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AN EVALUATION OF THE VICTIM-WITNESS ADVOCATE PROGRAM OF PIMA COUNTY

February 1978

Prepared for:

Victim-Witness Advocate Program
Office of the Pima County Attorney
Tucson, Arizona

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CONTENTS

LIST OF TABLES.	iii
I INTRODUCTION	1
Program Location and Staffing.	1
Method of Approach	2
II PROGRAM DESCRIPTION.	4
Program Objectives	4
Program Components	5
III BENEFITS	8
Benefits to Program Clients.	8
Benefits to Law Enforcement and County Attorney Personnel.	14
Increase in Successful Prosecutions.	19
Increase in Reporting of Crime	21
IV COSTS.	23
V BENEFIT-COST COMPARISONS	27
VI CONCLUSIONS AND RECOMMENDATIONS.	30
Witness Activities	30
Direct Services to Clients	31
Media.	31
Appendix--SUPERIOR COURT SCHEDULE FORM.	32

TABLES

1	Program Benefits	9
2	V-WAP Clients.	10
3	Needs of Clients Served.	11
4	Tucson Police Department Time Comparison	16
5	Pima County Sheriff's Office Time Comparison	16
6	Pima County Superior Court Dispositions.	20
7	Impact of Program Components on Benefits	24
8	Distribution of Time by V-WAP Staff.	26
9	Comparison of Costs and Benefits	29
	Exhibit A--Superior Court Schedule Form	33

I INTRODUCTION

Pima County's Victim-Witness Advocate Program (V-WAP) was established in January 1976 to assist victims and witnesses of crime. In particular, the Program provides counseling and social service referrals to crime victims and other persons, such as families of suicide and accident victims, in need of assistance. Other services also include notifying witnesses when to appear in court and informing them of the progress of their case through the criminal justice system.

This report describes and evaluates the operations and costs and benefits of the Program. It also proposes programmatic changes that could improve the ratio of benefits to costs. The purpose of this study is:

- To provide Pima County policymakers with information to help determine whether to continue funding the Program after termination of LEAA funding.
- To advance the state of knowledge regarding victim-witness programs, especially because the concept is relatively new and the programs are therefore experimental in nature. Specifically, it is important to identify the beneficiaries, to determine, who, if anyone, is disadvantaged, and to assess what program components are technically and politically feasible.
- To provide information for internal decision-making relating to budget allocations among various V-WAP components.

Program Location and Staffing

The V-WAP is organizationally located in the Pima County Attorney's Office and is part of the Criminal Division of that office. Pima County is located in southern Arizona with Tucson as its major city. The Tucson Standard Metropolitan Statistical Area (SMSA), which includes all of Pima County, had a 1978 estimated population of 500,000. The

Program has eight full-time staff members assisted by numerous volunteers.*

Method of Approach

Cost-benefit analysis "implies the enumeration and evaluation of all the relevant costs and benefits."† Cost-benefit analysis is an appropriate analytic technique for evaluating Pima County's V-WAP because it provides understanding of the particular costs associated with each Program benefit. Therefore, in addition to knowing that a particular Program activity is beneficial, the benefits can be related to the costs specific to that activity. This is an advantage that allows program management to reallocate resources to produce maximum benefits.

In this analysis, we consider costs and benefits from three perspectives--social, taxpayer, and individual. The social perspective focuses on the use of societal resources and the need to maximize benefits to society but does not consider the distributional effects--who the winners and losers are. A taxpayer perspective considers how one group, taxpayers, benefit from the program and what those benefits cost in tax dollars. This measure is one assessment of the likelihood of taxpayer support. It should be made clear, however, that taxpayers will rarely see any direct benefit--for example, if law enforcement time is saved, the resources in most cases will be redirected into other area.‡ Thus, taxpayer benefits are most often indirect benefits. The individual participant's perspective considers the benefits that V-WAP participants enjoy and any costs that they incur. This perspective indicates the

* For a more extensive discussion of Pima County's demographic characteristics, criminal justice system, and the history of the V-WAP, see Kraft, L. et al., "Evaluation of Pima County's Victim Witness Advocate Program," SRI International (January 1977).

† Prest, A. R., and R. Turvey, "Cost-Benefit Analysis: A Survey," The Economic Journal, pp. 683-735 (December 1965).

‡ Over the longer run, however, there may be a reduction in the rate of growth, for example, of a police force.

value of the Program to participants. In this report, any benefits considered are social benefits, thus total social benefits are used as a measure of total Program benefits.

Persons receiving individual benefits can also receive taxpayer benefits. The distinction is that taxpayer benefits are those that affect public spending and thereby result in benefits to taxpayers; whereas individual benefits accrue directly rather than indirectly to individuals through an adjustment in taxation.

Where appropriate, we have assigned dollar values to each benefit and cost. A number of Program elements remain, however, for which it is problematic to calculate monetary values. Nonetheless, some of these benefits and costs are significant and should not be overlooked. In many of these cases, we simply list the various costs and benefit items and leave it to the reader to assign values.

