires occurring in 1974. The estimated arson loss value was calculated by multiplying the total loss from fires with the fraction which were incendiary or suspicious¹².

As can be seen by these statistics, arson should not be taken lightly. While it may not account for the majority of fires in this country, it does account for the highest amount of funds paid by all concerned. Arson not only costs in the property it burns but also in the added expenses that the public has to endure. Paul Lockwood, a spokesman for the National Association of Manufacturers summed it up perfectly at a meeting of the Insurance Crime Prevention Institute with, "The increased costs due to arson have to be passed on to consumers, in higher consumer

¹²U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, p. 9.

Table 2.

Incendiary Building Fire Losses
By Type of Occupancy, 1974.

Type of Occupancy	Total Number of Fires	Per cent Incendiary or Suspicious	Average Loss All Fires (\$)	Estimated Loss From Arson (\$million)
Schools and Colleges	35,500	75	3,500	93
Churches	5,400	51	6,300	17
Storage Offices and Banks	68,500	35	6,300	153
Restaurants	8,100	34	6,900	19
Hotels	26,800	31	2,400	20
Retail Stores	30,200	25	2,300	17
Apartment Buildings	78,700	25	4,800	93
Hospitals	151,500	20	2,000	61
Nursing Homes	15,600	13	1,300	3
Industrial	9,300	13	600	0.8
Mobile Homes	60,200	9	11,200	61
Family Dwellings	29,700	7	2,600	5
	661,400	7	1,200	53

Source: U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, by John F. Boudreau, Quon Y. Kwan, William E. Faragher, and Genevieve C. Denault, National Institute of Law Enforcement and Criminal Justice Print (Washington, D.C.: Government Printing Office, 1977), p. 9.

prices. This is not only because of the direct cost of having to rebuild something, but the missed sales and the wages that are lost."¹³

Convictions

While the cost of arson is in the million dollar bracket leading all FBI Part I crimes against property, the conviction rate falls far behind compared to the index crimes. In a recent report, the Stanford Research Institute (SRI) found that the conviction rate for arson was only one per cent of those charged¹⁴. That is like a license to steal.

According to the NFPA, of the 144,100 incendiary and suspicious fires involving buildings in 1975, only 18,600 persons were arrested for arson, or about 13 per cent¹⁵. Using the SRI conviction rate (of one per cent) it is found that less than 200 persons have been successfully prosecuted and convicted for arson from a total of 144,100 occurrences. Subtracting the 18,600 arrests from the total of occurrences (144,100) leaves a balance of 125,500 unresolved arson cases. What happened

¹³Insurance Crime Prevention Institute, "Hidden Costs of Arson", Insurance Crime Prevention Institute, pp. 1-2.

¹⁴U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, p. 93.

¹⁵Ibid.

to those 125,500 firebugs? Apparently they are still out in society looking for one more target to burn.

A further breakdown of these figures show that current arrest and conviction rates are low. For every 100 fires labeled as incendiary or suspicious, about 9 persons are arrested, 2 convicted, and only 0.7 ever see the inside of a prison. This compares with 21 arrests, 6 convictions and 3 incarcerations for every 100 Index crimes¹⁶.

A study conducted by the Law Enforcement Assistance Administration (LEAA) was undertaken to analyze the arson statistics from 108 cities during a four year period. The analysis showed that cities with higher arson arrest and conviction rates tended to have lower average arson rates. Cities that ranked in the upper third according to the arrest rate had 22 per cent fewer arson cases per 100,000 population than those in the lower third. These results were consistent with the belief held by many experts that increased arrest and conviction rates through improved investigation and prosecution are a primary means of effectively controlling arson¹⁷.

¹⁶U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, p. xiv.

¹⁷Ibid., p. xv.

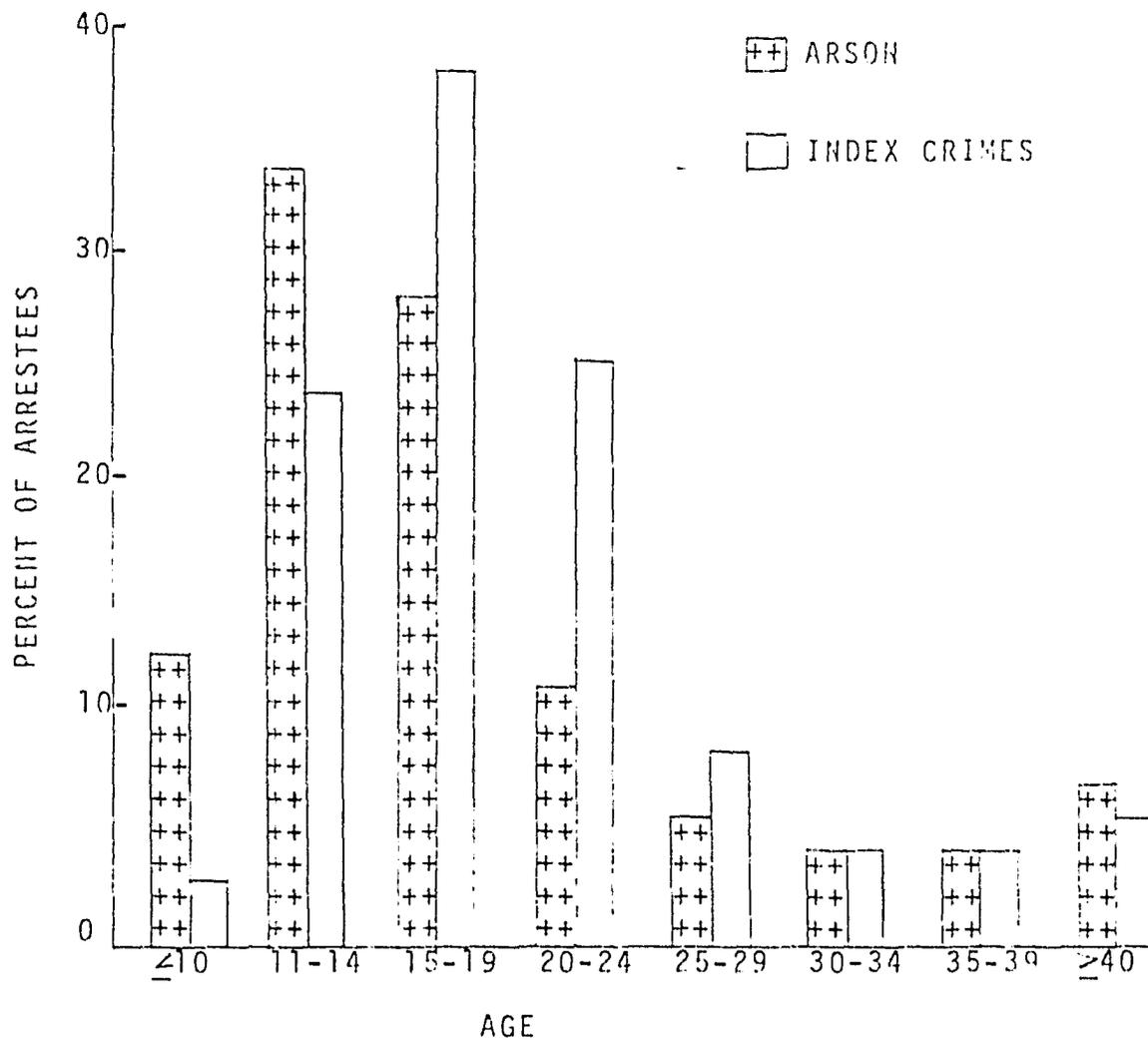
Other Characteristics of Arsonists. The characteristics of those arrested for various crimes are published annually in the FBI Uniform Crime Reports. Figure 3 presents a comparison of the distribution of age for persons arrested for arson and the Index crimes (murder, rape, aggravated assault, robbery, burglary, larceny, and auto theft) for 1974. Arson arrestees are younger: 59 per cent of those arrested for arson were under the age of 18, compared with 45 per cent for the Index crimes. About 10 per cent of the arson arrestees were females. Further, 78 per cent of the arson arrestees were white, while 64 per cent of the Index crimes met this criteria. The conclusion drawn is that the typical arson arrestee is white, young, and male¹⁸.

