Journal of Criminal Law and Criminology

Volume 66 | Issue 1 Article 7

1975

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THE JOURNAL OF CRIMINAL LAW & CRIMINOLOGY
Vol. 66, No. 1

Printed in U.S.A.

SKYJACKING CRIME CONTROL MODELS

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A model of crime control is an abstraction which may be inferred from specific crime control policies. Consideration of the models implicit in specific policies permits the social scientist to evaluate the broader implications of various crime control strategies. It further permits policy-makers to detect and eliminate contradictory aspects of their policies, thereby maximizing effectiveness in terms of stated objectives.

Historically, the two dominant approaches to crime control have been the deterrence model and the positivistic rehabilitation model. More recently, a prevention[1] model has emerged as an alternative control system for some forms of crime.

There are three major issues which a crime control model must address: effectiveness, fiscal cost and social costs. By these criteria, neither the deterrence model nor the rehabilitation model has been very successful.

Deterrence appears to be effective only for instrumental offenses committed by those with a high stake in conformity. Two examples are parking violations and "snitch" shoplifting.[2] Fiscally, a deterrence model would require a massive machinery to ensure swiftness, severity and certainty of punishment for all offenders.[3] Due to the enormous social costs involved,[4] such a machinery would probably be impracticable in a democratic society.

As correctional statistics routinely indicate, the rehabilitation model has also been ineffective for crime control. Further, the rehabilitation model is a reactive system, incapable of being employed until after the crime occurs.[5] Although the fiscal cost of a rehabilitation model is enormous,[6] attention is now being increasingly focused on the *social* costs of rehabilitative systems. Involuntary commitment, denial of due process, stigmatization, indeterminate commitment and lack of effective treatment are problems which have tarnished the rehabilitative ideal.[7]

The prevention model discussed in this paper is one of "mechanical" or "primary" prevention. As Lejins notes, in this form of prevention model, obstacles are placed in the way of the potential offender so that it becomes difficult or impossible for him to commit an offense. This preventive action does not involve the personality of the individual since there is no attempt to influence his intentions by

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The author wishes to thank the Federal Aviation Administration for the provision of skyjacking data and other information used in this article.

[1] As used herein, "prevention" refers to the elimination of the opportunity for crime through modification of the environment in which crime occurs. *See generally* C. R. JEFFERY, CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (1971).

[2] M. CAMERON, THE BOOSTER AND THE SNITCH (1964); W. CHAMBLISS, CRIME & THE LEGAL PROCESS 365-72 (1969); E. ZIMRING & G. HAWKINS, DETERRENCE (1973); Chambliss, *The Deterrent Influence of Punishment*, 12 CRIME & DELINQUENCY 70 (1966). *See also* Tittle & Logan, *Sanctions and Deviance: Evidence and Remaining Questions*, 7 LAW & SOCIETY REV. 371 (1973).

[3] Jeffery estimates that a ninety-fold increase of the entire criminal justice system would be necessary. Jeffery, Environmental Design and the Prevention of Behavioral Disorders and Criminality, (paper presented at the Centre of Criminology, University of Toronto, January 25, 1973).

[4] A fully-applied deterrence model would require nullification of customary procedural safeguards, such as the freedom from unwarranted search and seizure, or the right to trial. For a description of the use of such a deterrence model during emergency conditions, see H. SALISBURY, THE 900 DAYS 516-19 (1969). Even a limited deterrence model, however, raises certain ethical issues, such as the application of exemplary penalties. Andenaes, *The General Preventive Effects of Punishment*, 114 U. PA. L. REV. 949 (1966).

[5] C. R. JEFFERY, CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN 18-20 (1971).

[6] REPORT OF THE PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, TASK FORCE REPORT: CRIME AND ITS IMPACT —AN ASSESSMENT 53-56 (1967).

[7] *See generally* F. ALLEN, THE BORDERLAND OF CRIMINAL JUSTICE (1964); N. KITTRIE, THE RIGHT TO BE DIFFERENT (1971); T. SZASZ, PSYCHIATRIC JUSTICE (1965); Rosenhan, *On Being Sane in Insane Places*, 179 SCIENCE 250 (1973).

threatening punishment or by changing his motivation. As a result, the term mechanical prevention is suggested.[8]

There is little support for such a prevention model. Decker found that installation of parking meters which rejected slugs and displayed the last coin deposited in a coin view window reduced the rate of slug usage more effectively than labels warning of severe legal penalties.[9] Newman found that certain types of architectural design were related to crime rates in public housing developments.[10] Jeffery argues that:

> Current emphasis is placed on *indirect* controls on the *individual criminal after* the offense has occurred. The model to be developed and supported in this book is one of *direct* controls over *environmental conditions before* the offense has occurred. It is economically less expensive to design an environment in which crimes are not possible than to rehabilitate all who have the opportunity to commit crimes.[11]

Jeffery's faith, however, rests more on the demonstrated failures of the deterrence and rehabilitation models than on the demonstrated success of a prevention model.

Because the prevention model has rarely been applied, systematic analysis of its effectiveness, fiscal cost and social costs has not previously been available.[12] Consequently, it is necessary to consider the history of a particular crime and efforts to control it in the United States. It is the contention of this article that the history of skyjacking control efforts represents a movement from a deterrence model to a prevention model. This movement permits a case-history analysis of the effectiveness, fiscal cost and social costs of preventive crime control.