Costs and benefits are presented on an annual basis. Data were collected for various time periods and extrapolated to a yearly basis. For example, in some cases we collected data for an entire year; whereas in other cases due to time and budget constraints, the analysis is based on data for a shorter period of time. We have indicated in all cases the data base for the analysis and have also included a brief description of the methodology used to determine each specific cost and benefit.

Programmatic information for this analysis was obtained from published materials, law enforcement and county attorney records, persons from city and county administrations, and law enforcement, and prosecutory agencies. Many on-site interviews were also conducted and used as a major source of information regarding impact of the Program.

II PROGRAM DESCRIPTION

Program Objectives

Progress of the Program toward meeting its first-year objectives, essentially the same as those outlined below, was discussed in our first-year evaluation. Project orientation has changed since the first year, but most of the Program information contained in the first year evaluation document is still valid.*

The V-WAP established the following objectives for its second year of operation:

- Determine and classify the number and types of needs of all victims and witnesses who come to the attention of the Program personnel.
- Provide the services necessary to meet the needs of the victims and witnesses who desire assistance from the Program.
- Increase the number of referrals by law enforcement officers and deputy county attorneys of victims and witnesses to crisis intervention.
- Train at least 50 volunteers to provide victim-witness assistance as needed by the Program.
- Increase by 20% within three years the willingness of the public to assist in the prosecution function of the criminal justice system. (This is second of three years of operation.)
- Educate the public and criminal justice system personnel in Pima County about the problems faced by victims and witnesses and increase the knowledge of the public about the criminal justice system.

* Kraft, L. et al., op cit.

Program Components

To meet the above objectives, the Program has undertaken the activities or components discussed below.

Witness Activities

The following activities are undertaken routinely to assist witnesses of crime (a victim when called to testify is automatically considered a 'witness') and the County Attorney's Office in its handling of them:

- (1) The V-WAP has established an experimental witness alert system that is currently serving two of the four trial teams of attorneys in the County Attorney's Office. Under this system, witnesses are put 'on alert' so that they can appear in court shortly before they will be required to testify. This prevents unnecessary trips being made when witnesses' cases have been dismissed or continued. It also reduces waiting time when their cases are heard. The trial team members use the system at their own discretion; thus, V-WAP becomes involved only at the request of a specific deputy county attorney. Each week V-WAP supplies the attorneys on the two trial teams with a calendar of their scheduled superior court appearances for the following week. The attorney returns the form to V-WAP indicating whether the witnesses in the cases should be put 'on alert.' (The form used is reproduced in the appendix.)
- (2) Witnesses are notified of the progress of their cases through the criminal justice system, specifically when a suspect is charged in the case, when the case is brought to trial or pled out, and after a sentencing decision is made. Witnesses and victims are informed that they are allowed to write to the judge with their input into the sentencing decision and to ask for restitution. Victims are advised to keep copies of bills documenting expenses associated with the crime.*
- (3) The phone number of the office of V-WAP is stamped on all subpoenas so that persons subpoenaed can call the day before they are scheduled to appear to find out if their appearance will be required or if the case has

* Although no monetary benefit is assigned to it, it should be noted that the V-WAP has also been active in assisting crime victims in obtaining restitution.

been delayed or dismissed at the last minute. This procedure differs from the witness alert system described in Item (1) in which witnesses are contacted by V-WAP personnel, whereas in this case, they are required to initiate contact. In addition, V-WAP is able to tell them only if it seems likely that their appearance will be required, but not precisely when they must testify. Therefore, time waiting to testify is not reduced. Moreover, in many instances, cases are continued on the scheduled day and thus some unnecessary trips result.

Services to Witnesses, Victims, and Other Persons in Need of Assistance

V-WAP provides numerous services to witnesses, victims, and other persons--such as families of suicide and accident victims and transients--who need assistance at the request of county attorney personnel and law enforcement personnel, from a review of police reports, referral from other government agencies, or through self-referral. Services provided include crisis intervention, counseling, transportation, day care, and social service referrals. Services are available on a 24-hour basis in crisis situations. Two evenings a week V-WAP staff and volunteers patrol in an unmarked car equipped with a police radio and thus available for immediate response to calls for assistance.* At all other times, a paging system is used to obtain assistance.

Media Efforts

V-WAP publicizes its Program in newspaper articles, radio spots, radio talk shows, and lectures. The purpose of the effort is to increase the public's awareness and cooperation with the Program and with the criminal justice system at large.

*The two nights on which the largest number of family fights are reported.

Research

Program personnel have surveyed victims, witnesses, and law enforcement and county attorney personnel to determine Program needs and accomplishments. In addition, records are maintained regarding activities of the Program. Although no measureable benefits are attributed to this research effort, these findings will clearly benefit other programs of a similar nature in their start-up efforts. In addition, research undertaken to date has influenced the Pima County Program. It is anticipated that Program research will be instrumental in deciding whether the Program obtains local funding on termination of LEAA funds.