Why are so few arsonists arrested and convicted? There are a number of reasons for the low rate of arrest and conviction. First, arson is a self-concealing crime; much of the evidence literally goes up in smoke. In addition, evidence may be destroyed by inexperienced fire fighting personnel in putting out the blaze. The fire fighters responsible for the control of the fire are usually not trained in investigation and therefore cause disaster. About 90 per cent of this country's fire fighters are volunteers with the biggest majority being

¹⁸Ibid., p. 24.

Figure 3.

Age Distribution of Arrestees For
Arson and FBI Index Crimes.



Source: U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, by John F. Boudreau, Quon Y. Kwan, William E. Faragher, and Genevieve C. Denault, National Institute of Law Enforcement and Criminal Justice Print (Washington, D.C.: Government Printing Office, 1977), p. 25.

inexperienced in evidence preservation and lacking the time to learn the proper techniques¹⁹. Even in those cases where there are clear indications of arson, it is often difficult to prove who is responsible.

Successful criminal prosecution of an arsonist requires proof beyond a reasonable doubt. This means the arsonist must be prosecuted under one of the arson laws of the state penal code. Appendix B, provides a look at a model arson law which some states have enacted. However, some state penal codes still list arson as a misdemeanor, or define it as the burning of one's own building. Also there are many states that have a statute of limitations on arson which is limited to one or two years.

These make it extremely difficult for effective prosecution to result. The conviction rate and the resulting decrease in arson can only improve as more states enact this law on an enforced basis.

Prevention Programs

With arson spiraling upward, a few agencies have taken it upon themselves to initiate programs attempting to combat it. The most effective of these programs is being used by Seattle, Washington. Their program has

¹⁹U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, p. 19.

been labeled as a model for other cities to follow by personnel in various federal agencies.

There are many programs utilized by small cities and rural areas; however, only six of them have showed a decrease in the arson rates. They are: the Task Force concept, public awareness, award programs, education (mainly in terms of fire and arson investigators), early warning systems, and security devices. These have proven to be somewhat effective against arson and are relatively feasible for local communities and states to adopt.

The Task Force concept. While anti-arson efforts in some cities are tangled in jurisdictional and political disputes, a few cities have moved forward. Of those cities that have made strides against arson, none have reached the level of Seattle, Washington or Buffalo, New York.

The arson task force is a relatively new concept used against this crime. Appendix C show the components most agencies use on their task force. The use of an arson task force can be an effective way to organize key disciplines in order to combat arson. Table 3 shows the various states who have initiated this concept. Many of the 27 states listed have been instrumental in establishing smaller task forces in their larger cities.

The efforts employed by Buffalo have cut the number of arson fires nearly 20 per cent from 1976 to 1977

Table 3.

Arson Advisory Organizations.

Alaska	Massachusetts	Oklahoma
Arizona	Michigan	Pennsylvania
California	Minnesota	Rhode Island
Colorado	Mississippi	Tennessee
Florida	Missouri	Texas
Illinois	New Jersey	Virginia
Indiana	New York	Washington
Kansas	North Carolina	West Virginia
Maryland	Ohio	Wisconsin

Source: Insurance Information Institute, "Texas Insurance Fact File Number 60A," Insurance Information Institute, pp. 1-4.

and the estimated property losses from all fires has been reduced by more than 2.4 million dollars during that period²⁰. This city has employed a coordinated task force concept applying the combined forces of the city, its agencies, the Area Chamber of Commerce, police and fire services, the Sheriff's office, and the District Attorney's office.

In many respects, Seattle is no different from other metropolitan communities. The problems they face are similar to those of other American cities. This was

²⁰"Close Cooperation Of All Directly Involved In Combating Arson Seen Key To Successful Control.", Insurance Advocate, 23 September 1978, pp. 1-20.

also true of the arson problem, until mid-1975, when the Mayor's Task Force on Arson was formed to attack the arson problem. This task force included representatives from nine agencies working to reduce the dollar loss and incidence of arson in Seattle. These nine agencies included the Seattle Fire and Police Departments, the Seattle Mayor's Office, the Seattle City Council, the King County Prosecutor's Office and the Department of Public Safety, the King County Fire Chiefs, the Seattle Chamber of Commerce, and the Washington Insurance Council²¹.

In 1971, Seattle's arson losses totaled \$621,000. By 1974, this figure had soared to \$3.2 million, five times that of the 1971 figure. By March of 1975, fire officials were estimating this figure would increase to \$4.4 million in losses. This expected increase never occurred. Instead, Seattle's arson losses declined to \$2.6 million in 1975 and dropped to \$1.9 million in 1976. Comparing 1974 with 1976, Seattle experienced a 14 per cent reduction in arson incidents and a 174 per cent increase in arrests of arsonists²². As can be seen by these two examples, the concept of the arson task force is one of importance in combating arson. Both of these cities have shown tremendous strides in the reduction of arson.

²¹U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, pp. 35-36.

²²Ibid., p. 45.

Public Awareness. The value of an effective public relations campaign as a method of preventing arson fires cannot be over emphasized. The informing of the public of goals and accomplishments has to play a major role in the reduction of arson fires. Also an effective public relations campaign will increase citizen involvement. Special programs can only be initiated after the public becomes aware of the scope of the problem.

Arson information programs have been successful in reducing arson fires in Seattle, Washington and Chicago.

In Chicago, for example, the Woodlawn Organization, a neighborhood improvement association, helped to reduce all fires from 1,653 to 518 during a seven month arson awareness program²³.

The Woodlawn Organization program was two-fold. First, it attempted to raise the level of arson awareness. Second, the program established a "Crime Watchers for Arson" committee to work with police and fire departments. The "Crime Watchers" kept on the alert for suspicious persons in the area²⁴.