Skyjacking in the United States

As indicated in Table 1, about 40 per cent of all skyjackings and skyjacking attempts have involved United States aircraft (37 per cent of successes and of attempts for 1930–1974, 44 per cent of successes and 43 per cent of attempts for 1968–1974). In the United States, 102 (61 per cent) of the 168 attempts have been successful.[13] The history of skyjackings in the United States may be divided into three phases, according to the dominant motives of the skyjackers: escape, political terrorism and extortion.[14]

The apparent motive of most American skyjackings has been escape to Cuba. 86 of the 102 successful skyjackings have terminated there. Prior to 1961, the United States' only experience with skyjacking was the receiving, welcoming and granting of political asylum to refugees fleeing Castro's Cuba.[15] Thus, when the first American airliner was diverted to Cuba in May, 1961, the United States was caught in a politically embarassing situation. That plane was held by the Cuban government for almost a month before it was exchanged for a Cuban naval vessel moored in Key West. American skyjackers considered Cuba a haven for the next decade, even though their reception there was uncertain: Some were welcomed as friends of the Cuban people; some were returned to the United States; and some were imprisoned in

[8] Lejins, *The Field of Prevention,* in Delinquency Prevention 5 (W. Amos & C. Wellford eds. 1967). Brantingham describes primary prevention as the elimination of the opportunity for crime through modification of the environment in which crime occurs, as opposed to the identification and treatment of predelinquents (secondary prevention) or the prevention of recidivism by convicted offenders (tertiary prevention). Brantingham, Spatial Analysis of Crime and Primary Prevention (paper presented at Regional Conference for Criminal Justice Planning Personnel, Tallahassee, Florida, September 18, 1973).

[9] Decker, *Curbside Deterrence?,* 10 Criminology 127 (1972).

[10] O. Newman, Defensible Space (1972). *See also* Jeffery, Environmental Design and the Prevention of Behaviorial Disorders and Criminality (paper presented at the Centre of Criminology, University of Toronto, January 25, 1973).

[11] C. R. Jeffery, Crime Prevention Through Environmental Design 20 (1971) (italics in original).

[12] Newman, for example, does not explicitly discuss the fiscal and social costs of defensible space design. Newman, *supra* note 10.

[13] Unless otherwise cited, all data on hijacking are derived from Federal Aviation Administration, Civil Aviation Security Service, Worldwide Reported Hijacking Attempts—Summarization, (Jan. 1, 1975) [hereinafter cited as Hijacking Attempts].

[14] *Cf.* Sundberg, *Political Hijacking,* in Politics, Crime and the International Scene 108 (F. Adler & G. Mueller eds. 1972); R. Turi, C. Friel, R. Sheldon & J. Matthews, Descriptive Study of Aircraft Hijacking 143 (1972).

[15] R. Turi, *supra* note 14, at 143.

TABLE 1

Successful and Total Skyjacking Attempts, United States and Worldwide, 1930–1974

Year	Successful Attempts			Total Attempts		
	U.S.	World[a]	U.S.%	U.S.	World[a]	U.S.%
1930–1967	7	59	12	12	79	15
1968	18	29	62	22	35	63
1969	33	70	47	40	87	46
1970	18	55	33	27	83	33
1971	12	22	55	27	58	47
1972	10	23	43	31	62	50
1973	1	11	9	2	22	9
1974	3	8	38	7	26	27
Total	102	277	37	168	452	37

SOURCE: FEDERAL AVIATION ADMINISTRATION, CIVIL AVIATION SECURITY SERVICE, "WORLDWIDE REPORTED HIJACKING ATTEMPTS—SUMMARIZATION," (January 1, 1975).

[a] Including United States.

Cuba.[16] Six of the seven successful skyjackings (of twelve attempts) in the United States between 1961 and 1967 terminated in Cuba. Skyjackings increased dramatically in 1968, when 18 of 22 attempts were successful in reaching Cuba.

In 1969, skyjackings to Cuba continued, but in that year the United States was introduced to skyjacking as a form of political terrorism.[17] On August 29, 1969, two members of the Popular Front for the Liberation of Palestine (PFLP) hijacked an American airliner, flew it to Damascus, and, after releasing the passengers and crew, destroyed the aircraft. The PFLP conducted several other terrorist skyjackings against Israel, the United States and other pro-Israeli states in 1969 and 1970. The culminating action was Operation Abu Thalaat, which resulted in the destruction of four jetliners in September, 1970. It enabled the PFLP to exchange hostages for prisoners captured during earlier operations, but the action also incensed world opinion and led to the subsequent crushing of the PFLP by the Royal Jordanian Army.[18]

The extortion phase of skyjacking began on November 24, 1971, when D.B. Cooper extorted $200,000 from Northwestern Airlines and parachuted into the forest near Woodland, Washington.[19] Since Cooper's successful and famous extortion skyjacking, there have been twenty-one other extortion attempts in the United States, including several attempts to duplicate Cooper's act. None, however, have been ultimately successful.[20]

[16] U.S. NEWS & W. REP., Dec. 4, 1972, at 44; J. AREY, THE SKY PIRATES 49–74 (1972).