Administration

V-WAP supports a program coordinator who organizes day-to-day program operations and plans longer-run program thrusts. The coordinator also provides direct crisis intervention services.

III BENEFITS

There are four primary benefits of this Program:

- Direct services to Program clients including victims, witnesses, and other persons in need of assistance.
- Savings in time and budget to law enforcement and county attorney personnel.
- Increased successful prosecutions.*
- Increased willingness of public to report crime.

These primary benefits are summarized in Table 1. Each of the four primary benefits is discussed below.

Benefits to Program Clients

Benefits to Program clients can be classified as 'individual benefits' or 'social benefits,' where social benefits include benefits to society as a whole. The benefits result from three Program activities that are discussed below.

Direct Service Provision

In the past year, the V-WAP has served a total of 1,272 persons.[†] The distribution of persons shown in Table 2 indicates that victims and witnesses in the superior court receive the most services.

* It is possible that double counting of benefits may occur between this and the previous benefit. However, we are considering this benefit as accruing from improved cooperation on the part of witnesses rather than from increased time available to the prosecutor.

† The period from May through December 1977, was taken as a base period for analysis as the witness service advocate began full operations in the Juvenile Court in May. Averaging over this time period rather than taking only one month of data allows for reflection of normal fluctuations in work load.

Table 1
PROGRAM BENEFITS

<u>Benefits</u>	<u>Annual Quantitative Benefits (dollars)</u>	<u>Qualitative Benefits</u>
Benefits to Program clients		
Direct service provision, e.g., child care, counseling	\$13,781	Clients may reduce number of repeat victimizations. Clients receive needed assistance and social service referrals.
Progress report on case	--	Victims/witnesses are kept informed of the progress of their case.
Savings in court time	11,244	Decreased frustration due to fewer unnecessary trips and reduced waiting time.
Benefits to law enforcement and county attorney		
Time savings to prosecutors	--	Prosecutors are relieved of many of the witness management responsibilities.
Time savings to law enforcement in crisis cases	4,877	V-WAP relieves police officers of some of their most onerous duties.
Time savings in court	97,320	Increase in police officer leisure time due to reduction in amount of off-duty court time.
Increase in successful prosecutions	--	Special assistance, such as day care, is provided to witnesses to increase their ability to appear in court. Witnesses are notified when to appear so as to save them time and unnecessary trips. V-WAP telephone number is stamped on subpoenas issued. Witnesses are notified of the progress of their case.
Increase in reporting of crime	--	Media presentations are geared toward increasing public's willingness to cooperate with criminal justice system, e.g., through reporting crime. Direct assistance to victims may influence willingness to report crime in the future.

Table 2

V-WAP CLIENTS

<u>Type of Person</u>	<u>Number Served per Year</u>
Victims/witnesses (superior court)	816
Victims/witnesses (juvenile court)	300
Other persons in need of assistance (not victims or witnesses of crime)	<u>156</u>
Total	1,272

Table 3 shows the types of assistance that were provided to these persons. Assistance can be provided either directly by V-WAP (generally the case for counseling, transportation, case information, and day care) or through referral to other sources (generally the case for medical needs, housing needs, protection from retaliation, financial needs, food needs, employment needs, and property return).

The top two identified needs are for counseling and case information. These two account for a majority of the first-priority needs. More than half of the clients are identified as having more than one need, and about one-quarter have three or more needs.

There is no precise way to quantify these benefits although upper and lower bounds can be established. To assign a value to the benefits, what the benefits would cost to purchase in the private sector is used as a proxy measure. The upper bound for valuing the benefits of these services is the cost to the victims and witnesses of obtaining such services in the private sector. An hourly rate of \$6.35 is used as the

Table 3
NEEDS OF CLIENTS SERVED*

Type of Need	Number of Clients with Need		
	First Priority	Second Priority	Third or Lower Priority
Medical	24	24	24
Housing	60	48	36
Protection from retaliation	48	60	24
Financial	36	24	24
Counseling	432	84	48
Food	24	12	24
Employment	12	12	24
Transportation	60	60	48
Case information	252	144	12
Property return	12	24	12
Day care	12	12	12
Other	300	144	12
Total	1,272	648	300

* As determined by V-WAP staff.

upper bound.* That is the average of the mean hourly rates of the positions of Counselor and Social Worker in Pima County because these positions were seen as having the closest correlation to the services being provided through the V-WAP. The upper bound is probably an overestimate of the value of the services provided in that these clients are presumably unwilling (in the economic efficiency sense) to purchase these services.†

* It should be noted that \$6.35 is a conservative upper bound as professional counseling, such as provided by psychiatrists and licensed psychologists often costs in excess of \$20 per hour. Salary information was obtained from , "Salary Survey and Merit System Classifications," Hay Associates (March 1977).

† Program personnel encourage victims to seek additional professional assistance in dealing with the results of the crime if it appears they would benefit from it. Contact with V-WAP is initiated so quickly after the crime that crime victims who are in a stressful situation have probably not had time to make a decision regarding whether or not to seek outside help.