Fire departments and other agencies involved in arson should develop a program of arson prevention as a

²³Ibid., p. 132.

²⁴Ibid., p. 131

part of the regular fire prevention program, and they should stress the impact of the crime of arson on life and property, including the fact that arson losses affect the pocketbook of every citizen. Also they must utilize the media fully to provide complete saturation of the community. The newspaper, radio, and television are the best avenues for those involved with fire prevention and control to publicize how they are dealing with the arson problem. In Appendix D, there is an example of how to organize a model arson awareness program.

Award Programs. Arson award programs have been very successful in the various states using them. These programs make monetary awards available for persons providing information leading to the arrest and conviction of arsonists.

The purpose of the program is to encourage reports from anyone with information which could prevent an incendiary fire or aid in catching a person who sets one. In most programs, the information may be given anonymously and the identity of the caller and the information will be given the fullest possible protection.

The amount of individual awards is based upon the degree of assistance provided and is usually determined by a panel of specialists in arson crime cases. However, most award programs only offer rewards of up to \$1,000.

This type of information is sought through a

continuing campaign of advertisements in local news media and other public information efforts. Various states are utilizing billboards and posters to inform the public of this program. Recently, several states have started a state-wide arson notification system known as an arson hotline. These states have found this new idea very effective in eliminating many cases of arson. Here again a state-wide advertisement campaign can be very instrumental in its success.

Education. Well trained and highly motivated arson investigators are an essential element of any comprehensive arson prevention and control program. A well planned and comprehensive education program for investigators will have a deterrent effect on arson. If the arsonist feels relatively sure he will be apprehended either during or after the fire the odds are one arson fire has been eliminated.

The model training program has again been initiated by Seattle. This program, while being very effective, is also cost effective if applied on a state or county level. Appendix E shows a detailed breakdown of the course, to include the three phases.

In the first class taught under this comprehensive program, 29 men started and 28 completed the course. The total cost for training these men was \$10,700 and was

completed in 286 hours²⁵.

The classes in this program could be adjusted to provide both additional time for certain subjects and the elimination and addition of local programs to increase its effectiveness. All those involved in arson investigation should be encouraged to attend a program of this type to increase the effectiveness of a prevention program.

Early Warning Systems. The early warning systems employed by various agencies against arson can be classified as either surveillance or computer based. These systems, if utilized correctly and publicized sufficiently, are another major deterrent to arson. These programs have been initiated with available local resources and prove to be very effective.

As far as prevention, one of the best procedures, is to use surveillance units which are in some cases identified as arson prevention units. The sole function of these units is to go into a community or area of the city and provide services to the officials of that area.

In establishing the reduction of arson fires in Seattle, it was apparent that a portion of the success rested upon the utilization of the 950 combat fire fighters to man a fire prevention patrol. These combat fire fighters were not asked to function as police officers but rather

²⁵Seattle Fire Department, Seattle, Washington, "Seattle Arson Task Force-Implementation Program," p. 42.

as a surveillance unit. The fire fighter patrolled at a slow speed (15-20 MPH) in a highly visible vehicle plainly identified. In all cases where a patrol member felt an unusual amount of suspicious activity was taking place, a police patrol would be requested. The fire department attributes the great success of this program to the exposure and saturation of the problem areas.

A Housing Early Warning System has been developed by a Boston community group. The system monitors key factors such as paper value, mortgage ratios, and yield a high fire probability forecast. The goal of this model was to secure measurements which would lead to 80-90 per cent accuracy in the prediction of deterioration, abandonment and finally arson. This system has been cited by Massachusetts public officials as the key element which led to the arrest of 32 members of a Boston arson ring. To date 8 of these members have been to trial and 7 have been successfully prosecuted and incarcerated for arson.

Security Devices. The use of security devices is an effective way of preventing arson. Although these devices may not be satisfactory for use in homes, they function superbly in areas like factories, schools, and the like. In 1974, 75 per cent of all school fires have been attributed to arson. The use of security devices by these facilities could have reduced this figure to approximately 40 per cent.

There are numerous devices which a business or educational facility can utilize; however, their use is not widespread at the present. School districts tend to spend less than one per cent of their total budget per year on security devices²⁶.

Alarms, like the facilities to be protected, are different. What works in one area may be unworkable or too expensive in another. To find the right type of alarm system, at the right cost, requires an evaluation of the facility's needs.

There are many different alarm systems to choose from. A brief list might include: silent alarms, either on a direct link to a local police department or a tape deck/telephone dialer which is connected to a central answering service; local alarms, both audible and visible devices which tend to frighten the intruder away; space detection alarms, such as microwave, ultrasonic, passive infrared, audio, or mechanical detectors; or closed circuit television which is extremely effective, expensive, and requires one or two persons to monitor a central console.

Exterior lighting and fencing systems are the most frequently used security devices by schools and private businesses. While their cost is relatively low, their

²⁶National School Public Relations Association, Violence and Vandalism (Arlington, Virginia: National School Public Relations Association, 1975), p. 10.

effectiveness is extremely limited. These type devices can and usually are made ineffective by the arsonist. For this reason, they are considered more a hinderance rather than a useful tool against the crime of arson.

Installed fire protection systems (e.g. fire alarms, smoke detectors, or sprinklers) have been credited with reducing the cost of arson in those buildings so equipped. Their cost and maintenance is considerably lower than alarms and they function against the arsonist. Whereas alarms announce the arrival of an intruder, who may set a fire, the installed system activates upon the fire itself. These systems are relatively difficult to disarm and therefore more effective than other devices.

In conclusion, this study has shown, thus far, the various motives employed by the arsonist and the major groups he is categorized into. The cost that the communities and the nation, as a whole, have to pay for arson have been examined. While the cost of arson is leading all Part I Index crimes against property, the conviction rate, as previously shown, falls far behind. These aspects have caused arson to reach the astronomical proportions it is at. Finally, some prevention programs that have been successful have been explored as to their feasibility and cost.

CHAPTER III

METHODOLOGY

In this study, all the valid statistics and possible solutions to the arson problem have been compiled and analyzed from all the relevant material published on the topic. This was done by extensively researching books and information received from agencies dealing exclusively with arson and arson prevention programs. Only significant data has been extracted to show how and if arson prevention is working to decrease arson by 15 per cent annually.

Secondly, a survey of ten state and federal agencies dealing with arson prevention has been conducted by the researcher. The purpose was to determine if there were any existing arson prevention programs that have achieved this reduction and to elicit recommendations on the type of programs to include in a model arson prevention program. The results were: all agencies responded to the survey; two had programs which dealt with arson prevention however their effectiveness was not significant; three had programs which reduced arson by over the 15 per cent level previously stated; and five agencies did not have any

arson prevention programs in effect or in the planning stages. The conclusion drawn from this survey is that a model arson prevention program is necessary and should be developed without haste.