[17] The distinction between terror and terrorism must be noted. Although any skyjacking may evoke terror (a state of extreme fearfulness), the concept of terrorism implies the systematic use of violence by an organized party or group in order to achieve its goals. Hardman, *Terrorism*, 14 ENCYCLOPEDIA OF THE SOCIAL SCIENCES 575 (E. Seligman ed. 1937). *See also* Hutchinson, *The Concept of Revolutionary Terrorism*, 16 J. CONFLICT RESOLUTION 383 (1972). For a fuller discussion of terrorist skyjackings see Sundberg, *supra* note 14.

[18] Sundberg, *supra* note 14, at 116.

[19] Sagarin identifies Cooper as an "anti-hero." Sagarin, *New Offenses: New Offenders—Introduction*, in POLITICS, CRIME AND THE INTERNATIONAL SCENE 9 (F. Adler & G. Mueller eds. 1972).

[20] In three of the twenty-one attempts, the skyjackers reached their destination, but were either placed in custody there or had the extorted funds confiscated and returned. Only Cooper is presumed free with the money he extorted. Air Transport Association, Hijacking/Extortion Attempts: A Study of Futility (mimeographed, 1973) [Hereinafter cited as Hijacking/Extortion Attempts]; FEDERAL AVIATION ADMINISTRATION, CIVIL AVIATION SECURITY SERVICE, DOMESTIC AND FOREIGN AIRBRAFT HIJACKING, (Jan. 1, 1975).

Skyjacking Control Efforts[21]

Efforts to control skyjacking may be best understood as representative of underlying crime control models. Viewed in this sense, the history of skyjacking control efforts demonstrates a progression from a deterrence model to a prevention model of crime control. (Because of the crime's unique combination of characteristics, a rehabilitation model has never been seriously proposed as a solution to the problem of skyjacking. The underlying reasons have been that skyjacking requires little technical skill; occurs with low frequency; is highly visible; may be very costly; arouses great fear; and is non-repetitive.[22])

Demands for government action to control skyjacking occurred immediately after the first American hijacking in 1961. Public reaction included demands for military action against Cuba, United Nations' intervention and a mandatory death penalty for skyjackers. On September 5, 1961, a federal anti-hijacking bill was enacted, providing for a minimum twenty year sentence and a maximum punishment of death for convicted skyjackers.[23] The Federal Aviation Administration (FAA) authorized airlines to arm flight crews, but the airlines declined on the basis that inflight gun battles would be more dangerous than complying with the demands of hijackers. The Air Lines Pilots Association (ALPA) urged pre-flight passenger searches, and three airlines requested permission from the Civil Aeronautics Board (CAB) to deny passage to anyone refusing to be searched for weapons. The search proposal was not employed by the airlines, however, for fear of offending passengers.

In 1963, the United States and sixty other nations participated in the International Conference on Air Law in Tokyo, Japan. The conference was held under the auspices of the International Civil Aviation Organization (ICAO), an agency of the United Nations. At the conclusion of the conference, the United States and fifteen other nations initialed the "Convention on Offenses and Certain Other Acts Committed on Board Aircraft." This convention recognized "unlawful seizure of aircraft" as an offense, provided for restoration of property and permitted—but did not mandate—extradition or punishment of hijackers by contracting states. The United States did not formally ratify the convention until 1969, following the dramatic upsurge in the number of American skyjackings in 1968 and 1969.

In 1964, the FAA ordered cockpit doors locked during flight as a preventive measure against skyjackings. Because a hijacker could still threaten stewardesses and passengers, this was not a very effective measure and it was partially rescinded sixteen months after taking effect. Nevertheless, it should be noted that this was the first measure enacted on the basis of prevention rather than deterrence.

In July, 1968, the United States State Department offered free rides from Miami to Cuba for Cuban exiles wishing to return. The hope was that this action would remove the motivation for skyjackings by Cubans wishing to return to their homes.

In addition, more direct preventive efforts received serious consideration. The Air Transport Association (ATA) initiated a study of a magnetometer developed by Lockheed, while House Republicans prepared legislation to require bullet-proofing of all pilot cabins.[24] By early 1969, the FAA was considering measures for the detection of potential hijackers before an actual skyjacking could be attempted.

Indirect approaches were also pursued, however. Air service boycotts of countries refusing to extradite hijackers were proposed; cooperation between the United States and Cuba was encouraged;[25] and the need for an international treaty was stressed. In March, 1969, the International Federation of Air Line Pilots Associations (IFALPA) threatened a pilots' strike unless governments took action to extradite or prosecute skyjackers. In September,

[21] Specific citations to the material used in this section may be obtained from the author.

[22] The only known repeat hijacker is Leila Khaled, a PFLP leader, who hijacked aircraft on August 28, 1969 and September 6, 1970. Domestic and Foreign Aircraft Hijackings, *supra* note 20.

[23] 49 U.S.C. § 1472.

[24] N.Y. Times, Dec. 1, 1968, at 33, col. 1. This legislation was not enacted, presumably because the threat to passengers and stewardesses would not have been affected.

[25] As a result, on February 15, 1973, the United States and Cuba signed a treaty providing for punishment or extradition of hijackers. N.Y. Times, Feb. 16, 1973, at 1, col. 5.

1969, the United States and other nations finally ratified the 1963 Tokyo Convention and sought to update extradition treaties. All of these actions were based on the assumption that successful prosecution of skyjackers would deter future attempts.