The lower bound is assumed to be the minimum wage, \$2.35, in 1977. Over the year, 3,168 hours (1,800 hours of staff time and 1,368 hours of volunteer time) were spent in providing these services to clients. Thus, the annual benefits are between \$7,444.80 and \$20,116.80, or a mean value of \$13,780.80. The following tabulation shows the breakdown of these calculations:

	<u>Number of Hours</u>	<u>Value per Hour (dollars)</u>	<u>Total Benefit (dollars)</u>
Upper bound	3,168	6.35	20,116.80
Lower bound	3,168	2.35	7,444.80

There may also be additional benefits to clients receiving counseling. According to the Sheriff's Office, certain families who were constantly requiring police intervention prior to receiving services from V-WAP seem to be fighting less often since receiving services from the Program. The client presumably benefits, and the police may spend their time elsewhere.

Notification of Progress of Case

Another service that V-WAP provides is the notification of witnesses of crime as to the progress of their cases through the criminal justice system. This information is provided routinely either by telephone or letter. The service attempts to ensure that witnesses know their rights, particularly those rights related to dealing with the counsel for the defense and contributing to the judge's sentencing decision in the case. In 1977, 3,552 witnesses received court defendant information, 1,740 victims received presentence contact, and 2,820 witnesses received disposition information. An additional indirect benefit of the service is its potential to increase the number of successful prosecutions, as is discussed in a subsequent section. These benefits are not quantified in this study.*

* These benefits could be measured by asking clients what they would pay for these services, but such a task was beyond the scope of this study.

Witness Alert System

During the second month (January 1978) of operation of the alert system, a total of 98 civilian (nonlaw enforcement) witnesses were 'called off'--i.e., informed that they would not be required to appear in court at the time originally stated on their subpoenas. Approximately 30 witnesses were called shortly before they were required to appear to testify in court, and thus the waiting time was shortened. Consequently, monthly savings in salary foregone, mileage, and parking are estimated at \$937 or \$11,244 annual savings accruing from the witness alert system.

To calculate savings accruing to civilian witnesses because of the witness alert system during the month of January 1978, we made the following assumptions: \$4.83 average hourly wage;* 1 hour average round trip time (from V-W survey); 16.7 mile average round trip length (from V-W survey); 20 cents per mile average cost; \$1.00 for parking; and 67% of witnesses employed.† It should be noted that witnesses do not receive compensation for testifying. We feel that this estimate is fair because of the procedure used by V-WAP personnel to screen persons to determine their eligibility for participation in the Program. Among the criteria are the requirements that persons be reachable by phone and be seemingly responsible. Thus, it seems reasonable to assume that the general characteristics exhibited by such a class would closely parallel the population at large. Witnesses such as transients are excluded from participation.

Ninety-eight witnesses were called off in January 1978--i.e., saved unnecessary trips. Assuming that 66 of them were employed and that they saved an average of 1 hour at an hourly wage of \$4.83, we arrive at a savings of \$318.78. To calculate travel cost savings, we assume that each of the 98 saved an average of 16.7 miles at \$0.20 per mile plus an additional \$1.00 for parking at a total savings of \$425.32. Thus, the savings due to avoiding unnecessary trips amounts to \$744.10.

* Arizona Department of Economic Security, "Pima County Employer Wage Survey" (Fall 1976).

† "Tucson Trends, 1976" (Market survey conducted by the Arizona Daily Star, Tucson Daily Citizen, and Valley National Bank).

Thirty witnesses were called on shortly before they would be required to testify. Assuming that 20 of them were employed and that they saved an average of 2 hours at an average hourly wage of \$4.83, we arrive at a savings of \$193.20.

Thus, total savings accruing to civilian witnesses during the month of January because of the witness alert system amount to \$937.30. It should be noted that this is a conservative estimate because it places a value on the time only for persons who are employed. Presumably, retired and unemployed persons' time also has a value, but it is not determined in this analysis.

Program staff feel that with current staffing levels, they will be able to handle only two trial teams. However, assuming continued acceptance of the program, it would be possible to double the number of participants to include all four trial teams if additional staff were made available.

Benefits to Law Enforcement and County Attorney Personnel

The second class of benefits from V-WAP accrue to law enforcement and county attorney personnel in Pima County. Ultimately, however, the taxpayers also benefit indirectly from possible reductions in the number of law enforcement personnel or the amount of overtime expenditures. The benefits are also social benefits. The time that these people would have otherwise spent with victims or witnesses or waiting to testify in court may be translated into time savings that can be applied to other tasks. Nonmonetary benefits also accrue in that certain city and county officials are relieved of a number of onerous tasks, such as assisting families of suicide victims and counseling rape victims, some of which cause them considerable frustration and distress. The three specific benefits are discussed below.