Finally, interviews were conducted with key personnel in state and federal positions which deal with arson. Although some of these agencies did not deal with arson prevention, they offered assistance in locating agencies which exceeded the acceptable limits imposed upon this project. All personnel agreed completely that a model arson prevention program would be practical and is necessary to combat arson fires. It was the consensus of these personnel that this type of program is long over due.

CHAPTER IV

ANALYSIS

Arson is difficult to prevent for many reasons, mainly because it seems to lack the urgency or personal threat of such problems as robbery, murder, the struggle to earn a living, or sickness. Consequently, in terms of priorities, arson has not rated much concern from those who do not deal directly with fire prevention and control.

Arson has been on the increase for the last ten years, and will continue to increase at present levels until something is accomplished. A model arson prevention program needs to be developed to combat this increase before it becomes uncontrollable.

An effective prevention program must start out with the development of an arson task force. All agencies dealing with the arson epidemic must be drawn together to begin planning an effective attack. This task force should model that of the program presented in this chapter. This is no magic formula to immediately halt all arson fires. However, it gives notice to everyone in the community, from businessman to homeowner, that all possible local, state, private and federal agencies are

being combined to reduce arson.

As stated in the previous chapter, this concept is relatively new but is effective in reducing arson by at least 15 per cent annually.

In conjunction with this concept, an adequate public awareness program should be in effect. During the forming and subsequent actions of the task force, public relations should be utilized to inform the public of the results achieved in dealing with arson. As citizen involvement increases, special programs such as an arson awareness week, which saturates the public with an appeal for assistance in preventing arson should be established. Further programs could include an "arson rat" contest where children would compete to name this animal and thus learn more about fire and arson, the use of professional or outstanding local talent in an attempt to appeal to the public, or a multi-media campaign to inform the public of a toll-free arson hotline.

To increase the public knowledge of arson, a public relations coordinator should be named, from either the local or state arson task force or from the fire or police departments. This person would be responsible for local appearances before civic clubs and community groups. A suggested program for this might include: arson as a crime; types of arson and arsonists; the effect of arson on the general public and specially the local community;

and what the public can do to prevent arson.

The third aspect of this arson prevention program would be the establishment of an award program. Its purpose is to encourage people to report suspicious activity dealing with arson. Those states that have used this concept have reported it to be somewhat effective (an estimated five per cent) against arson. However, the cost of financing this program does not make it effective for use on a local level. It is encouraged, therefore, that a program of this nature be established on either a state or federal level. Only then, would this program be cost effective and easily justified to be included in this model.

The fourth area of this model is education. The program of educating investigators in Appendix E is effective for all levels of government. However, this program should be initiated on at least a county level to encourage greater participation and better results. As more investigators become adequately trained in arson, greater returns will result.

The final area of this model is the use of surveillance units. This program can be initiated on a town or county level utilizing county funds. The local fire department would be tasked with supplying personnel to perform this function either within their own town or on a county unit.

The effectiveness of this operation seems difficult to determine. However, it is the researcher's opinion, after extensive analysis, that this program could reduce arson by at least five per cent annually. The cost of this program is relatively low as resources of the fire department (e.g. fire fighters, volunteers, etc.) are utilized with the only cost being in fuel and added expenses incurred by the vehicles. For this reason, its results would definitely justify its cost and inclusion into this model program.

In Chapter II, two other programs were explored. While they are adequate programs as far as prevention, they have some major faults. The use of an early warning system, such as that used by Boston, at the present is too costly to be included. Also a local community, with a population of approximately 25,000 would find it hard to justify against its benefits.

The second program, security devices, is also not suitable for this model because of its cost factor. The various devices were found not suitable because of the cost being passed on to the community as a whole. If a business is run effectively, these devices will already be in use. If the police department and/or private security guards function to their fullest capacity, these systems, in many cases, can be eliminated and thereby release the community from such a costly venture.

After compiling all the previously mentioned data a model arson program has been developed. Some aspects of preventive measures were discarded as not effective for use in a small community. Others were combined, and in doing so, formed this model arson program.

ARSON PREVENTION PROGRAM

1) Goals.

- a) To initiate an effective arson prevention program to reduce arson by 15 per cent annually.
- b) To organize key disciplines into a functional agency in order to combat arson.

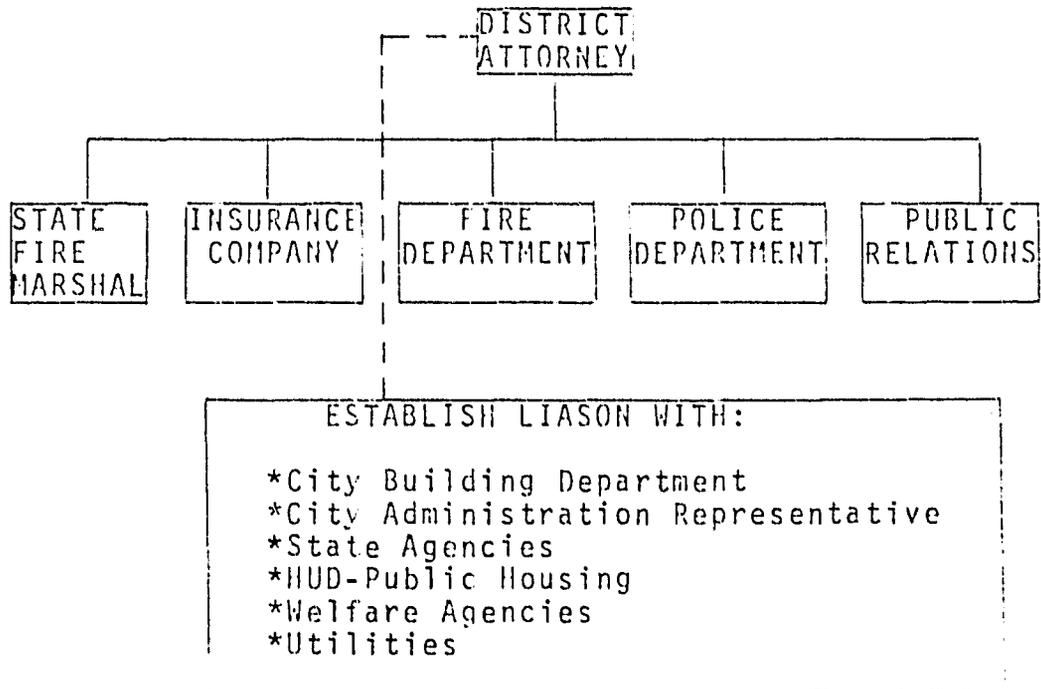
2) Responsibilities.

- a) District Attorney. The District Attorney's office will provide leadership in determining action programs, obtaining cooperation, improving communication among disciplines and eliminating jurisdictional problems.
- b) State Fire Marshal. The State Fire Marshal's office will supply the power to issue subpoenas and the power to hold investigative hearings.
- c) Fire Department. The Fire Department will provide personnel to attend arson investigation training sessions. In addition, provide experienced instructors to teach the arson investigation program. Also this agency will provide personnel to equip a surveillance unit or units in areas identified as priority areas.
- d) Police Department. The Police Department will supply experienced personnel to assist the Fire Department in the instruction of the arson investigation program.