Nevertheless, the movement toward a prevention model had begun. In February, 1969, at the peak of the skyjacking phenomenon, the FAA authorized physical searches of passengers to be conducted at the airlines' discretion. Between October, 1969 and January, 1970, three major airlines initiated use of a system developed by the FAA. This system utilized an electrical weapon-detection device directed at passengers who fit the "behavioral profile" of past skyjackers. The initial flurry of optimism which greeted this system faded in February, 1970, however, when an Eastern Air Line plane was hijacked at Newark airport while the profile/magnetometer system was in use. Subsequently, the FAA admitted that their profile/magnetometer system was "primarily a deterrent."[26]

Another change in policy toward skyjackers began in 1970. Previously, airlines had fully cooperated with skyjackers, on the theory that cooperation posed less of a threat to passengers and crew than active opposition would. But, on July 4, 1970, Trans World Airlines officials became convinced that hijacker Arthur Barkley was a suicidal and irrational saboteur, and ordered that the plane be refused permission to take off after refueling. In an unclear sequence of events, passengers spontaneously deplaned through emergency exits, the FBI shot out the plane's tires, and FBI agents rushed and captured Barkley.

The PFLP's Operation Abu Thalaat in September, 1970 escalated both national and international efforts to control skyjacking. Although armed guards had quietly been employed on selected flights since 1962, a highly-publicized force of permanent "Sky Marshalls" was now created, and Congress was asked to provide $28 million to fund the program. Internationally, The Hague Convention for the Suppression of Unlawful Seizure of Aircraft was held in December, 1970. Neglecting the escape cases which comprised the majority of skyjackings, The Hague Convention was almost exclusively concerned with the recent PFLP terrorism. The convention mandated prosecution or extradition of *all* hijackers, even for those fleeing political persecution.

In 1971, the use of weapons detectors expanded and 75 per cent of the 1200-man Sky Marshall force was shifted to ground duty. Additional efforts were made to make a public gesture of strict treatment of skyjackers. For example, FAA Administrator Shaffer urged courts to impose the death penalty on convicted skyjackers, and a twenty-four hour worldwide pilot strike was held to protest the lack of international cooperation. Then, in July, 1972, the FAA instructed airlines to modify their operating manuals to require airport officials and airline crews to disarm or overpower hijackers whenever possible.

Nevertheless, by 1972, the primary emphasis was shifting to prevention. In January, 1972 the FAA ordered tighter screening of passengers and baggage. On July 7, 1972 the FAA issued an emergency order requiring security checks of all passengers on shuttle-type flights. In August, 1972, the FAA mandated the refusal of boarding to passengers who fit the behavioral profile, unless physically or electronically searched.

Prevention measures were fully implemented in 1973. By January 5, 1973, airports were required to electronically screen all passengers and to inspect all carry-on items. By February 5 (later extended to February 16 by court order), local law enforcement officers were required to be stationed at all passenger check points during boarding periods. As will be discussed below, these measures virtually eliminated subsequent skyjackings in the United States.

Control Efforts: Summary

Skyjacking crime control methods in the United States have passed through four successive but overlapping stages, with the later and more expensive steps being taken only after the demonstrated failure of earlier ones.

The first control efforts were pleas for international cooperation, the establishment of new laws and cries for severe punishment of hijackers. These activities began in 1961 with

[26] Air Line Pilot, May, 1970, at 18.

the first American hijackings, and although they have continued to the present, they comprised the only actions taken through 1968. Examples of this response include international conventions (Tokyo, 1963; The Hague, 1970; Montreal, 1971) and the real and threatened pilot strikes. The manifest purpose of these actions was to increase the severity and certainty —that is, the deterrent effectiveness—of punishment for hijackers. On another level, however, they may be considered a form of symbolic protest.[27]

Skyjackings abated for a few years after 1961, but resurged in 1968. The second phase of control efforts began in February, 1969 with the establishment of the FAA Task Force on Deterrence of Air Piracy. Consistent with the American positivistic tradition, this group focused on the psychological characteristics of skyjackers, and developed the "behavioral profile" system of detection which was used until 1973. Although this was a more direct approach and incorporated some aspects of prevention (control efforts were temporally prior to the crime), the primary intention was deterrence.

The interception phase was also a deterrent measure intended to enhance the certainty of capturing and punishing skyjackers. It began in late 1970 after the PFLP's Operation Abu Thalaat. The futility of the Sky Marshall program was soon recognized,[28] however, and a major reduction in the number of flying agents began in 1971.

After the demonstrated failure of preceding efforts, the prevention stage began on January 5, 1973 with the mandated screening of all passengers and the searching of all carry-on baggage.

Questions for a Prevention Model

As noted earlier, there are three major issues which a model of crime control must address: effectiveness, fiscal cost, and social costs. These issues will be examined in relation to the prevention model of skyjacking control.

Effectiveness

For several reasons it is difficult to confidently assert the effectiveness of skyjacking control efforts. First, various control measures have been applied in different manners. Magnetometers, for example, were initially tested at only a few airports and their use gradually increased throughout the system. Second, the effect of control efforts is cumulative. Since previous efforts were not abandoned as new controls were applied, it is difficult to isolate the effects of any particular measure. Finally, the late 1960's were a time of great social unrest and rapidly changing social conditions. These social conditions may possibly be reflected in the changing number, styles and motives of hijackings. With these reservations in mind, we proceed to an interpretation of the data.