Time Savings to Prosecutors

The V-WAP results in small but indeterminate time savings for prosecutors. Prosecutors have been responsible for their own witness management

activities, but because they are so busy and have no clerical assistance, they often cannot inform witnesses that their case has been delayed or dismissed. With V-WAP, however, they need not spend time calling off witnesses when a case originally scheduled to go to trial is postponed or cancelled. A survey conducted by V-WAP indicated that 69% of witnesses subpoenaed had to appear more than once before they testified.*

Time Savings to Law Enforcement in Crisis Cases

Time savings to law enforcement officers, including Pima County Sheriff's Office deputies and Tucson Police Department officers, were more substantial. In Tables 4 and 5, comparison of average time on the scene of the incident for cases where V-WAP was not involved with those where V-WAP was present yields insignificant differences between them.[†] However, interpretation of these data is extremely problematic: we know only the length of time that police were on the scene, not the number of officers involved; the number of cases where V-WAP was involved is small; and it is probable that V-WAP becomes involved in the more difficult cases where more time would be necessary. Moreover, patrol supervisors in both the Sheriff's Office and Police Department are absolutely convinced that the V-WAP is saving their departments a minimum of 1 hour of officer time per case and often 2 to 3 hours per case. They stated that when V-WAP arrives on the scene, say, of a family fight, there will typically be two or three officers present. Depending on how the officers perceive V-WAP's ability to handle the case, a maximum of one officer will remain, freeing his partners to return to the street. The V-WAP staff have observed that an officer is more likely to remain on the scene if a female, particularly a female volunteer, has responded to the call. Presumably the concern of the officers is for the safety of the female in a potentially dangerous situation--a legitimate concern. Some of the risk could be reduced if female volunteers were given special

* This survey was conducted before initiation of the witness alert system.

[†] The time period was February through August 1977. Unfortunately, we were able to identify only a portion of the cases where V-WAP was involved and thus the number of cases is even lower.

Table 4

TUCSON POLICE DEPARTMENT TIME COMPARISONS

	Average Time (minutes)		Number of Cases	
	With V-WAP	Without V-WAP	With V-WAP	Without V-WAP
Burglary	70	89	2	5,751
Disorderly conduct	83	50	3	7,217
Personal injury (motor vehicle accidents)	77	86	1	1,609
Miscellaneous	93	43	16	31,571
Larceny	99	78	2	5,537
Mental cases	146	104	2	83
Nonaggravated assault	108	76	3	1,526
Rape	147	175	3	99
Fraud	131	86	1	319
Death	183	107	1	292
Aggravated assault	89	113	4	610
Stolen property	219	160	1	50

Table 5

PIMA COUNTY SHERIFF'S OFFICE TIME COMPARISONS

	Average Time (minutes)		Number of Cases	
	With V-WAP	Without V-WAP	With V-WAP	Without V-WAP
Rape	159	223	5	22
Robbery	361	145	1	60
Aggravated assault	85	136	3	218
Burglary	133	104	1	1,503
Larceny	187	68	1	1,610
Auto theft	68	108	1	370
Nonaggravated assault	79	102	4	356
Sex offenses	445	95	2	96
Narcotic drug laws	248	136	1	179
Offenses against family and children	157	121	1	45
Runaway juvenile	128	86	1	332
Sick cared for	93	78	1	90
Suicide	126	109	2	58
Death	241	137	2	109
Miscellaneous	104	88	5	783

assistance in concepts and practice of self-defense. Savings to law enforcement would correspondingly increase as more officers feel free to leave the crime scene after the arrival of victim witness personnel. The patrol supervisors stated that V-WAP time savings are particularly significant in cases involving family fights, death notifications, elderly victims, transients, and sex offenses. Assuming that any time freed due to V-WAP intervention in a case is productively used either to answer another call for service or in preventive patrol, we estimate that annual savings to the Tucson Police Department amount to \$2,415 and \$2,462 to the Pima County Sheriff's Office.

These estimates are based on the number of requests for V-WAP intervention during 1977. The Tucson Police Department and the Pima County Sheriff's Office each made 228 requests, although the number of referrals per month varies dramatically: from 3 to 53 for the Sheriff's Office and from 6 to 29 for the Police Department. The trend in the number of calls is increasing. The possibility of leveling off the number of calls is discussed below. Calculations use an average hourly salary of \$7.06 for the Tucson Police Department and \$7.20 for the Pima County Sheriff's Office and assume that an average of 1.5 hours of officer time is saved per call.*

In addition to these time and cost savings, it should be noted that V-WAP presence relieves law enforcement officers of some of their most onerous duties. In particular, family fights and sex crimes are often difficult cases for law enforcement officers and they are glad to use individuals specially trained to handle these cases. Increased job satisfaction could therefore be an indirect benefit of the program's activities.

* We decided not to load these figures with fringe benefits or overhead costs; although we believe that V-WAP can impact law enforcement operations to the extent of relieving officer time for other duties, we do not believe the impact will be substantial enough to lower the total number of officers or overhead expenditures.