- e) Insurance Company Representative. The representative of this unit will complement the work of the other authorities to include such evidence as proof of loss, examination under oath, inventories, and ownership as applicable.
- f) Public Relations Coordinator. This position will be named from the agencies involved in this concept. The primary function of this office will be to establish the proper communication channels with the media for adequate publicity coverage. Also this office will be the focal point for public appearances before civic clubs and other community groups.
- g) Other areas. All other areas (Department of Housing and Urban Development, City Building Departments, Utilities, state agencies concerned with arson and various city social services) will be utilized to complement the actions of this task force.

3) Organization.

The following is an organizational flow chart of the agencies responsible for this program.



4) Scope.

The scope of this program will be to present at least 25 public appearances annually to civic clubs and community groups in the county on aspects of arson prevention and this program. Also at least 15 appearances will be made at the county schools to discuss the juvenile association with arson and arson prevention.

5) Activities.

- a) Establish an arson investigation education program geared toward police and fire department personnel expressing an interest in investigation.
- b) Organize a public awareness program to be presented to community groups, civic clubs, and students of various ages. This program should include such topics as: arson as a crime; types of arson and arsonists; the effect of arson; and what the public can do to prevent arson.
- c) Organize key disciplines into a functional agency to combat arson. These disciplines would be organized under the direction of the District Attorney and would function as listed in Section 3.
- d) Establish procedures to be utilized by the surveillance units. In addition, a policy must be established between police and fire departments in respect to these surveillance units.
- e) Coordinate with state insurance companies to establish an arson award system and hotline for state use. After establishment, this program would be publicized by the Public Relations Coordinator.

6) Timing.

This program should be initiated as soon as practicable and operate on a yearly basis. All projects of this program have been developed efficiently enough so that they may be utilized the entire year. In addition, the surveillance units should only be utilized when the arson rate in a priority area is

sufficient to warrant the added expense and not on an everyday basis.

7) Location.

This program can be utilized on a county or state level by both field officers and specialists in the field of arson and arson prevention. It is discouraged that this program be initiated on a town level unless resources are sufficient enough to support it and the added expense is justified by the present arson rate.

As stated in the section on scope, arson awareness programs will be presented on a county level by a specialist in public relations to civic clubs, community groups, and students as necessary.

The use of the surveillance units in this program may be operated in the various towns and cities of the county as deemed necessary by the task force. This project should utilize all available resources of the particular town or city as well as those of the county.

8) Interrelationships.

A functional relationship with the following agencies will have to be established: State Police and Fire Academies, local schools, civic clubs, community groups, federal agencies dealing with arson, city building departments, and welfare organizations. These agencies will be utilized to a large degree in this program to supplement those actions required by the Arson Task Force. Also a relationship with the Law Enforcement Assistance Administration must be established to utilize the expertise of this organization in obtaining needed funding to support necessary projects.

EXPECTED RESULTS

1) Measures of effectiveness.

After the first six months an evaluation of the program will be accomplished to determine if arson has decreased by approximately

eight per cent. This evaluation should consider both seasonal and economic conditions of the local area. In addition, an informal survey of the general public should be conducted to ascertain if public support and arson awareness has increased due to this program.

2) Measures of efficiency.

After the first three months an examination of the programs expenditures should be conducted and evaluated to determine if the results are worth the cost. During this three month period the total cost should be approximately 25,000 dollars. If this total cost is exceeded a careful examination is necessary to determine waste areas and reasons for added expense.

3) Targeted Milestones.

- a) Within the first month of operation the task force should have one meeting of its full membership. Also the first surveillance unit should be trained and placed into operation.
- b) Within the first two months, the first public appearance before a civic club or community group and school should be accomplished. Also the first class in arson investigation should have begun with a graduation date during the third month.
- c) At the end of the third month an evaluation of the expenditures will be performed to determine the total cost of operation.
- d) During the sixth month an evaluation of the program will be accomplished to determine if arson has decreased by approximately eight per cent. Also the arson award program and hotline should be ready for initiation on a state level.

ESTIMATED RESOURCES

Training (instructors)	\$42,800
Supplies	\$10,000
Equipment (typewriters, etc.)	\$20,000
Operating Expenses (fuel, rentals)	<u>\$25,000</u>
Total	\$97,800

All other resources for this program can be utilized from the agencies in this program by way of personnel and expertise.

In conclusion, an examination of prevention programs has been conducted and a model arson prevention program has been developed. This program, briefly stated, begins with the establishment of a task force. It is this task force's responsibility to initiate the other areas of this model (e.g., public awareness, an arson award program, surveillance units, and education). It has been shown that these programs would, if combined, reduce arson by 15 per cent annually in previous chapters. Finally, two programs were examined and eliminated from inclusion in this model because they were not feasible or cost effective for a small community.

CHAPTER V

SUMMARY AND CONCLUSION

This report has examined a few of the basic problems associated with arson in our present day society. It has been shown that arson is a far more costly crime than the Part 1 Index crimes against property. However, due to its lack of urgency, arson is trailing in convictions with a mere 0.7 people being incarcerated for every 100 incidents.

Arson has grown from blocks to miles and will continue at its present rate until something is done to start its reversal. This trend could be reversed if a model arson prevention program were developed. There are several programs which, if combined, could reduce arson. These programs have been introduced and analyzed as to their feasibility and effectiveness in a model program. From these programs five were considered to meet the necessary criteria for inclusion into this model.

A model arson prevention program was then developed using these programs. This model is no magical formula to completely halt and eliminate arson; however, it is a starting point. It has been shown that this program will reduce arson by 15 per cent annually. It was

determined by the researcher that a reduction of less than 15 per cent would be too intangible and a reduction of more is an impossibility for many communities.

In conclusion, it is suggested that all agencies involved with arson initiate this program on arson prevention. It has proven to be effective and relatively low cost for inclusion on a community basis. Although the crime of arson cannot be completely eliminated immediately, a trend toward reduction can be begun with this goal in mind.

APPENDIX A

THE MOTIVES FOR SETTING FIRES*

1. The profit motive undoubtedly stimulates the crime of arson more than any other. Defrauding the insurance companies or other personal gains are the most overwhelming incentives for any person. In this section we shall cover the profit or economic gain where the insured benefits directly.

Where any of the following situations exist, there is what is termed a moral hazard. This will often lead to property being destroyed by fire.

- a. Owner no longer wants property and is unable to dispose of it.
- b. Settle an estate.
- c. Too high an inventory and an absence of a ready market.
- d. Failure to receive expected orders that are filled.
- e. To avert an expected failure because of poor business conditions.
- f. Orders unexpectedly cancelled and the manufacturer is unable to dispose of the goods.
- g. Urgent need for ready cash to be used to start another business or pay pressing obligations.
- h. Sale of land; building to be removed before a given date.
- i. Dissolve a partnership.
- j. Business quarters outgrown.