Data from which the effectiveness of control measures may be inferred are presented in Tables 2 and 3. It should be noted that there are several possible ways to measure "effectiveness" from these data.

If the goal is deterrence, then the data should reflect a decline in the total number of skyjacking attempts following the introduction of a deterrence program. Until 1973, the data for the United States do not reveal such a decline. Thus, if there was any deterrent effect of control efforts before 1973, it was not of a magnitude to be reflected by these data. Additionally, Table 1 indicates that the proportion of worldwide skyjacking attempts occurring in the United States remained relatively constant from 1969 through 1972. This lends further support to the interpretation of the data as revealing no major deterrent effect of control programs before 1973.

If the goal is interception or suppression of hijackings after they have begun, then the relevant statistics are the changes in percentages of unsuccessful attempts (in which the hijacker fails to take control of the flight) and of incomplete attempts (in which the hijacker is caught or killed during the hijacking). In Tables 2 and 3 the increase in the percentage of unsuccessful attempts from 1968–1972 is negligible, suggesting that the profile/magnetometer detection system initiated in 1969 has not been very successful. On the other hand, the regular

[27] *See generally* J. Gusfield, Symbolic Crusade (1963).

[28] Turi, *supra* note 14, at 134; N.Y. Times, Jan. 17, 1973, at 36, col. 1; N.Y. Times, Oct. 27, 1971, at 13, col. 1. *But see* Sundberg, *supra* note 14, at 124.

TABLE 2

Successful, Unsuccessful, and Incomplete Skyjackings, United States and Worldwide, 1930–1974

Year	United States				Other[a]		
	S[b] % (N)	U[c] % (N)	I[d] % (N)	Total % (N)	S % (N)	U[e] % (N)	Total % (N)
1930–1967	58 (7)	33 (4)	8 (1)	99 (12)	78 (52)	22 (15)	100 (67)
1968	82 (18)	14 (3)	5 (1)	101 (22)	85 (11)	15 (2)	100 (13)
1969	83 (33)	15 (6)	3 (1)	101 (40)	79 (37)	21 (10)	100 (47)
1970	67 (18)	15 (4)	19 (5)	101 (27)	66 (37)	34 (19)	100 (56)
1971	44 (12)	22 (6)	33 (9)	99 (27)	32 (10)	68 (21)	100 (31)
1972	32 (10)	23 (7)	45 (14)	100 (31)	42 (13)	58 (18)	100 (31)
1973	50 (1)	0 (0)	50 (1)	100 (2)	50 (10)	50 (10)	100 (20)
1974	43 (3)	29 (2)	29 (2)	101 (7)	26 (5)	74 (14)	100 (19)
Total	61 (102)	19 (32)	20 (34)	100 (168)	62 (175)	38 (109)	100 (284)

SOURCE: FEDERAL AVIATION ADMINISTRATION, CIVIL AVIATION SECURITY SERVICE, "WORLDWIDE REPORTED HIJACKING ATTEMPTS—SUMMARIZATION," (January 1, 1975).

NOTE: Totals which do not add to 100% are due to rounding error.

[a] Worldwide, excluding United States.

[b] Successful. Hijacker controls flight and reaches destination or objective.

[c] Unsuccessful. Hijacker attempts to take control of flight but fails. Hijacking may be averted either in flight or on the ground.

[d] Incomplete. Hijacker is apprehended or killed during hijacking or as a result of "hot pursuit."

[e] For other countries, the "incomplete" category is combined with "unsuccessful," due to lack of adequate data.

TABLE 3

Successful, Unsuccessful, and Incomplete Skyjackings, United States Scheduled Air Carriers, 1930–1974

Year	Successful[a] % (N)	Unsuccessful[b] % (N)	Incomplete[c] % (N)	Total % (N)
1930–1967	44 (4)	44 (4)	11 (1)	99 (9)
1968	76 (13)	18 (3)	6 (1)	100 (17)
1969	83 (33)	15 (6)	3 (1)	101 (40)
1970	68 (17)	16 (4)	16 (4)	100 (25)
1971	44 (11)	24 (6)	32 (8)	100 (25)
1972	30 (8)	19 (5)	52 (14)	101 (27)
1973	0 (0)	0 (0)	100 (1)[d]	100 (1)[d]
1974	0 (0)	67 (2)	33 (1)	100 (3)
Total	59 (86)	20 (30)	21 (31)	100 (147)

SOURCE: DEPARTMENT OF TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION, "HIJACKING ATTEMPTS ON U.S. SCHEDULED AIR CARRIER AIRCRAFT," (January 24, 1975).

NOTE: Totals which do not add to 100% are due to rounding error.

[a] Hijacker controls flight and reaches destination or objective.

[b] Hijacker attempts to take control of flight but fails. Hijacking may be averted either in flight or on the ground.

[c] Hijacker is apprehended or killed during hijacking or as a result of "hot pursuit."