Time Savings in Court

The third benefit of V-WAP results from time and costs saved by law enforcement officers not being needed for court trials. Time savings are realized because an officer can be on duty rather than in court. Conversely, cost savings accrue because off-duty officers receive overtime pay for testifying. We estimate that savings of \$8,110 resulted from having the witness alert system operating during the month of January 1978.

To calculate savings accruing to law enforcement witnesses during January 1978, we made the following assumptions: \$7.06 average hourly salary for Tucson Police Department (overtime = \$10.59); \$7.20 average hourly salary for Pima County Sheriff's Office (overtime = \$10.80); minimum payment of 3 hours overtime for unnecessary appearance in court for Tucson Police Department personnel; and minimum payment of 2 hours overtime for unnecessary appearance in court by Pima County Sheriff's Office personnel.

During January, 310 officers were 'called off'--i.e., avoided unnecessary trips. This number included 68 Pima County Sheriff's Office personnel on overtime; 42 Pima County Sheriff's Office personnel on regular time; 124 Tucson Police Department personnel on overtime; and 76 Tucson Police Department personnel on regular time. Shortly before they were required to testify, 100 officers were called. These officers included 22 from the Pima County Sheriff's Office on overtime; 14 from the Pima County Sheriff's Office on regular time; 40 from the Tucson Police Department on overtime; and 24 from the Tucson Police Department on regular time. If we assume an average reduction of 2 hours in time spent waiting to testify and an average savings of 1 hour for officers on duty who are no longer required to make unnecessary trips, we arrive at the following savings:

	<u>Pima County Sheriff's Office</u>	<u>Tucson Police Department</u>
Overtime savings		
Unnecessary trips	\$1,468.80	\$3,939.48
Waiting time	<u>475.20</u>	<u>847.20</u>
Total	\$1,944.00	\$4,786.68
Regular time savings		
Unnecessary trips	\$302.40	\$536.56
Waiting time	<u>201.60</u>	<u>338.88</u>
Total	\$504.00	\$875.44

Thus, we feel that an estimate of \$8,110.12 monthly savings or annual savings of \$97,320 is an accurate basis for predicting cost savings.

The Pima County Sheriff's Office and the Tucson Police Department are extremely enthusiastic regarding the witness alert system because court costs consume two-thirds of their overtime budgets. It occurred to us that the officers may resent the loss of overtime pay resulting from this system. When asked about this, the majority of officers reported that avoiding unnecessary appearances in court is worth the loss of overtime pay. They appear to prefer the additional leisure time to additional pay.

Increase in Successful Prosecutions

V-WAP provides special assistance to witnesses (e.g., transportation, day care, protection, or some other special service) to increase their rate of cooperation with the prosecution. However, data are too inadequate to allow any conclusions about the extent to which this service is influencing the overall rate of successful prosecutions of the County Attorney's Office.

To assess the rate of prosecution, cases were grouped into crime categories. Data are presented only if V-WAP assisted in at least ten cases in the crime category, except for child molesting (six cases) because of the low total number of such cases. Thus, forgery (3 cases), homicide (3 cases), stolen vehicle (3 cases), and theft (7 cases) are not presented. These data are shown in Table 6.

Table 6

PIMA COUNTY SUPERIOR COURT DISPOSITIONS

<u>Crime Category</u>	<u>Disposition</u>	<u>Total Counts</u>	<u>Percentage of Total</u>	<u>Counts Involving V-WAP</u>	<u>Percentage of Total</u>
Assault	Dismissed	100	45	8	53
	Not guilty	24	11	1	7
	Guilty	<u>96</u>	44	<u>6</u>	40
		220		15	
Burglary	Dismissed	117	25	4	40
	Not guilty	185	39	0	0
	Guilty	<u>175</u>	37	<u>6</u>	60
		477		10	
Dangerous drugs	Dismissed	247	52	5	50
	Not guilty	7	1	0	0
	Guilty	<u>218</u>	46	<u>5</u>	50
		472		10	
Rape (includes kidnap to rape)	Dismissed	48	39	8	57
	Not guilty	20	16	1	7
	Guilty	<u>55</u>	45	<u>5</u>	36
		123		14	
Child molesting	Dismissed	19	45	2	33
	Not guilty	1	2	0	0
	Guilty	<u>22</u>	52	<u>4</u>	67
		42		6	

The number of cases in which V-WAP served is so small that interpretation is difficult. Analysis is difficult because the numbers shown are total counts against a defendant rather than number of defendants.* Ten counts against one defendant is not uncommon. Frequently, a defendant will plead guilty to one count in exchange for a dismissal of the remaining counts. This accounts for the large percentage of dismissals. Thus, results can be considerably skewed, particularly when the small number of counts involving V-WAP is considered.

* Unavailability of data constrained performing an analysis based on defendants rather than counts.

The major activity with a potential for influencing witness cooperation, however, is the witness alert system. V-WAP conducted a survey of persons testifying who had not participated in the witness alert system. The survey indicated that 60% of those witnesses waiting 2 hours or less before testifying were willing to testify in the future, whereas only 13% of those who had waited more than 2 hours indicated willingness to testify in the future. These results imply a high degree of dissatisfaction regarding willingness to testify in court. However, these data are based on 36 voluntary responses to a mail survey, and we cannot ensure their representativeness of all persons called to testify.