- k. Desire to move to a better location.
 - l. Unable to collect accounts due.
 - m. Insured unable to meet financial obligations such as: Mortgage interests, notes payable, taxes, accounts past due, rent, insurance premiums, wages.
 - n. Where the building has been condemned, or is about to be, because of unsanitary reasons.
2. Economic gain where the insured is the innocent party but the perpetrator benefits directly or indirectly.

The more important motives in this class stem from:

- a. Adjusters--to secure contracts to adjust the loss.
 - b. Insurance agents--to increase business.
 - c. Building contractors--to secure contracts to rebuild or wreck.
 - d. Competitors--to eliminate business rivals.
 - e. To secure employment as protection personnel, e.g. watchman, fireman, policeman.
 - f. To secure a contract to handle salvage or to purchase salvaged materials.
3. To achieve some personal satisfaction, such as aid to a cause, attain a goal, spite or revenge, sabotage.

Fires started for these reasons are numerous and costly. Some of the motives found in this area are:

- a. During mob activities to create confusion and excitement.
- b. During riots to spread terror.
- c. Acts of strikers to intimidate employers.
- d. Hate motives (usually against building owners or occupants), such as: to obtain revenge, as a means of redress, because of spite, result of jealousy, feuds.

- e. For extortion, or forcing certain individuals or firms to pay tributes to racketeers.
4. Resorting to arson to conceal some other criminal activity.
- a. To obliterate evidence of another crime.
 - b. Destroy records showing embezzlement, forgery, false records, etc.
 - c. To conceal such crimes as burglary, larceny, murder.
 - d. To divert attention of protection personnel to loot the premises, to burglarize another location in the same community, to create confusion while shoplifting.
 - e. In an effort to break out of jail, prison, state hospital or other institution.
5. Arson by the mentally afflicted, pyromaniacs, psychopathic cases, etc.

Persons motivated by certain mental afflictions to start fires may be classified as follows:

- a. Suffering from some form of insanity.
- b. Psychopathic without a psychosis; motive often stems from such desires as:
 - To become a hero
 - To create excitement
 - To accomplish something-"EGO"
 - To be the center of attention
- c. While under the influence of an artificial stimulus- such as drug addicts, alcoholics, etc.
- d. Mentally defectives-idiots, imbeciles, morons.

*Source: U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, The Social Response to Incendiary Fire, Appendix E, by S. Rottenberg, National Institute of Law Enforcement and Criminal Justice Print (Washington, D.C.: U.S. Department of Justice, 1976), pp. E-1-E-4.

APPENDIX B

THE MODEL ARSON LAW*

Arson:First Degree.

Burning of dwellings. Any person who willfully and maliciously sets fire to or burns or causes to be burned or who aids, counsels, or procures the burning of any dwelling house, whether occupied, unoccupied or vacant, or any kitchen, shop, barn, stable, or other outhouse that is parcel thereof or belongs to or adjoining thereto, whether the property of himself or of another, shall be guilty of Arson in the first degree, and upon conviction thereof be sentenced to the penitentiary for not less than two nor more than twenty years.

Arson:Second Degree.

Burning of buildings, etc., other than dwellings. Any person who willfully and maliciously sets fire to or burns or causes to be burned, or who aids, counsels, or procures the burning of any building or structure of whatsoever class or character, whether the property of himself or of another, not included or described in the preceding section, shall be guilty of Arson in the second degree, and upon conviction thereof, be sentenced to the penitentiary for not less than one nor more than ten years.

Arson:Third Degree.

Burning of other property. Any person who willfully and maliciously sets fire to or burns or causes to be burned or who aids, counsels, or procures the burning of any personal property of whatsoever class or character (such property being of the value of twenty-five dollars and the property of another person) shall be guilty of Arson in the third degree and upon conviction thereof, be sentenced to the penitentiary for not less than one nor more than three years.

Arson:Fourth Degree.

Attempt to burn buildings or property. (a) Any person who willfully and maliciously attempts to set fire to or attempts to burn or aid, counsel, or procure the burning of any of the buildings or property mentioned in the foregoing sections, or who commits any act preliminary thereto, or in furtherance thereof, shall be guilty of Arson in the fourth degree and upon conviction thereof, be sentenced to the penitentiary for not less than one nor more than two years or fined not to exceed one thousand dollars.

Definition of an attempt to burn. (b) The placing or distributing of any flammable, explosive or combustible material or substance, or any device in any building or property mentioned in the foregoing sections in an arrangement or preparation with intent to eventually willfully and maliciously set fire to or burn same, or to procure the setting fire to or burning of same shall, for the purpose of this act constitute an attempt to burn such building or property.

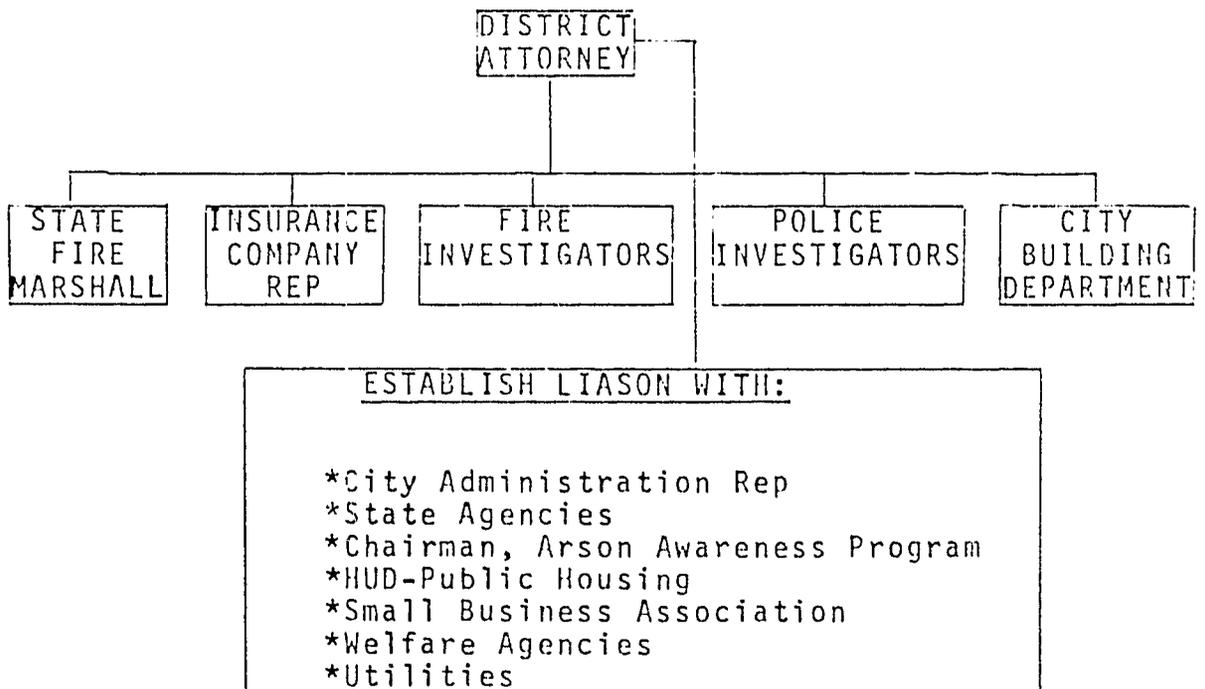
Burning to defraud insurer. Any person who willfully and with intent to injure or defraud the insurer sets fire to or burns or attempts to do so or who causes to be burned or who aids, counsels, or procures the burning of any building, structure or personal property, of whatsoever class or character, whether the property of himself or of another, which shall at the time be insured by any person, company or corporation against loss of damage by fire, shall be guilty of a felony and upon conviction thereof, be sentenced to the penitentiary for not less than one nor more than five years.