[d] This incident occurred on January 2, a few days before the full prevention program went into effect.

yearly increase in the percentage of incomplete attempts from 1969 through 1973 indicates that in many cases, hijackers can be subdued after they have taken control of a flight. Examination of individual incidents[29] reveals that this success is not attributable to the Sky Marshall program. Rather, the success of the program is due to the airlines' opposition policy and to the increased willingness of law enforcement agencies to rush planes which have landed to refuel or pick up a ransom.[30]

If the goal is prevention, however, the most important statistic is the number of successful hijackings. A completely successful prevention program would be indicated by the elimination of successful or incomplete hijackings, although there would not necessarily be any effect on the number of unsuccessful attempts (unless there was also a deterrent effect). The data in Table 2 show a dramatic decline in the number of hijacking attempts and successes in 1973 and 1974, suggesting that the prevention measures begun in January, 1973 have been successful. The effectiveness of the prevention program is more clearly evident, however, in Table 3, which excludes helicopters, charter planes and private aircraft, which have generally not been subject to prevention or other hijacking control measures. Since the prevention program began, there have been only three attempts to hijack scheduled American air carriers, none of which have been successful.

Examination of these three incidents,[31] however, reveals characteristics of those hijackings which may not be preventable under the current system. Of the two unsuccessful 1974 hijackers, one utilized hostages to force his way aboard an out-of-service aircraft, and the other murdered a terminal policeman and the co-pilot before killing himself. These events, and the 1973 Rome massacre by terrorist hijackers, demonstrate that a prevention program may not be effective against well-organized, politically motivated terrorists or extremely desperate individuals. Those willing to engage in sufficient violence are still capable of hijacking an aircraft. On the other hand, the one incomplete hijacking of 1974 was effected by use of a razor blade, a nail and an emergency axe, suggesting that resourceful individuals may be able to circumvent prevention measures without excessive violence.[32] However, as Arey noted, most of the individuals attempting skyjackings were amateurs, who were neither very resourceful nor very determined. Moreover, there was little evidence of conspiratorial activity, suggesting that most hyjackers could be deterred.[33] Consistent with Arey's analysis, the dramatic decrease in the number of skyjacking attempts from 1968–1972 to 1973–1974 attests to the *deterrent* effectiveness of the prevention program.

The effectiveness of a prevention strategy may be called into question by two alternative explanations of the post–1972 decrease in skyjackings. The first of these is to consider skyjacking a crime "fashion" or "fad" which has run its course.[34] The imitative nature of many skyjackings, especially in the cases of flights to Cuba and the parachute-extortion cases,[35] lends some support to this hypothesis. The fad hypothesis, however, does not adequately account for the precipitousness of the decline in American skyjackings after 1972. Moreover, dismissing skyjacking as a passing fashion, without identifying the conditions for its rise and subsequent decline, is nomenclature, not explanation.

The other possible explanation is that sky-

[29] DOMESTIC AND FOREIGN AIRCRAFT HIJACKINGS, *supra* note 20.

[30] This may also be a reflection of the increase in the number of extortion hijackings, since it is necessary to land and open the outer doors in order to collect the ransom. Escape and terrorist skyjackings usually do not necessitate these actions.

[31] DOMESTIC AND FOREIGN AIRCRAFT HIJACKINGS, *supra* note 20.

[32] In describing the relationship between criminals and those interested in crime prevention, Sutherland noted that there is a positive correlation in the development of techniques of crime and of crime prevention. E. SUTHERLAND & D. CRESSEY, CRIMINOLOGY 258 (8th ed. 1970).

[33] Arey observed that the pre-1969 hijacking attempts were usually not politically motivated and that the actual hijackings were inadequately planned and executed. The belief that the hijackers themselves were generally incompetent led to the hope that if hijackings were made increasingly difficult, this type of hijacker would be deterred. AREY, *supra* note 16, at 235.

[34] E. SUTHERLAND & D. CRESSEY, *supra* note 31, at 260.

[35] For a discussion of the role of the media in disseminating novel crime techniques see Sagarin, *supra* note 19, at 7.

jacking is a symptom of social tensions, and that its decline simply reflects a decrease in social unrest. Several aspects of the data in Table 2 support this explanation. First, the peak of the skyjacking phenomenon—1968 and 1969—coincided with the United States' deepest involvement in Vietnam and with the final stages of the 1960's riots and demonstrations. Second, the end of United States military involvement in Vietnam coincided with the dramatic decrease in American skyjackings. Finally, the number of skyjacking attempts in other parts of the world also declined after 1970, possibly suggesting a general decrease in social tensions.

In several respects, however, the social tensions hypothesis appears deficient. First, with few exceptions,[36] no link between skyjacking and the Vietnam war is evident. Most American skyjackers were not protesting the war, evading the draft, or taking any sort of war-related action. Thus, the simultaneity of the conclusion of the United States' involvement in Vietnam and the major decline in skyjackings appears more coincidental than causal. Second, the social tensions hypothesis does not explain why the principal skyjacking era coincides only with the *end* of the major period of riots and demonstrations. Third, because "social unrest" is a difficult concept to identify operationally, it is difficult to state whether social tensions are in fact declining. By some measures (*e.g.,* riots, assassinations), social tensions in the 1970's have lessened, but by others (*e.g.,* violent crime rates, changes in heads of state, political kidnappings) they have not.[37] Finally, although both American and worldwide skyjacking rates have declined since 1969 or 1970, an *abrupt* decline is noted only for the United States. This coincides with the imposition of the prevention program.

These three explanations (fad, social tensions and prevention effectiveness) are not mutually exclusive, and a theory of skyjacking etiology would probably need to consider all three. Our present concern, however, is whether the apparent effectiveness of a prevention model for skyjacking control can be explained away by larger social processes. In this case, neither of the two alternative explanations appears to adequately account for the difference in American skyjacking rates for 1968–1972 and 1973–1974.