Although other activities that V-WAP undertakes are possibly influencing the willingness of persons to assist the prosecution, we can only hypothesize this connection. Two of these activities are:

- The telephone number of the V-WAP is stamped on subpoenas issued and a subpoena information pamphlet prepared by the Program is included.
- Witnesses are notified of the progress of their case.

Increase in Reporting of Crime

An increase in the public's willingness to report crime may be an important social benefit of the Program, although there are no data to support this assumption. More crimes have been reported in the past year than the previous year, but whether the number and/or rate of unreported crime has decreased is unknown.* Two Program components--media presentations and direct assistance to victims--may induce citizens to report crime they might not otherwise report.

The product of these Program components may be a secondary benefit--a change in public attitudes. Media coverage of the Program has been directed toward educating the public regarding the operations of the

* A victimization survey is currently being undertaken using CETA personnel, under the sponsorship of V-WAP. However, it will not measure program impact because, among other reasons, there are no base-line data.

criminal justice system and the public's responsibility to cooperate with law enforcement personnel in combating crime. Direct services such as counseling and social service referral provided to victims and witnesses of crime may increase their willingness to report another crime should they be victimized in the future.

IV COSTS

The discussion of benefits above was organized by type of beneficiary--e.g., taxpayers, Tucson Police Department. The Program, however, is organized by components: witness activities, client services, media, research and administration. Accurate cost estimates can be made only by program components, but two of the three Program components yield more than one type of benefit, as Table 7 illustrates. We estimate the costs of the Program components, based on Program personnel reporting of their time allocations as shown in Table 8. Therefore, if an individual reported spending a certain percentage of his time providing direct services to clients, the same percentage of his salary (including fringe benefits) is assigned to this component's costs. Administrative and research costs are prorated among the other three components as are direct (nonlabor) costs. Thus annual costs are:

	<u>Annual Costs</u>
Total personnel costs	\$110,160
Total direct costs (e.g., supplies and travel)	11,400

These are distributed among the major activities as follows:

	<u>Annual Costs</u>
Witness activities	\$69,432
Field services to clients	38,136*
Media activities	13,992

* Costs are also incurred by the Tucson Police Department and Pima County Sheriff's Office in providing the vehicle for use by the V-WAP two nights a week. TPD must pay the City Garage 34 cents a mile. The car is driven an average of 80 miles a shift for a monthly cost of \$217.60. Pima County Sheriff's Office must pay the County Transportation Department 21 cents a mile. The car is driven an average of 120 miles

Thus the total annual Program costs are \$121,560 to provide the level of activity currently undertaken.

Table 7

IMPACT OF PROGRAM COMPONENTS ON BENEFITS

<u>Program Components</u>	<u>Benefits</u>
Witness activities	<p>Program clients (time saved testifying in court; notified of progress of case)</p> <p>Law enforcement and county attorney (time saved testifying in court; time saved in not having to contact witnesses)</p> <p>Prosecution rate (activities might impact prosecution rate, although this has not been proved)</p>
Client services	<p>Program clients (receive direct services and social service referrals)</p> <p>Law enforcement and county attorney (are freed for other duties due to intervention of V-WAP)</p> <p>Prosecution rate (activities might impact prosecution rate, although this has not been proved)</p> <p>Crime reporting (activities might impact prosecution rate, although this has not been proved)</p>
Media	<p>Crime reporting (activities might increase rate of reported crime, although this has not been proved)</p>

Apart from administrative costs that are included in the administration component, we assume the costs for the use of volunteers to be zero. Many cost-benefit analyses invoke opportunity cost reasoning to impute the worth of volunteers in their next best alternative use; however, here it is sufficient to note that V-WAP volunteers have shown

a shift for a monthly cost of \$201.60. However, law enforcement officials feel that this cost is outweighed by benefits derived from having an additional car in the field to report such events as crimes in progress, drunk drivers, and so on. Therefore, it is not considered a Program cost as such.

through their revealed preferences that their private benefits from the volunteer work are greater than their perceptions of their opportunity costs. Otherwise, they would not be undertaking this activity. From the social point of view as well, volunteers are costless in that they have chosen the V-WAP rather than some other program. Neither the County nor the public can deploy them to their next most productive function. Naturally, any benefits resulting from the use of volunteers have been considered above together with benefits accruing from regular program personnel.

Table 8

DISTRIBUTION OF TIME BY V-WAP STAFF

Staff Member	Percentage of Staff Time					Total
	Administration*	Witness	Client Services	Media	Research	
Coordinator	60	2	15	13	10	100
Sr. citizen advocate	5	20	65	10	0	100
Research analyst	15	52 [†]	3	5	25 [†]	100
Office assistant	0	100	0	0	0	100
Secretary	50	50	0	0	0	100
Witness service advocate	10	75	5	10	0	100
Victim service advocate	10	5	75	10	0	100
Witness service advocate	20	55	5	10	10	100

* Includes training, supervision, and coordination of volunteers.