*Source: U.S. Justice Department, National Institute of Law Enforcement and Criminal Justice, Arson and Arson Investigation, by John F. Boudreau, Quon Y. Kwan, William E. Faragher, and Genevieve C. Denault, National Institute of Law Enforcement and Criminal Justice Print (Washington, D.C.: Government Printing Office, 1977), pp. 1-3.

APPENDIX C

ANTI-ARSON TASK FORCE*

Use of an Arson Task Force can be effective way to organize key disciplines in order to combat arson. In brief, here are the components needed in a Task Force as suggested by the American Mutual Insurance Alliance and the Property Loss Research Bureau:



District Attorney-- A representative of the District Attorney's office is the quarterback of the Arson Task Force. He works directly with investigators from the fire and police departments, representatives from the state fire marshal's office, and insurance company's representatives. A key advantage is that investigators are better able to obtain answers

to their questions concerning proper evidence, legal and investigative procedures, and search and seizure procedures. Also, investigators are better able to prepare and provide input to the prosecutor's case in order to successfully obtain a conviction of guilty parties. At the same time the prosecutor's office is more familiar with the case, having been involved from the start. In brief, the District Attorney's office provides leadership in determining action programs, obtaining cooperation, improving communication among disciplines and eliminating jurisdictional problems.

Investigators-- The Task Force should be staffed with police and fire arson investigators experienced in the areas of (1) fire science, (2) criminal investigation, (3) criminal law, and (4) evidence. The police and fire arson investigators will be under one authority, the District Attorney's office. In this manner jurisdictional problems are eliminated.

Insurance Company Representative-- Can complement the work of local authorities, providing evidence that might be needed such as proof of loss, examination under oath, inventories, and ownership.

State Fire Marshal's Representative-- Usually State Fire Marshals have the power to issue subpoenas for books, records, and witnesses. Also, the State Fire Marshal's office usually has the power to hold investigative hearings.

Department of Housing and Urban Development-- HUD can provide records on how the property was maintained, verify ownership and name mortgagee.

City Building Departments-- City Building Departments are responsible for building upkeep and code or ordinance violations. They can provide a record indicating whether there were code or ordinance violations.

Utilities-- Can provide the Task Force with information whether the power, gas, or other vital services, were on or off at the time of the fire, plus other possible pertinent information.

Other Possibilities-- Include a representative from the city administration, state agencies concerned with arson other than the State Fire Marshal's office, and the chairman of any local arson

awareness program if one is in operation. Also, various city social agencies concerned with the arson program may serve on the Task Force to broaden the support and action base.

Each community should develop its Task Force to meet the specific needs of the community. Thus, each Task Force will have a separate and unique makeup to serve most effectively the local needs.

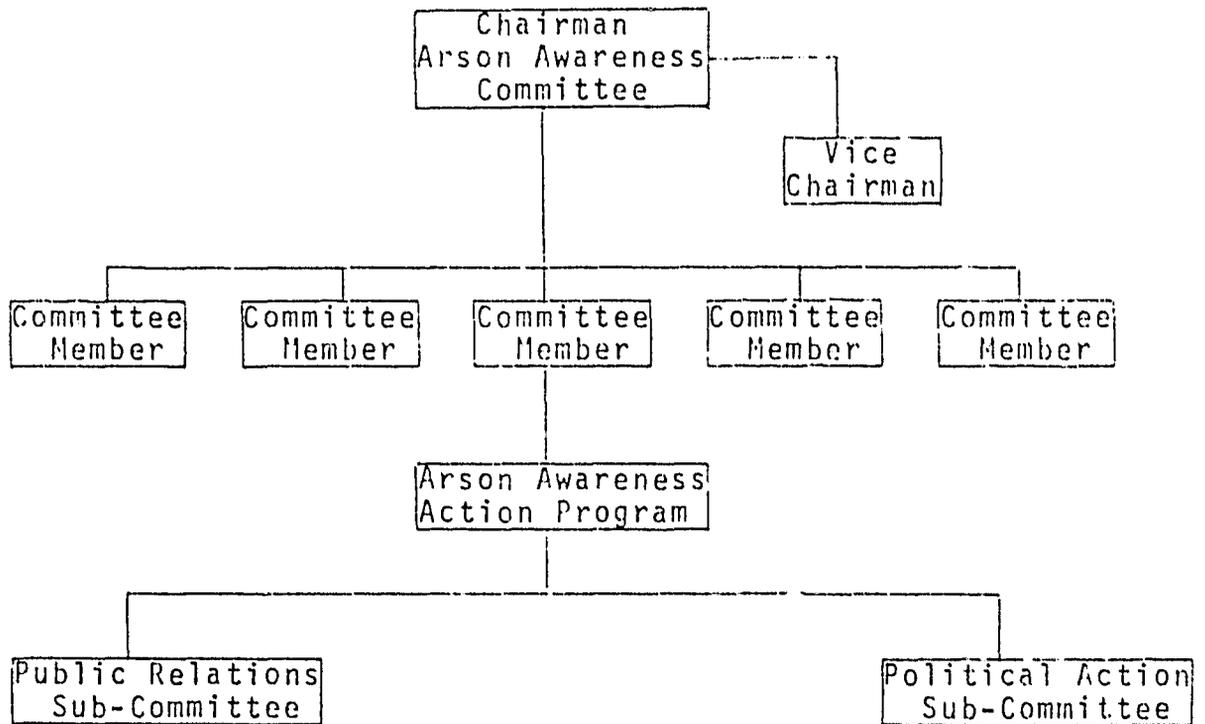
*Source: U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, Hearings before the Subcommittee on Intergovernmental Relations. 95d Cong., 1st Sess., 1977, pp. 142-143.

APPENDIX D

MODEL ARSON AWARENESS PROGRAM*

The following is an organizational flow chart depicting the model arson awareness program that has been successful in reducing arson.