Fiscal Costs

When considering the fiscal costs of skyjacking control programs, two comparisons are of interest. The first is a comparison of the cost of a control program with the costs of skyjacking itself. The second is a comparison of alternative control programs.

Due to the absence of systematic data on the costs of skyjacking, the author has been unable to make the first kind of comparison.[38] Nevertheless, based on data which are available, some general observations may be noted. First, different forms of hijackings result in varied costs. Escape flights to Cuba, which comprise the great majority of hijackings in the United States, are relatively inexpensive. Extortions have been less frequent but more expensive, since the average ransom paid has been over $400,000. Even so, almost all extorted funds have been recovered, and the net loss to the airlines has not been crippling.[39] Most expensive, but least frequent, have been the terrorist bombings which have destroyed at least three American jetliners.

A second observation is that while most hijackings have been relatively inexpensive in financial terms, the airlines are vulnerable to severe financial losses through extortion or terrorism unless preventive measures are taken. Finally, it may be impossible to deter-

[36] There have been only four Vietnam-related hijackings: February 9, 1968; September 18, 1970; June 11, 1971; and July 2, 1972. DOMESTIC AND FOREIGN AIRCRAFT HIJACKINGS, *supra* note 20.

[37] For statistics on the increasing crime rate for violent crime see FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES: UNIFORM CRIME REPORTS 59 (1973). For a discussion of the number of political kidnappings in recent years see STAFF OF HOUSE COMM. ON INTERNAL SECURITY, 93RD CONG., 1ST SESS., REPORT ON POLITICAL KIDNAPPINGS (Comm. Print 1973).

[38] Part of this problem is due to the fact that the Federal Aviation Administration, the Air Transport Association and the International Civil Aviation Organization have not maintained statistics on this particular point.

[39] Except for the $200,000 extorted by Cooper and the $2 million extorted by three hijackers in November, 1972 which is currently in the possession of the Cuban government, all extorted funds have been recovered. Hijacking/Extortion Attempts, *supra* note 20.

mine whether the airline industry's constant emphasis on skyjacking control has been based primarily on concern for public safety or on self-interest. Public statements have regularly emphasized the former but in this instance both interests are served by a prevention policy.

The second fiscal comparison which is available is a comparison of the costs of alternative control programs. The first phase of control efforts (legislation, public statements and international conventions) was virtually cost-free, but had no detectable effect on the number of skyjackings. Since the costs were split between the federal government and the individual airlines, the cost of the profile/magnetometer system is difficult to estimate. In addition, these costs varied with the extent to which the system was employed. It has been estimated, however, that a version of this system designed for full coverage of United States' airports might be more expensive than the current prevention program.[40] In contrast, cost information is available for both the Sky Marshall program and the passenger screening (prevention) program. The prevention program cost an estimated $120 to $150 million in 1973, as compared to the estimated annual cost of $28 to $30 million for the Sky Marshall program. The greater expense of the prevention system may be placed in perspective by the realization that it is deferred by a 59-cent surcharge on each flight coupon.[41]

Social Costs

The third issue which a crime control model must address is whether the advantages outweigh the social costs. For the prevention model of skyjacking control, three types of social cost are considered below.

The most obvious form of social cost incurred under the prevention model is the inconvenience and indignity of being electronically screened and having one's baggage physically searched. Although most passengers have accepted the necessity for the searches, a number of regular business travelers have complained about delays resulting from the screening process. However, when the FAA announced in June, 1973 that it was considering returning to a modification of the "behavioral profile" system, public opinion was overwhelmingly in favor of the prevention system. This forced the FAA to announce that it was not planning to relax security after all.[42]

Another social cost issue is the questioned legality of airport searches under the fourth amendment. Although the use of "official" federal antihijacking systems has been approved in dicta,[43] the indiscriminate searches conducted under the current prevention system may face constitutional challenge, since they are conducted with neither warrant nor probable cause. They cannot accurately be described as consent searches, since one's right to travel is impinged if consent is not granted. Also, they may not be considered investigative stops, since there are typically no "specific and articulable facts which . . . reasonably warrant that intrusion." [44] A more appropriate legal rationale for these searches may be that of intrusions sui generis, for which the reasonableness of the search is tested by "balancing the need to search against the intrusion which the search entails." [45]

Whatever legal rationale is used to justify these searches, the fact remains that most resultant arrests are for possession of narcotics

[40] AVIATION WEEK, June 11, 1973, at 31.

[41] The Air Transport Association estimated that the prevention program would cost the airlines $150 million per year. U.S. NEWS & W. REP., Jan. 15, 1973, at 17. N. K. Edwards, Chief of In-Flight Security for the Federal Aviation Administration, estimated that the airlines would receive $114 million from the 59-cent surcharge on each ticket to pay for their security activities under the prevention program, and added that the federal government has spent $6.4 million on magnetometers. During fiscal years 1972 and 1973, the federal government spent $30 million and $28 million, principally to support the Sky Marshall program. Letter from N. K. Edwards to author, November 9, 1973.

[42] AVIATION WEEK, June 11, 1973 at 31; AVIATION WEEK, May 7, 1973, at 26; N.Y. Times, August 11, 1973, at 50, col. 1; N.Y. Times, June 5, 1973, at 1, col. 7.