[†] Includes numerous services, such as work on the management information system and security regulations, to the county attorney but not discussed in this report.

V BENEFIT-COST COMPARISONS

Despite the aforementioned overlap between Program components and benefits, the quantifiable benefits may be divided among the Program components to allow comparison of quantifiable benefits with costs. It is the qualitative benefits that cannot be allocated precisely.

Table 9 shows the benefits by type produced by each Program component to which dollar values can be assigned. The direct services component costs \$38,136 annually and yields total social benefits of \$18,658 composed of taxpayer benefits of \$4,877 and individual benefits of \$13,781. In addition to these measureable benefits, the benefits produced by this component include relief from stress produced by criminal victimization; a possible reduction in the repeat victimizations; and an assumption by V-WAP of some of the cases that police officers find most difficult to handle.

The witness activities component costs \$69,432, yielding measurable social benefits of \$108,564, composed of \$97,320 in taxpayer benefits and \$11,244 in individual benefits. Qualitative benefits produced by this component include notification of progress of a case through the criminal justice system, increased probability that witnesses will appear in court on time, potential increased probability that witnesses will be more cooperative because they have to wait less time before they testify, and reduction in police officers' frustration at having to spend off-duty time in court.

The media component produced no quantifiable benefits at an annual cost of \$13,992. Qualitative benefits include a possible increased willingness by the public to report crime, a possible increase in positive citizen attitudes toward the criminal justice system, and a willingness to cooperate with law enforcement personnel and the prosecution.

Overall, we see that the Program produced \$127,222 in annual measurable social benefits composed of \$102,197 in taxpayer benefits and \$25,025 in individual benefits compared with an annual cost of \$121,560.

Table 9

COMPARISON OF COSTS AND BENEFITS

<u>Component</u>	<u>Annual Cost</u>	<u>Quantifiable Benefits</u>	<u>Taxpayer Benefits</u>	<u>Individual Benefits</u>	<u>Total Social Benefits</u>
Direct services	\$ 38,136	Law enforcement	\$ 4,877		\$ 4,877
		Clients		\$13,781	13,781
		Subtotal	4,877	13,781	18,658
Witness activities	69,432	Law enforcement	97,320		97,320
		Civilians		11,244	11,244
		Subtotal	97,320	11,244	108,564
Media	<u>13,992</u>	None			
Total	\$121,560		\$102,197	\$25,025	\$127,222

VI CONCLUSIONS AND RECOMMENDATIONS

When the unquantifiable (qualitative) benefits that result from Program operations are considered along with the quantifiable benefits, especially those attributable to witness alert operations, it is our judgment that the Program is cost-beneficial. On a political level, we find support for this conclusion from the Tucson City Council and Pima County Board of Supervisors. In interviews it was suggested that V-WAP is one of the best programs in the county because it provides services to a previously neglected group of citizens (victims and witnesses). We believe, however, that the following policy changes would improve the cost-benefit ratio.

Witness Activities

Expand Witness Alert

The above analysis indicates that the witness activities yield the most benefits in relation to costs. Our recommendation is that the program should be kept at least at its present level of operation. Expansion should be considered to the extent that marginal benefits exceed marginal costs; for example, if it becomes necessary to hire additional staff, that staff must be able to generate benefits that exceed their costs. The marginal costs and benefits aside, it is important that the quality of the services be maintained. Because the Program is new and not institutionalized, we attribute much of its success to the personnel involved.

Influence Witness Scheduling

The V-WAP should become directly involved in establishing procedures for subpoena issuing and witness scheduling in the County Attorney's Office. Under the current system, many unnecessary subpoenas are being issued as cases are settled out of court close to the time they are

scheduled for trial. These problems are not unique to Pima County. Nevertheless, with assistance from the V-WAP, greater reduction in unnecessary subpoenas could be achieved.

Direct Services to Clients

Our analysis shows that although the quantifiable costs exceed the measurable benefits, there are a number of qualitative benefits that may well make this program component cost-effective. Consequently, we see no reason to curtail this program, but we do believe that costs should not increase. Accordingly, the program should consider expanding its cadre of volunteers.

Media

It is our judgment that the media coverage of the program to date has enhanced the program's visibility and acceptability. It seems likely that with increased institutionalization it will be less necessary to devote time to media initiatives. One area where continuing publicity seems necessary is with the law enforcement personnel.

The number of referrals from law enforcement agencies varies dramatically from month to month. Discussions with law enforcement administrators indicate that officers appear to forget about the Program and must be reminded periodically. In addition, officers fear that the program is just another social service program that they will come to depend on only to have it terminated. V-WAP can act to alleviate some of the variation in police referral rates through additional publicity efforts, but the fear of program termination will only be allayed when and if the Program becomes a locally rather than federally funded program.

Appendix

SUPERIOR COURT SCHEDULE FORM



END