ARSON AWARENESS PROGRAM



1. Determine objectives and needs
2. Possible assignments
 - crisscross city with media calls
 - conduct consumer seminars
 - conduct media seminars

1. Determine objectives and needs
2. Possible assignments
 - direct legislative activity
 - direct local organizations for contact with legislators

Public Relations Sub-Committee

Determine Needs

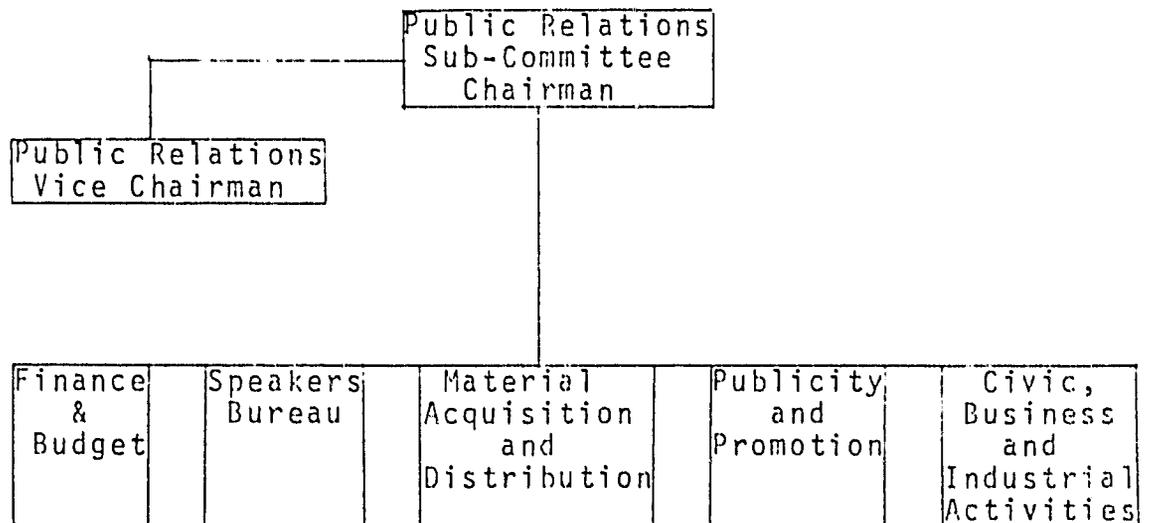
- Set up objectives
- What type of committee and structure?
- Determine resources-people
- What type of theme or themes?
- Nag Campaign

Set up Objectives-- In this case quite simple:

Reduce arson by a public awareness program.

What type of Committee

One type might be:



Note: At present, there is no set organizational flow chart for the Political Action Sub-Committee because it is made up of mostly legislators and others concerned with arson laws.

*Source: U.S., Congress, Senate, Committee on Governmental Affairs, Arson-For-Profit: Its Impact on States and Localities, Hearings before the Subcommittee on Intergovernmental Relations, 95d Cong., 1st Sess., 1977, pp. 134-141.

APPENDIX E

ARSON EDUCATION PROGRAM*

The following is an outline for the arson investigator's education program. Some of the courses of this program can be removed and others submitted to make it more effective for the local area. This program has three phases, all of which may be used or the phases may be initiated separately.

Phase I--Arson Investigator's Basic Training Course

Subject Titles	Class Hours
1. Listening and Note taking	1
2. Report Writing	10
3. Perception and Communication	2
4. Arrest, Search, and Seizure	14
5. U.S. Constitution	2
6. Justice System	4
7. Criminal Law	20
8. Abnormal Psychology (Interviewing Arson Suspects)	16
9. Use of Force	4
10. Firearms	24
11. Fire-Police Relations	1
12. Rules of Evidence	9
13. Criminal Investigation	16
14. Court Testimony	2
15. Juvenile Procedures	3
16. Fingerprinting	6
17. Liquor Control, Gambling Commission, and Vice	4
18. Crime Lab Techniques	4
19. Narcotics	4
20. Medical Examiner	2
21. Mock Scenes	16
22. Critique	2
Total	166

Phase II--Crime Scene Investigation Course

Subject Titles	Class Hours
1. Introduction to Physical Evidence and Police Laboratory	3
2. Fencing	1
3. Legal Aspect of Physical Evidence	1
4. Lab Request and other Reports	1
5. Narcotics	2
6. Trace Evidence (such as hair, dirt, paint)	3
7. Notes, Reports, and Statements	1
8. Physical Evidence in Vice	1
9. Physical Evidence in Assaults and Death Investigations	2
10. Crime Scene Sketches	1
11. Auto Theft	2
12. Physical Evidence in Traffic Offenses	2
13. Physical Evidence in Rape Investigations	1
14. Medical Examiner	2
15. Crime Scene Photography	1
16. Burglary and Safe Burglary	3
17. Fingerprints	1
18. Explosives	2
19. Interviewing Witness and Canvassing Neighborhoods	2
20. Practical Application of Techniques	8
Total	40

Phase III--Advanced Arson Investigation Course

Course Outline

- I. Introduction
 - a) Course objectives
 - b) Responsibilities in arson prevention, detection and investigation
- II. Fire Losses and Causes
 - a) Historical analysis
 - b) Operational analysis
 1. Application of historical data
 2. Identification of target areas and buildings
 3. Determination of high probability areas

III. Determining Point of Origin and Cause

- a) Exterior and interior observations
- b) Sources of ignition
 - 1. Field demonstrations regarding specific areas, points of origin, and related causes
 - 2. Preservation of evidence

IV. Recognition of Arson

- a) Incendiary motivations
 - 1. Profit
 - 2. Concealment
 - 3. Intimidation
 - 4. Non-rational
- b) Common incendiary methods
 - 1. Ignition methods
 - 2. Accelerants
 - 3. Trailers
 - 4. Mechanical devices
- c) Observations
- d) Arson rings
- e) Field demonstrations
 - 1. Detection or recognition of unusual or abnormal circumstances, situations, or conditions
 - 2. Demonstration of incendiary methods, fire bombs, and timing devices

V. Crime Scene Photography

- a) Perspective
- b) Blast exposure calculations
- c) Basic fire service photography
- d) Special fire related problems
- e) Court admissibility

VI. Records and Reports

- a) Initial
 - 1. Preliminary investigative report
 - 2. Original fire report
- b) Records
 - 1. Suspects
 - 2. Related fires

VII. Information Sources

- a) Local
- b) State
- c) Regional
- d) National

VIII. Court Procedure

- a) How to give proper testimony
- b) The expert witness--how he/she is used and can testify to an opinion
- c) Qualifications of an expert witness
- d) Hearsay rules and application
- e) Prosecutors Office

IX. Critique of Field Demonstrations, Photograph Evaluation, Points of Origin, and Fire Fighting Factors

X. Examinations

This concludes the training and education program for police and fire department personnel wishing to become arson investigators. This program seems to be complete in all aspects of importance.

*Source: Seattle Fire Department, Seattle, Washington, "Seattle Arson Task Force-Implementation Program," Seattle, 1975. (Mimeographed.)

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