[43] United States v. Lopez, 328 F. Supp. 1077 (E.D.N.Y. 1971).

[44] Terry v. Ohio, 392 U.S. 1, 21 (1967).

[45] Camara v. Municipal Court, 387 U.S. 523, 536-37 (1967). For a discussion of the constitutionality of airport searches see Kraus, *Searching for Hijackers: Constitutionality, Costs and Alternatives,* 40 U. CHI. L. REV. 383 (1973); Wright, *Hijacking Risks and Airport Frisks: Reconciling Airline Security with the Fourth Amendment,* 9 CRIM. L. BULL. 491 (1973); Note, *Airport Security Searches and the Fourth Amendment,* 71 COLUM. L. REV. 1039 (1971).

or other nonviolent offenses, rather than for possession of weapons. To protect against the overzealous law enforcement which this invites, Wright has suggested two safeguards: the right to terminate the search at any time by declining to board the aircraft, and the exclusion of any evidence found which does not relate to air piracy, sabotage or other crimes of violence. Although it is questionable at this point whether these guarantees will be adopted in future court decisions, it is clear that appropriate legal safeguards are at least possible within the prevention model of skyjacking control.[46]

The final social cost issue is crime displacement. Several studies have suggested that crime control efforts may have more effect on the form or location of crime than on its actual incidence.[47] It must then be determined whether this has occurred under the prevention model of skyjacking control, and if so, whether the modifications are worse than the original evil.

Because the incidence of skyjacking is lower than for other forms of violent crime, it is impossible to determine whether the prevention program simply channeled potential hijackers into other forms of deviance. However, psychological studies of hijackers have indicated that, except for the terrorist activities, the skyjackings are typically poorly planned, halfheartedly executed and frequently motivated on rather short notice either by media coverage of previous events or by the apparent simplicity of the offense.[48] It appears unlikely that hijackers who are thwarted by a prevention program would be driven into other forms of crime.

The *form* of skyjacking, however, does appear to have been affected by the prevention program. The recent hijackings of helicopters and small chartered aircraft[48] are obvious examples.[49] More serious, however, is the increased violence associated with skyjacking attempts during the prevention phase of control efforts. In October, 1972, four hijackers avoided the electronic screening measures in effect by shooting their way aboard the aircraft, killing a gate agent and wounding a ground crewman.[50] If security measures had been less restrictive, the hijacking might have been a routine diversion to Cuba, with no loss of life. In another attempted hijacking, Samuel Byck in February, 1974 killed an airport policeman and the copilot before taking his own life. Finally, the terrorist skyjacking in Rome in December, 1973 resulted in the deaths of at least thirty people. It should be noted, however, that excessive violence was apparently an intentional aspect of both the Rome massacre and the Byck murder-suicide, not necessitated by the prevention program.[51]

Summary and Conclusions

The history of skyjacking control efforts in the United States demonstrates a progression from a deterrence model to a prevention model of crime control. The prevention model was adopted only after the demonstrated inability of deterrent measures to control skyjacking. The fiscal cost of the prevention program is four to five times the cost of previous control efforts, but this cost has not drawn strenuous opposition. There are also social costs associated with the prevention model, including inconvenience, indiscriminate searches of questionable legality and possible displacement of crime. Of these, the most serious issue is the unresolved legal status of the searches.

Since skyjacking is one of the few crimes for which a prevention model has been adopted, consideration of its relevant characteristics should be instructive for determination of other offenses which may be more appropriately controlled through prevention of the offense rather than through deterrence or rehabilitation of the offender.

[46] Wright, *supra* note 45, at 513; *cf.* Kraus, *supra* note 45.

[47] E. Sutherland & D. Cressey, *supra* note 32, at 260; J. Tobias, Crime and Industrial Society in the Nineteenth Century 187 (1967). Black, Forms and Reforms of Whoredom: Notes on the Sociology of Prostitution and Moral Enterprise (Working Paper No. 15, Center for Research on Social Organization, Department of Sociology, University of Michigan, March, 1966).

[48] J. Arey, *supra* note 16, at 235.

[49] Domestic and Foreign Aircraft Hijackings, *supra* note 20. The numbers of these incidents may be obtained by subtracting the N's in Table 3 from the corresponding N's in Table 2.

[50] N.Y. Times, Oct. 30, 1972, at 1, col. 2.

[51] U.S. News & W. Rep., Mar. 4, 1974, at 21; N.Y. Times, Dec. 18, 1973, at 1, col. 8.

The first characteristic is the high demand for effective control of the offense. Because skyjacking is a crime which poses great threat to both life and property, it was actively opposed by an influential traveling public, a major industry and a large government bureaucracy. A second characteristic is that the large financial cost of the prevention program was able to be passed on to the affected public without imposing financial hardship on any individual or group of individuals. Third, the social costs associated with the prevention program have not proven excessive, although there is possibility for abuse of the search process by overzealous enforcement agents. Finally, skyjacking is an offense which can only occur within a limited environment. This environment (airports and aircraft) is one which was already closely managed in many respects, and which was amenable to physical and technological control over potential offenders.

The application of a prevention model in the form of environmental control cannot be considered a panacea to the problems of crime. Nevertheless, under conditions such as those described here, prevention strategies may be a viable approach to the control of some forms of crime. Demonstration projects and additional research should further specify those crimes and conditions for which a prevention model may be appropriate.